Db2® 13 for z/OS Reference Guide

A guide to help with daily activities on Db2® 13 for z/OS

YL&A®

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Reading the IBM® Syntax Diagrams

Read the syntax diagrams from left to right, from top to bottom, following the path of the line.

The >>--- symbol indicates the beginning of a statement.
The ---> symbol indicates that the statement syntax is continued on the next line.
The >--- symbol indicates that a statement is continued from the previous line.
The --->< symbol indicates the end of a statement.

Diagrams of syntactical units other than complete statements start with the
>--- symbol and end with the ---> symbol.

Required items appear on the horizontal line (the main path).
>>__required_item_____><
Optional items appear below the main path.
>>__required_item_____><
|_optional_item_|
If an optional item appears above the main path, that item has no effect on the execution of the statement and is used only for readability.
_optional_item_
>>__required_item__|_____|_____><
If you can choose from two or more items, they appear vertically, in a stack. If you must choose one of the items, one item of the stack appears on the main path.
>>__required_item____required_choice1_____><
|_required_choice2_|
If choosing one of the items is optional, the entire stack appears below the main path.
>>__required_item_____><
|_optional_choice1_|
|_optional_choice2_|
If one of the items is the default, it appears above the main path and the remaining choices are shown below.
_default_choice__
>>__required_item__|_____|_____><
|_optional_choice_|
|_optional_choice_|
An arrow returning to the left, above the main line, indicates an item that can be repeated.
<_____
>>__required_item____repeatable_item_|_____><
If the repeat arrow contains a comma, you must separate repeated items with a comma.
<_,_____
>>__required_item____repeatable_item_|_____><
A repeat arrow above a stack indicates that you can repeat the items in the stack.

Keywords appear in uppercase (for example, FROM). They must be spelled exactly as shown. Variables appear in all lowercase letters (for example, column-name). They represent user-supplied names or values. If punctuation marks, parentheses, arithmetic operators, or other such symbols are shown, you must enter them as part of the syntax.

Language Elements

Special Registers

```
>>__ _CURRENT APPLICATION ENCODING SCHEME_____________________________ ____________><
    |_CURRENT APPLICATION COMPATIBILITY_____________________________|
    |_CURRENT ACCELARATOR___________________________________________|
    |_CURRENT CLIENT_ACCTNG_________________________________________|
    |_CURRENT CLIENT_APPLNAME_______________________________________|
    |_CURRENT CLIENT_USERID_________________________________________|
    |_CURRENT CLIENT_CORR_TOKEN_____________________________________|
    |_CURRENT CLIENT_WRKSTNNAME_____________________________________|
    |_ _CURRENT DATE____ ___________________________________________|
    | |_CURRENT_DATE____|                                           |
    |_CURRENT DEBUG MODE____________________________________________|
    |_CURRENT DECFLOAT ROUNDING MODE________________________________|
    |_CURRENT DEGREE________________________________________________|
    |_CURRENT EXPLAIN MODE__________________________________________|
    |_CURRENT GET_ACCEL_ARCHIVE_____________________________________|
    |              _LOCALE_                                         |
    |_ _CURRENT__|_______|__LC_CTYPE_ ______________________________|
    | |_CURRENT_LC_CTYPE_______________|                            |
    |_CURRENT LOCK TIMEOUT__________________________________________|
    |                      _TABLE_            _FOR OPTIMIZATION_   |
    |_CURRENT MAINTAINED__|_______|__TYPES__|___________________|_|
    |_CURRENT MEMBER________________________________________________|
    |_CURRENT OPTIMIZATION HINT_____________________________________|
    |_CURRENT PACKAGE PATH__________________________________________|
    |_CURRENT PACKAGESET____________________________________________|
    |_ _CURRENT PATH_ ______________________________________________|
    | |_CURRENT_PATH_|                                              |
    |_CURRENT PRECISION_____________________________________________|
    |_CURRENT QUERY ACCELERATION____________________________________|
    |_CURRENT QUERY ACCELERATION WAITFORDATA________________________|
    |_CURRENT REFRESH AGE___________________________________________|
    |_CURRENT ROUTINE VERSION_______________________________________|
    |_CURRENT RULES_________________________________________________|
    |_ _CURRENT SCHEMA____ __________________________________________|
    | |_CURRENT_SCHEMA____|                                         |
    |_CURRENT SERVER________________________________________________|
    |_CURRENT SQLID_________________________________________________|
    |                        ___(_6_)___    _WITHOUT TIME ZONE_     |
    |_ _CURRENT TIMESTAMP__|____________|_|____________________|___|
    | |                  ||_(integer)_| |_WITH TIME ZONE____|    |
    | |_CURRENT_TIMESTAMP_|                                         |
    |_ _CURRENT TIME_________ _______________________________________|
    | |                      |                                      |
    | |_CURRENT_TIME_________|                                      |
    |_CURRENT TIME ZONE_____________________________________________|
    |_SESSION TIME ZONE_____________________________________________|
    |_ENCRYPTION PASSWORD___________________________________________|
    |_SESSION_USER__________________________________________________|
    |   |_USER______|                                               |
    |_CURRENT TEMPORAL SYSTEM_TIME__________________________________|
```

```
    |_CURRENT TEMPORAL BUSINESS_TIME_____________________________|
```

Host Variables

```
>__:host-identifier_____________________________________________________>
                         |   _INDICATOR_                   |
                         |__|___________|_:host-identifier_|

In Java, the syntax of host-variable is:
>__:____________java-identifier_____________________________________>
     |_IN____| |_(java-expression_)_| |  _INDICATOR_                    |
     |_OUT___|                        |_|___________|_:_Java-identifier_|
     |_INOUT_|

In PL/I, C, and COBOL, the syntax of host-variable is:
>__:_______________________host-identifier_____________________________>
     |_host-identifier._|
>_____________________________________________________________________>
    |   _INDICATOR_                                          |
    |__|___________|_:_______________________host-identifier_|
                       |_host-identifier._|
```

Functions

```
>__function-name__(_____________________________________________)_______>
                     |_ALL______|  | <_,_______________________________  |
                     |_DISTINCT_|  |____expression_____________________|_|
                                      |_TABLE__transition-table-name_|
```

Table Function

```
>_TABLE_(function-name(_____________________________))_correlation-clause __>
                    | <_,_____________________________ |
                    |_|_expression_________________|_|
                      |_TABLE_transition_table_name_|
```

Expressions

```
        <_operator_________________________
     >___|_________function-invocation_____|_________________________________>
         |_+_|  |_(expression)__________|
         |_-_|  |_constant______________|
                |_column-name___________|
                |_variable______________|
                |_special-register______|
                |_scalar-fullselect_____|
                |_time-zone-expression__|
                |_labeled-duration______|
                |_case-expression_______|
                |_cast-specification____|
                |_XMLCAST-specification_|
                |_array-element-spec____|
                |_array-constructor_____|
                |_sequence-reference____|
                |_row-change-expression_|
                |_OLAP-specification____|

    >____CONCAT_____________________________________________________________>
       |_||_____|
```

```
       |_/______|
       |_*______|
       |_+______|
       |_-______|
```

Labeled durations

```
>____function-invocation____YEAR_____________________________________________>
       |_(expression)__|  |_YEARS________|
       |_constant______|  |_MONTH________|
       |_column-name___|  |_MONTHS_______|
       |_variable______|  |_DAY__________|
                          |_DAYS_________|
                          |_HOUR_________|
                          |_HOURS________|
                          |_MINUTE_______|
                          |_MINUTES______|
                          |_SECOND_______|
                          |_SECONDS______|
                          |_MICROSECOND__|
                          |_MICROSECONDS_|
```

CASE expressions

```
                                     _ELSE NULL_______________
>__CASE____searched-when-clause____|__________________________|_______>
         |_simple-when-clause___|  |_ELSE__result-expression_|
>__END_____________________________________________________________________>

searched-when-clause:
   <_____________________________________________________
>____WHEN__search-condition__THEN____result-expression___|___________>
                                    |_NULL______________|

simple-when-clause:
               <_____________________________________________________
>__expression____WHEN__expression__THEN____result-expression___|_____>
                                          |_NULL______________|
```

CAST

```
>__CAST__(____expression__________AS__data-type__)___________________>
            |_NULL______________|
            |_parameter-marker_|
data-type:
>_____built-in-data-type_____________________________________________>
     |_distinct-type-name_|
     |_array-type_________|

built-in data-type:

>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|              ______(5,0)_______________________                                |
|__DECIMAL____|_______________________________|_______________________________|
||_DEC____|  |_(__integer_______________)____|                                |
||_NUMERIC_|                 |_, integer_|                                      |
|            _(34)_                                                             |
```

```
|_DECFLOAT_ |______|_______________________________________________________________________|
|           |_(16)_|                                                                       |
|           _(53)___________                                                               |
|___FLOAT__|_______________|_______________________________________________________________ |
| |        |_(__integer__)_|                                                                |
|_|_REAL_________________|                                                                 |
| |          _PRECISION_   |                                                                |
|_|_DOUBLE__|___________|__|                                                                |
|                      __(1 OCTETS)_____                                                    |
|_______CHARACTER____|_______________|_____________________________________________________|
| | | |_CHAR_____|  |_(_length__)____|  | ||_CCSID___ASCII__| |_FOR___SBCS____DATA_|  |  | |
| | |___CHARACTER__VARYING__(_length__)__| |       |_EBCDIC__|       |_MIXED_|         |  | |
| |  | |_CHAR_____|        |               |       |_UNICODE_|       |_BIT___|         |  | |
| |  |__VARCHAR____________|               |_CCSID_integer_______________________________|  | |
| |                                                                                        | |
| |                          _(1M OCTETS)__                                                | |
|_|__CHARACTER_LARGE OBJECT_|_______________|_____________________________________________| |
| | |_CHAR____|            ||_(lob length)_|  | |_CCSID___ASCII__| |_FOR___SBCS____DATA_| | |
| |_CLOB_____________________|                |        |_EBCDIC__|       |_MIXED_|        | |
|                                             |        |_UNICODE_|       |_BIT___|        | |
|                                             |_CCSID_integer_______________________________| |
|            _(1 CODEUNITES16)_                                                             |
|___GRAPHIC_|_______________|_______________________________________________________________|
| |         |_(__length___)____|      |     |_CCSID__ASCII___|                             |
| |_VARGRAPHIC__(__length__)___________|            |_EBCDIC__|                             |
| |          __(1M CODEUNITS16)_                    |_UNICODE_|                             |
| |_DBCLOB_|____________________|                   |_integer_|                             |
|          |_(lob length)______|                                                             |
|            _(1)________                                                                   |
|_ _BINARY__|____________|_______________________________________________________________|
| |         |_(integer)__|                                 |                                |
| |__BINARY VARYING _(integer)_____________________________|                                |
| | |_VARBINARY_____|                                     |                                |
| |                          _(1M)_____________________     |                                |
| |_BINARY LARGE OBJECT_____|_______________________|_____|                                |
|  |_BLOB_________________|  |_(__integer_________)____|                                    |
|                                          |_K_|                                            |
|                                          |_M_|                                            |
|                                          |_G_|                                            |
|___DATE_______________________________________________________________________________|
| |_TIME______|                                                                            |
| |            __(_6_)_____     _WITHOUT TIME ZONE_                                        |
| |_TIMESTAMP_|____________|___|____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                       |
|_ROWID_______________________________________________________________________________|
|_XML__________________________________________________________________________________|
```

length:

```
>_integer_____________________________________________________________________>
            |_CODEUNITS16_|
            |_CODEUNITS32_|
            |_OCTETS______|
```

lob-length:

```
>_integer_____________________________________________________________________>
            |_K_|  |_CODEUNITS16_|
            |_M_|  |_CODEUNITS32_|
            |_G_|  |_OCTETS______|
```

XMLCAST specification

```
>__XMLCAST_(__expression____________AS__data-type_____________________________>
             |_NULL______________|
             |_parameter-marker_|
```

Array-expression

```
>__array-expression__(array-index)_____________________________________________>
```

Array-constructor

```
>__ARRAY_[_____________________________________]_______________________________>
          |_fullselect_____________________|
          |  _,____________________________    |
          | |                          |   |
          | V                          |   |
          |___element-expression_______|___|
             |_NULL___________________|
```

NEXT VALUE expression

```
>__NEXT VALUE FOR sequence-name_______________________________________________>
```

PREVIOUS VALUE expression

```
>__PREVIOUS VALUE FOR sequence-name___________________________________________>
```

ROW CHANGE expression

```
>_ROW CHANGE____TIMESTAMP____FOR__table-designator____________________________>
             |_TOKEN_____|
```

OLAP

```
>___ordered-OLAP-specification ________________________________________________>
   |_numbering-specification___|
   |_aggregation-specification_|

ordered-OLAP-specification:

>__RANK________(_)_OVER_(_____________________________window-order-clause_)_>
  |_DENSE_RANK_(_)|       |_window-partition-clause_|

numbering-specification:

>__ROW_NUMBER___()_OVER_(_____________________________window-order-clause_)_>
                         |_window-partition-clause_|
aggregation-specification:
>_aggregate function_()_OVER_(_________________________window-order-clause_)_>
                              |_window-partition-clause_|

    __RANGE BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING___________
>__|_______________________________________________________________________|__>
   |                _RANGE BETWEEN UNBOUNDED PRECEDING AND CURRENT ROW_    |
   |_window-order_|_______________________________________________________|_)|
                  |_ window-aggregation-group-clause___________________|

window-partition-clause:
               <_,_______________________
>_PARTITION BY__ partition-expression__|_____________________________________>
```

```
window-order-clause:
             <_,_____________________________________________
                                          _NULLS LAST_       |
                                    _ASC__|____________|____  |
>_ORDER BY___sort-key-expression____|_______________________|_|___________>
                                    |_ASC NULLS FIRST_______|
                                    |       __NULLS FIRST_  |
                                    |_DESC_|______________|_|
                                    |_DESC NULLS LAST_______|
aggregate-function:
>___AVG function_____________________________________________________________>
  |_CORRELATION function_|
  |_COUNT function_______|
  |_COUNT_BIG function___|
  |_COVARIANCE function__|
  |_MAX function_________|
  |_MIN function_________|
  |_STDDEV function______|
  |_SUM function_________|
  |_VARIANCE function____|

window-aggregation-group-clause
>___ROWS_____________group-start_____________________________________________>
  |_RANGE_|        |_group-between_|
                   |_group-end_____|

group-start
>___UNBOUNDED PRECEDING_____________________________________________________>
  |_unsigned-constant_PRECEDING_|
  |_CURRENT ROW_________________|

group-between
>___BETWEEN__group-bound-1__AND___group-bound-2_____________________________>


group-bound-1
>___UNBOUNDED PRECEDING_____________________________________________________>
  |_unsigned-constant_PRECEDING_|
  |_unsigned-constant_FOLLOWING_|
  |_CURRENT ROW_________________|

group-end
>___UNBOUNDED FOLLOWING_____________________________________________________>
  |_unsigned-constant_FOLLOWING_|
```

Predicates

```
 >_______basic predicate_____________________________________________________>
       |_quantified predicate___|
       |_ARRAY_EXISTS predicate_|
       |_BETWEEN predicate______|
       |_DISTINCT predicate_____|
       |_EXISTS predicate_______|
       |_IN predicate___________|
       |_LIKE predicate_________|
```

```
       |_NULL predicate_________|
       |_XMLEXISTS predicate____|
```

Basic predicate

```
>>__ _expression_ _=_____ _expression_____________________________ _________><
    |            |_<>____|                                       |
    |            |_<_____|                                       |
    |            |_>_____|                                       |
    |            |_<=____|                                       |
    |            |_>=____|                                       |
    |                                                           |
    |__row-value-expression___ _=____ ___row-value-expression__|
                               |_<>___|
                               |_<____|
                               |_>____|
                               |_<=___|
                               |_>=___|
```

Quantified predicate

```
  >>__ _expression__ _=_____ __ _SOME_ __(fullselect1)____ _______________><
      |             |        |  |_ANY__|                   |
      |             |_<>____|  |_ALL__|                   |
      |             |_<_____|                              |
      |             |_>_____|                              |
      |             |_<=____|                              |
      |             |_>=____|                              |
      |_(row-value-expression)=_ _SOME_ _(fullselect2)____|
      |                        |_ANY__|                   |
      |_(row-value-expression)___<>______ALL(fullselect2)_|
```

ARRAY_EXISTS predicate

```
>__ARRAY_EXISTS_(array-expression, array-index)_____________________________><
```

BETWEEN predicate

```
>__expression___________BETWEEN__expression__AND__expression_______________><
                |_NOT_|
```

DISTINCT predicate

```
>__expression_IS________DISTINCT FROM__expression___________________________><
 |              |_NOT_|                                                    |
 |_(row-value-expression)_IS_______DISTINCT FROM_(row-value-expression)__|
                            |_NOT_|
```

EXISTS predicate

```
>__EXISTS(fullselect)_______________________________________________________><
```

IN predicate

```
  >>__ _expression1__ _____ __IN_ _(fullselect1)_________ __ _______________><
      |              |_NOT_|     |    <_,_____________   |  |
      |                          |_(____expression2__|_)_|  |
      |_(row-value-expression)__ _____ __IN__(fullselect2)__|
                                 |_NOT_|
```

LIKE predicate

```
>__match-expression__________LIKE__pattern-expression_____________________>
                      |_NOT_|
>_______________________________________________________________________________>
    |_ESCAPE__escape-expression_|
```

NULL predicate

```
>__expression__IS___________NULL_______________________________________________>
                   |_NOT_|
```

XMLEXISTS

```
>_XMLEXISTS_(_xquery-expression-constant_____________________________________>

>_____________________________________________________)_____________________><
          |          _BY REF_                    |
          |_PASSING_|________|xquery-argument|___|

xquery-argument

>__xquery-context-item-expression_____________________________________________><
  |_xquery-context-item-expression_AS_identifier_|
```

Search conditions

```
>__________predicate_____________________________________________________________>
   |_NOT_|          |                  |_SELECTIVITY_numeric-constant_| |
                    |_(search-condition)_____________________________________|
    <_____________________________________________________
>_____________________________________________________|_______________________>
         |___AND_______________predicate____________|
           |_OR__|  |_NOT_|  |_(search-condition)_|
```

Aggregate Functions

ARRAY_AGG

```
  Ordinary array aggregation:
>____ARRAY_AGG(expression_____________________________________________)__>
                                  |          <_,_______________________  |
                                  |                      _ASC___      | |
                                  |_ORDER BY_sort-key___|_______|_____|_|
 sort-key-expression                                     |_DESC__|
>________column-name_____________________________________________________><
       |_expression_|

  Associative array aggregation:
>__ARRAY_AGG(index-expression, expression)_____________________________>
```

AVG

```
         _ALL______
>__AVG(_|__________|_numeric-expression)_____________________________>
        |_DISTINCT_|
```

CORRELATION

```
>_CORRELATION(expression-1, expression-2)_____________________________>
```

COUNT

```
            _ALL______
>_COUNT(___|__________|__expression___)_______________________________>
        |  |_DISTINCT_|            |
        |_*___________________________|
```

COUNT_BIG

```
                _ALL______
>_COUNT_BIG(___|__________|__expression___)____________________________>
            |  |_DISTINCT_|            |
            |_*___________________________|
```

COVARIANCE or COVARIANCE_SAMP

```
>___COVARIANCE_______(expression-1, expression-2)_____________________>
  |_COVARIANCE_SAMP_|
```

GROUPING

```
>__GROUPING(expression_____________________________________________________>
```

LISTAGG

```
              _ALL______
>_LISTAGG(___|__________|_string-expression_______________)_______________>
             |_DISTINCT_|                  |_,_separator__|


>_____________________________________________________________________________>
```

```
    |                                <_,_______________________  |
    |                                          _ASC___           | |
    |_WITHIN GROUP (_ORDER BY_sort-key___|_______|________)_|_|
                                           |_DESC__|
```

MAX

```
          _ALL______
>__MAX(_|__________|_expression)_____________________________________________>
        |_DISTINCT_|
```

MEDIAN

```
>____MEDIAN(numeric-expression)_______________________________________________>
```

MIN

```
          _ALL______
>__MIN(_|__________|_expression)_____________________________________________>
        |_DISTINCT_|
```

PERCENTILE_CONT

```
>__PERCENTILE_CONT(percentile-expression)_____________________________________>
                                                  _ASC___
>__WITHIN GROUP (_ORDER BY_sort-expression___|_______|________)_______________>
                                                 |_DESC__|
```

PERCENTILE_DISC

```
>__PERCENTILE_DISC(percentile-expression)_____________________________________>
                                                  _ASC___
>__WITHIN GROUP (_ORDER BY_sort-expression___|_______|________)_______________>
                                                 |_DESC__|
```

STDDEV

```
            _ALL______
>__STDDEV(_|__________|_expression)_____________________________________________>
          |_DISTINCT_|
```

STDDEV_SAMP

```
                 _ALL______
>__STDDEV_SAMP(_|__________|_expression)_____________________________________>
               |_DISTINCT_|
```

SUM

```
          _ALL______
>__SUM(_|__________|_expression)_____________________________________________>
        |_DISTINCT_|
```

VARIANCE or VARIANCE SAMP

```
                         _ALL______
>_____VARIANCE_______(_|__________|_expression)_______________________________>
    |_VARIANCE_SAMP_|  |_DISTINCT_|
```

XMLAGG

```
>____XMLAGG(XML-expression_____________________________________________)__>
```

```
                                  |          <_,_______________________  |
                                  |                        _ASC___      | |
                                  |_ORDER BY_sort-key___|_______|_____|_|
 sort-key                                                |_DESC__|
>________column-name_____________________________________________________><
        |_expression_|
```

Scalar functions

ABS

```
>__ABS(numeric-expression)_______________________________________________>
```

ACOS

```
>__ACOS(numeric-expression)______________________________________________>
```

ADD_MONTHS

```
>__ADD_MONTHS_(expression,numeric-expression)____________________________>
```

AI_ANALOGY

```
>__AI_ANALOGY(_source-1,target-1,_source-2,target-2_)___________________>
>__expression___________________________________________________________>
                   |        _MODEL COLUMN_              |
                   |_USING_|______________|_column-name_|
```

AI_SEMANTIC_CLUSTER

```
                                                <_________________
>__AI_SEMANTIC_CLUSTER_(member-expression_, |_cluster-sequence_|__)____>
>__expression___________________________________________________________>
                   |        _MODEL COLUMN_              |
                   |_USING_|______________|_column-name_|
```

AI_SIMILARITY

```
>_AI_SIMILARITY_(expression-1,___________________________expression-2_)_>
                             |        _MODEL COLUMN_            |
                             |_USING_|______________|_col-name_|
>_______________________________________________________________________>
   |        _MODEL COLUMN_              |
   |_USING_|______________|_column-name_|
```

ARRAY_DELETE

```
>__ARRAY_DELETE(array-expression_____________________________________)____>
                                  |_,_array-index1_______________|
                                        |_,|_array-index2_|
```

ARRAY_FIRST

```
>__ARRAY_FIRST(array-expression_________________________________________>
```

ARRAY_LAST

```
>__ARRAY_LAST(array-expression__________________________________________>
```

ARRAY_NEXT

```
>__ARRAY_FIRST(array-expression, array-index)____________________________>
```

ARRAY_PRIOR

```
>__ARRAY_PRIOR(array-expression, array-index)_____________________________>
```

ARRAY_TRIM

```
>__ARRAY_TRIM(array-expression, numeric-expression)_____________________>
```

ASCII

```
>_ASCII(string-expression)______________________________________________>
```

ASCII_CHR

```
>_ASCII_CHR(expression)_________________________________________________>
```

ASCII_STR

```
>_ASCII_CHR(string-expression)__________________________________________>
```

ASIN

```
>__ASIN(numeric-expression)_____________________________________________>
```

ATAN

```
>__ATAN(numeric-expression)_____________________________________________>
```

ATANH

```
 >__ATANH(numeric-expression)___________________________________________>
```

ATAN2

```
>__ATAN2(numeric-expression1,numeric-expression2)_______________________>
```

BIGINT

```
Numeric to Big Integer:
>_BIGINT(numeric-expression_____________________________________________>

String to Big Integer:
>_BIGINT(string-expression______________________________________________>
```

BINARY

```
>_BINARY(string-expression_________________)_____________________________>
                            |_,_integer_|
```

BITAND, BITANDNOT, BITOR, BITXOR and BITNOT

```
>__BITAND_____(_expression1__, expression2__)____________________________>
 |_BITANDNOT_|
 |_BITOR_____|
 |_BITXOR____|

>_BINOT(_expression_)___________________________________________________>
```

BLOB

```
>__BLOB(expression_________________)____________________________________>
                    |_,__integer_|
```

CARDINALITY

```
>__CARDINALITY(array-expression)________________________________________>
```

CCSID_ENCODING

```
>__CCSID_ENCODING(expression)_____________________________________________>
```

CEILING

```
>__CEILING_______(__expression__)_________________________________________>
```

CHAR

```
Datetime to Character:

>__CHAR(datetime-expression_________________)____________________________>
                             |_,____ISO_____|
                                  |_USA___|
                                  |_EUR___|
                                  |_JIS___|
                                  |_LOCAL_|
Character to Character:
>__CHAR(character-expression_________________________________)____________>
                             |_,_integer_________________|
                                        |_,|_CODEUNITS16_|
                                           |_CODEUNITS32_|
                                           |_OCTETS______|
Graphic to Character:
>__CHAR(graphic-expression_________________________________)___________>
                             |_,_integer_________________|
                                        |_,|_CODEUNITS16_|
                                           |_CODEUNITS32_|

Integer to Character:
>__CHAR(integer-expression)_______________________________________________>

Decimal to Character:
>__CHAR(decimal-expression___________________________)_________________>
                           |_,__decimal-character_|
Decimal floating-Point to Character:
>__CHAR(decimal-floating-point-expression)________________________________>

Floating-Point to Character:
>__CHAR(floating-point-expression)________________________________________>

Row ID to Character:
>__CHAR(row-ID-expression)________________________________________________>
```

CHAR9

```
>__CHAR9__(_decimal-expression_______________________________)____________>
                                  |_,_decimal-character__|
```

CHARACTER_LENGTH

```
Character sting:
>__CHARACTER_LENGTH(character-expression__,_ CODEUNITS16_____)__________>
                                           |_CODEUNITS32_|
                                           |_OCTETS______|

Graphic string:
>__CHARACTER_LENGTH(graphic-expression__,___CODEUNITS16_____)___________>
```

```
                                          |_CODEUNITS32_|
```

CLOB

```
Character to CLOB:
>__CLOB(character-expression_______________________________)___________>
                            |_,_integer_________________|
                                       |_,|_CODEUNITS16_|
                                          |_CODEUNITS32_|
                                          |_OCTETS______|
GRAPHIC to CLOB:
>__CLOB(graphic-expression_________________________________)___________>
                            |_,_integer_________________|
                                       |_,|_CODEUNITS16_|
                                          |_CODEUNITS32_|
```

COALESCE

```
                            <___________
>_____COALESCE___(expression__,expression|_)_____________________________>
```

COLLATION_KEY

```
>__COLLATION_KEY(string-expression, collation-name_______________)______>
                                                   |_,integer_|
```

COMPARE_DECFLOAT

```
>__COMPARE_DECFLOAT(decfloat-expression1,decfloat-expression2___________>
```

CONCAT

```
>_____CONCAT____(expression1,expression2)________________________________>
    |_"||"____|
```

CONTAINS

```
>__CONTAINS ____(column-name, search-argument)___________________________>
                                             |_,string-constant_|
Search-argument-options:
      <_______________________
>_____________________________|_________________________________________>
    |_QUERYLANGUAGE = value_|
    |_RESULTLIMIT = value___|
    |             _OFF_      |
    |_SYNONYM = |_ON__|_____|
```

COS

```
>__COS(numeric-expression)______________________________________________>
```

COSH

```
>__COSH(numeric-expression)_____________________________________________>
```

DATE

```
>__DATE(expression)_____________________________________________________>
```

DAY

```
>__DAY(expression)______________________________________________________>
```

DAYOFMONTH

```
>__DAYOFMONTH(expression)_____________________________________________>
```

DAYOFWEEK

```
>__DAYOFWEEK(expression)______________________________________________>
```

DAYOFWEEK_ISO

```
>__DAYOFWEEK_ISO(expression)__________________________________________>
```

DAYOFYEAR

```
>__DAYOFYEAR(expression)______________________________________________>
```

DAYS

```
>__DAYS(expression)___________________________________________________>
```

DBCLOB

```
Character to DBCLOB:
>__DBCLOB(character-expression_______________________________)_________>
                               |_,_integer_________________|
                                          |_,|_CODEUNITS16_|
                                             |_CODEUNITS32_|
GRAPHIC to DBCLOB:
>__DBCLOB(graphic-expression_________________________________)__________>
                              |_,_integer_________________|
                                         |_,|_CODEUNITS16_|
                                            |_CODEUNITS32_|
```

DECFLOAT

```
numeric to DECFLOAT:
                                  _,34_
>__DECFLOAT_(_numeric-expression__|____|_________________________)_____>
                                 |_,16_|
string to DECFLOAT:
                                  _,34_
>__DECFLOAT_(_string-expression___|____|_________________________)_____>
                                 |_,16_|
```

DECFLOAT_FORMAT

```
>_____DECFLOAT_FORMAT___(___string-expression_____________________)_____>
                                            |_,_format-string_|
```

DECFLOAT_SORTKEY

```
>_DECFLOAT_SORTKEY_ (_decfloat-expression_)___________________________>
```

DECIMAL or DEC

```
Numeric to decimal:
>_____DECIMAL___(___numeric-expression_________________________)__________>
    |_DEC_____|                        |_precision_________|
                                                 |_scale_|
String to decimal:
>_DECIMAL_(string-expression_____________________________________)_________>
  |_DEC__|                    |_,precision_____________________|
                                         |_,scale____________|
```

```
                                                  |_,decimal-char_|
```

DECODE

```
                        <_________________________________
>_DECODE_(_expression1__,_expression2_,_result-expression_|______________>

>_____________________________________________________________)______________>
    |_,_else-expression_|
```

DECRYPT

```
>>___ _DECRYPT_BINARY_________(encrypted-data_____________________________>
     |_DECRYPT_BIT___|
     |_DECRYPT_CHAR__|
     |_DECRYPT_DB____|
>_____ ____________________________________________________________)________><
      |_,_ _password-string____________ _ _ ___________________|
          |_DEFAULT_____________________| |_,__ccsid-constant_|
```

DEGREES

```
>__DEGREES(expression)_____________________________________________________>
```

DIFFERENCE

```
>__DIFFERENCE(expression1, expression2)____________________________________>
```

DIGITS

```
>__DIGITS(expression)______________________________________________________>
```

DOUBLE or DOUBLE_PRECISION

```
>__DOUBLE_________________(___numeric-expression___)_____________________>
  |_DOUBLE_PRECISION_|     |_string-expression__|
```

DSN_XMLVALIDATE

```
>__DSN_XMLVALIDATE_________________________________________________________>

>_(string-expression_,_schema-name-sting___________________________________>
   |_xml-expression_| |target-namespace-uri-sting,schema-location-string|
```

EBCDIC_CHR

```
>>__EBCDIC(expression)_____________________________________________________>
```

EBCDIC_STR

```
>>__EBCDIC_STR(string-expression)__________________________________________>
```

ENCRYPT_TDES

```
>>__ENCRYPT_TDES(data-string_______________________________________)__________>
                                |_,password-string,hint-string_|
```

EXP

```
>__EXP(numeric-expression)_________________________________________________>
```

EXTRACT

```
Extract date values:
```

```
>__EXTRACT(__YEAR____)_FROM__date-expression_________)____________________>
            |_MONTH_|        |_timestamp-expression_|
            |_DAY___|
Extract time values:
>__EXTRACT(___HOUR____)_FROM__time-expression_________)____________________>
            |_MINUTE_|        |_timestamp-expression_|
            |_SECOND_|
Extract time zone values:
>__EXTRACT(___HOUR____)________FROM__date-expression_________)____________>
            |_MINUTE___________|      |_time-expression______|
            |_SECOND___________|      |_timestamp-expression_|
            |_TIMEZONE_HOUR___|
            |_TIMEZONE_MINUTE_|
```

FLOAT

```
>__FLOAT(numeric-expression)_______________________________________________>
```

GENERATE_UNIQUE and GENERATE_UNIQUE_BINARY

```
>__GENERATE_UNIQUE()______________________________________________________>
  |_GENERATE_UNIQUE_BINARY()_|
```

GETHINT

```
>__GETHINT(encrypted-data)_________________________________________________>
```

FLOOR

```
>__FLOOR(numeric-expression)_______________________________________________>
```

GETVARIABLE

```
>__GETVARIABLE(string-constant_ ___________________________________________>
                              |_,__default-value_________________|
                              |_,__CAST_(_NULL_AS_VARCHAR(1)_)___|
```

GRAPHIC

```
Character to Graphic:
>__GRAPHIC(character-expression_________________________________)_______>
                                |_,_integer_____________________|
                                            |_,_CODEUNITS16___|
                                               |_CODEUNITS32_|
Graphic to Graphic:
>__GRAPHIC(graphic-expression___________________________________)________>
                              |_,_integer_____________________|
                                          |_,_CODEUNITS16___|
                                             |_CODEUNITS32_|
```

HASH_CRC32, HASH_MD5, HASH_SHA1, and HASH_SHA256

```
>__HASH_CRC32____(expression)______________________________________________>
 |_HASH_MD5_____|
 |_HASH_SHA1____|
 |_HASH_SHA256__|
```

HEX

```
>__HEX(expression)_________________________________________________________>
```

HOUR

```
>__HOUR(expression)_____________________________________________________>
```

IDENTITY_VAL_LOCAL()

```
>__IDENTITY_VAL_LOCAL()_________________________________________________>
```

IFNULL

```
>__IFNULL(expression,expression)_________________________________________>
```

INSERT

```
>_INSERT(source-string,start,length,insert-string___________________)____>
                                                  |_,_CODEUNITS16___|
                                                     |_CODEUNITS32_|
                                                     |_OCTETS______|
```

INTEGER or INT

```
>_____INTEGER___(___numeric-expression___)_______________________________>
    |_INT_____|   |_string-expression__|
```

INTERPRET

```
>_____INTERPRET___(___expression_AS_data-type___)________________________>
```

JULIAN_DAY

```
>__JULIAN_DAY(expression)________________________________________________>
```

LAST_DAY

```
>__LAST_DAY(expression)__________________________________________________>
```

LCASE

```
>_____LCASE___(string-expression)________________________________________>
                                |,_locale-name_| |_,_integer_|
```

LEFT

```
Character string:
>_LEFT(character-expression,length ____________________)__________________>
                                   |_,_CODEUNITS16___|
                                      |_CODEUNITS32_|
                                      |_OCTETS______|
Graphic string:
>_LEFT(graphic-expression,length ______________________)____________________>
                                  |_,_CODEUNITS16___|
                                     |_CODEUNITS32_|
Binary string:
>_LEFT(binary-expression,length _______________________)_____________________>
```

LENGTH

```
>__LENGTH(expression)____________________________________________________>
```

LN

```
>__LN(numeric-expression)________________________________________________>
```

LOCATE

```
>_LOCATE(search-string,source-string_____________)_____________________>
                                    |_,_start_| |_,_CODEUNITS16___|
                                                  |_CODEUNITS32_|
                                                  |_OCTETS______|
```

LOCATE_IN_STRING

```
>_LOCATE(source-string,search-string_____________________________________>
                                    |_,_start_______________|
                                              |_,instance_|
>_______________________________________________)_____________________><
             |_,_CODEUNITS16___|
                |_CODEUNITS32_|
                |_OCTETS______|
```

LOG10

```
>__LOG10(numeric-expression)_____________________________________________>
```

LOWER

```
>__LOWER(string-expression_________________________________)____________>
                            |_,_locale-name_| |_,_integer_|
```

LPAD

```
>__LPAD(string-expression,integer____________)_____________________________>
                                  |_,_pad_|
```

LTRIM

```
>__LTRIM(string-expressio)_______________________________)_________________>
                                |_,_trim-expression_|
```

MAX

```
                   <__________
>__MAX(expression, expression_|_)_______________________________________>
```

MAX_CARDINALITY

```
>__MAX_CARDINALITY(array-expression)_____________________________________>
```

MICROSECOND

```
>__MICROSECOND(expression)______________________________________________>
```

MIDNIGHT_SECONDS

```
>__MIDNIGHT_SECONDS(expression)_________________________________________>
```

MIN

```
                   <__________
>__MIN(expression, expression_|_)_______________________________________>
```

MINUTE

```
>__MINUTE(expression)___________________________________________________>
```

MOD

```
>__MOD(numeric-expression1,numeric-expression2)_____________________________>
```

MONTH

```
>__MONTH(expression)_____________________________________________________>
```

MONTHS_BETWEEN

```
>__MONTHS_BETWEEN(expression1,expression2)_______________________________>
```

MULTIPLY_ALT

```
>__MULTIPLY_ALT(exact-numeric-expression1,exact-numeric-expression2)_____>
```

NEXT_DAY

```
>__NEXT_DAY(expression,string-expression)________________________________>
```

NORMALIZE_DECFLOAT

```
>__NORMALIZE_DECFLOAT(decfloat-expression)_______________________________>
```

NORMALIZE_STRING

```
                                        _NFC__
>__NORMALIZE_STRING(unicode-string,_|_NFD__|_______________)______________>
                                    |_NFKC_| |_,_integer_|
                                    |_NFKD_|
```

NULLIF

```
>__NULLIF(expression,expression)_________________________________________>
```

NVL

```
                    <__________
>__NVL(expression, expression_|_)________________________________________>
```

OVERLAY

```
>_OVERLAY(source-string_,insert-sting_,_length_,_CODEUNITS16______)______>
                                              |_CODEUNITS32_|
                                              |_OCTETS______|
```

PACK

```
                             <__________
>__PACK(___CCSID 1208_____,_expression_|_)________________________________>
        |_CCSID DEFAULT_|
```

POSITION

```
>_POSTITION(search-string,source-string_,_ CODEUNITS16__)________________>
                                          |_CODEUNITS32_|
                                          |_OCTETS______|
```

POSSTR

```
>__POSSTR(source-string,search-string)___________________________________>
```

POWER

```
>__POWER(numeric-expression1,numeric-expression2)________________________>
```

QUANTIZE

```
>__QUANTIZE(expression-1,expression-2)___________________________________>
```

QUARTER

```
>__QUARTER(expression)_____________________________________________>
```

RADIANS

```
>__RADIANS(numeric-expression)______________________________________>
```

RAISE_ERROR

```
>__RAISE_ERROR(sqlstate,diagnostic-string)__________________________>
```

RAND

```
>__RAND(_________________________)__________________________________>
        |_numeric-expression_|
```

REAL

```
>__REAL(___numeric-expression___)___________________________________>
        |_string-expression__|
```

REPEAT

```
>__REPEAT(expression,integer)_______________________________________>
```

REPLACE

```
>__REPLACE(source-string, search-string, replace-string)____________>
```

RID

```
>__RID(table-designator)____________________________________________>
```

RIGHT

```
>__RIGHT(string-expression,length)__________________________________>
                                   |_,_CODEUNITS16___|
                                    |_CODEUNITS32_|
                                    |_OCTETS______|
```

ROUND

```
                              _,_0___________________
>__ROUND(numeric-expression1,_|________________________|_)__________>
                              |_,_numeric-expression2_|
```

ROUND_TIMESTAMP

```
                              _,_'DD'________
>__ROUND_TIMESTAMP(_expression_|________________|_)_________________>
                              |_,format-string_|
```

ROWID

```
>__ROWID(expression)________________________________________________>
```

RPAD

```
>__RPAD(string-expression,integer___________)______________________>
                                  |_,_pad_|
```

RTRIM

```
>__RTRIM(string-expression_______________________)__________________>
                          |_,_trim-expression_|
```

SCORE

```
>__SCORE(column-name, search-argument, string-constant)_________________>

Search-argument-options:
      <_______________________
>_______________________________|_______________________________________>
    |_QUERYLANGUAGE = value_|
    |_RESULTLIMIT = value___|
    |             _OFF_      |
    |_SYNONYM = |_ON__|_____|
```

SECOND

```
>__SECOND(expression)_____________________________________________________>
                      |_,integer-constant_|
```

SIGN

```
>__SIGN(numeric-expression)_______________________________________________>
```

SIN

```
>__SIN(numeric-expression)________________________________________________>
```

SINH

```
>__SINH(numeric-expression)_______________________________________________>
```

SMALLINT

```
>__SMALLINT(___numeric-expression___)_____________________________________>
              |_string-expression__|
```

SOUNDEX

```
>__SOUNDEX(expression)____________________________________________________>
```

SOAPHTTPC and SOAPHTTPV

```
>__SOAPHTTPC___(endpoint_url, soap_action, soap_body)_____________________>
  |_SOAPHTTPV_|
```

SPACE

```
>__SPACE(numeric-expression)______________________________________________>
```

SQRT

```
>__SQRT(numeric-expression)_______________________________________________>
```

STRIP

```
>__STRIP_(_string-expression_______________________________________________)_>
                              |___,BOTH_________________________________|
                                |_,B________|  |_,strip-character_|
                                |_,LEADING__|
                                |_,L________|
                                |_,TRAILING_|
                                |_,T________|
```

SUBSTR

```
>__SUBSTR(string-expression,start______________)___________________________>
```

```
                                        |_,length_|
```

SUBSTRING

```
Character:
>_SUBSTRING(character-expression,start,___________,_CODEUNITS16____)_____>
                                       |_,length_|  |_CODEUNITS32_|
                                                    |__OCTETS_____|
Graphic:
>_SUBSTRING(graphic-expression,start,___________,_CODEUNITS16____)_______>
                                     |_,length_| |_CODEUNITS32_|
Binary:
>_SUBSTRING(binary-expression,start,____________)_________________________>
                                     |_,length_|
```

TAN

```
>__TAN(numeric-expression)_______________________________________________>
```

TANH

```
>__TANH(numeric-expression)______________________________________________>
```

TIME

```
>__TIME(expression)______________________________________________________>
```

TIMESTAMP

```
>__TIMESTAMP(expression_________________)________________________________>
                        |_,expression_|
```

TIMESTAMPADD

```
>__TIMESTAMPADD(interval, number, expression)____________________________>
```

TIMESTAMP_FORMAT

```
>__TIMESTAMP_FORMAT(string-expression,format-string______________________>
     _,6_________________________
>__|____________________________|_______)__________________________________>
   |_,_precision-constant_____|
```

TIMESTAMP_ISO

```
>_TIMESTAMP_ISO(expression)______________________________________________>
```

TIMESTAMPDIFF

```
>__TIMESTAMPDIFF(numeric-expression,string-expression)___________________>
```

TIMESTAMP_TZ

```
>_TIMESTAMP_TZ(expression1)______________________________________________>
                             |_,expression2_|
```

TO_CHAR

```
>__TO_CHAR(string-expression,format-string)______________________________>
```

TO_DATE

```
>__TO_DATE(string-expression,format-string)______________________________>
     _,6_________________________
>__|____________________________|_______)__________________________________>
```

```
   |_,_precision-constant_____|
```

TO_NUMBER

```
>_TO_NUMBER(string-expression)_____________________)_____________________>
                                |_,_format string_|
```

TO_TIMESTAMP

```
>__TO_TIMESTAMP(string-expression,format-string)_____________________________>
    _,6_________________________
>__|_____________________________|_______)_____________________________________>
   |_,_precision-constant_____|
```

TOTALORDER

```
>__TOTALORDER(expression1, expression2)_____________________________________>
```

TRANSLATE

```
>_TRANSLATE(expression_____________________________________________)_____>
             |_,_to-string_____________________________________________|
                           |                  _,__' '___________  |
                           |_,__from-string_|__________________|_|
                                            |_,__pad-character_|
```

TRIM

```
>__TRIM_(_string-expression_____________________________________________)_>
                             |___,BOTH_____________________________FROM_|
                               |_,B________|  |_,trim-constant_|
                               |_,LEADING__|
                               |_,L________|
                               |_,TRAILING_|
                               |_,T________|
```

TRIM_ARRAY

```
>_____TRIM_ARRAY___(array-expression, numberic-expression_)_______________>
   |_ARRAY_TRIM__|
```

TRUNCATE or TRUNC

```
                                  _,_0____________________
>__TRUNCATE_(numeric-expression1_|_________________________|_)______________>
 |__TRUNC__|                     |_,numeric expression2__|
```

TRUNC_TIMESTAMP

```
                                 _'DD'___________
>__TRUNC_TIMESTAMP_(expression1_|_________________|_)_______________________>
                                |_,format-string_|
```

UCASE

```
>_____UCASE___(string-expression_____________________________________)_______>
                                |_,_locale-name_| |_,_integer_|
```

UNICODE

```
>____UNICODE___(string-expression)_____________________________________________>
```

UNICODE_STR

```
                                        _,UTF-8_
>____UNICODE_STR_(string-expression)_|________|_)_________________________>
                                       |_,UTF16_|
```

UPPER

```
>_____UPPER___(string-expression_____________________________________)_______>
                                 |_,_locale-name_| |_,_integer_|
```

VALUE

```
                        <____________
>____VALUE_(expression_, expression_|_)____________________________________>
```

VARBINARY

```
>__VARCHAR(string-expression_______________)_________________________________>
                           |_,__integer_|
```

VARCHAR

```
Varchar to Character:
>__VARCHAR(character-expression_________________________________)___________>
                              |_,_integer___________________|
                                       |_,__CODEUNITS16_|
                                          |_CODEUNITS32_|
                                          |_OCTETS______|
Graphic to Varchar:
>__VARCHAR(graphic-expression___________________________________)__________>
                              |_,_integer___________________|
                                        |_,_CODEUNITS16__|
                                          |_CODEUNITS32__|
Datetime to Varchar:
>__VARCHAR(datetime-expression______________________________________________>

Integer to Varchar:
>__VARCHAR(integer-expression)______________________________________________>

Decimal to Varchar:
>__VARCHAR(decimal-expression_____________________________)__________________>
                              |_,__decimal-character_|
Decimal floating-Point to Varchar:
>__VARCHAR(decimal-floating-point-expression)_______________________________>

Floating-Point to Varchar:
>__VARCHAR(floating-point-expression)_______________________________________>

Row ID to Varchar:
>__VARCHAR(row-ID-expression)_______________________________________________>
```

VARCHAR_BIT_FORMAT

```
>__VARCHAR_BIT_FORMAT(expression,format-string)_____________________________>
```

VARCHAR9

```
>__VARCHAR9(decimal-expression_____________________________________)__________>
                              |_,_decmial-character_____|
```

VARCHAR_FORMAT

```
Character to VARCHAR:
>__VARCHAR_FORMAT(character-expression)_________________________________>

Timestamp to VARCHAR:
>__VARCHAR_FORMAT(timestamp-expression,format-string)____________________>

Decimal floating-point to VARCHAR:
>__VARCHAR_FORMAT(decimal-floating-point-expression,format-string)_______>
```

VARGRAPHIC

```
Character to Vargraphic:
   >__VARGRAPHIC(character-expression___________________________)________>
                                     |_,_integer______________|
                                        |_,_CODEUNITS16__|
                                         |__CODEUNITS32_|
Graphic to Vargraphic:
   >__VARGRAPHIC(graphic-expression_____________________________)_________>
                                     |_,_integer______________|
                                        |_,_CODEUNITS16__|
                                         |__CODEUNITS32_|
```

VERIFY_GROUP_FOR_USER

```
                                                        <_,_________
>__VERIFY_GROUP_FOR_USER_(_SESSION_USER__,_group-name-expression_|_)_____>
                          |_USER_______|
```

VERIFY_ROLE_FOR_USER

```
                                                       <_,_________
>__VERIFY_ROLE_FOR_USER_(_SESSION_ROLE__,_role-name-expression_|_)_______>
                          |_USER_______|
```

VERIFY_TRUSTED_CONTEXT_ROLE_USER

```
                                                             <_,_________
>__VERIFY_TRUSTED_CONTEXT_ROLE_FOR_USER_(_SESSION_ROLE_,_role-name-exp_|_)_>
                                         |_USER_______|
```

WEEK

```
>__WEEK(expression)_____________________________________________________>
```

WEEK_ISO

```
>__WEEK_ISO(expression)_________________________________________________>
```

WRAP

```
>__WRAP(object-definition-string)_______________________________________>
```

XMLATTRIBUTES

```
                    <_,_____________________________________________
>__XMLATTRIBUTES(_attribute-value-expression_____________________|_____>
                                             |_AS_attribute-name_|
```

XMLCOMMENT

```
>__XML2COMMENT(string-expression)_____________________________________>
```

XMLCONCAT

```
                                <_________________
>__XMLCONCAT(XML-expression_____,__XML-expression_|_)_____________________>
```

XMLDOCUMENT

```
>__XMLDOCUMENT(XML-expression)_______________________________________>
```

XMLELEMENT

```
>__XMLELEMENT(_NAME__ element-name_____________________________________>
                                  |_,_xmlnamespace-declaration_|
                                 <_________________________________
>_____________________________________________________________|_______>
   |,_XML-attributes-function_|    |_,_element-content-expression_|
>_____________________________________________________________________>
   |                                                   |
   |          <_________________________________     |
   |             _EMPTY ON NULL_                 |    |
   |_OPTION_____|_NULL ON NULL__|_______________ |___|
              |              _USING_           |
              |__XMLBINARY__|_______|_BASE64___|
              ||             _USING_         | |
              ||_XMLBINARY__|______|_HEX_____|_|
```

XMLFOREST

```
>_XMLFOREST(_ _______________________________________________________>
             |_XMLnamespace-function_,_|
  <__,_____________________________________________
>_ element-content-expression_________________|_____________________>
                             |_AS_element-name_|
>_____________________________________________________________________>
   |          <_________________________________     |
   |             _EMPTY ON NULL_                 |    |
   |_OPTION_____|_NULL ON NULL__|_______________ |___|
              |              _USING_           |
              | _XMLBINARY__|______|_BASE64__  |
              ||             _USING_         | |
              ||_XMLBINARY__|______|_HEX_____|_|
```

XMLMODIFY

```
>__XMLMODIFY(__xquery-update-constant_______________________________)_______>
              |    <_____________________________________________  |
              |_,___xquery-variable-expression_AS_identifier |_|
```

XMLNAMESPACE

```
                 <_,_____________________________________
>__XMLNAMESPACES(__namespace-uri_AS_namespace-prefix__|_)__________________>
                  |_DEFAULT_XML-namespace-uri________|
                     |_NO DEFAULT_______________|
```

XMLPARSE

```
                                          _STRIP WHITESPACE_______
>_XMLPARSE(DOCUMENT_string-expression___|_________________________|_)_______>
                   |_XML-host-variable_|  |_PRESERVE WHITESPACE_|
```

XMLPI

```
>_XMLPI(NAME_pi-name_________________________________)_____________________>
                      |_,_string-expression_|
```

XMLQUERY

```
>_XMLQUERY(xquery-expression-constant)_____________________________________>
                                      |          _BY REF_                  |
                                      |_PASSING_|________|_xquery-argument_|
                        _BY REF_
   _RETURNING SEQUENCE_|________|_   _EMPTY ON EMPTY_
>_|_________________________________|_|_________________|__)_________________>

Xquery-argument:
>____xquery-context-item-expression_________________________________________>
   |_xquery-variable-expression AS identifier__|
```

XMLSERIALIZE

```
                  _CONTENT_
>_XMLSERIALIZE(_|_________|_XML-expression AS data-type____________________>

   <_________________________________________
    _VERSION__'1.0'_______________________    |
>__|_________________________________|___|_________________________________>
   |  _EXCLUDING XMLDECLARATION__      |
   |_|_INCLUDING XMLDECLARATION__|____|

data-type:
                                          _(_1M_)______________
>_____CHARACTER______LARGE OBJECT_____|_____________________|_______________>
  | | |_CHAR_______|                | | |_(__integer______)_|
  | |_CLOB___________________________| |              |_K_|
  |_DBCLOB_________________________________|              |_M_|
  |__BINARY LARGE OBJECT______________|              |_G_|
    |_BLOB_________________|
```

XMLTEXT

```
>_XMLTEXT(_string-expression ______________________)___________________________>
```

XMLXSROBJECTID

```
>_XMLXSROBJECTID(_xml-value-expression __)_________________________________>
```

XSLTRANSFORM

```
>_XSLTRANSFORM(_xml-document, xsl-styleheet, xsl-parameters)_______________>
```

YEAR

```
>_YEAR(expression)_________________________________________________________>
```

Table Functions

ADMIN_TASK_LIST

```
>_ADMIN_TASK_LIST()_____________________________________________________________>
```

ADMIN_TASK_OUTPUT

```
>_ADMIN_TASK_OUTPUT(_task-name_,_num-invocations)_______________________________>
```

ADMIN_TASK_STATUS

```
>_ADMIN_TASK_STATUS(__________________)_____________________________________>
                      |_max-history_|
```

BLOCKING_THREADS

```
>_BLOCKING_THREADS(dbname)______________________________________________________>
```

XMLTABLE

```
>_XMLTABLE_(_______________________________row-xquery-expression-constant___>
            |xmlnamespaces-declaration_,_|
>_______________________________________________________________________________>
    |                  <__,_______________________________    |
    |          _BY REF_                                  |   |
    |_PASSING_|________|_____row-xquery-argument ________|___|
>_______________________________________________________________________________>
    |            <__,_____________________________________    |
    |_COLUMNS_____xml-table-regular-column-definition ____|_)_|
                |_xml-table-ordinality-column-definition_|

Row-xquery-argument:
>_xquery-context-item-expression_________________________________________________>
 |_xquery-variable-expression_AS_identifier_|

Xml-table-regular-column-definition:
>_column-name_data-type_________________________________________________________>
                        |_default-clause___________________________|
                        |_PATH_column-xquery-expression-constant_|

Xml-table-ordinality-column-definition:
>_column-name_FOR ORDINALITY____________________________________________________>
```

Row Functions

UNPACK

```
>_UNPACK(expression)____________________________________________________________>
```

Queries

subselect

```
>>__select-clause__from-clause_____________________________________________>
                                |_where-clause_|
>__________________________________________________________________________>
     |_group-by-clause_|  |_having-clause_|
>__________________________________________________________________________><
     |_order-by-clause_|  |_offset-clause_|  |_fetch-clause_|
```

select-clause

```
              _ALL______
 >>__SELECT__|__________|_____________________________________________>
             |_DISTINCT_|
 >____*____________________________________________________________________><
    | <_,_____________________________________________  |
    |_____expression_____________________________|_|
        |            |  _AS_                 |  |
        |            |_|____|__column-name_|  |
        |__unpacked-row_____________________|
        |____table-name_________.*____________|
           |_view-name________|
           |_correlation-name_|

unpacked-row:
                                        <_,_________________
>>___UNPACK-function-invocation_.*_AS_(_field-name_data-type_|____________><

from-clause:
            <_,________________
>>___FROM____table-reference__|_____________________________________________><

table-reference:
>>_______single-table-reference_____________________________________________><
       |_single-view-expression_________________|
       |_nested-table-expression________________|
       |_table-function-reference_______________|
       |_data-change-table-reference____________|
       |_joined-table___________________________|
       |_table-locator-reference________________|
       |_collection-derived-table_______________|
       |_xmltable-expression____________________|

single-table-reference:
                <____________________________
>>___table-name_____________________________|_____________________________><
                 |_period-specification____| |_correlation-clause_|

single-view-reference:
                <____________________________
>>___view-name______________________________|_____________________________><
                 |_period-specification____| |_correlation-clause_|
```

```
period-specification:
>>___FOR___SYSTEM_TIME_______________AS OF value_____________________________><
         |_BUSINESS_TIME_______|  |_FROM_value1_to_value2_____|
                                  |_BETWEEN_value2_AND_value2_|

correlation-clause:
      _AS_
>>___|____|___correlation-name_____________________________________________><
                               |   <_,__________    |
                               |_(__column-name|_)_|

nested-table-expression:
>>__________(fullselect)__correlation-clause_______________________________><
   |_TABLE_|

table-function-reference:
>>_TABLE_(function-name(_____________________________________________)_________>
                            | <_,_________________________________  |
                            |_____expression_________________________|_|
                                |_TABLE__transition_table_name_|
>__table-UDF-cardinality-clause__)_____________________________________________>
>__correlation-clause_____________________________________________________________><
  |_typed-correlation-clause_|

table-UDF-cardinality-clause:
>>__CARDINALITY__integer-constant_____________________________________________><
  |_CARDINALITY MULTIPLIER_numeric-constant_|

data-change-table-reference:
>>__FINAL TABLE_(INSERT statement)____________________________________________><
   |__FINAL____TABLE (searched UPDATE statement)_| |_correlation-clause_|
   | |_OLD__|                                     |
   |_OLD TABLE__(searchred DELETE statement______|
   |_FINAL TABLE__(MERGE statement)______________|

collection-derived-table:
>>__UNNEST_(_ordinary-array-expression_______)_____________________________><
            |_associative-array-expression _|  |_WITH ORDINALITY_|
>___correlation-clause____________________________________________________________>

typed-correlation-clause:
      _AS_
>>___|____|___correlation-name_____________________________________________><
                               |   <_,____________________    |
                               |_(__column-name_data-type|_)_|
xmltable-expression:
>>_xmltable-function__correlation clause_____________________________________><

joined-table:
                     _INNER____
>>__table-reference_|__________|__JOIN__table-reference_ON_join-condition_><
    |              |            _OUTER_  |                                |
    |              |___LEFT____|_______|_|                                |
    |                |_RIGHT_|                                            |
    |                |_FULL__|                                            |
```

```
    |__table-reference_CROSS JOIN_table-reference_____________________|
    |_(__joined-table__)_____________________________________________|

For INNER, LEFT OUTER, and RIGHT OUTER joins:
>>__search-condition_____________________________________________________><

For FULL OUTER joins:
       <_AND_____________________________________
>>____full-join-expression__=__full-join-expression_|____________________><

full-join-expression:
>>______column-name_____________________________________________________><
     | |_cast-function____|                                            |
     |                                    <_________________________    |
     |___COALESCE___(___column-name____________, column-name______|_)_|
                      |_cast-function____|   |_, cast-function___|

where-clause:
>>__WHERE__search-condition_____________________________________________><

group-by-clause:
              <_,___________________
>>__GROUP BY____grouping-expression_|_____________________________________><
              |_grouping-set________|
              |_super-groups________|

grouping-set:
                    <_,___________________
>__GROUPING SETS_(__grouping expression__|_____)____________________________><
            |       |_super-groups_|         |
            |       <_,___________________    |
            |_(_grouping-expression______|___|
                   |_super-groups_|

super-groups:

>___ROLLUP____(grouping-expression-list)___________________________________><
  |_CUBE_____(grouping-expression-list)___________|
  |_grand-total_____________________________________|

grouping-expression-list:
      <_,___________________
>____grouping-expression__|_______________________________________________><
    |   <_,___________________    |
    |_(_grouping-expression_|_)_|

having-clause:
 >>__HAVING__search-condition_____________________________________________><

order-by-clause:
             <_,___________________
                          _ASC__  |
>__ORDER BY____sort-key__|______|_|_______________________________________><
            | |          |_DESC_|         |  |
            | |_ORDER OF table-designator_|  |
```

```
            |_INPUT SEQUENCE_________________|

sort-key:
>__ _column-name_ ____________________________________________________________><
   |_integer_______________|
   |_sort-key-expression__|

offset clause:

>>__OFFSET__offset-row-count____ROW_____________________________________________><
                               |_ROWS_|

fetch-clause:
                        _1_______
>>__FETCH FIRST______|_________|__ _ROW__ __ONLY_____________________________><
         |_NEXT_|    |_integer_|  |_ROWS_|
```

fullselect

```
                      <_____________________________________________
>____subselect_____________________________________________________|________>
     |_(fullselect)__| |                _DISTINCT_                 |
     |_values-clause_| |_UNION_______|___________|__subselect______|
                        |_EXCEPT____||_ALL______| |_(fullselect)_|
                        |_INTERSECT_|
>____________________________________________________________________________><
      |_order-by-clause_|  |_offset-clause_|  |_fetch-clause_|

values-clause:

>__VALUES____sequence-reference_____________________________________________><
            |   <_,_____________________    |
            |_(_sequence-reference_______|___|

select-statement:
>__ ________________________________________________________________________>
   |_WITH__common-table-expression_|
                                          <_________________________
>__fullselect_____________________________________________________|_____>
                                            |_read-only-clause____|
                                            |_update-clause_______|
                                            |_optimize-clause_____|
                                            |_isolation-clause____|
                                            |_queryno-clause______|
                                            |_SKIP LOCKED DATA____|

common-table-expression:
>__table-identifier_____ _________________________ __AS_(fullselect)______>
                        |    <_,_____________     |
                        |_(___ _____________ |__)_|
                               |_column-name_|
read-only-clause:
>>__FOR_READ_ONLY____________________________________________________________><

update-clause:
```

```
                    <_,___________
>>__FOR UPDATE OF____column-name_|_________________________________________><

optimize-for-clause:
>>__OPTIMIZE FOR__integer____ROWS_________________________________________><
                             |_ROW__|
isolation-clause:
>>__WITH_____CS___________________________________________________________><
           |_UR_________________________|
           |_RR_________________________|
           |     |_lock-clause__|       |
           |_RS_________________________|
                 |_lock-clause_|
lock-clause:
>_USE AND KEEP____EXCLUSIVE___LOCKS_______________________________________><
                |__UPDATE____|
                |__SHARE_____|
queryno-clause:
>>__QUERYNO__integer______________________________________________________><

SKIP LOCKED DATA:
>>__SKIP LOCKED DATA______________________________________________________><
```

Statements

ALLOCATE CURSOR

```
>>__ALLOCATE__cursor-name_CURSOR FOR RESULT SET__rs-locator-variable_____>
```

ALTER DATABASE

```
                                        <_______________________________
>>__ALTER DATABASE__database-name_______BUFFERPOOL__bpname___________|____>
                                        |_INDEXBP__bpname_________|
                                        |_STOGROUP__stogroup-name_|
                                        |_CCSID__ccsid-value______|
```

ALTER FUNCTION (external)

```
>>__ALTER____FUNCTION__function-name_____________________________________>
          |                          |    <_,__________________     | |
          |                          |_(_______________________|__)_| |
          |                                  |_parameter-type_|        |
          |_SPECIFIC FUNCTION__specific-name_____________________________|
>__option-list_____________________________________________________________><

parameter-type:
>>____data-type____________________________________________________________><
                   |_AS LOCATOR____|
data-type:
>>____built-in-data-type___________________________________________________><
     |_distinct-type-name_|

built-in-data-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|              ______(5,0)_____________________                                 |
|__DECIMAL____|_____________________________|_______________________________________|
||_DEC_____|  |_(__integer_______________)____|                                  |
||_NUMERIC_|                |_, integer_|                                        |
|            _(34)_                                                             |
|_DECFLOAT_ |______|_____________________________________________________________|
|           |_(16)_|                                                             |
|           _(53)___________                                                    |
|___FLOAT__|_______________|_____________________________________________________ |
| |        |_(__integer__)_|                                                     |
|_|_REAL_________________|                                                      |
| |          _PRECISION_   |                                                     |
|_|_DOUBLE__|____________|__|                                                    |
|                    __(1)___________                                           |
|_______CHARACTER____|_______________|_____________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|     | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|           | |
| |  | |_CHAR_____|        |                    |_UNICODE_|        |_BIT___|           | |
| |  |__VARCHAR____________|                                                     | |
| |                                 _(1M)_______                                  | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_____________________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_______________________|                     |_EBCDIC__|      |_MIXED_|        |
|            __(1)_______________                        |_UNICODE_|                       |
|___GRAPHIC_|_______________|_____________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                        |
```

```
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                          |
| |          __(1M)_____________                   |_UNICDOE__|                          |
| |_DBCLOB_|____________________|                                                        |
|          |_(integer)__________|                                                        |
|            _(1)________                                                                |
|_ _BINARY__|____________|____________________________________________________________|
| |         |_(integer)__|                                  |                            |
| |__BINARY VARYING _(integer)_____________________________|                            |
| | |_VARBINARY_____|                                      |                            |
| |                          _(1M)_____________________      |                            |
| |_BINARY LARGE OBJECT_____|____________________________|_____|                            |
|  |_BLOB_________________|  |_(__integer__________)____|                                  |
|                                        |_K_|                                            |
|                                        |_M_|                                            |
|                                        |_G_|                                            |
|___DATE_____________________________________________________________________________|
| |_TIME______|                                                                          |
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                     |
| |_TIMESTAMP_|___________|___|_____________|____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                    |
|_ROWID_____________________________________________________________________________|
```

```
options-list
>>__EXTERNAL_NAME_ _external-program name_ _LANGUAGE_ _ASSEMBLE__ ___>
                  |_identifier____________|          |_C__________|
                                                     |_COBOL_____|
                                                     |_JAVA______|
                                                     |_PLI_______|
>__PARAMETER STYLE__ _SQL_______ __ _NOT DETERMINISTIC_ _____________>
                    |_JAVA______|  |_DETERMINISTIC_____|
>__ _RETURNS NULL ON NULL INPUT_ ______ _MODIFIES SQL_________ ______>
   |_CALLED ON NULL INPUT_______|      |_READS SQL DATA_______|
                                       |_CONTAINS SQL DATA____|
                                       |_NO SQL_______________|
>__ _NO EXTERNAL ACTION_ __ _NO SCRATCHPAD___________ _______________>
   |_EXTERNAL ACTION____|  |_SCRATCHPAD____length___|
>__PACKAGE PATH package path_______________________________________>
   |_NO PACKAGEPATH___________|
>__ _NO FINAL CALL_ __ _ALLOW PARALLEL____ __ _NO DBINFO_ ___________>
   |_FINAL CALL____|  |_DISALLOW PARALLEL_|  |_DBINFO____|
>__CARDINALITY__integer______ _NO COLLID_____________ _______________>
                             |_COLLID__collection-id_|
>__WLM ENVIRONMENT__ _name___________ ________________________________>
                    |_(__name__,*__)_|
>__ASUTIME__ _NO LIMIT_______ __STAY RESIDENT__ _NO__ _______________>
            |_LIMIT__integer_|                 |_YES_|
>__PROGRAM TYPE__ _SUB__ __SECURITY__ _DB2_____ ______________________>
                 |_MAIN_|            |_USER____|
                                     |_DEFINER_|
>__STOP AFTER SYSTEM DEFAULT FAILURES_________________________________>
  |_STOP AFTER-integer-FAILURES_______|
  |_CONTINUE AFTER FAILURE____________|
>__RUN OPTIONS__run-time-options_______________________________________>
>_ _INHERIT SPECIAL REGISTERS_ ____ STATIC DISPATCH _SECURED________><
  |_DEFAULT SPECIAL REGISTERS_|                     |_NOT SECURED_|

external-java-routine-name:
>__ ___________ __method-name___ ________________ _________________>
   |_jar-name:_|                |_method-signature_|
```

```
jar-name:
>__ _______________ __jar-id_____________________________________________>
   |_schema-name._|
method-name:
    <_________________________
 >___ _______________________ |__class-id__ _._____ __method-id____________>
     |_package-id_ _._____ __|              |_!____|
                  |_/____|
method-signature:
 >__ ________________________ ______________________________________________>
    |_(_ ____________________ _)_|
        |  <_,___________   |
        |___java-datatype|__|
```

ALTER FUNCTION (compiled SQL scalar)

```
>__ALTER____function-designator_____________________________________________>

    __ALTER__   __ACTIVE VERSION____________      <_____________
>__|__________|_|_______________________________|______options-list_|________>
  |            |_ALL VERSIONS_______________|                        |
  |            |_VERSION routine-version-id_|                        |
  |          _ACTIVE VERSION_____________                             |
  |_REPLACE_|_______________________________|__routine-specification____|
  |         |_VERSION_routine-version_id_|                            |
  |_ADD VERSION_routing-version-id__routine-specification____________|
  |_ACTIVATE VERSION_routing-version-id_______________________________|
  |                _ACTIVE VERSION_______________                     |
  |_REGENERATE___|_____________________________|_____________________|
  |              |_VERSION_routing-version-id__|                     |
  |_DROP VERSION_routine-version-id___________________________________|

function-designator:

>____FUNCTION__function-name_______________________________________________>
         |                          |    <_,__________________     | |
         |                          |_(_______________________|__)_| |
         |                                  |_data-type______|        |
         |_SPECIFIC FUNCTION__specific-name____________________________|

routine-specification:
                                                        <_______________
>_(_______________________________)_RETURNS_data-type2_______________|__>
   | <_,_______________________  |                     |_options-list__|
   |_parameter-name_data-type_|_|

>__SQL-routine-body_______________________________________________________><

data-type, data-type2:
>>____built-in-data-type__________________________________________________><
     |_distinct-type-name_|
     |_array-type-name____|

built-in-data-type:
>__SMALLINT_______________________________________________________________><
| |_INTEGER__|                                                            |
```

```
| | |INT__|  |                                                                                  |
| |_BIGINT___|                                                                                  |
|              ______(5,0)_______________________                                                |
|__DECIMAL____|_____________________________|_____________________________________________|
||_DEC_____|  |_(__integer_______________)____|                                                |
||_NUMERIC_|                 |_, integer_|                                                      |
|            _(34)_                                                                              |
|_DECFLOAT_ |______|_____________________________________________________________________________|
|           |_(16)_|                                                                              |
|           _(53)__________                                                                      |
|___FLOAT__|______________|_____________________________________________________________________ |
| |        |_(__integer__)_|                                                                     |
|_|_REAL_______________|                                                                         |
| |           _PRECISION_   |                                                                     |
|_|_DOUBLE__|____________|__|                                                                     |
|                      __(1)___________                                                          |
|_______CHARACTER____|_______________|_____________________________________________________|
| | | |_CHAR_____|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                      |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                                  | |
| |                                 _(1M)_______                                               | |
| |_____CHARACTER___LARGE OBJECT_ |____________|_____________________________________________| |
|   | |_CHAR_____|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_____________________|                      |_EBCDIC__|      |_MIXED_|          |
|            __(1)______________                          |_UNICODE_|                          |
|___GRAPHIC_|_______________|_____________________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                                |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                                |
| |         __(1M)______________                    |_UNICDOE__|                                |
| |_DBCLOB_|_________________|                                                                  |
|           |_(integer)_________|                                                                |
|            _(1)________                                                                        |
|_ _BINARY__|____________|_____________________________________________________________________|
| |         |_(integer)__|                                  |                                    |
| |__BINARY VARYING _(integer)_______________________________|                                    |
| | |_VARBINARY_____|                                      |                                    |
| |                          _(1M)_____________________      |                                    |
| |_BINARY LARGE OBJECT_____|_____________________|_____|                                    |
|  |_BLOB_______________|  |_(__integer_________)____|                                          |
|                                          |_K_|                                                |
|                                          |_M_|                                                |
|                                          |_G_|                                                |
|___DATE_____________________________________________________________________________________|
| |_TIME______|                                                                                  |
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                            |
| |_TIMESTAMP_|____________|___|____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                            |
|_ROWID_____________________________________________________________________________________|
|_XML_______________________________________________________________________________________|
```

```
SQL-routine-body
>>_SQL-control-statement_____________________________________________________><

option-list:

>_____NOT DETERMINISTIC_______EXTERNAL ACTION_____________________________>
    |_DETERMINISTIC_____|    |_NO EXTERNAL ACTION_|
>_____READS SQL DATA _________CALLED ON NULL INPUT_____________________________>
    |_CONTAINS SQL ______|   |_RETURNS NULL ON NULL INPUT_|
    |_MODIFIES SQL DATA__|
>_____STATIC DISPATCH___________ALLOW PARALLEL_____________________________>
                                |_DISALLOW PARALLEL_|
>__DISALLOW DEBUG MODE______QUALIFIER schema-name_____________________________>
   |_ALLOW DEBUG MODE____|
   |_DISABLE DEBUG MODE__|
>__PACKAGE OWNER__auth-name_____________________________ASUTIME_NO LIMIT_______>
```

```
                            |_AS___ROLE__|       |_ASUTIME_LIMIT__integer_|
                                 |_USER_|
>__INHERIT SPECIAL REGISTERS_____WLM ENVIRONMENT FOR DEBUG MODE name_______>
  |_DEFAULT SPECIAL REGISTERS_|
>__CURRENT DATA NO_____CONCURRENT ACCESS RESOLUTION USE CURRENTLY COMMITTED_>
  |_CURRENT DATA YES_||_CONCURRENT ACCESS RESOULTION WAIT FOR OUTCOME______|
>____DYNAMICRULES RUN ___________________________________________________>
    |_DYNAMICRULES BIND_______| |_APPLICATION ENCODING SCHEME ASCII___|
    |_DYNAMICRULES DEFINEBIND_| |_APPLICATION ENCODING SCHEME EBCDIC__|
    |_DYNAMICRULES DEFINERUN__| |_APPLICATION ENCODING SCHEME UNICODE_|
    |_DYNAMICRULES INVOKEBIND_|
    |_DYNAMICRULES INVOKERUN__|
>__WITHOUT EXPLAIN____ISOLATION LEVEL CS___OPHINT__' '_________________________>
  |_WITH EXPLAIN___||_ISOLATION LEVEL RS_|     |_OPHINT_string-constant_|
                   |_ISOLATION LEVEL RR_|
                   |_ISOLATION LEVEL UR_|
              <_,______
>_SQL PATH__schema-name|_____REOPT NONE_____VALIDATE RUN___________________>
           |_SCHEMA PATH__| |_REOPT ALWAYS_| |_VALIDATE BIND_|
           |_SESSION USER_| |_REOPT ONCE___|
              |_USER_|
>_________________________________________________________________________>
  |_QUERY ACCELERATION NONE_________________|   |_GET_ACCEL_ARCHIVE NO___|
  |_QUERY ACCELERATION ENABLE_______________|   |_GET_ACCEL_ARCHIVE YES__|
  |_QUERY ACCELRATION ENABLE WITH FAILBACK_|
  |_QUERY ACCELERATION ELIGIBLE_____________|
  |_QUERY ACCELERATION ALL__________________|

>_________________________________________________________________________>
  |_ROUNDING DEC_ROUND_CEILING___|   |_DATE FORMAT ISO___ |
  |_ROUNDING DEC_ROUND_DOWN______|   |_DATE FORMAT EUR___ |
  |_ROUNDING DEC_ROUND_FLOOR_____|   |_DATE FORMAT USA___ |
  |_ROUNDING DEC_ROUND_HALF_DOWN_|   |_DATE FORMAT JIS___ |
  |_ROUNDING DEC_ROUND_HALF_EVEN_|   |_DATE FORMAT LOCAL_ |
  |_ROUNDING DEC_ROUND_HALF_UP___|
  |_ROUNDING DEC_ROUND_UP________|

 >__________________________FOR UPDATE CLAUSE REQUIRED_________________________>
     |_DECIMAL(15)___|   |_FOR UPDATE CLAUSE OPTIONAL_|
     |_DECIMAL(31)___|
     |_DECIMAL(15,s)_|
     |_DECIMAL(31,s)_|
>____________________________SECURED_____________________________________>
     |_TIME FORMAT ISO___| |_NOT SECURED_|
     |_TIME FORMAT EUR___|
     |_TIME FORMAT USA___|
     |_TIME FORMAT JIS___|
     |_TIME FORMAT LOCAL_|

      _BUSINESS TIMESENSITIVE YES_     _SYSTEM TIMESENSITIVE YES_
>____|____________________________|__|____________________________|__________>
     |_BUSINESS TIMESENSITIVE NO__|  |_SYSTEM TIMESENSITIVE YES_|

      _ARCHIVE SENSITIVE YES___
>____|__________________________|_____________________________________________><
```

```
     |_ ARCHIVE SENSITIVE NO __|    |_APPLCOMPAT_compatibility-level_|
>____________________________________________________________________________>
     |_CONCENTRATE STATEMENTS OFF__________|
     |_CONCENTRATE STATEMENT WITH LITERALS_|
```

ALTER FUNCTION (inline SQL scalar)

```
>_ALTER_FUNCTION__function-name_____________________________option-list__>
          |                      |   <_,_______________    | |
          |                      |_(___________________|_)_| |
          |                          |_parameter-type__|     |
          |_SPECIFIC FUNCTION__specific-name_______________|

Parameter-type:

>_data-type_____________________________________________________________>

data-type:
>>____built-in-data-type_____________________________________________________><
     |_distinct-type-name_|

built-in-data-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|              ______(5,0)_____________________                                          |
|__DECIMAL____|_____________________________|_________________________________________|
||_DEC_____|  |_(__integer_______________)____|                                          |
||_NUMERIC_|                 |_, integer_|                                              |
|              _(34)_                                                                    |
|_DECFLOAT_ |______|_______________________________________________________________________|
|           |_(16)_|                                                                      |
|            _(53)__________                                                             |
|___FLOAT__|_______________|_______________________________________________________________|
| |        |_(__integer__)_|                                                              |
|_|_REAL_____________________|                                                             |
| |           _PRECISION_   |                                                             |
|_|_DOUBLE__|___________|__|                                                             |
|                     __(1)___________                                                   |
|_______CHARACTER____|_______________|_______________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                      |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                             | |
| |                                _(1M)_______                                           | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_______________________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_______________________|                      |_EBCDIC__|      |_MIXED_|        |
|            __(1)_______________                         |_UNICODE_|                       |
|___GRAPHIC_|_______________________|_______________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                            |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                            |
| |          __(1M)_______________                  |_UNICDOE__|                            |
| |_DBCLOB_|_______________________|                                                        |
|          |_(integer)__________|                                                          |
|            _(1)_________                                                                 |
|_ _BINARY__|_____________|_______________________________________________________________|
| |         |_(integer)__|                                  |                              |
| |__BINARY VARYING _(integer)_______________________________|                              |
| | |_VARBINARY_____|                                       |                              |
| |                          _(1M)_____________________     |                              |
| |_BINARY LARGE OBJECT_____|_______________________|_____|                              |
|  |_BLOB_______________|  |_(__integer_________)____|                                    |
|                                        |_K_|                                            |
|                                        |_M_|                                            |
```

```
|                                    |_G_|                                    |
|___DATE_____________________________________________________________________|
| |_TIME______|                                                              |
| |           __(_6_)_____     _WITHOUT TIME ZONE_                           |
| |_TIMESTAMP_|___________|___|____________________|_______________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                        |
|_ROWID_______________________________________________________________________|
|_XML_________________________________________________________________________|
```

option-list:

```
>_____NOT DETERMINISTIC_______EXTERNAL ACTION_____________________________>
    |_DETERMINISTIC_____|     |_NO EXTERNAL ACTION_|
>_____READS SQL DATA __________CALLED ON NULL INPUT__NOT SECURED____________>
    |_CONTAINS SQL____|                              |_SECURED___|
>_____STATIC DISPATCH_______________________________________________________>
```

ALTER FUNCTION (SQL table)

```
>__ALTER____function-designator__RESTRICT___options-list____________________>
```

function-designator:

```
>____FUNCTION__function-name_____________________________________________>
          |                          |    <_,_________________     | |
          |                          |_(_______________________|__)_| |
          |                                  |_parameter-type_|        |
          |_SPECIFIC FUNCTION__specific-name_____________________________|
```

parameter-type:

```
>>____data-type_____________________________________________________________><
```

data-type:

```
>>____built-in-data-type____________________________________________________><
     |_distinct-type-name_|
```

built-in-data-type:

```
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|              ______(5,0)_____________________                                 |
|__DECIMAL____|_____________________________|_______________________________|
||_DEC____|  |_(__integer_________________)____|                               |
||_NUMERIC_|                 |_, integer_|                                     |
|            _(34)_                                                            |
|_DECFLOAT_ |______|_____________________________________________________________|
|           |_(16)_|                                                            |
|           _(53)__________                                                    |
|___FLOAT__|______________|_____________________________________________________ |
| |        |_(__integer__)_|                                                    |
|_|_REAL_____________________|                                                  |
| |          _PRECISION_    |                                                  |
|_|_DOUBLE__|____________|__|                                                  |
|                     __(1)___________                                         |
|______CHARACTER____|_______________|_____________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                     |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                   | |
| |                                 _(1M)_______                                | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_____________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_______________________|                     |_EBCDIC__|      |_MIXED_|        |
```

```
|            __(1)_____________                          |_UNICODE_|                    |
|___GRAPHIC_|______________|_____________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                      |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                      |
| |          __(1M)_____________                   |_UNICDOE__|                      |
| |_DBCLOB_|_________________|                                                        |
|          |_(integer)_________|                                                        |
|            _(1)________                                                              |
|_ _BINARY__|_______________|_____________________________________________________|
| |         |_(integer)__|                                |                          |
| |__BINARY VARYING _(integer)_____________________________|                          |
| | |_VARBINARY_____|                                     |                          |
| |                          _(1M)____________________     |                          |
| |_BINARY LARGE OBJECT_____|_________________________|_____|                          |
|  |_BLOB_________________|  |_(__integer__________)____|                                |
|                                        |_K_|                                          |
|                                        |_M_|                                          |
|                                        |_G_|                                          |
|___DATE_____________________________________________________________________________|
| |_TIME______|                                                                       |
| |            __(_6_)_____     _WITHOUT TIME ZONE_                                    |
| |_TIMESTAMP_|_____________|___|____________________|_____________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                  |
|_ROWID_____________________________________________________________________________|
|_XML_______________________________________________________________________________|
```

option-list:

```
>_____NOT DETERMINISTIC_______EXTERNAL ACTION_____________________________>
    |_DETERMINISTIC_____|    |_NO EXTERNAL ACTION_|
>_____READS SQL DATA _________CALLED ON NULL INPUT_____________________>
    |_CONTAINS SQL ______|
>_____INHERIT SPECIAL REGISTERS___STATIC DISPATCH_____________________>
>_____CARDINALITY integer___SECURED_____________________________________>
                           |_NOT SECURED_|
```

ALTER INDEX

```
>>__ALTER INDEX__index-name_____________________________________________>
                                   |_REGENERATE_|
       <_____________________________________________________________
>_____________________________________________________________________|__>
         |_BUFFERPOOL__bpname_____________________________|
         |_CLOSE____YES___________________________________|
         |         |_NO__|                                |
         |_COPY____NO_____________________________________|
         |       |_YES_|                                  |
         |_PIECESIZE_____integer____K_____________________|
         |                        |_M_|                   |
         |                        |_G_|                   |
         |_using-block____________________________________|
         |_free-block_____________________________________|
         |_gbpcache-block_________________________________|
         |___CLUSTER______________________________________|
         | |_NOT CLUSTER_|                                |
         |__COMPRESS NO___________________________________|
         | |_COMPRESS YES_|                               |
         |___NOT PADDED___________________________________|
         | |_PADDED______|                                |
         |                          _ASC____              |
         |_ADD COLUMN_(column name_|________|_)__________|
```

```
                    |             |_DESC___|        |
                    |             |_RANDOM_|        |
                    |_INCLUDE COLUMN (column-name)__|
>__ ____________________________________________________________________>
   |     <_,_____________________________________________________________ |
   |    |          <_,_____________________________________________  ||
   |    |          |                       <____________________  | ||
   |____|___ALTER__|___partition-element___|__ _________________ _|_|_||
                                             |_using-block____|
                                             |_free-block_____|
                                             |_gbpcache-block_|
                                             |_DSSIZE int G___|
using-block
    <_______________________________________
>>______USING____VCAT__catalog-name__________|_______________________><
       |        |_STOGROUP__stogroup-name_| |
       |_PRIQTY__integer_____________________|
       |_SECQTY__integer_____________________|
       |_ERASE____YES________________________|
                |_NO__|
free-block
    <_______________________
>>______FREEPAGE__integer___|_______________________________________><
      |_PCTFREE__integer__|
gbpcache-block
>>__GBPCACHE____CHANGED_______________________________________________><
               |_ALL_____|
               |_NONE____|
partition-element
>>__PARTITION__integer_______________________________________________>
   |                                                   |
   |          _AT_     <_,________     _INCLUSIVE_    |
   |_ENDING__|____|__(_constant___|_)_|___________|___|
                      |_MAXVALUE_|
                      |_MINVALUE_|
```

ALTER MASK

```
>>__ALTER MASK__mask-name___ENABLE_____________________________________>
                          |_DISABLE____|
                          |_REGENERATE_|
```

ALTER PERMISSION

```
>>__ALTER PERMISSION__permission-name___ENABLE_____________________>
                                       |_DISABLE____|
                                       |_REGENERATE_|
```

ALTER PROCEDURE (external)

```
>>__ALTER PROCEDURE__procedure-name___option-list___________________>

option-list
  >______DYNAMIC__RESULT____SETS____integer___________________________><
       |_EXTERNAL NAME____external-program-name__________|
       |                |_identifier_|                   |
       |_LANGUAGE____ASSEMBLE_____________________________|
       |           |_C________|                           |
```

```
        |            |_COBOL____|                          |
        |            |_JAVA_____|                          |
        |            |_PLI______|                          |
        |            |_REXX_____|                          |
        |_____________________________________________|
        | |_PARAMETER STYLE____SQL_____________________| |
        |                     |_GENERAL_____________|       |
        |                     |_GENERAL WITH NULLS_|        |
        |                     |_JAVA________________|       |
        |___NOT DETERMINISTIC_____________________________|
        | |_DETERMINISTIC_____|                           |
        |__PACKAGE PATH__package path_____________________|
        | |_NO PACKAGE PATH______________|                |
        |___CONTAINS SQL__________________________________|
        | |_READS SQL DATA____|                           |
        | |_MODIFIES SQL DATA_|                           |
        | |_NO SQL____________|                           |
        |___NO DBINFO_____________________________________|
        | |_DBINFO____|                                   |
        |___NO COLLID_____________________________________|
        | |_COLLID__collection-id_|                       |
        |___WLM ENVIRONMENT____name_______________________|
        |                     |_(__name__,*__)_|            |
        |_ASUTIME____NO LIMIT_____________________________|
        |           |_LIMIT__integer_|                      |
        |_STAY RESIDENT____NO_____________________________|
        |                 |_YES_|                           |
        |_PROGRAM TYPE___SUB______________________________|
        |               |_MAIN_|                           |
        |_SECURITY____DB2_________________________________|
        |            |_USER____|                           |
        |            |_DEFINER_|                           |
        |_RUN OPTIONS__run-time-options___________________|
        |_COMMIT ON RETURN____NO__________________________|
        |                    |_YES_|                       |
        |_ INHERIT SPECIAL REGISTERS__ ___________________|
        | |_DEFAULT SPECIAL REGISTERS_|                    |
        |_CALLED ON NULL INPUT____________________________|
        |___STOP AFTER SYSTEM DEFAULT FAILURES____________|
        | |_STOP AFTER integer FAILURES__________|        |
        | |_CONTINUE AFTER FAILURE_______________|        |
        |__DISALLOW DEBUG MODE____________________________|
          |_ALLOW DEBUG MODE______________|
          |_DISABLE DEBUG MODE____________|

external-java-routine-name
|__ ___________ __method-name___ ___________________ _________________|
   |_jar-name:_|                |_method-signature_|
jar-name
|__ ________________ __jar-id_____________________________________________|
   |_schema-name._|
method-name
    <___________________________
 |___ _________________________ |__class-id__ _.____ __method-id_______|
     |_package-id_ _.____ __|              |_!____|
```

```
                  |_/____|
method-signature
 |__ ___________________________ ____________________________________|
    |_(_ ___________________ _)_|
        |  <_,___________   |
        |___java-datatype|__|
```

ALTER PROCEDURE (SQL-external)

```
>>__ALTER PROCEDURE__procedure-name__option-list_____________________>
     <_____________________________________________
  >______DYNAMIC__RESULT__SETS_____integer________|_______________><
       |_EXTERNAL NAME____'string'_______________|
       |                |_identifier_|           |
       |___NOT DETERMINISTIC_____________________|
       | |_DETERMINISTIC_____|                   |
       |___CONTAINS SQL__________________________|
       | |_READS SQL DATA____|                   |
       | |_MODIFIES SQL DATA_|                   |
       |___NO COLLID_____________________________|
       | |_COLLID__collection-id_|               |
       |___WLM ENVIRONMENT____name_______________|
       |                  |_(__name__,*__)_|    |
       |_ASUTIME____NO LIMIT_____________________|
       |          |_LIMIT__integer_|             |
       |_STAY RESIDENT____NO_____________________|
       |                |_YES_|                  |
       |_PROGRAMTYPE___SUB_______________________|
       |              |_MAIN_|                   |
       |_SECURITY____DB2_________________________|
       |           |_USER____|                   |
       |           |_DEFINER_|                   |
       |_RUN OPTIONS__run-time-options___________|
       |_COMMIT ON RETURN____NO__________________|
       |                  |_YES_|                |
       |_ INHERIT SPECIAL REGISTERS___ ___________|
       | |_DEFAULT SPECIAL REGISTERS__|           |
       |___STOP AFTER SYSTEM DEFAULT FAILURES____|
         |_STOP AFTER integer FAILURES___________|
         |_CONTINUE AFTER FAILURE________________|
```

ALTER PROCEDURE (SQL-native)

```
 >_ALTER PROCEDURE__procedure-name_____________________________________>

     _ALTER_    _ACTIVE VERSION_________________
>__|_______|_|_______________________________|_option-list ______________><
   |          |_VERSION__routine-version-id__|                         |
   |           _ACTIVE VERSION_______________                            |
   |_REPLACE_|_______________________________|_routine-specification __|
   |          |_VERSION__routine-version-id__|                         |
   |_ADD VERSION__routine-version-id__ routine-specification ________|
   |_ACTIVATE VERSION__routine-version-id____________________________|
   |               _ACTIVE VERSION_______________                        |
   |_REGENERATE__|_______________________________|______________________|
```

```
   |             |_VERSION--routine-version-id_|                      |
   |_DROP VERSION__routine-version-id_________________________________|

routine-specification:

>_____________________________________________________SQL-routine-body_>
   |                                  |  |_option-list_|
   |_(_______________________________)_|
       |<__,_______________________  |
       |_parameter-declaration |_|

parameter-declaration:
   __IN___
>_|_______|_parameter-name__data-type_____________________________________>
  |_OUT___|
  |_INOUT_|

data-type:
>>____built-in-data-type_____________________________________________________><
     |_distinct-type-name_|
     |_array-type-name____|

built-in-data-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|              ______(5,0)_______________________                                        |
|__DECIMAL____|_____________________________|_________________________________________|
||_DEC_____|  |_(__integer_______________)____|                                         |
||_NUMERIC_|                 |_, integer_|                                              |
|            _(34)_                                                                      |
|_DECFLOAT_ |______|_______________________________________________________________________|
|           |_(16)_|                                                                      |
|           _(53)__________                                                              |
|___FLOAT__|_________________|_______________________________________________________ |
| |        |_(__integer__)_|                                                             |
|_|_REAL_____________________|                                                             |
| |           _PRECISION_   |                                                             |
|_|_DOUBLE__|____________|__|                                                             |
|                      __(1)___________                                                  |
|_______CHARACTER____|_______________|_____________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                     |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                            | |
| |                                 _(1M)_______                                         | |
| |_____CHARACTER___LARGE OBJECT_ |_________|_____________________________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_____________________|                     |_EBCDIC__|      |_MIXED_|          |
|            __(1)_______________                        |_UNICODE_|                        |
|___GRAPHIC_|_______________|_____________________________________________________________|
| |         |_(__integer___)___|         |   |_CCSID__ASCII____|                          |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                          |
| |         __(1M)_____________                    |_UNICDOE__|                          |
| |_DBCLOB_|_______________|                                                              |
|          |_(integer)_________|                                                          |
|            _(1)________                                                                 |
|_ _BINARY__|_____________|_______________________________________________________________|
| |         |_(integer)__|                                  |                              |
| |__BINARY VARYING _(integer)_______________________________|                              |
| | |_VARBINARY_____|                                       |                              |
| |                          _(1M)_____________________     |                              |
| |_BINARY LARGE OBJECT_____|_____________________________|_____|                              |
|  |_BLOB_______________|  |_(__integer_________)____|                                     |
|                                        |_K_|                                             |
```

```
|                                    |_M_|                                    |
|                                    |_G_|                                    |
|___DATE_____________________________________________________________________|
| |_TIME______|                                                              |
| |             __(_6_)_____      _WITHOUT TIME ZONE_                         |
| |_TIMESTAMP_|____________|___|______________|_____________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                         |
|_XML_________________________________________________________________________|
```

option-list:

```
>_____NOT DETERMINISTIC_____________________________________________________>
    |_DETERMINISTIC_____|        |_DYNAMIC RESULT SETS integer_|
>_____READS SQL DATA _______________________________________________________>
    |_CONTAINS SQL ______|  |_CALLED ON NULL INPUT_|
    |_MODIFIES SQL DATA__|
>_____STATIC DISPATCH___________ALLOW PARALLEL_______________________________>
                              |_DISALLOW PARALLEL_|
>__DISALLOW DEBUG MODE_____PARAMETER CCSID ASCII____QUALIFIER schema-name___>
   |_ALLOW DEBUG MODE___||_PARAMETER CCSID EBCDIC__|
   |_DISABLE DEBUG MODE_||_PARAMETER CCSID UNICDOE_|
>__PACKAGE OWNER__auth-name____ASUTIME_NO LIMIT_______COMMIT ON RETURN_YES__>
              |_AS___ROLE__| |_ASUTIME_LIMIT__int_| |_COMMIT ON RETURN NO_|
                   |_USER_|                         |_AUTONOMOUS__________|

>__INHERIT SPECIAL REGISTERS_____WLM ENVIRONMENT FOR DEBUG MODE name________>
  |_DEFAULT SPECIAL REGISTERS_|
>__CURRENT DATA NO_____CONCURRENT ACCESS RESOLUTION USE CURRENTLY COMMITTED_>
  |_CURRENT DATA YES_||_CONCURRENT ACCESS RESOULTION WAIT FOR OUTCOME______|
>_________________________DEGREE 1_____________________________________________>
  |_DEFER PREPARE___|   |_DEGREE ANY_|
  |_NODEFER PREPARE_|
>____DYNAMICRULES RUN ______________________________________________________>
    |_DYNAMICRULES BIND_______| |_APPLICATION ENCODING SCHEME ASCII___|
    |_DYNAMICRULES DEFINEBIND_| |_APPLICATION ENCODING SCHEME EBCDIC__|
    |_DYNAMICRULES DEFINERUN__| |_APPLICATION ENCODING SCHEME UNICODE_|
    |_DYNAMICRULES INVOKEBIND_|
    |_DYNAMICRULES INVOKERUN__|
>__WITHOUT EXPLAIN____ISOLATION LEVEL CS_________OPHINT__' '_________________>
  |_WIHT EXPLAIN___||_ISOLATION LEVEL RS_|     |_OPHINT_string-constant_|
                   |_ISOLATION LEVEL RR_|
                   |_ISOLATION LEVEL UR_|
              <_,______
>_SQL PATH__schema-name|______REOPT NONE______VALIDATE RUN___________________>
           |_SCHEMA PATH__| |_REOPT ALWAYS_| |_VALIDATE BIND_|
           |_SESSION USER_| |_REOPT ONCE___|
              |_USER_|
>_____________________________________________________________________________>
  |_ROUNDING DEC_ROUND_CEILING___|   |_DATE FORMAT ISO___ |
  |_ROUNDING DEC_ROUND_DOWN______|   |_DATE FORMAT EUR___ |
  |_ROUNDING DEC_ROUND_FLOOR_____|   |_DATE FORMAT USA___ |
  |_ROUNDING DEC_ROUND_HALF_DOWN_|   |_DATE FORMAT JIS___ |
  |_ROUNDING DEC_ROUND_HALF_EVEN_|   |_DATE FORMAT LOCAL_ |
  |_ROUNDING DEC_ROUND_HALF_UP___|
  |_ROUNDING DEC_ROUND_UP________|

 >___________________________FOR UPDATE CLAUSE REQUIRED_________________________>
```

```
     |_DECIMAL(15)___ |  |_FOR UPDATE CLAUSE OPTIONAL_|
     |_DECIMAL(31)___ |
     |_DECIMAL(15,s)_ |
     |_DECIMAL(31,s)_ |
>_____________________________________________________________________________>
     |_TIME FORMAT ISO___|
     |_TIME FORMAT EUR___|
     |_TIME FORMAT USA___|
     |_TIME FORMAT JIS___|
     |_TIME FORMAT LOCAL_|
>_____________________________________________________________________________>
   |                    _YES_     |   |                    _YES_     |
   |_SYSTIMESENSITIVE(_|_NO__|_)_|   |_BUSTIMESENSITIVE(_|_NO__|_)__|
>_____________________________________________________________________________>
   |                    _YES_     |   |                       |
   |_ARCHIVESENSITIVE(_|_NO__|_)__|   |_APPLCOMPAT(__level__)_|
>_____________________________________________________________________________><
     |_CONCENTRATE STATEMENTS OFF__________|
     |_CONCENTRATE STATEMENT WITH LITERALS_|
```

ALTER SEQUENCE

```
>>__ALTER SEQUENCE__sequence-name_____________________________________________>
    <_____________________________________
  >___ _RESTART__ ____________________________ _ |_______________________________><
      |          |_WITH__numeric-constant_| |
      |_INCREMENT BY__numeric-constant______|
      |_ _NO MINVALUE_______________ ______|
      | |_MINVALUE__numeric-constant_|      |
      |_ _NO MAXVALUE_______________ ______|
      | |_MAXVALUE__numeric-constant_|      |
      |_ _NO CYCLE_ _______________________|
      | |_CYCLE____|                        |
      |_ _NO CACHE_______________ _________|
      | |_CACHE__integer-constant_|         |
      |_ _NO ORDER_ _______________________|
        |_ORDER_____|
```

ALTER STOGROUP

```
>>__ALTER STOGROUP__stogroup-name_____________________________________________>
     <_____________________________________________
                          <_,_______                |
    >______ADD VOLUMES(____volume-id|_______)______|_______________________><
         |              | <_,___          |      |
         |              |___'*'_|_________|      |
         |                   <_,_______          |
         |_REMOVE VOLUMES(____volume-id|_______)_|
                           | <_,___          |
                           |___'*'_|_________|
>_____________________________________________________________________________><
   |_DATACLAS_dc-name_| |_MGMTCLAS_mc-name_| |_STORCLAS_sc-name_|
```

ALTER TABLE

```
>>__ALTER TABLE__table-name_____________________________________________>
      <_____________________________________________________
                _COLUMN_                                  |
>_________ADD_|________|__column-definition ____________|_______________>
         |          _COLUMN_                                          |
         |_ALTER__|________|_column-alteration_____________________|
         |_RENAME COLUMN source-column-name _______________________|
         |              |_TO target-column-name___|                |
         |_DROP COLUMN_column-name_RESTRICT_______________________|
         |_ADD PERIOD FOR period-definition_______________________|
         |_ADD__unique-constraint_________________________________|
         |    |_referential-constraint_|                          |
         |    |_check-constraint_______|                          |
         |_DROP__ PRIMARY KEY_____________________________________|
         |      |_FOREIGN KEY_constraint-name_|                   |
         |       |_UNIQUE______|                                  |
         |       |_CHECK_______|                                  |
         |       |_CONSTRAINT__|                                  |
         |_ADD PARTITION BY_partitioning-clause___________________|
         |_ALTER PARTITIONING TO PARTITION BY partitioning-clause_|
         |_ADD PARTITION_partitioning-clause______________________|
         |_ALTER PARTITION_integer_partition clause_______________|
         |_ROTATE_FIRST___TO LAST_rotate-part-clause______________|
         |      |_integer_|                                       |
         |_ADD ORGANIZE BY HASH organization-clause_______________|
         |_ALTER ORGANIZATION_SET HASH SPACE int__K_______________|
         |                                      |_M_|               |
         |                                      |_G_|               |
         |_DROP ORGANIZATION______________________________________|
         |      _SYSTEM_                                            |
         |_ADD_|________|_VERSIONING USE HISTORY TABLE hist-table_|
         |       _SYSTEM_                                           |
         |_DROP_|________|_VERSIONING_____________________________|
         |          __MATERIALIZED_                                 |
         |      __|_______________|__QUERY_                        |
         |_ADD_|___________________________|_mqt-def______________|
         |       _ MATERIALIZED_                                    |
         |_DROP_|_______________|_QUERY_____________________________|
         |        _ MATERIALIZED_                                   |
         |_ALTER_|_______________|_QUERY_____mqt-alt______________|
         |        |_CHANGES_|                                       |
         |        |_ALL_____|                                       |
         |_DATA CAPTURE____NONE___________________________________|
         |               |_CHANGES_|                                |
         |                   _CARDINALITY_                          |
         |__NOT VOLATILE____|______________|_______________________|
         | |_VOLATILE____|                                         |
         |_ADD CLONE_clone-table-name_____________________________|
         |_DROP CLONE_____________________________________________|
         |_ADD RESTRICT ON DROP___________________________________|
         |_DROP RESTRICT ON DROP__________________________________|
         |__ACTIVATE_________ROW ACCESS CONTROL___________________|
         | |_DEACTIVATE_|                                          |
         |__ACTIVATE_________COLUMN ACCESS CONTROL________________|
```

```
          | |_DEACTIVATE_|                                          |
          |_APPEND___NO_____________________________________________|
          |        |_YES_|

          |_VALIDPROC____program-name_____________________|
          |             |_NULL__________|                 |
          |_AUDIT____NONE_________________________________|
          |        |_CHANGES_|                            |
          |        |__ALL____|                            |
          |_ENABLE ARCHIVE _USE_ archive-table-name_____|
           |_DISABLE ARCHIVE____________________________|

column-definition:
>______column-name__data-type_____________________________________>
 <_____________________________________________________________
>_____________________________________________________________|___><
   |_default-clause_____________________________________________|
   |_NOT NULL___________________________________________________|
   |_column-constraint__________________________________________|
   |_generated-clause___________________________________________|
   |_check-constraint___________________________________________|
   |_FIELDPROC__program-name____________________________________|
   |                                  |   <_,________    |       |
   |                                  |_(___constant_|_)_|       |
   |_AS SECURITY LABEL__________________________________________|
   |_IMPLICITLY HIDDEN__________________________________________|
   |_INLINE LENGTH__integer_____________________________________|

data-type:
>>______built-in-data-type_____________________________________><
      |_distinct-type-name____|

built-in-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|              ______(5,0)_____________________                                 |
|__DECIMAL____|_____________________________|_____________________________________|
||_DEC_____|  |_(__integer_______________)____|                                  |
||_NUMERIC_|                |_, integer_|                                        |
|            _(34)_                                                             |
|_DECFLOAT_ |______|_____________________________________________________________|
|           |_(16)_|                                                             |
|           _(53)__________                                                     |
|___FLOAT__|______________|_____________________________________________________ |
| |        |_(__integer__)_|                                                     |
|_|_REAL_______________|                                                         |
| |          _PRECISION_   |                                                     |
|_|_DOUBLE__|___________|__|                                                     |
|                     __(1)___________                                          |
|_______CHARACTER____|_____________|_____________________________________________|
| | | |_CHAR______|  |_(_length__)____|  |      | |_FOR___SBCS____DATA_|  |            | |
| | |___CHARACTER__VARYING__(_length__)__|      |           |_MIXED_|     |            | |
| |  | |_CHAR_____|        |                    |           |_BIT___|     |            | |
| |  |__VARCHAR____________|                    |__CCSID 1208_____________|            | |
| |                                _(1M)_______                                   | |
| |_____CHARACTER___LARGE OBJECT_ |____________|_____________________________________| |
|   | |_CHAR______|               |_(_integer_)_|  | |_FOR__SBCS____DATA_| |            |
|   |___CLOB_____________________|                |     |_MIXED_|         |            |
|                                                 |     |_BIT___|         |            |
|            __(1)_______________                  |_CCSID1208_____________|            |
|___GRAPHIC_|_________________|_____________________________________________________|
```

```
| |         |_(__integer___)___|        |    |              |                                |
| |_VARGRAPHIC__(__integer__)___________|    |___CCSID 1200_|                                |
| |          __(1M)_____________                                                              |
| |_DBCLOB_|_______________________|                                                          |
|          |_(integer)__________|                                                             |
|            _(1)________                                                                     |
|_ _BINARY__|___________|_____________________________________________________________________|
| |         |_(integer)__|                                   |                                |
| |__BINARY VARYING _(integer)_____________________________|                                |
| | |_VARBINARY_____|                                        |                                |
| |                          _(1M)_____________________      |                                |
| |_BINARY LARGE OBJECT_____|_____________________|_____|                                |
|  |_BLOB_________________|  |_(__integer_________)____|                                      |
|                                          |_K_|                                             |
|                                          |_M_|                                             |
|                                          |_G_|                                             |
|___DATE_____________________________________________________________________________________|
| |_TIME______|                                                                              |
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                          |
| |_TIMESTAMP_|____________|___|____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                         |
|_ROWID_____________________________________________________________________________________|
|_XML__( XML-type-modifier_)_________________________________________________________________|
```

```
XML-type-modifier:
>>__XMLSCHEMA XML-schema-specification_____________________________________>
                                        |_ELEMENT_element-name__|
XML-schema-specification:
>>__ID registered-XML-schema-name_____________________________________________>
   |_URL target-namespace_____________________________________|
    |_NO NAMESPACE_________| |_LOCATION_schema-location_|

default-clause:
    _WITH_
>>_|______|__DEFAULT_____________________________________________________><
                      |_constant_________________________________|
                      |_SESSION_USER_____________________________|
                      | |_USER_______|                           |
                      |_CURRENT SQLID____________________________|
                      |_NULL_____________________________________|
                      |_cast-function-name_(_constant________)_|
                                           |_SESSION_USER__|
                                           | |_USER_______||
                                           |_CURRENT SQLID_|
                                           |_NULL__________|

column-constraint:
>>__reference-clause_____________________________________________________>
   |_check-constraint_|

generated-clause:
                 _ALWAYS_____
>>__GENERATED__|____________|_____________________________________________><
   |            |_BY DEFAULT_| |_as-identity-clause_____________|  |
   |             _ALWAYS_      |_as-row-change-timestamp-clause_|  |
   |_GENERATED_|________|___as-row-transation-start-id clause_____|
                          |_as-ow-transaction-timestamp-clause____|
                          |_as-generated-expression-clause_______|

as-identity-clause:
>>__AS IDENTITY_________________________________________________________><
```

```
                  |    <_,_____________________________________     |
                  |_(______START WITH___numeric-constant________|__)_|
                        |              _1_______________   |
                        |_INCREMENT BY_|_numeric-constant_|__|
                        |  _CACHE 20_______                  |
                        |_|_NO CACHE_______|_________________|
                        | |_CACHE__integer_|                 |
                        |  _NO CYCLE_                        |
                        |_|_CYCLE____|_________________________|
                        |  _NO MAXVALUE_______________       |
                        |_|_MAXVALUE__numeric-constant_|_____|
                        |  _NO MINVALUE_______________       |
                        |_|_MINVALUE__numeric-constant__|____|
                        |  _NO ORDER_                        |
                        |_|___________|_________________________|
                          |_ORDER____|

as-row-change-timestamp-clause:
>>__FOR EACH ROW ON UPDATE AS ROW CHANGE TIMESTAMP_________________________>

as-row-transaction-timestamp-clause:
>>__AS ROW__BEGIN_____________________________________________________________>
           |_END_|

as-row-transaction-id-clause:
>>__AS TRANSACTION START ID_______________________________________________>

non-deterministic-expression:
>>__DATA CHANGE OPERATION_____________________________________________________>
  |_special-register______|
  |_session_variable______|

special-register:
>>__CURRENT CLIENT_ACCTNG____________________________________________________>
  |_CURRENT CLIENT_APPLNAME________|
  |_CURRENT CLIENT_CORR_TOKEN______|
  |_CURRENT CLIENT_USERID__________|
  |_CURRENT CLIENT_WRKSTNNAME______|
  |_CURRENT SERVER_________________|
  |_CURRENT SQLID__________________|
  |_SESSION_USER___________________|

session-variable:
>>__SYSIBM.PACKAGE_NAME______________________________________________________>
  |_SYSIBM.PACKAGE_SCHEMA__________|
  |_SYSIBM.PACKAGE_VERSION_________|

column-alteration:
>>_column-name_SET_DATATYPE_altered-data-type_______________________________>
              |   |                          |_INLINE LENGTH_integer_|  ||
              |   |__default-clause_____________________________________||
              |   |_INLINE LENGTH__integer______________________________||
              |   |_GENERATED__ALWAYS___________________________________||
              |              |_BY DEFAULT_||_identity-alteration_________||
              |                           |_as-row-transaction-tmsp-cls_||
```

```
                |                              |_as-row-transaction-id-cls___||
                |__DROP DEFAULT_______________________________________________|
altered-data-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|              ______(5,0)_______________________                                       |
|__DECIMAL____|_______________________________|_______________________________________|
||_DEC____|  |_(__integer_______________)____|                                          |
||_NUMERIC_|                 |_, integer_|                                              |
|            _(34)_                                                                     |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                     |
|           _(53)__________                                                             |
|___FLOAT__|_______________|_____________________________________________________________|
| |        |_(__integer__)_|                                                             |
|_|_REAL_______________|                                                                |
| |          _PRECISION_   |                                                             |
|_|_DOUBLE__|____________|__|                                                             |
|                    __(1)___________                                                   |
|_______CHARACTER____|_______________|___________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  |        |_FOR___SBCS____DATA_|                | |
| | |___CHARACTER__VARYING__(_length__)__|                |_MIXED_|                     | |
| |  | |_CHAR_____|        |                             |_BIT___|                     | |
| |  |__VARCHAR____________|                                                            | |
| |                                 _(1M)_______                                        | |
| |_____CHARACTER___LARGE OBJECT___|_____________|_____________________________________| |
|   | |_CHAR______|              | |_(_integer_)_|   |_FOR__SBCS____DATA_|                |
|   |___CLOB_____________________|                     |_MIXED_|                        |
|            __(1)_______________                                                        |
|___GRAPHIC_|_______________|_______________________________________________________________|
| |         |_(__integer___)___|        |                                                |
| |_VARGRAPHIC__(__integer__)___________|                                                |
| |         __(1M)______________                                                         |
| |_DBCLOB_|_____________________|                                                        |
|           |_(integer)__________|                                                        |
|            _(1)________                                                                |
|_ _BINARY__|____________|_______________________________________________________________|
| |         |_(integer)__|                                  |                            |
| |__BINARY VARYING _(integer)_______________________________|                            |
| | |_VARBINARY_____|                                      |                            |
| |                          _(1M)_____________________      |                            |
| |_BINARY LARGE OBJECT_____|_____________________________|_____|                            |
|  |_BLOB_______________|  |_(__integer_________)____|                                   |
|                                        |_K_|                                           |
|                                        |_M_|                                           |
|                                        |_G_|                                           |
|                                                                                        |
|              __(_6_)_____     _WITHOUT TIME ZONE_                                      |
|___TIMESTAMP_|____________|___|____________________|_______________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                     |
|_XML__( XML-type-modifier_)_____________________________________________________________|
```

```
XML-type-modifier:
>>__XMLSCHEMA XML-schema-specification_______________________________>
                                        |_ELEMENT_element-name__|
XML-schema-specification:
>>__ID registered-XML-schema-name____________________________________>
   |_URL target-namespace_____________________________________|
    |_NO NAMESPACE_________| |_LOCATION_schema-location_|

identity-alteration:
   <_,_____________________________________
>>__RESTART_____________________________________________________________><
   |          |____ WITH___numeric-constant________|
   |_SET_INCREMENT BY___numeric-constant___________|
   |_SET_NO MINVALUE_______________________________|
```

```
   |____|_MINVALUE__numeric-constant__|____________|
   |_SET_NO MAXVALUE_______________________________|
   |___|_MAXVALUE__numeric-constant_|______________|
   |_SET_ NO CACHE _________________________________|
   |    |_CACHE__integer_|                          |
   |_SET__NO CYCLE__________________________________|
   |    |_CYCLE____|                                |
   |_SET__NO ORDER__________________________________|
   |____|_ORDER____|_______________________________|

unique-constraint:
                                                  <_,_________
>>_________________________________PRIMARY KEY_ _(__column-name|_)_____>
  |_CONSTRAINT__constraint-name_| |_UNIQUE____|
>_____________________________________________________________________><
        |_,_BUSINESS_TIME_WITHOUT OVERLAPS_|

referential-constraint:
>>_________________________________ FOREIGN KEY _______________________>
    |_CONSTRAINT__constraint-name_|
                  <_,_____________________________________________
>__(_column-name_____________________________________________|)_______>
                  |_PERIOD_BUSINESS_TIME_|
>__references-clause_________________________________________________><

references-clause:
>>__REFERENCES__table-name_____________________________________________>
                          |   <_,_________________________________    |
                          |_(_column-name_________________________|_)_|
                                        |_PERIOD BUSINESS TIME_|
>_____________________________________________________________________><
        |_ON DELETE____RESTRICT____|
                     |_NO ACTION_|
                     |_CASCADE___|
                     |_SET NULL__|
    _ENFORCED______                  _ENABLE QUERY OPTIMIZATION_
 >__|______________|_______________|____________________________|______><
   |_NOT ENFORCED__|

check-constraint:
>>_____________________________________CHECK__(check-condition)_________><
    |_CONSTRAINT__constraint-name_|

partitioning-clause:
        _RANGE_       <_,_________________
 >>_____|______|__(___partition-expression_|_)___________________________>
       <_,_________________
 >__(__partition-element__|__)_______________________________________><

partitioning-expression:
                   _NULLS LAST_   __ASC__
 >>__column-name__|___________|__|_______|_____________________________>
                                |_DESC__|
partition-element:
              _AT_      <_,______    _INCLUSIVE_
```

```
>>__ ENDING_|____|_(___constant_|_)_|___________|____________________><
   |                                  |_MAXVALUE_|              |
   |                                  |_MINVALUE_|              |
   |_HASH SPACE_integer___K_____________________________________|
                        |_M_|
                        |_G_|

partition-clause:
             _AT_      <_,______    _INCLUSIVE_
>>_ ENDING_|____|_(___constant_|_)_|___________|____________________><
   |                 |_MAXVALUE_|                              |
   |                 |_MINVALUE_|                              |
   |_HASH SPACE_integer___K_____________________________________|
                        |_M_|
                        |_G_|
partition-rotation:
            _AT_      <_,______     _INCLUSIVE_
>>_ENDING__|____|_(___constant_|_)_|___________|_____RESET___________><
                    |_MAXVALUE_|
                    |_MINVALUE_|

extra-row-option:
>>__ON DELETE ADDD EXTRA ROW_____________________________________________><

materialized-query-definition:
>>__(_fullselect_) refreshable-table-options____________________________>

refreshable-table-options:
>>__DATA INITIALLY DEFERRED__REFRESH DEFERRED_____________________________>
      <_____________________________________
   >___ ____________________________________|_____________________________><
       |  _MAINTAINED BY SYSTEM_         |
       |_|_______________________|_______|
       | |_MAINTAINED BY USER___|        |
       |  _ENABLE QUERY OPTIMIZATION__   |
       |_|_____________________________|_|
         |_DISABLE QUERY OPTIMIZATION_|

materialized-query-table-alteration:
           <_____________________________
>>_SET_____MAINTAINED BY SYSTEM__________|_____________________________>
         ||_MAINTAINED BY USER___|      |
         |__ENABLE_QUERY OPTIMIZATION___|
          |_DISABLE_QUERY OPMITIZATION_|

period-definition:
>>_SYSTEM_TIME_(_begin-column-name,end-column-name_)_________________>
  |                                                    _EXCLUSIVE_ |
  |_BUSINESS_TIME_(_begin-column-name,end-column-name_)_|___________||
                                                       |_INCLUSIVE_|

organization-clause:
           <_______________     _HASH SPACE_64M__________
>>_UNIQUE__(_column-name_)_|___|___________________________|____________>
                               |_HASH SPACE_integer__K___|
```

```
                                                        |_M_|
                                                        |_G_|
```

ALTER TABLESPACE

```
>>__ALTER TABLESPACE_____________________table-space-name____________>
                      |_database-name._|
      <_____________________________________________
   >______BUFFERPOOL__bpname____________________|____________________><
        |_LOCKSIZE____ANY_____________________|
        |           |_TABLESPACE_|            |
        |           |_TABLE______|            |
        |           |_PAGE_______|            |
        |           |_ROW________|            |
        |           |_LOB________|            |
        |_LOCKMAX____SYSTEM___________________|
        |          |_integer_|                |
        |_CLOSE____YES________________________|
        |        |_NO__|                      |
        |_USING____VCAT__catalog-name________|
        |        |_STOGROUP__stogroup-name_| |
        |_PRIQTY__integer_____________________|
        |_SECQTY__integer_____________________|
        |_ERASE____YES________________________|
        |        |_NO__|                      |
        |_FREEPAGE__integer___________________|
        |_PCTFREE__integer____________________|
        |           _NO___________            |
        |_COMPRESS_|_YES__________|           |
        |          |_FIXEDLENGTH_|           |
        |          |_HUFFMAN_____|           |
        |_DROP PENDING CHANGES________________|
        |_DSSIZE_integer_G____________________|
        |__MEMBER CLUSTER YES_________________|
        | |_MEMBER CLUSTER NO__|              |
        |_SEGSIZE_integer_____________________|
        |_GBPCACHE____CHANGED_________________|
        |           |_ALL_____|               |
        |           |_SYSTEM__|               |
        |           |_NONE____|               |
        |_LOCKPART____YES_____________________|
        |           |_NO__|                   |
        |_MAXROWS__integer____________________|
        |_MAXPARTITIONS_integer_______________|
        |_TRACKMOD____YES_____________________|
        |           |_NO__|                   |
        |_LOGGED______________________________|
        | |_NOT LOGGED__|                     |
        |_CCSID__ccsid-value__________________|
        |_PAGENUM RELATIVE____________________|
          |_PAGENUM ABSOLUTE_|

  >>__ALTER PARTITION__integer_____________________________________________>
        |_USING____VCAT__catalog-name________|
        |        |_STOGROUP__stogroup-name_| |
        |_PRIQTY__integer_____________________|
```

```
          |_SECQTY__integer_____________________|
          |_ERASE____YES________________________|
          |        |_NO__|                      |
          |_FREEPAGE__integer___________________|
          |_PCTFREE__integer____________________|
          |_COMPRESS____YES_____________________|
          |            |_NO__|                  |
          |_GBPCACHE____CHANGED_________________|
          |            |_ALL_____|              |
          |            |_SYSTEM__|              |
          |            |_NONE____|              |
          |_DSSIZE_integer_G____________________|
          |_TRACKMOD____YES_____________________|
                       |_NO__|
```

ALTER TRIGGER (advanced)

```
>>_ALTER TRIGGER_trigger-name_____________________________________________>

    _ALTER_  _ACTIVE VERSION_________________
>__|______|_|__________________________________|__option-list_________________><
  |         |                                  |                            |
  |         |_VERSION trigger-version-id____|                            |
  |           _ ACTIVE VERSION_______________                            |
  |_REPLACE__|__________________________________|_trigger-specification___|
  |          |                                  |                            |
  |          |_VERSION trigger-version-id___|                            |
  |_ADD VERSION_trigger-version-id__trigger-specification_______________|
  |_ACTIVATE VERSION trigger-version-id_________________________________|
  |              _ ACTIVE VERSION_____________                            |
  |_REGENERATE__|_____________________________|_trigger-specification__|
  |             |                             |                           |
  |             |_VERSION trigger-version-id_|                           |
  |_DROP VERSION-trigger-version-id_____________________________________|

trigger-specification:
>>__trigger-activiation-time__trigger-event__ON___table-name_________________>
                                                  |_view-name_____|

>_____________________________________________________________________________>
    |              <_________________________________________      |
    |                          _AS_                          |     |
    |_REFERENCING______OLD__|____|__correlation-name______|_____|
                    |        _AS_                          |
                     |_NEW__|____|__correlation-name____|
                     |                _AS_                |
                     |_OLD TABLE_____|____|__identifier_|
                     |                _AS_                |
                     |_NEW TABLE_____|____|__identifier_|

>____trigger-granularity_____________________triggered-action____________>
                          |_option-list____|

trigger-activiation-time
>>____NO CASCADE BEFORE_____________________________________________________>
```

```
   |_AFTER_______________|
   |_INSTEAD OF________|
trigger-event:

>____INSERT_____________________________________________________________>
    |_DELETE___________________________|
    |_UPDATE___________________________|
              |    <_,___________   |
              |_OF___column-name_|__|

trigger-granularity:

 >____FOR EACH ROW_____________________________________________________><
    |_FOR EACH STATEMENT_|

option-list:

>__DISALLOW DEBUG MODE____APPLICATION ENCODING SCHEME ASCII_____________>
  |_ALLOW DEBUG MODE___| |_APPLICATION ENCODING SCHEME EBCDIC__|
  |_DISABLE DEBUG MODE_| |_APPLICATION ENCODING SCHEME UNICODE_|

>_QUALIFIER schema-name__ ASUTIME_NO LIMIT ___________________________>
                         |_ASUTIME LIMIT_int_|
>_______________________________________________________________________>
   |_WLM ENVIRONMENT FOR DEBUG MODE name__|

>__CURRENT DATA NO_____CONCURRENT ACCESS RESOLUTION USE CURRENTLY COMMITTED_>
  |_CURRENT DATA YES_||_CONCURRENT ACCESS RESOULTION WAIT FOR OUTCOME______|

>____DYNAMICRULES RUN ______________WITHOUT IMMEDIATE WRITE_______________>
    |_DYNAMICRULES BIND_______|    |_WITH IMMEDIATE WRITE___|

>__WITHOUT EXPLAIN____ISOLATION LEVEL CS_________OPHINT__' '_____________>
  |_WITH EXPLAIN___||_ISOLATION LEVEL RS_|     |_OPHINT_string-constant_|
                   |_ISOLATION LEVEL RR_|
                   |_ISOLATION LEVEL UR_|
              <_,______
>_SQL PATH__schema-name|______RELEASE AT COMMIT_______________________>
           |_SCHEMA PATH__| |_RELEASE AT DEALLOCATE_|
           |_SESSION USER_|
              |_USER_|
>_______________________________________________________________________>
  |_ROUNDING DEC_ROUND_CEILING___|   |_DATE FORMAT ISO___ |
  |_ROUNDING DEC_ROUND_DOWN______|   |_DATE FORMAT EUR___ |
  |_ROUNDING DEC_ROUND_FLOOR_____|   |_DATE FORMAT USA___ |
  |_ROUNDING DEC_ROUND_HALF_DOWN_|   |_DATE FORMAT JIS___ |
  |_ROUNDING DEC_ROUND_HALF_EVEN_|   |_DATE FORMAT LOCAL_ |
  |_ROUNDING DEC_ROUND_HALF_UP___|
  |_ROUNDING DEC_ROUND_UP________|

 >_________________________FOR UPDATE CLAUSE REQUIRED_____________________>
     |_DECIMAL(15)___ |  |_FOR UPDATE CLAUSE OPTIONAL_|
     |_DECIMAL(31)___ |
     |_DECIMAL(15,s)_ |
     |_DECIMAL(31,s)_ |
```

```
>_____________________________________________________________________________>
     |_TIME FORMAT ISO___|   |_NOT SECURED_|
     |_TIME FORMAT EUR___|   |_SECURED_____|
     |_TIME FORMAT USA___|
     |_TIME FORMAT JIS___|
     |_TIME FORMAT LOCAL_|
>_____________________________________________________________________________>
   |                    _YES_    |   |                    _YES_     |
   |_SYSTIMESENSITIVE(_|_NO__|_)_|   |_BUSTIMESENSITIVE(_|_NO__|_)__|
>_____________________________________________________________________________>
   |                    _YES_     |   |                       |
   |_ARCHIVESENSITIVE(_|_NO__|_)__|   |_APPLCOMPAT(__level__)_|
>_____________________________________________________________________________><
     |_CONCENTRATE STATEMENTS OFF__________|
     |_CONCENTRATE STATEMENT WITH LITERALS_|

triggered-action:
>>_____________________________________SQL trigger body_________________>
    |_WHEN__(__search-condition__)_|

SQL-trigger-body:
>_____SQL-control-statement_____________________________________________><
    |_trigger-SQL-statement__|
```

ALTER TRIGGER (basic)

```
>>_ALTER TRIGGER_trigger-name___NOT SECURED_________________________________>
                                |_SECURED_|
```

ALTER TRUSTED CONTEXT

```
>>_ALTER TRUSTED CONTEXT_context-name_______________________________________>
<_____________________________________________________________________________
  <_____________________________________________________________________  |
>___ALTER___SYSTEM AUTHID__authorization-name_____________________________|_|_><
   |      |_NO DEFAULT ROLE_____________________________________________| |  |
   |      | |                          _WITHOUT ROLE AS OBJECT OWNER_  | |  |
   |      | |_DEFAULT ROLE role-name_|_____________________________|_| |  |
   |      |                          |_WITH ROLE AS OBJECT OWNER____|   |  |
   |      |__ENABLE_____________________________________________________|  |
   |      | |_DISABLE_|                                                  |  |
   |      |_NO DEFAULT SECURITY LABEL_____________________________________|  |
   |      ||_DEFAULT SECURITY LABEL_seclabel-name_|                      |  |
   |      |                    <__,_____________________________________   |  |
   |      |_ATTRIBUTES________(_____ADDRESS__address-value__________|_)|  |
   |                           | |_ENCRYPTION_encryption-value___| |      |
   |                           | |_SERVAUTH_servauth-value_______| |      |
   |                           |_JOBNAME__jobname-value____________|      |
   |                     <__,_____________________________________          |
   |_ADD_ATTRIBUTES___(_____ADDRESS__address-value__________|_)____________|
   |                     | |_SERVAUTH_servauth-value_______| |              |
   |                     |_JOBNAME__jobname-value____________|              |
   |                     <__,_____________________________________          |
   |_DROP_ATTRIBUTES__(_____ADDRESS__address-value__________|_)____________|
   |                     | |_SERVAUTH_servauth-value_______| |              |
   |                     |_JOBNAME__jobname-value____________|              |
   |_user-clause_____________________________________________________________|
```

```
user-clause:
                  <_,_____________________________________________
>>__ADD USE FOR _____authorization-name _____________________________|______><
   |            |                        |_ use-options _|             ||
   |            |_EXTERNAL SECURITY PROFILE profile-name_______________||
   |            |              _WITHOUT AUTHENTICATION_  |_use-options_||
   |            |_PUBLIC______|___________________________|_______|        |
   |                          |_WITH AUTHENTICATION____|                 |
   |                  <_,_____________________________________________    |
   |_REPLACE USE FOR_______authorization-name _____________________|__|
   |                 |                        |_ use-options _|     |   |
   |                 |              _WITHOUT AUTHENTICATION_        |   |
   |                 |_PUBLIC______|___________________________|_______|   |
   |                               |_WITH AUTHENTICATION____|           |
   |                  <_,_____________________________________________    |
   |_DROP USE FOR_______authorization-name _____________________|_____|
                      |_EXTERNAL SECURITY PROFILE_profile-name_|
                      |__PUBLIC_____________|
use-options:
>>_____________________________________________________________________>
    |_ROLE_role-name_| |_SECURITY LABEL-seclabel-name_|
                                                _WITHOUT AUTHENTICATION_
>>_____________________________________________|_________________________|_><
                                               |_WITH AUTHENTICATION____|
```

ALTER VIEW

```
>>__ALTER VIEW__view-name____REGENERATE_____________________________________>
```

ASSOCIATE LOCATORS

```
                _RESULT SET_
>>__ASSOCIATE__|____________|____LOCATOR_____________________________________>
                              |_LOCATORS_|
      <_,___________________
>__(____rs-locator-variable_|__)_____________________________________________>

>__WITH PROCEDURE____procedure-name_____________________________________________><
                    |_host-variable__|
```

BEGIN DECLARE SECTION

```
>>__BEGIN DECLARE SECTION_______________________________________________________><
```

CALL

```
>>__CALL____procedure-name_______________________________________________________>
           |_variable__|
    >_____________________________________________________________________________><
       |_(_____________________________________________)_|
       |    | <_,_________________________________  |    |
       |    |_____expression_____________________|_|    |
       |        |_NULL_________________________|        |
       |        |_TABLE__transition_table_name_|        |
       |_USING DESCRIPTOR__descriptor-name_______________|
```

CLOSE

```
>>__CLOSE__cursor-name_____________________________________________________><
```

COMMENT ON

```
>>__COMMENT ON_____________________________________________________________>
>_____alias-designator_____________________________IS_string-constant_><
   | |_COLUMN_____table-name___.column-name_____________||
   | |          |_view-name__|                           ||
   | |                      _ACTIVE VERSION_____________ ||
   | |_function-designator_|_____________________________|||
   | |                     |_VERSION_routine-version-id_|||
   | |_INDEX_ index-name_____________________________________||
   | |_PACKAGE_collection-id.package-name_____________________||
   | |                                  | _VERSION_     |||
   | |                                  ||_________|_id_|||
   | |_PLAN_plan-name_____________________________________||
   | |                            _ACTIVE VERSION________ ||
   | |_PROCEDURE_procedure-name_|_____________________|||
   | |                          |_VERSION_rt-ver-id_____|||
   | |_ROLE_role-name_____________________________________||
   | |_SEQUENCE_sequence-name_____________________________||
   | |_TABLE____table-name_____________________________||
   | |        |_view-name__|                              ||
   | |_TRIGGER__trigger-name_____________________________||
   | |_TRUSTED CONTEXT_context-name_______________________||
   | |_TYPE_____distinct-type-name_______________________||
   | |_MASK_____mask-name_________________________________||
   | |_PERMISSION_permission-name_________________________||
   |_multiple-column_list_________________________________|

alais-designator
                                 _FOR TABLE______
>>____________ALIAS_alias-name_ |_______________ |_________________>
  |_PUBLIC__|                   |_FOR SEQUENCE___|

multiple-column-list
                          <_,_______________________________
>>__table-name_________(_column-name__IS__string-constant_|__)______>
  |_view-name__|

function-designator
>>__ FUNCTION__function-name_____________________________________>
   |                         |  <_,_____________________    |    |
   |                         |_(_______________________|_)_|    |
   |                              |____________________|         |
   |                                |_parameter-type_|          |
   |____SPECIFIC FUNCTION_specific-name_________________________|

parameter-type
>>____data-type_____________________________________________________><
                     |_AS LOCATOR____|
data-type
>>____built-in-data-type____________________________________________><
```

```
      |_distinct-type-name_|
      |_array-type-name____|
built-in-data-type
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                            |
| | |INT__|  |                                                                            |
| |_BIGINT___|                                                                            |
|              ______(5,0)_____________________                                            |
|__DECIMAL____|_____________________________|_____________________________________________|
||_DEC_____|  |_(__integer_________________)____|                                          |
||_NUMERIC_|                 |_, integer_|                                                 |
|            _(34)_                                                                         |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                        |
|           _(53)__________                                                                 |
|___FLOAT__|_______________|_____________________________________________________________ |
| |        |_(__integer__)_|                                                                |
|_|_REAL_______________|                                                                    |
| |          _PRECISION_   |                                                                |
|_|_DOUBLE__|____________|__|                                                                |
|                     __(1)___________                                                      |
|_______CHARACTER____|_____________|_____________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  |        |_FOR___SBCS____DATA_|                 | |
| | |___CHARACTER__VARYING__(_length__)__|                  |_MIXED_|                    | |
| |  | |_CHAR_____|        |                                |_BIT___|                    | |
| |  |__VARCHAR____________|                                                              | |
| |                                _(1M)_______                                           | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_____________________________________| |
|   | |_CHAR______|               |_(_integer_)_|  |_FOR__SBCS____DATA_|                  |
|   |___CLOB_______________________|                    |_MIXED_|                          |
|            __(1)_______________                                                            |
|___GRAPHIC_|_______________|_____________________________________________________________|
| |         |_(__integer___)___|        |                                                   |
| |_VARGRAPHIC__(__integer__)___________|                                                   |
| |         __(1M)______________                                                              |
| |_DBCLOB_|_________________|                                                               |
|          |_(integer)_________|                                                               |
|            _(1)________                                                                    |
|_ _BINARY__|____________|_____________________________________________________________|
| |         |_(integer)__|                                 |                                |
| |__BINARY VARYING _(integer)_____________________________|                                |
| | |_VARBINARY_____|                                     |                                |
| |                          _(1M)_____________________     |                                |
| |_BINARY LARGE OBJECT_____|_____________________________|_____|                          |
|  |_BLOB_________________|  |_(__integer_________)____|                                   |
|                                          |_K_|                                            |
|                                          |_M_|                                            |
|                                          |_G_|                                            |
|___DATE_____________________________________________________________________________________|
| |_TIME_____________________________________________________________________________________|
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                         |
| |_TIMESTAMP_|____________|___|____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                        |
|_ROWID_____________________________________________________________________________________|
```

COMMIT

```
              _WORK_
>>__COMMIT__|______|_____________________________________________________________><
```

CONNECT

```
 >>__CONNECT_____________________________________________________________________><
                  |_TO____location-name_____________________|
                  |     |_host-variable_| |_authorization_|  |
                  |_RESET_____________________________________|
                  |_authorization_____________________________|
authorization
>>__USER__host-variable__USING__host-variable_____________________________><
```

CREATE ALIAS

```
>>__CREATE __________ALIAS__| table-alais    |___________________________><
          |_PUBLIC_|        | sequence-alais |
>>__alias-name__FOR____TABLE_________table-name___________________________><
                                    |_view-name___|
                                    |_alias-name2_|
>>__alias-name___FOR____SEQUENCE____sequence-name_________________________><
```

CREATE AUXILIARY TABLE

```
>>__CREATE____AUXILIARY____TABLE__aux-table-name__IN____________________>
            |_AUX_______|
>_____________________table-space-name__STORES__table-name_______________>
   |_database-name._|
>__APPEND NO_____COLUMN__column-name_____________________________________><
  |_APPEND YES_|                      |_PART__integer_|
```

CREATE DATABASE

```
>>__CREATE DATABASE__database-name_______________________________________>
   <_______________________________________________
>_______________________________________________|_______________________><
       |_BUFFERPOOL__bpname_______________________|
       |_INDEXBP__bpname__________________________|
       |_AS____WORKFILE___________________________|
       |                   |_FOR__member-name_| |
       |             _SYSDEFLT______              |
       |_STOGROUP__|_stogroup-name_|______________|
       |_CCSID____ASCII___________________________|
                 |_EBCDIC__|
                 |_UNICODE_|
```

CREATE FUNCTION (compiled SQL scalar)

```
>>__CREATE FUNCTION__function-name__(_______________________________)___>
                                    |  <_,____________________  |
                                    |___parameter-declaration_|_|

                        _VERSION V1____________________
>__RETURNS_data-type2__|_______________________________|__option-list___><
                       |_VERSION rountine-version-id_|

parameter-declaration:
>>_______________________parameter-type_____________________________________><
    |_parameter-name_|
parameter-type:
>>____data-type_____________________________________________________________><
    |               |_AS LOCATOR____|        |
    |_TABLE LIKE____table-name____AS LOCATOR_|
                  |_view-name__|
data-type:
>>____built-in-data-type____________________________________________________><
    |_distinct-type-name_|
```

```
    |_array-type-name____|

built-in-data-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                            |
| | |INT__|  |                                                                            |
| |_BIGINT___|                                                                            |
|              ______(5,0)_____________________                                            |
|__DECIMAL____|_____________________________|_____________________________________________|
||_DEC_____|  |_(__integer_______________)____|                                            |
||_NUMERIC_|                 |_, integer_|                                                 |
|            _(34)_                                                                         |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                        |
|           _(53)__________                                                                 |
|___FLOAT__|_______________|_____________________________________________________________ |
| |        |_(__integer__)_|                                                                |
|_|_REAL_______________|                                                                    |
| |          _PRECISION_   |                                                                |
|_|_DOUBLE__|___________|__|                                                                |
|                     __(1)___________                                                      |
|_______CHARACTER____|_____________|_____________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                      |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                              | |
| |                                _(1M)_______                                            | |
| |_____CHARACTER___LARGE OBJECT_ |___________|_____________________________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_____________________|                      |_EBCDIC__|      |_MIXED_|         |
|            __(1)_______________                        |_UNICODE_|                        |
|___GRAPHIC_|_______________|_____________________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                            |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                            |
| |         __(1M)______________                   |_UNICDOE__|                            |
| |_DBCLOB_|_________________|                                                              |
|          |_(integer)_________|                                                              |
|            _(1)________                                                                    |
|_ _BINARY__|___________|_____________________________________________________________|
| |         |_(integer)__|                                 |                                |
| |__BINARY VARYING _(integer)_______________________________|                                |
| | |_VARBINARY_____|                                      |                                |
| |                          _(1M)_____________________      |                                |
| |_BINARY LARGE OBJECT_____|_____________________________|_____|                                |
|  |_BLOB_______________|  |_(__integer_________)____|                                       |
|                                        |_K_|                                                |
|                                        |_M_|                                                |
|                                        |_G_|                                                |
|___DATE_____________________________________________________________________________________|
| |_TIME______|                                                                              |
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                          |
| |_TIMESTAMP_|___________|___|_____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                         |
|_ROWID_____________________________________________________________________________________|
|_XML_______________________________________________________________________________________|

SQL-control-body:
>>__SQL-control-statement_____________________________________________________>

option-list:

>__LANGUAGE SQL_____________________________________________________________>
                |_SPECIFIC specific-name_____|

>_____NOT DETERMINISTIC_______EXTERNAL ACTION_____________________________>
    |_DETERMINISTIC_____|    |_NO EXTERNAL ACTION_|
>_____READS SQL DATA _________CALLED ON NULL INPUT_____________________________>
```

```
    |_CONTAINS SQL ______|   |_RETURNS NULL ON NULL INPUT_|
    |_MODIFIES SQL DATA__|
>_____STATIC DISPATCH___________ALLOW PARALLEL_____________________________>
                                |_DISALLOW PARALLEL_|
>__DISALLOW DEBUG MODE______PARAMETER CCSID ASCII____QUALIFIER schema-name_>
   |_ALLOW DEBUG MODE____||_PARAMETER CCSID EBCDIC__|
   |_DISABLE DEBUG MODE__||_PARAMETER CCSID UNICODE_|
>__PACKAGE OWNER__auth-name_________________________ASUTIME_NO LIMIT_______>
                             |_AS___ROLE__|       |_ASUTIME_LIMIT__integer_|
                                  |_USER_|
>__INHERIT SPECIAL REGISTERS_____WLM ENVIRONMENT FOR DEBUG MODE name_______>
  |_DEFAULT SPECIAL REGISTERS_|
>__CURRENT DATA NO_____CONCURRENT ACCESS RESOLUTION USE CURRENTLY COMMITTED_>
  |_CURRENT DATA YES_||_CONCURRENT ACCESS RESOULTION WAIT FOR OUTCOME______|
>____DYNAMICRULES RUN ______________________________________________________>
    |_DYNAMICRULES BIND_______| |_APPLICATION ENCODING SCHEME ASCII___|
    |_DYNAMICRULES DEFINEBIND_| |_APPLICATION ENCODING SCHEME EBCDIC__|
    |_DYNAMICRULES DEFINERUN__| |_APPLICATION ENCODING SCHEME UNICODE_|
    |_DYNAMICRULES INVOKEBIND_|
    |_DYNAMICRULES INVOKERUN__|
>__WITHOUT EXPLAIN____ISOLATION LEVEL CS___OPHINT__' '_________________________>
  |_WITH EXPLAIN___||_ISOLATION LEVEL RS_|     |_OPHINT_string-constant_|
                   |_ISOLATION LEVEL RR_|
                   |_ISOLATION LEVEL UR_|
             <_,______
>_SQL PATH__schema-name|______REOPT NONE_____VALIDATE RUN______DEGREE 1_____>
           |_SCHEMA PATH__| |_REOPT ALWAYS_||_VALIDATE BIND_||_DEGREE ANY_|
           |_SESSION USER_| |_REOPT ONCE___|
              |_USER_|
>____________________________________________________________________________>
  |_QUERY ACCELERATION NONE_________________|   |_GET_ACCEL_ARCHIVE NO___|
  |_QUERY ACCELERATION ENABLE_______________|   |_GET_ACCEL_ARCHIVE YES__|
  |_QUERY ACCELRATION ENABLE WITH FAILBACK_|
  |_QUERY ACCELERATION ELIGIBLE_____________|
  |_QUERY ACCELERATION ALL__________________|

>____________________________________________________________________________>
  |_ROUNDING DEC_ROUND_CEILING___|   |_DATE FORMAT ISO___ |
  |_ROUNDING DEC_ROUND_DOWN______|   |_DATE FORMAT EUR___ |
  |_ROUNDING DEC_ROUND_FLOOR_____|   |_DATE FORMAT USA___ |
  |_ROUNDING DEC_ROUND_HALF_DOWN_|   |_DATE FORMAT JIS___ |
  |_ROUNDING DEC_ROUND_HALF_EVEN_|   |_DATE FORMAT LOCAL_ |
  |_ROUNDING DEC_ROUND_HALF_UP___|
  |_ROUNDING DEC_ROUND_UP________|

 >_________________________FOR UPDATE CLAUSE REQUIRED_________________________>
     |_DECIMAL(15)___|   |_FOR UPDATE CLAUSE OPTIONAL_|
     |_DECIMAL(31)___|
     |_DECIMAL(15,s)_|
     |_DECIMAL(31,s)_|
>____________________________SECURED_________________________________________>
     |_TIME FORMAT ISO___| |_NOT SECURED_|
     |_TIME FORMAT EUR___|
     |_TIME FORMAT USA___|
     |_TIME FORMAT JIS___|
```

```
     |_TIME FORMAT LOCAL_|

      _BUSINESS TIMESENSITIVE YES_     _SYSTEM TIMESENSITIVE YES_
>____|____________________________|__|____________________________|__________>
     |_BUSINESS TIMESENSITIVE NO__|  |_SYSTEM TIMESENSITIVE YES_|

      _ARCHIVE SENSITIVE YES___
>____|_______________________|_______________________________________________><
     |_ ARCHIVE SENSITIVE NO __|    |_APPLCOMPAT_compatibility-level_|

external-java-routine-name
|__ _____________ __method-name___ _________________ _________________|
   |_jar-name:_|                |_method-signature_|
jar-name
|__ _____________ __jar-id_____________________________________________|
   |_schema-name._|
method-name
   <_________________________
|___ _________________________ |__class-id__ _.____ __method-id_________|
     |_package-id_ _.____ __|             |_!____|
                  |_/____|
method-signature
 |__ ____________________________ ____________________________________|
    |_(_ _____________________ _)_|
        |  <_,____________   |
        |___java-datatype|__|
```

CREATE FUNCTION (external scalar)

```
>>__CREATE FUNCTION__function-name__(_______________________________)___>
                                    |  <_,_______________________  |
                                    |___parameter-declaration_|_|
>__RETURNS_____data-type2_________________option-list_________________><
             |             |_AS LOCATOR____|                        |
             |_data-type3__CAST FROM__data-type4_____________________|
                                                    |_AS LOCATOR__|
parameter-declaration:
>>____data-type_____________________________________________________________><
    |              |_AS LOCATOR____|        |
    |_TABLE LIKE____table-name____AS LOCATOR_|
                  |_view-name__|
data-type:
>>____built-in-data-type____________________________________________________><
    |_distinct-type-name_|

built-in-data-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|              _____(5,0)_____________________                                  |
|__DECIMAL____|_____________________________|_____________________________________|
||_DEC_____|  |_(__integer_________________)____|                                |
||_NUMERIC_|                |_, integer_|                                        |
|            _(34)_                                                             |
|_DECFLOAT_ |______|_____________________________________________________________|
|           |_(16)_|                                                             |
|           _(53)__________                                                     |
|___FLOAT__|______________|_____________________________________________________ |
```

```
| |        |_(__integer__)_|                                                                  |
|_|_REAL_______________|                                                                      |
| |          _PRECISION_   |                                                                  |
|_|_DOUBLE__|____________|__|                                                                  |
|                      __(1)___________                                                        |
|_______CHARACTER____|_______________|_____________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                      |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                                | |
| |                                 _(1M)_______                                            | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_____________________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_______________________|                      |_EBCDIC__|      |_MIXED_|         |
|              __(1)_______________                       |_UNICODE_|                        |
|___GRAPHIC_|_______________|_____________________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                              |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                              |
| |          __(1M)______________                   |_UNICDOE__|                              |
| |_DBCLOB_|_______________|                                                                  |
|           |_(integer)_________|                                                              |
|             _(1)________                                                                     |
|_ _BINARY__|_______________|_____________________________________________________________|
| |         |_(integer)__|                                  |                                  |
| |__BINARY VARYING _(integer)_____________________________|                                  |
| | |_VARBINARY_____|                                      |                                  |
| |                          _(1M)_____________________     |                                  |
| |_BINARY LARGE OBJECT_____|_________________________|_____|                                  |
|  |_BLOB_________________|  |_(__integer_________)____|                                      |
|                                        |_K_|                                                |
|                                        |_M_|                                                |
|                                        |_G_|                                                |
|___DATE_____________________________________________________________________________________|
| |_TIME______|                                                                               |
| |             __(_6_)_____      _WITHOUT TIME ZONE_                                         |
| |_TIMESTAMP_|_____________|___|_____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                         |
|_ROWID_____________________________________________________________________________________|
```

option-list:

```
>>_____________________________________________________________________________________>
  |_SPECIFIC_specific-name_| |            <_________________________  |
                             |_PARAMETER_CCSID_ ASCII_____________|_|
                                          |     |_EBCDIC__|       |
                                          |     |_UNICODE_|       |
                                          |_VARCHAR__NULTERM______|
                                                    |_STRUCTURE_|
>__EXTERNAL_____________________________LANGUAGE____ASSEMBLE___________>
              |_NAME____'string'_____|            |_C________|
                      |_identifier_|              |_COBOL____|
                                                  |_JAVA_____|
                                                  |_PLI______|
   _PARAMETER STYLE SQL____   _NOT DETERMINISTIC_        _FENCED_
>_|_______________________|_|_____________________|______|________|___>
  |_PARAMETER STYLE JAVA___| |_DETERMINISTIC_____|
    _RETURNS NULL ON NULL INPUT_        _READS SQL DATA____
>__|_____________________________|______|_____________________|__________>
   |_CALLED ON NULL INPUT________|      |_NO SQL______________|
                                        |_MODIFIES SQL DATA_|
                                        |_CONTAINS SQL______|
    _EXTERNAL ACTION____    _NO SCRATCHPAD__________
>__|_______________________|__|_______________________|_________________>
   |_NO EXTERNAL ACTION_|  |              _100____  |
                           |_SCRATCHPAD__|________|_|
                                          |_length_|
```

```
    _NO FINAL CALL_     _ALLOW PARALLEL____          _NO DBINFO_
>__|_______________|__|____________________|______|___________|_______>
   |_FINAL CALL____|  |_DISALLOW PARALLEL_|      |_DBINFO____|
    _NO COLLID______________
>__|_______________________|_______________________________________>
   |_COLLID__collection-id_|  |_WLM ENVIRONMENT____name_________|
                                                  |_(__name__)_|
    _ASUTIME NO LIMIT________     _STAY RESIDENT NO__
>__|_________________________|__|_________________|_______________>
   |_ASUTIME__LIMIT__integer_|  |_STAY RESIDENT YES_|
    _PROGRAM TYPE SUB__     _SECURITY DB2__________
>__|_____________________|__|_____________________|___________________>
   |_PROGRAM TYPE MAIN_|  |_SECURITY____USER______|
                                      |_DEFINER_|
     _STOP AFTER SYSTEM DEFAULT FAILURES___
>___|_____________________________________|___________________________>
    |_STOP AFTER integer FAILURES__________|
    |_CONTINUE AFTER FAILURE_______________|
>_____________________________________________________________________>
    |_RUN OPTIONS__run-time-options_|
    _INHERIT SPECIAL REGISTERS_            _STATIC DISPATCH
>__|_____________________________|_________|_________________|__________>
   |_DEFAULT SPECIAL REGISTERS_|
    _NOT SECURED_______________
>__|_____________________________|_____________________________________><
   |_SECURED_____________________|
external-java-routine-name
|__ ____________ __method-name___ ________________ _________________|
   |_jar-name:_|                |_method-signature_|
jar-name
|__ ______________ __jar-id_______________________________________________|
   |_schema-name._|
method-name
   <_________________________
|___ _________________________ |__class-id__ _.____ __method-id_________|
     |_package-id_ _.____ __|             |_!____|
                  |_/____|
method-signature
|___ ________________________ ______________________________________|
    |_(_ _____________________ _)_|
        |  <_,___________   |
        |___java-datatype|__|
```

CREATE FUNCTION(external table)

```
>>__CREATE FUNCTION__function-name_____________________________________>
 >__(__ ________________________ __)_______________________________>
       | <_,_______________________  |
       |___parameter-declaration_|_|
                   <__,_______________________________
>__RETURNS_TABLE_(_column-name data-type_______________|_)_option-list_><
                 |                        |_AS LOCATOR_|  |
                 |__GENERIC TABLE_________________________|
parameter-declaration:
>>__ _______________ __parameter-type_______________________________><
```

```
    |_parameter-name_|
parameter-type:
>>__ _data-type_____ _________________________ ____________________________><
    |            |_AS LOCATOR____|              |
    |_TABLE LIKE__ _table-name_ __AS LOCATOR_|
                  |_view-name__|
data-type:
>>____built-in-data-type_____________________________________________________><
    |_distinct-type-name_|
built-in-data-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|              ______(5,0)_____________________                                          |
|__DECIMAL____|_____________________________|_____________________________________________|
||_DEC_____|  |_(__integer_______________)____|                                          |
||_NUMERIC_|                 |_, integer_|                                               |
|            _(34)_                                                                       |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                      |
|           _(53)__________                                                               |
|___FLOAT__|______________|_____________________________________________________________ |
| |         |_(__integer__)_|                                                             |
|_|_REAL______________|                                                                  |
| |          _PRECISION_   |                                                              |
|_|_DOUBLE__|____________|__|                                                             |
|                     __(1)___________                                                    |
|_______CHARACTER____|______________|_____________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                     |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                             | |
| |                                _(1M)_______                                           | |
| |_____CHARACTER___LARGE OBJECT_ |____________|_____________________________________| |
|   | |_CHAR______|              |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_| |
|   |___CLOB_____________________|                     |_EBCDIC__|      |_MIXED_|         |
|              __(1)_______________                      |_UNICODE_|                       |
|___GRAPHIC_|______________|_____________________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                          |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                          |
| |          __(1M)______________                   |_UNICDOE__|                          |
| |_DBCLOB_|____________________|                                                          |
|           |_(integer)__________|                                                          |
|            _(1)________                                                                  |
|_ _BINARY__|______________|_____________________________________________________________|
| |         |_(integer)__|                                  |                              |
| |__BINARY VARYING _(integer)_______________________________|                              |
| | |_VARBINARY_____|                                       |                              |
| |                          _(1M)_____________________      |                              |
| |_BINARY LARGE OBJECT_____|_____________________________|_____|                              |
|  |_BLOB_______________|  |_(__integer__________)____|                                    |
|                                        |_K_|                                             |
|                                        |_M_|                                             |
|                                        |_G_|                                             |
|___DATE_____________________________________________________________________________________|
| |_TIME______|                                                                             |
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                        |
| |_TIMESTAMP_|____________|___|____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                       |
|_ROWID_____________________________________________________________________________________|

option-list:
>>_____________________________________________________________________________________>
  |_SPECIFIC_specific-name_| |           <_____________________________  |
                             |_PARAMETER CCSID_ ASCII_______________|_|
                                         |     |_EBCDIC__|        |
                                         |     |_UNICODE_|        |
```

```
                                                |_VARCHAR__NULTERM______|
                                                          |_STRUCTURE_|
>__EXTERNAL_____________________________LANGUAGE____ASSEMBLE___________>
              |_NAME____'string'_____|            |_C________|
                      |_identifier_|              |_COBOL____|
                                                  |_PLI______|
   _PARAMETER STYLE DB2SQL_    _NOT DETERMINISTIC_         _FENCED_
>_|_________________________|_|____________________|______|________|___>
                              |_DETERMINISTIC_____|
    _RETURNS NULL ON NULL INPUT_         _READS SQL DATA____
>__|_____________________________|______|____________________|_________>
   |_CALLED ON NULL INPUT_______|       |_NO SQL____________|
                                        |_CONTAINS SQL______|
    _EXTERNAL ACTION____     _NO SCRATCHPAD___________
>__|____________________|__|_________________________|_______________>
   |_NO EXTERNAL ACTION_|  |              _100____  |
                           |_SCRATCHPAD__|________|_|
                                          |_length_|
   _NO PACKAGE PATH___________
>_|___________________________|_________________________________________>
  |_PACKAGE PATH package-path_|
    _NO FINAL CALL_                                 _NO DBINFO_
>__|_______________|_______________________________|____________|_______>
   |_FINAL CALL____|  |_DISALLOW PARALLEL_|       |_DBINFO____|
    _NO COLLID_____________
>__|_______________________|_________________________________________>
   |_COLLID__collection-id_|  |_WLM ENVIRONMENT____name_________|
                                                |_(__name__)_|
>_____________________________________________________________________>
   |_CARDINALITY_integer___|
    _ASUTIME NO LIMIT_________     _STAY RESIDENT NO__
>__|___________________________|__|____________________|_______________>
   |_ASUTIME__LIMIT__integer_|  |_STAY RESIDENT YES_|
    _PROGRAM TYPE SUB__     _SECURITY DB2___________
>__|_________________|__|_________________________|____________________>
   |_PROGRAM TYPE MAIN_|  |_SECURITY____USER______|
                                      |_DEFINER_|
     _STOP AFTER SYSTEM DEFAULT FAILURES___
>___|_______________________________________|___________________________>
    |_STOP AFTER integer FAILURES___________|
    |_CONTINUE AFTER FAILURE________________|
>_____________________________________________________________________>
    |_RUN OPTIONS__run-time-options_|
    _INHERIT SPECIAL REGISTERS_           _STATIC DISPATCH_
>__|_____________________________|_________|__________________|________><
   |_DEFAULT SPECIAL REGISTERS_|
    _NOT SECURED_______________
>__|_____________________________|_________________________________________><
   |_SECURED____________________|
```

CREATE FUNCTION (sourced)

```
>>__CREATE FUNCTION__function-name_____________________________________>
 >__(__ ____________________________ __)_______________________________>
       | <_,_______________________  |
```

```
        |___parameter-declaration_|_|
 >__RETURNS__data-type2__ _______________ ______________________________>
                          |_AS LOCATOR____|
 >__ _________________________ __ ________________________________ _____>
    |_SPECIFIC__specific-name_|  |_PARAMETER CCSID__ _ASCII___ _|
                                                    |_EBCDIC__|
                                                    |_UNICODE_|
 >__SOURCE_ _function-name_____________________________ ___________><
           |_SPECIFIC__specific-name_____________________|
           |_function-name__(__ ____________________ __)_|
                              | <_,______________  |
                              |___parameter-type_|_|
parameter-declaration:
>>__ _______________ __parameter-type_________________________________><
    |_parameter-name_|
parameter-type:
>>__ _data-type_____ _______________________ _______________________><
    |           |_AS LOCATOR____|            |
    |_TABLE LIKE__ _table-name_ __AS LOCATOR_|
                  |_view-name__|
data-type:
>>____built-in-data-type_____________________________________________><
    |_distinct-type-name_|

built-in-data-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|              ______(5,0)_____________________                                 |
|__DECIMAL____|_____________________________|_______________________________________|
||_DEC____|  |_(__integer_________________)____|                                 |
||_NUMERIC_|                |_, integer_|                                        |
|            _(34)_                                                             |
|_DECFLOAT_ |______|_____________________________________________________________|
|           |_(16)_|                                                             |
|           _(53)__________                                                     |
|___FLOAT__|______________|_____________________________________________________ |
| |        |_(__integer__)_|                                                     |
|_|_REAL_______________|                                                        |
| |          _PRECISION_   |                                                     |
|_|_DOUBLE__|___________|__|                                                     |
|                     __(1)___________                                          |
|______CHARACTER____|______________|_____________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                     |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                     | |
| |                                 _(1M)_______                                  | |
| |_____CHARACTER___LARGE OBJECT_ |_______________|_____________________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_______________________|                     |_EBCDIC__|      |_MIXED_|        |
|            __(1)_______________                         |_UNICODE_|                      |
|___GRAPHIC_|_______________|_____________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                        |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                        |
| |          __(1M)______________                   |_UNICDOE__|                        |
| |_DBCLOB_|_______________|                                                        |
|           |_(integer)_________|                                                  |
|            _(1)________                                                          |
|_ _BINARY__|____________|_____________________________________________________|
| |         |_(integer)__|                                 |                        |
| |__BINARY VARYING _(integer)_____________________________|                        |
| | |_VARBINARY_____|                                     |                        |
| |                          _(1M)_____________________     |                        |
```

```
| |_BINARY LARGE OBJECT_____|_________________________|_____|                                  |
|  |_BLOB_________________|  |_(__integer__________)____|                                        |
|                                                |_K_|                                          |
|                                                |_M_|                                          |
|                                                |_G_|                                          |
|___DATE_____________________________________________________________________________________|
| |_TIME______|                                                                                |
| |             __(_6_)_____      _WITHOUT TIME ZONE_                                          |
| |_TIMESTAMP_|__________________|___|_____________________|_____________________________________|
|             |_(integer_)_|    |_WITH TIME ZONE____|                                          |
|_ROWID_______________________________________________________________________________________|
```

CREATE FUNCTION (inline SQL Scalar)

```
>>__CREATE FUNCTION__function-name__(_______________________________)___>
                                     |  <_,_____________________  |
                                     |___parameter-declaration_|_|

                          _LANGUAGE SQL_
>__RETURNS_data-type2_|_______________|_option-list__SQL-routine-body__><

parameter-declaration:
>>_______________________data-type_____________________________________><
    |_parameter-name_|

data-type:
>>____built-in-data-type_____________________________________________><
    |_distinct-type-name_|

built-in-data-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                                |
| | |INT__|  |                                                                                |
| |_BIGINT___|                                                                                |
|                ______(5,0)_____________________                                            |
|__DECIMAL____|_______________________________|_____________________________________________|
||_DEC_____|  |_(__integer_________________)____|                                             |
||_NUMERIC_|                 |_, integer_|                                                    |
|             _(34)_                                                                          |
|_DECFLOAT_ |______|_____________________________________________________________________________|
|           |_(16)_|                                                                           |
|            _(53)__________                                                                  |
|___FLOAT__|______________|_____________________________________________________________________|
| |        |_(__integer__)_|                                                                   |
|_|_REAL_______________|                                                                      |
| |           _PRECISION_   |                                                                  |
|_|_DOUBLE__|___________|__|                                                                  |
|                      __(1)___________                                                       |
|_______CHARACTER____|_______________|_______________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                      |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                                | |
| |                                _(1M)_______                                              | |
| |_____CHARACTER___LARGE OBJECT_ |___________|_____________________________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_______________________|                      |_EBCDIC__|      |_MIXED_|         |
|            __(1)_______________                          |_UNICODE_|                        |
|___GRAPHIC_|_______________|_____________________________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                                |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                                |
| |          __(1M)_______________                  |_UNICDOE__|                                |
| |_DBCLOB_|_______________|                                                                   |
|          |_(integer)__________|                                                              |
|            _(1)________                                                                      |
|_ _BINARY__|_____________|_____________________________________________________________________|
| |         |_(integer)__|                                  |                                   |
```

```
| |__BINARY VARYING _(integer)_______________________________|                                |
| | |_VARBINARY_____|                                                                        |
| |                          _(1M)_____________________          |                                |
| |_BINARY LARGE OBJECT_____|_____________________________|_____|                                |
|  |_BLOB_________________|  |_(__integer__________)____|                                      |
|                                          |_K_|                                                |
|                                          |_M_|                                                |
|                                          |_G_|                                                |
|___DATE_____________________________________________________________________________________|
| |_TIME______|                                                                                |
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                           |
| |_TIMESTAMP_|_____________|___|____________________|_______________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                          |
|_ROWID_____________________________________________________________________________________|
|_XML_______________________________________________________________________________________|
```

```
SQL-control-body:
>>__SQL-control-statement_____________________________________________________________>

option-list:
>_____________________________________________________________________________________>
    |_SPECIFIC specific-name_____|
>_____NOT DETERMINISTIC_______EXTERNAL ACTION_____________________________________>
    |_DETERMINISTIC_____|    |_NO EXTERNAL ACTION_|
>_____READS SQL DATA __________CALLED ON NULL INPUT_____________________________>
    |_CONTAINS SQL _______|
>__ PARAMETER CCSID ASCII___________SECURED_____________STATIC DISPATCH______>
   |_PARAMETER CCSID EBCDIC__|    |_NOT SECURED_|
   |_PARAMETER CCSID UNICODE_|

SQL-rountine-body:
>>__RETURN statement_____________________________________________________________>
```

CREATE FUNCTION (SQL Table)

```
>__CREATE FUNCTION__function-name_(_____________________________________)_>
                                    |    <_,_____________________    |
                                    |_____________________________|___|
                                      |_parameter-declaration_|
                    <_,_____________________
>_RETURNS TABLE__(_column-name__data-type2_|______ options-list____________>

>_SQL-routine-body_____________________________________________________________>

parameter-declaration:
>>__parameter-name parameter-type_____________________________________________><

parameter-type:
>>____data-type1_____________________________________________________________><
   |_TABLE LIKE___table-name___AS LOCATOR_|
                |_view name__|

data-type1, data-type2:
>>____built-in-data-type_____________________________________________________><
     |_distinct-type-name_|

built-in-data-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                    |
| | |INT__|  |                                                                    |
```

```
| |_BIGINT___|                                                                                  |
|              ______(5,0)_____________________                                                  |
|__DECIMAL____|_______________________________|_______________________________________________|
||_DEC_____|  |_(__integer_______________)____|                                                  |
||_NUMERIC_|                  |_, integer_|                                                      |
|            _(34)_                                                                              |
|_DECFLOAT_ |______|_______________________________________________________________________________|
|           |_(16)_|                                                                              |
|           _(53)__________                                                                      |
|___FLOAT__|______________|_______________________________________________________________________ |
| |        |_(__integer__)_|                                                                      |
|_|_REAL_______________|                                                                        |
| |          _PRECISION_   |                                                                      |
|_|_DOUBLE__|____________|__|                                                                    |
|                      __(1)___________                                                          |
|_______CHARACTER____|_______________|_____________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                      |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                                  | |
| |                                 _(1M)_______                                               | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_____________________________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_______________________|                      |_EBCDIC__|      |_MIXED_|         |
|            __(1)_______________                          |_UNICODE_|                         |
|___GRAPHIC_|_______________|_____________________________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                                 |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                                 |
| |          __(1M)_____________                    |_UNICDOE__|                                 |
| |_DBCLOB_|_______________|                                                                     |
|          |_(integer)_________|                                                                  |
|            _(1)________                                                                         |
|_ _BINARY__|___________|_____________________________________________________________________|
| |         |_(integer)__|                                   |                                   |
| |__BINARY VARYING _(integer)_____________________________|                                   |
| | |_VARBINARY_____|                                       |                                   |
| |                          _(1M)_____________________     |                                   |
| |_BINARY LARGE OBJECT_____|_______________________|_____|                                   |
|  |_BLOB_______________|  |_(__integer_________)____|                                          |
|                                          |_K_|                                                |
|                                          |_M_|                                                |
|                                          |_G_|                                                |
|___DATE_______________________________________________________________________________________|
| |_TIME______|                                                                                |
| |            __(_6_)_____     _WITHOUT TIME ZONE_                                            |
| |_TIMESTAMP_|___________|___|_____________________|_______________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                          |
|_ROWID_______________________________________________________________________________________|
|_XML__________________________________________________________________________________________|
```

```
option-list:
>_____LANGUAGE SQL_____________________________________________________________>
                          |_SPECIFIC_specific-name_|
>_____NOT DETERMINISTIC_______EXTERNAL ACTION_____________________________>
     |_DETERMINISTIC_____|   |_NO EXTERNAL ACTION_|
>_____READS SQL DATA _________CALLED ON NULL INPUT_____________________>
     |_CONTAINS SQL _______|
>_____INHERIT SPECIAL REGISTERS__STATIC DISPATCH_____________________>
                                                  |_CARDINALITY int_|
>_____SECURED____________PARAMETER CCSID_____________________________>
     |_NOT SECURED_|                      |_ASCII___|
                                          |_EDCIDIC_|
                                          |_UNICODE_|
SQL-routine-body:
>>_RETURN statement_____________________________________________________><
   |_BEGIN ATOMIC RETURN statement_END_|
```

CREATE GLOBAL TEMPORARY TABLE

```
                                                   <____________
>>__CREATE GLOBAL TEMPORARY TABLE_table-name_(__column-spec_|_)_______>
                                                |_LIKE__table-name____|
                                                      |_view-name_|
>_____________________________________________________________________>
       |_CCSID______ASCII_____|
                  |_EBCDIC__|
                  |_UNICODE_|
column-spec:
>>__columne-name_data-type_____________________________________________>
                             |_NOT NULL_|
data-type:
>>__built-in-data-type_________________________________________________>
   |_distinct-type_name_|

built-in-data-type:
>__SMALLINT____________________________________________________________________><
| |_INTEGER__|                                                                 |
| | |INT__|  |                                                                 |
| |_BIGINT___|                                                                 |
|              ______(5,0)_____________________                                |
|__DECIMAL____|_____________________________|_______________________________|
||_DEC_____|  |_(__integer_________________)____|                              |
||_NUMERIC_|                 |_, integer_|                                     |
|             _(34)_                                                           |
|_DECFLOAT_ |______|_____________________________________________________________|
|           |_(16)_|                                                           |
|            _(53)__________                                                   |
|___FLOAT__|______________|_____________________________________________________|
| |        |_(__integer__)_|                                                   |
|_|_REAL_______________|                                                       |
| |          _PRECISION_   |                                                   |
|_|_DOUBLE__|____________|__|                                                   |
|                     __(1)___________                                         |
|______CHARACTER____|_______________|_____________________________________|
| | | |_CHAR______|  |_(_integer_)____|  |                  |_FOR___SBCS____DATA_|  |
| | |___CHARACTER__VARYING__(_integer_)__|                          |_MIXED_|      |
| |  | |_CHAR_____|        |                                        |_BIT___|      |
| |  |__VARCHAR____________|                                                     |
|             __(1)_____________                                                 |
|___GRAPHIC_|_______________|_____________________________________________________|
| |         |_(__integer__)____|        |                                        |
| |_VARGRAPHIC__(_ integer_)____________|                                        |
|             _(1)________                                                      |
|_ _BINARY__|_______________|_____________________________________________________|
| |         |_(integer)__|                                 |                     |
| |__BINARY VARYING _(integer)_______________________|                           |
| | |_VARBINARY_____|                                                            |
|___DATE_____________________________________________________________________|
  |_TIME______|                                  |
  |             __(_6_)_____      _WITHOUT TIME ZONE_  |
  |_TIMESTAMP_|____________|___|_________________|_|
              |_(integer_)_|   |_WITH TIME ZONE____|
```

CREATE INDEX

```
>>__CREATE_____________________________INDEX__index-name__ON__________>
          |_UNIQUE_____________________|
                  |_WHERE NOT NULL_|
                      <_,_____________________
                                  _ASC__     |
>_table-name_(___column-name_____|________|_|_______________________________>
  |            |_key-expression_| |_DESC___|    |
```

```
  |                              |_RANDOM_|    |
  |_aux-table-name_______________________________|
>_______________________________________________)_______________________________>
  |___,__BUSINESS_TIME_WITHOUT OVERLAPS__|
                     |_WITH OVERLAPS____|
                              <_____________________________________________
>>_____________________________________________________________________________|_>
  |_XML index-specs_||_INCLUDE(column-name)_||  _NOT CLUSTER_         |
                                             |_|_CLUSTER_____|_______|
                                             |_PARTITIONED___________|
                                             |  _NOT PADDED_         |
                                             |_|_PADDED_____|________|
                                             |_free-block____________|
                                             |_using-block___________|
                                             |_gbpcache-block________|
                                             |           _YES_       |
                                             |_DEFINE__|_NO__|_______|
                                             |           _YES_       |
                                             |_COMPRESS_|_NO__|______|
                                             |  _INCLUDE NULL KEYS_  |
                                             |_|____________________|_|
                                             |_|_EXCLUDE NULL KEYS_|_|
>_____________________________________________________________________________>
  |                           <_,____________________________________      |
  |               _RANGE_                     <_________________  |      |
  |_PARTITION BY_|_______|__partition-element_________________|_|___)_|
                                             |_using-block____|
                                             |_free-block_____|
                                             |_gbpcache-block_|
                                             |_DSSIZE_int_G___|
   <_________________________________
>_________________________________|_____________________________________________><
         |_BUFFERPOOL__bpname________|
         |          _YES_            |
         |_CLOSE__|_NO__|____________|
         |          _NO__            |
         |_DEFER__|_YES_|____________|
         |         _NO__             |
         |_COPY__|_YES_|_____________|
         |_DSSIZE__integer____G______|
         |_PIECESIZE__integer____K___|
                              |_M_|
                              |_G_|

XML-index-specification:
>>_GENERATE KEY USING____XMLPATTERN_xml-pattern-clause_AS_sql-data-type_><
  |_GENERATE KEYS USING_|

XML-pattern-clause:
>>_______________________ pattern-expression_______________________________><
   |_ proglog _|
prolog:
    <_____________________________________________________
>>___declare names NOName = StringLiteral  ;______________|_______________><
   |_declare defulat element namespace Stringliteral ;__|
```

```
pattern-expression:
>>_____________________________________________________________________>
      | <_____________________________________________  |
      |___/____forward-axis__element-name_________|_|
        |_//_||             |_*_________________| |
              |             |_nsprefix:*________| |
              |             |_*:NOName__________| |
              |_*_________________________________|
 >>_____________________________________________________________________>
      |___/____@attribute-name_____________________|
        |_//_||_attribute::attribute-name_________|
              |_@*_________________________________|
              |_arrtibute::*_______________________|
              |_forward axis__text()_______________|

Forward-axis:
         _child::___________________
>>______|___________________________|_____________________________________>
        |_descendant::______________|
        |_self::____________________|
        |_descendant or self::_____|

SQL-data-type:
>>__SQL__VARCHAR__(integer)_____________________________________________><
        |            _(34)_     |
        |_DECFLOAT__|______|____|
        |_DATE___________________|
        |             _(12)_    |
        |_TIMESTAMP__|______|___|

using-block:
>>__USING_____________________________________________________________>
    >____VCAT__catalog-name_____________________________________________><
       |                        <___________________________      |
       |_STOGROUP__stogroup-name_____________________________|_____|
                                  |          _12______  |
                                  |_PRIQTY__|_integer_|_|
                                  |_SECQTY__integer_____|
                                  |         _NO__       |
                                  |_ERASE__|_YES_|______|
free-block:
        <_____________________________
                       _0_______    |
    >>______FREEPAGE__|_integer_|___|_____________________________________><
          |           _10______   |
          |_PCTFREE__|_integer_|__|
gbpcache-block:
                _CHANGED_
>>__GBPCACHE__|_ALL_____|_____________________________________________><
              |_NONE____|
partition-element:
                                _AT_   <_,________     _INCLUSIVE_
>>__PARTITION__integer_ENDING__|____|_(__constant_|_)_|___________|_______><
                                      |_MAXVALUE_|
                                      |_MINVALUE_|
```

CREATE MASK

```
>>__CREATE MASK_mask-name_ON_table-name_____________________________________>
                                        |  _AS_                        |
                                        |__|___|_correlation-name_____|

>___FOR COLUMN_column-name____RETURN case-expression___DISABLE____________><
                                                        |_ENABLE_|
```

CREATE PERMISSION

```
>>_CREATE PERMISSION_permission-name_ON_table-name___________________________>
                                                  | _AS_                    |
                                                  |_|___|_correlation-name_|

>_FOR ROWS WHERE_search-condition__ENFORCED FOR ALL ACCESS__DISABLE_______><
                                                              |_ENABLE_|
```

CREATE PROCEDURE (external)

```
>>__CREATE PROCEDURE__procedure-name_____________________________________________>
          <_,_________________________
   >__(_______________________________|__)__option-list_____________________________><
           |_parameter-declaration_|
parameter-declaration:
     _IN_______
 >__|_OUT______|_______________________parameter-type_____________________________>
    |_INOUT____|  |_parameter-name_|
parameter-type:
 >>____data-type_____________________________________________________________________><
     |                |_AS LOCATOR____|        |
     |_TABLE LIKE____table-name____AS LOCATOR_|
                    |_view-name__|
data-type:
>>____built-in-data-type____________________________________________________________><
     |_distinct-type-name_|

built-in-data-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|              ______(5,0)_____________________                                          |
|__DECIMAL____|_____________________________|_________________________________________|
||_DEC_____|  |_(__integer_____________)____|                                          |
||_NUMERIC_|                |_, integer_|                                               |
|            _(34)_                                                                      |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                      |
|           _(53)__________                                                              |
|___FLOAT__|___________|_____________________________________________________________ |
| |        |_(__integer__)_|                                                             |
|_|_REAL_____________|                                                                  |
| |          _PRECISION_   |                                                             |
|_|_DOUBLE__|___________|__|                                                             |
|                    __(1)___________                                                    |
|_______CHARACTER____|_______________|_____________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                     |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                            | |
| |                              _(1M)_______                                            | |
| |_____CHARACTER___LARGE OBJECT_ |____________|_____________________________________| |
|   | |_CHAR______|              |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
```

```
|   |___CLOB_______________________|                      |_EBCDIC__|      |_MIXED_|        |
|            __(1)_______________                          |_UNICODE_|                       |
|___GRAPHIC_|______________|_____________________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                            |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                            |
| |         __(1M)______________                    |_UNICDOE__|                            |
| |_DBCLOB_|_______________|                                                                |
|          |_(integer)_________|                                                            |
|            _(1)________                                                                    |
|_ _BINARY__|___________|_____________________________________________________________|
| |         |_(integer)__|                                  |                                |
| |__BINARY VARYING _(integer)_____________________________|                                |
| | |_VARBINARY_____|                                       |                                |
| |                          _(1M)_____________________     |                                |
| |_BINARY LARGE OBJECT_____|_____________________|_____|                                |
|  |_BLOB_______________|  |_(__integer_________)____|                                      |
|                                        |_K_|                                              |
|                                        |_M_|                                              |
|                                        |_G_|                                              |
|___DATE_____________________________________________________________________________|
| |_TIME______|                                                                             |
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                        |
| |_TIMESTAMP_|____________|___|_____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                       |
|_ROWID_____________________________________________________________________________|
```

```
option-list:
        _DYNAMIC RESULT SET 0______________
  >>___|_____________________________________|_______________________________>
       |_DYNAMIC__RESULT____SET___integer_|
  >_____________________________________________________________________________>
     |_PARAMETER _____CCSID__ASCII_________________|
                     |      |_EBCDIC__|            |
                     |      |_UNICODE_|            |
                     |__VARCHAR_________NULTERM____|
                                   |_STRUCTURE___|
  >___EXTERNAL_____________________________LANGUAGE____ASSEMBLE__________>
                |_NAME____'string'_____|            |_C________|
                        |_identifier_|              |_COBOL____|
                                                    |_JAVA_____|
                                                    |_PLI______|
                                                    |_REXX_____|
       _PARAMETER STYLE SQL_____________________________
  >___|_____________________________________________|_________________>
      |   _PARAMETER STYLE_                           |
      |__|_________________|____________________________|
                              |_GENERAL_____________|
                              |_GENERAL WITH NULLS_|
                              |_JAVA_______________|

       _NOT DETERMINISTIC_         _FENCED_
  >___|____________________|______|________|_______________________________>
      |_DETERMINISTIC_____|
      _CALLED ON NULL INPUT____     _MODIFIES SQL DATA_
  >__|___________________________|__|____________________|_________________>
                                   |_NO SQL_____________|
                                   |_CONTAINS SQL______|
                                   |_READS SQL DATA____|
      _NO PACAKGE PATH_____________
  >__|_____________________________|_______________________________________>
     |_PACKAGE PATH package-path___|
```

```
      _NO DBINFO_     _NO COLLID_____________
  >__|___________|__|___________________|______________________________>
     |_DBINFO____|  |_COLLID__collection-id_|
  >_____________________________________________________________________>
     |_WLM ENVIRONMENT____name_____________|
                        |_(__name__,*__)_|
      _ASUTIME NO LIMIT________     _STAY RESIDENT NO__
  >__|_______________________|__|_________________|_________________>
     |_ASUTIME__LIMIT__integer_|  |_STAY RESIDENT YES_|
      _PROGRAM TYPE MAIN_            _SECURITY DB2__________
  >__|___________________|_________|_______________________|____________>
     |_PROGRAM TYPE SUB__|          |_SECURITY USER__________|
                                    |_SECURITY DEFINER______|
     _STOP AFTER SYSTEM DEFAULT FAILURES___
  >_|_____________________________________|_____________________________>
    |_STOP AFTER integer FAILURES___________|
    |_CONTINUE AFTER FAILURE_______________|
                                          _COMMIT ON RETURN NO__
  >_____________________________________|_______________________|________>
     |_RUN OPTIONS__run-time-options_|  |_COMMIT ON RETURN YES_|
      _INHERIT SPECIAL REGISTERS_       _CALLED ON NULL INPUT_
  >__|___________________________|____|_______________________|__________>
     |_DEFAULT SPECIAL REGISTERS_|
  >_____________________________________________________________________><
     |_DISALLOW DEBUG MODE____|
     |_ALLOW DEBUG MODE_______|
     |_DISABLE DEBUG MODE_____|

external-java-routine-name
|__ ____________ __method-name___ _________________ _________________|
   |_jar-name:_|                |_method-signature_|
jar-name
|__ _____________ __jar-id_____________________________________________|
   |_schema-name._|
method-name
    <_________________________
 |___ _______________________ |__class-id__ _.____ __method-id________|
     |_package-id_ _.____ __|             |_!____|
                  |_/____|
method-signature
 |__ ____________________________ ____________________________________|
    |_(_ ____________________ _)_|
        |  <_,____________   |
        |___java-datatype|__|
```

CREATE PROCEDURE (SQL - external)

```
>>__CREATE PROCEDURE__procedure-name_____________________________________>
    <_,_________________________
>__(_________________________|_)_option-list___SQL-routine-body_______><
     |_parameter-declaration_|
parameter-declaration:
     _IN_______
 >__|_OUT______|_______________________parameter-type_____________________>
    |_INOUT____|  |_parameter-name_|
parameter-type:
```

```
 >>____built-in data-type_____________________________________________________><
     |_TABLE LIKE____table-name____AS LOCATOR_|

built-in-data-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                            |
| | |INT__|  |                                                                            |
| |_BIGINT___|                                                                            |
|              ______(5,0)_____________________                                            |
|__DECIMAL____|_____________________________|_____________________________________________|
||_DEC_____|  |_(__integer_______________)____|                                            |
||_NUMERIC_|                  |_, integer_|                                                |
|             _(34)_                                                                        |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                        |
|            _(53)__________                                                                |
|___FLOAT__|___________________|_____________________________________________________________|
| |        |_(__integer__)_|                                                                |
|_|_REAL_______________________|                                                            |
| |           _PRECISION_     |                                                            |
|_|_DOUBLE__|___________|__|                                                                |
|                      __(1)___________                                                     |
|_______CHARACTER____|_____________|_____________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  | |_CCSID__ASCII___| |_FOR___SBCS____DATA_|      | |
| | |___CHARACTER__VARYING__(_length__)__|        |_EBCDIC__|        |_MIXED_|            | |
| |  | |_CHAR_____|        |                      |_UNICODE_|        |_BIT___|            | |
| |  |__VARCHAR____________|                                                              | |
| |                                 _(1M)_______                                          | |
| |_____CHARACTER___LARGE OBJECT_ |___________|_____________________________________________| |
|   | |_CHAR______|               |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_______________________|                     |_EBCDIC__|      |_MIXED_|         |
|            __(1)_______________                         |_UNICODE_|                        |
|___GRAPHIC_|_________________|_____________________________________________________________|
| |         |_(__integer___)___|        |   |_CCSID__ASCII____|                            |
| |_VARGRAPHIC__(__integer__)___________|          |_EBCDIC___|                            |
| |          __(1M)______________                   |_UNICDOE__|                            |
| |_DBCLOB_|_________________|                                                               |
|          |_(integer)__________|                                                            |
|             _(1)________                                                                  |
|_ _BINARY__|_________________|_____________________________________________________________|
| |         |_(integer)__|                                  |                                |
| |__BINARY VARYING _(integer)_______________________________|                                |
| | |_VARBINARY_____|                                        |                                |
| |                          _(1M)_____________________      |                                |
| |_BINARY LARGE OBJECT_____|___________________________|_____|                                |
|  |_BLOB_______________|  |_(__integer_________)____|                                       |
|                                        |_K_|                                              |
|                                        |_M_|                                              |
|                                        |_G_|                                              |
|___DATE_____________________________________________________________________________________|
| |_TIME______|                                                                              |
| |_TIMESTAMP_|______________________________________________________________________________|

option-list:
                     _FENCED_
>>__LANGUAGE SQL__|________|_____________________________________________>
                              |_EXTERNAL NAME____'string'___________|
                                                  |_identifier_|
    _DYNAMIC RESULT SET 0_____________
>__|_______________________________________|_______________________________>
   |_DYNAMIC__RESULT____SET___integer_|
>_______________________________________________________________________________>
  |_PARAMETER _____CCSID__ASCII_________________|
                         |_EBCDIC__|
                         |_UNICODE_|
>_PARAMETER__VARCHAR______NULTERM_____________________________________________>
                         |_STRUCTURE___|
```

```
    _NOT DETERMINISTIC_
>__|____________________|_______________________________________________>
   |_DETERMINISTIC_____|
    _CALLED ON NULL INPUT____     _MODIFIES SQL DATA_
>__|_________________________|__|___________________|_______________>
                                |_NO SQL____________|
                                |_CONTAINS SQL______|
                                |_READS SQL DATA____|
    _NO DBINFO_     _NO COLLID_____________
>__|___________|__|_________________________|_________________________>
                  |_COLLID__collection-id_|
>_______________________________________________________________________>
     |_WLM ENVIRONMENT____name_____________|
                        |_(__name__,*__)_|
    _ASUTIME NO LIMIT_________     _STAY RESIDENT NO__
>__|_________________________|__|___________________|_______________>
   |_ASUTIME__LIMIT__integer_|  |_STAY RESIDENT YES_|
    _PROGRAM TYPE MAIN_            _SECURITY DB2___________
>__|___________________|_________|_______________________|___________>
   |_PROGRAM TYPE SUB__|          |_SECURITY USER__________|
                                  |_SECURITY DEFINER______|
   _STOP AFTER SYSTEM DEFAULT FAILURES___
>_|_____________________________________|_________________________>
  |_STOP AFTER integer FAILURES___________|
  |_CONTINUE AFTER FAILURE_______________|
                                        _COMMIT ON RETURN NO__
>_____________________________________|_____________________|______>
   |_RUN OPTIONS__run-time-options_|  |_COMMIT ON RETURN YES_|
    _INHERIT SPECIAL REGISTERS_       _CALLED ON NULL INPUT_
>__|_____________________________|____|_______________________|________><
   |_DEFAULT SPECIAL REGISTERS_|
```

CREATE PROCEDURE (SQL-native)

```
>>__CREATE PROCEDURE__procedure-name_______________________________>
                                     |_(____________________________)_|
                                        | <_,_________________  |
                                        |_paremeter declaration_|
   _VERSION V1_____________
>_|_________________________|_____________________SQL-routine-body____>
  |_VERSION routine ver-id_|   |_option-list_|
parameter-declaration:
    _IN____
>__|_______|__parameter-name__parameter-type____________________________>
   |_OUT___|
   |_INOUT_|
parameter-type:
>>__built-in-data-type_____________________________________________><
    |_TABLE LIKE__table-name__AS LOCATOR_|
                 |_view-name_|
built-in-data-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|            _____(5,0)_____________________                                     |
```

```
|__DECIMAL____|_______________________________|_______________________________________|
||_DEC_____|  |_(__integer_______________)____|                                       |
||_NUMERIC_|                |_, integer_|                                             |
|             _(34)_                                                                   |
|_DECFLOAT_ |_______|_____________________________________________________________________|
|           |_(16)_|                                                                   |
|           _(53)__________                                                            |
|___FLOAT__|_______________|_____________________________________________________________|
| |        |_(__integer__)_|                                                           |
|_|_REAL_______________|                                                               |
| |          _PRECISION_   |                                                           |
|_|_DOUBLE__|___________|__|                                                           |
|                     __(1)___________                                                 |
|______CHARACTER____|_______________|_____________________________________________________|
| | | |_CHAR______|  |_(_integer_)____|  |    |_CCSID__ASCII___| |_FOR___SBCS____DATA_|   | |
| | |___CHARACTER__VARYING__(_integer__)_|           |_EBCDIC__|       |_MIXED_|          | |
| |  | |_CHAR_____|        |                        |_UNICODE_|       |_BIT___|          | |
| |  |__VARCHAR____________|                                                            | |
| |                                 _(1M)_______                                         | |
| |_____CHARACTER___LARGE OBJECT_ |____________|_____________________________________________| |
|   | |_CHAR______|              |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_   |
|   |___CLOB_____________________|                     |_EBCDIC__|      |_MIXED_|          |
|                                                       |_UNICODE_|                         |
|                                                                                          |
|            __(1)____________                                                             |
|___GRAPHIC_|_______________|_____________________________________________________________|
| |         |_(__integer__)____|             |_CCSID___ASCII___|                          |
| |_VARGRAPHIC__(__integer__)__|                     |_EBCDIC__|                          |
| |         __(1M)____________                      |_UNICODE_|                          |
| |_DBCLOB_|_______________|                                                              |
|          |_(integer___)______|                                                          |
|            _(1)________                                                                 |
|_ _BINARY__|___________|_____________________________________________________________|
| |         |_(integer)__|                                |                              |
| |__BINARY VARYING _(integer)_____________________________|                              |
| | |_VARBINARY_____|                                     |                              |
| |                          _(1M)_____________________     |                              |
| |_BINARY LARGE OBJECT_____|_____________________|_____|_____________________________|
|  |_BLOB_______________|  |_(__integer_________)____|                                    |
|                                        |_K_|                                            |
|                                        |_M_|                                            |
|                                        |_G_|                                            |
|___DATE_____________________________________________________________________________|
| |_TIME_____________________________________________________________________________|
| |            __(_6_)_____     _WITHOUT TIME ZONE_                                      |
| |_TIMESTAMP_|___________|___|_____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                     |
|_XML_____________________________________________________________________________________|
```

```
option-list:
     _NOT DETERMINISTIC_      _MODIFIES SQL DATA_
 >>_ |_____________________|__ |____________________|_____________________>
     |_DETERMINISTIC_____|    |_READS SQL DATA____|
                              |_CONTAINS SQL_____|
     _CALLED ON NULL INPUT_     _DYNAMIC RESULT SETS 0________
 >__|_______________________|__|_______________________________|___________>
                                |_DYNAMIC RESULT SETS__integer_|
 >_______________________________________________________________________________>
     |_DISALLOW DEBUG MODE_|    |_PARAMETER CCSID ASCII___|
     |_ALLOW DEBUG MODE____|    |_PARAMETER CCSID EBCDIC__|
     |_DISABLE DEBUG MODE__|    |_PARAMETER CCSID UNICODE_|
 >_______________________________________________________________________________>
     |_QUALIFIER__schema_name_|
 >_______________________________________________________________________________>
     |_PACKAGE OWNER__authorization_name_|
                     |_AS___ROLE__|
                          |_USER_|
```

```
     _ASUTIME NO LIMIT_______       _COMMIT ON RETURN NO__
>__|_________________________|__ |_______________________|____________________>
   |_ASUTIME LIMIT__integer_|   |_COMMIT ON RETURN YES_|
                                |_AUTONOMOUS___________|
     _INHERIT SPECIAL REGISTERS_
>__|____________________________|_____________________________________________>
   |_DEFAULT SPECIAL REGISTERS_|
     _STOP AFTER SYSTEM DEFAULT FAILURES_
>__|____________________________________|_________________________________>
   |_STOP AFTER__integer__FAILURES______|
   |_CONTINUE AFTER FAILURE_____________|
>_____________________________________________________________________________>
   |_WLM ENVIRONMENT FOR DEBUG MODE__name_|
                            _CURRENT DATA NO__     _DEGREE 1___
>_________________________ |__________________|__|____________|_______________>
  |_DEFER PREPARE___ |    |_CURRENT DATA YES_|  |_DEGREE ANY_|
  |_NODEFER PREPARE_ |
>______CONCURRENT ACCESS RESOLUTION USE CURRENTLY COMMITTED_________________>
       |_CONCURRENT ACCESS RESOULTION WAIT FOR OUTCOME______|

     _DYNAMICRULES RUN________
>__|__________________________|_____________________________________________>
   |_DYNAMICRULES BIND_______|
   |_DYNAMICRULES DEFINEBIND_|
   |_DYNAMICRULES DEFINERUN__|
   |_DYNAMICRULES INVOKEBIND_|
   |_DYNAMICRULES INVOKERUN__|
>_____________________________________________________________________________>
    |_APPLICATION ENCODING SCHEME ASCII___|
    |_APPLICATION ENCODING SCHEME EBCDIC__|
    |_APPLICATION ENCODING SCHEME UNICODE_|

     _WITHOUT EXPLAIN_      _WITHOUT IMMEDIATE WRITE_
>__|_________________|__ |________________________|_________________________>
   |_WITH EXPLAIN____|   |_WITH IMMEDIATE WRITE____|

      _ISOLATION LEVEL CS_     _WITHOUT KEEP DYNAMIC_
>__ |____________________|__|_______________________|_________________________>
    |_ISOLATION LEVEL RS_|  |_WITH KEEP DYNAMIC____|
    |_ISOLATION LEVEL RR_|
    |_ISOLATION LEVEL UR_|
     _OPTHINT_______________________
>__|_______________________________|_____________________________________>
   |_OPTHINT__string_constant____|
>_____________________________________________________________________________>
    |_SQL PATH__schema_name___________|
    |_SQL PATH__schema_name_list_____|
    |_SQL PATH__SESSION_USER or USER_|
    |_SQL PATH__DEFAULT_______________|
>_____________________________________________________________________________>
  |_QUERY ACCELERATION NONE_________________|   |_GET_ACCEL_ARCHIVE NO___|
  |_QUERY ACCELERATION ENABLE_______________|   |_GET_ACCEL_ARCHIVE YES__|
  |_QUERY ACCELRATION ENABLE WITH FAILBACK_|
  |_QUERY ACCELERATION ELIGIBLE_____________|
  |_QUERY ACCELERATION ALL__________________|
```

```
     _RELEASE AT COMMIT______      _REOPT NONE____
 >__|_______________________ |__ |_______________ |____________________________>
    |_RELEASE AT DEALLOCATE__|   |_REOPT ALWAYS__|
                                 |_REOPT ONCE____|
      _VALIDATE RUN___
 >___|_________________|_______________________________________________________>
     |_VALIDATE BIND_ | |_ROUNDING DEC_ROUND_CEILING___|
                       |_ROUNDING DEC_ROUND_DOWN______|
                       |_ROUNDING DEC_ROUND_FLOOR_____|
                       |_ROUNDING DEC_ROUND_HALF_DOWN_|
                       |_ROUNDING DEC_ROUND_HALF_EVEN_|
                       |_ROUNDING DEC_ROUND_HALF_UP___|
                       |_ROUNDING DEC_ROUND_UP________|
 >_______________________________________________________________________________>
     |_DATE FORMAT ISO___ |   |_DECIMAL(15)___ |
     |_DATE FORMAT EUR___ |   |_DECIMAL(31)___ |
     |_DATE FORMAT USA___ |   |_DECIMAL(15,s)_ |
     |_DATE FORMAT JIS___ |   |_DECIMAL(31,s)_ |
     |_DATE FORMAT LOCAL_ |

      _FOR UPDATE CLAUSE REQUIRED_
 >___|_____________________________|_______________________________________>
     |_FOR UPDATE CLAUSE OPTIONAL_|  |_TIME FORMAT ISO___|
                                     |_TIME FORMAT EUR___|
                                     |_TIME FORMAT USA___|
                                     |_TIME FORMAT JIS___|
                                     |_TIME FORMAT LOCAL_|
>_______________________________________________________________________________>
   |                      _YES_    |   |                      _YES__     |
   |_SYSTIMESENSITIVE(_|_NO__|_)_|   |_BUSTIMESENSITIVE(_|_NO__|_)__|
>_______________________________________________________________________________><
   |                      _YES__    |  |                                      |
   |_ARCHIVESENSITIVE(_|_NO__|_)__|  |_APPLCOMPAT(__compatibility-level_)_|
```

CREATE ROLE

```
>>__CREATE ROLE__role-name_____________________________________________________>
```

CREATE SEQUENCE

```
                                        <_,_______________________________
>>_CREATE SEQUENCE_sequence-name_____________________________________________|_><
                                |       _INTEGER___                        |
                                |_AS__|_data-type_|_________________|
                                |_START WITH__numeric-constant______|
                                |  _INCREMENT BY 1_________________ |
                                |_|_________________________________||
                                | |_INCREMENT BY__numeric-constant_||
                                |  _NO MINVALUE_________________     |
                                |_|_______________________________|____|
                                | |_MINVALUE__numeric-constant_|    |
                                |  _NO MAXVALUE_________________     |
                                |_|_______________________________|____|
                                | |_MAXVALUE__numeric-constant_|    |
                                |  _NO CYCLE_                        |
```

```
                                  |_|__________|_______________________|
                                  | |_CYCLE____|                       |
                                  |  _CACHE 20_______________         |
                                  |_|___________________________|_______|
                                  | |_NO CACHE_______________|        |
                                  | |_CACHE__integer-constant_|        |
                                  | |  _NO ORDER_                      |
                                  |_|_|__________|_____________________|
                                      |_ORDER____|
data-type:
>>___built-in-type_____________________________________________________>
    |_distinct-type-name_|

built-in-type:
>__SMALLINT____________________________________________________________><
| |_INTEGER__|                                    |
| | |INT_|   |                                    |
| |_BIGINT___|                                    |
|              ______(5,0)_____________________   |
|__DECIMAL____|_______________________________|_|
 |_DEC_____|  |_(__integer_____________________)_|
 |_numeric_|               |_,integer_|
```

CREATE STOGROUP

```
                                                 <_,_______
>>__CREATE STOGROUP__stogroup-name__VOLUMES(____volume-id|_______)_____>
                                              |    <_,___       |
                                              |______'*'_|______|
>__VCAT__catalog-name__________________________________________________>
>______________________________________________________________________><
   |_DATACLASdc-name_| |_MGMTCLASmc-name_| |_STORCLASsc-name_|
```

CREATE TABLE

```
>>__CREATE TABLE__table-name_____________________________________________>
     <_,_______________________
>__(_____column-definition_______|__)_____________________________________>
  |     |_period-definition______|                                       |
  |     |_unique-constraint______|                                       |
  |     |_referential-constraint_|                                       |
  |     |_check-constraint_______|                                       |
  |__LIKE__table-name_____copy-options_________________________________|
  | |    |_view-name__|  |                                              |
  | |__as-result-table___|_copy-options_______________________________|
  |__materialized-query-definition_____________________________________|
   <_____________________________________________________
>_____________________________________________________|_______________><
      |___IN_____________________table-space-name___|
      | |    |_database-name._|                  |   |
      | |_IN DATABASE__database-name_____________|   |
      |_partitioning-clause_________________________|
      |_organization-clause_________________________|
      |                    _WITH ROW ATTRIBUTES____  |
      |_EDITPROC_prg-name_|_________________________| |
```

```
      |                   |_WITHOUT ROW ATTRIBUTES_| |
      |_VALIDPROC__program-name_____________________|
      |          _NONE____                          |
      |_AUDIT__|_CHANGES_|___________________________|
      |        |_ALL_____|                          |
      |_OBID__integer_______________________________|
      |                _NONE____                    |
      |_DATA CAPTURE__|_CHANGES_|___________________|
      |_WITH RESTRICT ON DROP_______________________|
      |_CCSID____ASCII______________________________|
      |        |_EBCDIC__|                          |
      |        |_UNICODE_|                          |
      |   _NOT VOLATILE_    _CARDINALITY_           |
      |__|______________|__|______________|__________|
      |  |                _CARDINALITY_  |          |
      |  |_VOLATILE______|______________|_|          |
      |   _LOGGED____                               |
      |__|___________|_______________________________|
      |  |_NOT LOGGED_|                             |
      |   _COMPRESS NO__                            |
      |__|______________|_______________________________|
      |  |_COMPRESS YES_|                            |
      |              _NO__                          |
      |_APPEND_____|_YES_|___________________________|
      |_DSSIZE_integer_G____________________________|
      |_BUFFERPOOL_bpname___________________________|
      |_MEMBER CLUSTER______________________________|
      |   _TRACKMOD YES_____                        |
      |__|_________________|___________________________|
      |  |_TRACKMOD NO______|                       |
      |_____________________________________________|
          |_PAGENUM RELATIVE_|
          |_PAGENUM ABSOLUTE_|

column-definition:
       <_____________________________________________________________
>>__column-name__data-type_____________________________________|__>
>_____________________________________________________________________>>
 |_NOT NULL_____________________________________________________________|
 |_____________________________________ PRIMARY KEY _________________|
 | |_CONSTRAINT__constraint-name_|  |  |_UNIQUE______|           | |
 |                                  |_references-clause__________| |
 |                                  |_CHECK(check-condition)_____| |
 |  _WITH_                                                          |
 |_|______|__DEFAULT_____________________________________________________|
 |                  |_constant_____________________________|         |
 |                  |_SESSION_USER_________________________|         |
 |                  | |_USER__________|                             |
 |                  |_CURRENT SQLID________________________|         |
 |                  |_NULL_________________________________|         |
 |                  |_cast-function-name_(constant_)_____|          |
 |                                       |_SESSION_USER__|          |
 |                                       | |_USER___|    |          |
 |                                       |_CURRENT SQLID_|          |
 |                                       |_NULL__________|          |
```

```
 |_GENERATED_______ALWAYS_____________________________________________|
 ||           |_BY DEFAULT_|  |_as-identity-clause_____________| | |
 ||                            |_as-row-change-timestamp-clause_| | |
 ||_GENEREATED__ALWAYS_____________________________________________| |
 |                       |_as-row-transaction-timestamp-clause_|    |
 |                       |_as-row-transaction-start-id-clause__|    |
 |                       |_as-generated-expression-clause______|    |
 |_references-clause_____________________________________________|
 |_column-constraint_____________________________________________|
 |_FIELDPROC__program-name_______________________________________|
 |                                  |   <_,________    |            |
 |                                  |_(___constant_|_)_|            |
 |_AS SECURITY LABEL_____________________________________________|
 |_IMPLICITY HIDDEN______________________________________________|
 |_INLINE LENGTH_________________________________________________|
 data-type:
  >>____built-in-data-type_____________________________________________><
      |_distinct-type-name_|

 built-in-data-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|              ______(5,0)_____________________                                          |
|__DECIMAL____|_____________________________|_______________________________________|
||_DEC_____|  |_(__integer_________________)____|                                       |
||_NUMERIC_|                 |_, integer_|                                              |
|            _(34)_                                                                      |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                      |
|           _(53)__________                                                              |
|___FLOAT__|___________|_____________________________________________________________ |
| |        |_(__integer__)_|                                                             |
|_|_REAL_______________|                                                                |
| |          _PRECISION_   |                                                             |
|_|_DOUBLE__|___________|__|                                                             |
|                    __(1)___________                                                    |
|_______CHARACTER____|___________|_____________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  |      | |_FOR___SBCS____DATA_|  |              | |
| | |___CHARACTER__VARYING__(_length__)__|      |           |_MIXED_|     |              | |
| |  | |_CHAR_____|        |                    |           |_BIT___|     |              | |
| |  |__VARCHAR____________|                    |__CCSID 1208____________|              | |
| |                                _(1M)_______                                          | |
| |_____CHARACTER___LARGE OBJECT_ |___________|_____________________________________| |
|   | |_CHAR______|               |_(_integer_)_|  | |_FOR__SBCS____DATA_| |              |
|   |___CLOB_____________________|                |     |_MIXED_|         |              |
|                                                 |     |_BIT___|         |              |
|            __(1)______________                  |_CCSID1208____________|              |
|___GRAPHIC_|_______________|_____________________________________________________________|
| |         |_(__integer___)___|        |    |              |                             |
| |_VARGRAPHIC__(__integer__)___________|    |___CCSID 1200_|                             |
| |          __(1M)______________                                                          |
| |_DBCLOB_|_______________|                                                              |
|          |_(integer)_________|                                                          |
|            _(1)________                                                                |
|_ _BINARY__|_________|_____________________________________________________________________|
| |         |_(integer)__|                                |                              |
| |__BINARY VARYING _(integer)_____________________________|                              |
| | |_VARBINARY_____|                                     |                              |
| |                          _(1M)_____________________     |                              |
| |_BINARY LARGE OBJECT_____|_______________________|_____|                              |
|  |_BLOB_______________|  |_(__integer_________)____|                                    |
|                                        |_K_|                                            |
|                                        |_M_|                                            |
|                                        |_G_|                                            |
|___DATE_____________________________________________________________________________________|
```

```
| |_TIME______|                                                                  |
| |            __(_6_)_____     _WITHOUT TIME ZONE_                              |
| |_TIMESTAMP_|____________|___|___________________|_________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                              |
|_ROWID_____________________________________________________________________________|
|_XML__( XML-type-modifier_)_________________________________________________________|

XML-type-modifier:
>>__XMLSCHEMA XML-schema-specification_____________________________________>
                                        |_ELEMENT_element-name__|
XML-schema-specification:
>>__ID registered-XML-schema-name_____________________________________________>
   |_URL target-namespace_____________________________________|
    |_NO NAMESPACE_________| |_LOCATION_schema-location_|

as-identity-clause:
>>__AS IDENTITY_____________________________________________________________><
                 |    <_,_____________________________________________     |
                 |                    _1_________________        |    |
                 |_(______START WITH_|_numeric-constant_|______|__)_|
                        |                _1_________________    |
                        |_INCREMENT BY_|_numeric-constant_|__|
                        |  _CACHE 20_______                    |
                        |_|_NO CACHE_______|_________________|
                        | |_CACHE__integer_|                  |
                        |  _NO CYCLE_                          |
                        |_|_CYCLE____|_______________________|
                        |  _NO MAXVALUE_________________       |
                        |_|_MAXVALUE__numeric-constant_|_____|
                        |  _NO MINVALUE_________________       |
                        |_|_MINVALUE__numeric-constant__|____|
                        |  _NO ORDER_                          |
                        |_|__________|_______________________|
                          |_ORDER____|

as-row-change-timestamp-clause:
>>__FOR EACH ROW__ON UPDATE__AS ROW CHANGE__TIMESTAMP_____________________><

as-row-transaction-timestamp-clause:
>>__AS ROW__BEGIN_____________________________________________________________><
           |_END_|
as-row-transaction-id-clause:
>>__AS TRANSACTION START ID_______________________________________________><

as-generated-expression-clause:
>>__AS (_non-deterministic-expression_)_____________________________________><

non-deterministic-expression:
>>__DATA CHANGE OPERATION_____________________________________________________><
   |_special-register______|
   |_session-variable______|

special-register:
>>__CURRENT CLIENT_ACCTNG_____________________________________________________><
  |_CURRENT CLIENT_APPLNAME________|
  |_CURRENT CLIENT_CORR_TOKEN______|
  |_CURRENT CLIENT_USERID__________|
```

```
  |_CURRENT CLIENT_WRKSTNNAME______|
  |_CURRENT SERVER_________________|
  |_CURRENT SQLID__________________|
  |_SESSION_USER___________________|

session-variable:
>>__SYSIBM.PACKAGE_NAME_____________________________________________><
  |_SYSIBM.PACKAGE_SCHEMA___________|
  |_SYSIBM.PACKAGE_VERSION__________|

column-constraint:
>>_____________________________________PRIMARY KEY_____________________><
   |_CONSTRAINT_constraint-name_||      |_UNIQUE________|       |
                                |_references clause_____________|
                                |_CHECK(_check-condition_)_____|
period-definition:
             _FOR_
>>__PERIOD__|_____|_____________________________________________________><
>_SYSTEM_TIME______(_begin-column-name, end-column-name_)_______________><
  |_BUSINESS_TIME__(_begin-column-name, end-column-name_)_EXCLUSIVE___|
                                                          |_INCLUSIVE__|
unique-constraint:
                                                 <_,___________
>>________________________________PRIMARY KEY__(___column-name_|__________><
   |_CONSTRAINT__constraint-name |_UNIQUE___|
>_____________________________________________)____________________________><
    |__,_BUSINESS_TIME WITHOUT OVERLAPS_____|

referential-constraint:
                                                 <_,_____________________
>>_______________________________FOREIGN KEY_(_column-name_______________|)><
  |_CONSTRAINT_constraint-name_|                 |_PERIOD_BUSINESS_TIME_|
>__references-clause_________________________________________________________><

references-clause:
>>__REFERENCES__table-name___________________________________________________>
                              |   <_,____________    |
                              |_(___column-name_|_)_|
>____________________________________________________________________________><
      |_ON DELETE____RESTRICT____|
                  |_NO ACTION_|
                  |_CASCADE___|
                  |_SET NULL__|
       _ENFORCED______    _ENABLE QUERY OPTIMIZATION_
>_____|_______________|_|____________________________|_____________________><
      |_NOT ENFORCED__|
check-constraint:
>>_____________________________________CHECK__(check-check-condition)_____________><
      |_CONSTRAINT__constraint-name_|
as-result_table:
>>___________________________AS_(fullselect)_WITH NO DATA_____________________><
  | <__,_________    |
  |_(column-name_|_)_|

copy-options:
```

```
     <_____________________________________________________________
                              _COLUMN ATTRIBUTES_                 |
       _EXCLUDING IDENTITY__|____________________|_                |
>>____|_____________________________________________|______________|_______>
     ||                       _COLUMN ATTRIBUTES_  |            |
     ||_INCLUDING IDENTITY__|____________________|_|            |
     |                                  _COLUMN ATTRIBUTES_     |
     |  _EXCLUDING ROW CHANGE TIMESTAMP_|____________________|_  |
     |_|_____________________________________________________| |
     | |                                _COLUMN ATTRIBUTES_  | |
     | |_INCLUDING ROW CHANGE TIMESTAMP_|____________________|_| |
     |                 _COLUMN_                                 |
     |    _EXCLUDING__|________|__DEFAULTS_                     |
     |___|_____________________________________|____________________|
     |   |              _COLUMN_              |                 |
     |   |_INCLUDING__|________|__DEFAULTS_|                  |
     |   |_USING TYPE DEFAULTS_____________|                  |
     |_EXCLUDING XML TYPE MODIFIERS____________________________|

partitioning-clause:
                    _RANGE_     <_,____________________
>>__PARTITION BY__|_______|__(_partition-expression_|_)_________________>
                |_SIZE_____________________________________________________|
                        |__EVERY_ integer-constant_G_|
      <_,____________________
>__(_partition-element_____|__)_____________________________________________><

partition-expression:
                   _NULLS LAST_    _ASC__
>>__column-name__|____________|__|______|_______________________________><
                                 |_DESC_|
partition-element:
                                 _AT_     <_,________
>>__PARTITION__integer__ENDING__|____|__(___constant_|_)_________________>
                                          |_MAXVALUE_|
                                          |_MINVALUE_|
                                                          _INCLUSIVE_
 >__HASH SPACE__integer___K_______________________________|___________|____><
                       |_M_|
                       |_G_|

organization-clause:
           <_________________     _HASH SPACE_64M___________
>>_UNIQUE__(_column-name_)_|___|___________________________|_______________>
                                |_HASH SPACE_integer__K___|
                                                     |_M_|
                                                     |_G_|
materialized-query-definition:
>>__ _________________________ __AS__(fullselect)_____________________________>
    |    <_,____________      |
    |_(____column-name_|__)_|
>__ _____________________________________________________________________><
   |_ refreshable-table-options_____|

refreshable-table-options:
```

```
>>__DATA INITIALLY DEFERRED__REFRESH DEFERRED_____________________________>
      <_____________________________________
   >___ ____________________________________|_________________________________><
        |  _MAINTAINED BY SYSTEM_          |
        |_|_______________________|_______|
        | |_MAINTAINED BY USER___|         |
        |  _ENABLE QUERY OPTIMIZATION__    |
        |_|_______________________________|_|
          |_DISABLE QUERY OPTIMIZATION_|
```

CREATE TABLESPACE

```
>>__CREATE______TABLESPACE__table-space-name_____________________________>
          |_LOB_|          |      _DSNDB04_______   |
                           |_IN_|_database-name_|_|
   <_________________
>_________________|_____________________________________________________>
   |_using-block_____|          |_DSSIZE__integer__G_|
   |_free-block______|
   |_gbpcache-block__|
   |_trackmod-block__|
   |           _YES_  |
   |_DEFINE__|_NO__|_|
   |  _LOGGED_____   |
   |_|____________|__|
     |_NOT LOGGED_|
                                          <_______________________________
>_____________________________________________________________________|__><
   |_partition-by-growth-specifications_| |_BUFFERPOOL__bpname_______|
   |_partition-by-range-specifications__| |             _ANY________  |
   |_SEGSIZE integer_____________________| |_LOCKSIZE__|_TABLESPACE_|_|
                                          |            |_TABLE______| |
                                          |            |_PAGE_______| |
                                          |            |_ROW________| |
                                          |            |_LOB________| |
                                          |_LOCKMAX____SYSTEM________|
                                          |           |_integer_|     |
                                          |          _YES_            |
                                          |_CLOSE__|_NO__|___________|
                                          |            _NO___________ |
                                          |_COMPRESS_|_YES__________|_|
                                          |           |_FIXEDLENGTH_| |
                                          |           |_HUFFMAN_____| |
                                          |_CCSID____ASCII___________|
                                          |         |_EBCDIC__|       |
                                          |         |_UNICODE_|       |
                                          |_MAXROWS__integer__________|
                                          |_SEGSIZE_integer___________|
                                          |___________________________|
                                               |_PAGENUM RELATIVE_|
                                               |_PAGENUM ABSOLUTE_|
using-block:
>>__USING_____________________________________________________________________>
 >____VCAT__catalog-name_____________________________________________________><
     |                          <_______________________      |
     |_STOGROUP__stogroup-name_________________________|_____|
```

```
                                  |_PRIQTY__integer_|
                                  |_SECQTY__integer_|
                                  |         _NO__   |
                                  |_ERASE__|_YES_|__|
free-block:
     <_____________________________
                    _0_______    |
 >>______FREEPAGE__|_integer_|___|_______________________________________><
       |           _5_______   |
       |_PCTFREE__|_integer_|__|
gbpcache-block:
                _CHANGED_
 >>__GBPCACHE__|_ALL_____|_____________________________________________><
               |_SYSTEM__|
               |_NONE____|
trackmod-block:
                _YES_
 >>__TRACKMOD__|_NO__|_____________________________________________________><

partition-by-growth-specification:
                              <_______________________________
 >_MAXPARTITIONS_integer_____________________________________|____________><
                           |_MEMBER CLUSTER_______________|
                           |_NUMPARTS integer_____________|
                           |  _ALLOW MULTIPLE TABLES NO_   |
                           |_|____________________________| |
                             |                            |
                             |_ALLOW MULTIPLE TABLES YES_|

Partition-by-range-specification
         <_____________________________________________________________
>_______________________________________________________________________|>
  |                           <_______________                          |
  |_NUMPARTS__integer_____________________________|_______________________|
  |        |    <_,_______________________________   ||_MEMBER CLUSTER_||
  |        |              <_________________   |   |                   |
  |        |(_PARTITION_integer _using-block_ |__|_)_|                   |
  |                          |_free-block________|                     |
  |                          |_gbpcache-block____|                     |
  |                          |_trackmod-block____|                     |
  |                          |          _NO__   |                     |
  |                          |_COMPRESS__|_YES_|_|                     |
  |                          |_DSSIZE_integer_G__|                     |
  |_MEMBER CLUSTER_______________________________________________________|
```

CREATE TRIGGER (advanced)

```
                                                _VERSION V1_________________
>>_CREATE_______________TRIGGER_trigger-name_|_______________________________|_>
         |_OR REPLACE_|                      |_VERSION trigger-version-id_|

>_NO CASCADE BEFORE_____________________________________________________________>
 |_AFTER_____________|
 |_INSTEAD OF________|
>____INSERT_______________________________ON___table-name_____________________>
```

```
    |_DELETE____________________________|    |_view-name_|
    |_UPDATE____________________________|
              |    <_,___________   |
              |_OF___column-name_|__|
>_______________________________________________________________________________>
    |              <_____________________________________      |
    |                          _AS_                        |     |
    |_REFERENCING______OLD__|____|__correlation-name______|_____|
                    |         _AS_                        |
                     |_NEW__|____|__correlation-name____|
                     |                _AS_               |
                     |_OLD TABLE_____|____|__identifier_|
                     |                _AS_               |
                     |_NEW TABLE_____|____|__identifier_|

 >____FOR EACH ROW_________MODE DB2SQL__NOT SECURED__triggered-action_____><
    |_FOR EACH STATEMENT_|             |_SECURED____|

triggered-action:
>>_____________________________________SQL trigger body_________________>
    |_WHEN__(__search-condition__)_|

SQL-trigger-body:
>_____SQL-control-statement_____________________________________________><
    |_trigger-SQL-statement__|

option-list:
>__DISALLOW DEBUG MODE_____APPLICATION ENCODING SCHEME ASCII_______________>
  |_ALLOW DEBUG MODE___| |_APPLICATION ENCODING SCHEME EBCDIC__|
  |_DISABLE DEBUG MODE_| |_APPLICATION ENCODING SCHEME UNICODE_|

>_QUALIFIER schema-name__ ASUTIME_NO LIMIT ____________________________________>
                        |_ASUTIME LIMIT_int_|
>_______________________________________________________________________________>
   |_WLM ENVIRONMENT FOR DEBUG MODE name__|

>__CURRENT DATA NO_____CONCURRENT ACCESS RESOLUTION USE CURRENTLY COMMITTED_>
  |_CURRENT DATA YES_||_CONCURRENT ACCESS RESOULTION WAIT FOR OUTCOME______|

>____DYNAMICRULES RUN _______________WITHOUT IMMEDIATE WRITE_________________>
    |_DYNAMICRULES BIND_______|    |_WITH IMMEDIATE WRITE___|

>__WITHOUT EXPLAIN____ISOLATION LEVEL CS_________OPHINT__' '_______________>
  |_WITH EXPLAIN___||_ISOLATION LEVEL RS_|     |_OPHINT_string-constant_|
                    |_ISOLATION LEVEL RR_|
                    |_ISOLATION LEVEL UR_|
              <_,______
>_SQL PATH__schema-name|______RELEASE AT COMMIT_______________________________>
           |_SCHEMA PATH__| |_RELEASE AT DEALLOCATE_|
           |_SESSION USER_|
              |_USER_|
>_______________________________________________________________________________>
  |_ROUNDING DEC_ROUND_CEILING___|   |_DATE FORMAT ISO___ |
  |_ROUNDING DEC_ROUND_DOWN______|   |_DATE FORMAT EUR___ |
  |_ROUNDING DEC_ROUND_FLOOR_____|   |_DATE FORMAT USA___ |
```

```
  |_ROUNDING DEC_ROUND_HALF_DOWN_|    |_DATE FORMAT JIS___ |
  |_ROUNDING DEC_ROUND_HALF_EVEN_|    |_DATE FORMAT LOCAL_ |
  |_ROUNDING DEC_ROUND_HALF_UP___|
  |_ROUNDING DEC_ROUND_UP________|

 >_________________________FOR UPDATE CLAUSE REQUIRED_____________________>
     |_DECIMAL(15)___ |  |_FOR UPDATE CLAUSE OPTIONAL_|
     |_DECIMAL(31)___ |
     |_DECIMAL(15,s)_ |
     |_DECIMAL(31,s)_ |
>_____________________________________________________________________________>
     |_TIME FORMAT ISO___|    |_NOT SECURED_|
     |_TIME FORMAT EUR___|    |_SECURED_____|
     |_TIME FORMAT USA___|
     |_TIME FORMAT JIS___|
     |_TIME FORMAT LOCAL_|
>_____________________________________________________________________________>
   |                      _YES_     |   |                      _YES_     |
   |_SYSTIMESENSITIVE(_|_NO__|_)_|   |_BUSTIMESENSITIVE(_|_NO__|_)__|
>_____________________________________________________________________________>
   |                      _YES_     |   |                        |
   |_ARCHIVESENSITIVE(_|_NO__|_)__|   |_APPLCOMPAT(__V12R1__)_|
>_____________________________________________________________________________><
     |_CONCENTRATE STATEMENTS OFF__________|
     |_CONCENTRATE STATEMENT WITH LITERALS_|
```

CREATE TRIGGER(basic)

```
>>__CREATE TRIGGER__ trigger-name____NO CASCADE BEFORE_____________________>
                                    |_AFTER_____________|
                                    |_INSTEAD OF________|
>____INSERT_______________________________ON__table-name_____________________>
    |_DELETE_____________________________|
    |_UPDATE_____________________________|
              |    <_,___________   |
              |_OF___column-name_|__|
>_____________________________________________________________________________>
    |              <_____________________________________      |
    |                          _AS_                          |     |
    |_REFERENCING______OLD__|____|__correlation-name______|_____|
                    |        _AS_                        |
                     |_NEW__|____|__correlation-name____|
                     |                _AS_              |
                     |_OLD TABLE_____|____|__identifier_|
                     |                _AS_              |
                     |_NEW TABLE_____|____|__identifier_|

 >____FOR EACH ROW_________MODE DB2SQL__NOT SECURED__triggered-action_____><
    |_FOR EACH STATEMENT_|             |_SECURED____|
triggered-action:
>>_____________________________________SQL trigger body_________________>
    |_WHEN__(__search-condition__)_|
                <_____________________________
>__BEGIN ATOMIC____triggered-SQL-statement__;_|__END_____________________><
```

CREATE TRUSTED CONTEXT

```
>>__CREATED TRUSTED CONTEXT__context-name_____________________________________>
>_BASED UPON CONNECTION USING SYSTEM AUTHID_authorization-name_____________>
   _NO DEFAULT ROLE_____________________________________________    _DISABLE_
>_|_____________________________________________________________|__|________|__>
  |                          _WITHOUT ROLE AS OBJECT OWNER_ |  |_ENABLE_|
  |_DEFAULT ROLE_role-name_|_______________________________|_|
                           |_WITH ROLE AS OBJECT OWNER___|
   _NO DEFAULT SECURITY LABEL_________________
>_|_________________________________________|____________________________>
  |_DEFAULT SECURITY LABEL seclabel-name______|
                  <_,_____________________________
>_ATTRIBUTES__(_____ADDRESS__address-value________|_________________________>
                | |_ENCRYPTION_encryption-value__|    |
                | |_SERVAUTH_servauth-value______|    |
                | <_,_____________________________      |
                |_____JOBNAME_jobname-value___|_______|
>_____________________________________________________________________________>
   |                <_,_____________________________________________          |
   |_WITH USE FOR_____authorization-name_____________________|__________|_>
                |                        |_user-options__|              |
                |_EXTERNAL SECURITY PROFILE_profile-name_______________|
                |             _WITHOUT AUTHENTICATION_  |_user-options_||
                |_PUBLIC____|_________________________|_________________|
                            |_WITH AUTHENTICATION____|
user-options:
                                                      _WITHOUT AUTHENTICATION_
>>_____________________________________________________|_________________________|_>
  |_ROLE_role-name_||_SECURITY LABEL_seclabel-name_||_WITH AUTHENTICATION_|
```

CREATE TYPE (array)

```
                                                                _2147483647_
>>__CREATE TYPE_array-type-name_AS_built-in-type_ARRAY_|____________|_______>
                                                        |_integer____|
                                                        |_data-type2_|
built-in-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|              ______(5,0)_____________________                                 |
|__DECIMAL____|_____________________________|_______________________________________|
||_DEC_____|  |_(__integer_________________)____|                                 |
||_NUMERIC_|                |_, integer_|                                        |
|            _(34)_                                                              |
|_DECFLOAT_ |______|_______________________________________________________________|
|           |_(16)_|                                                              |
|           _(53)__________                                                      |
|___FLOAT__|______________|_______________________________________________________ |
| |        |_(__integer__)_|                                                      |
|_|_REAL_______________|                                                          |
| |          _PRECISION_   |                                                      |
|_|_DOUBLE__|___________|__|                                                      |
|                    __(1)___________                                            |
|_______CHARACTER____|_______________|_____________________________________________|
| | | |_CHAR______|  |_(_integer_)____|  |    |_CCSID__ASCII___| |_FOR___SBCS____DATA_|   | |
| | |___CHARACTER__VARYING__(_integer__)_|          |_EBCDIC__|       |_MIXED_|          | |
| |  | |_CHAR_____|        |                        |_UNICODE_|       |_BIT___|          | |
| |  |__VARCHAR____________|                                                      | |
```

```
| |                                 _(1M)_______                                                  | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_____________________________________________| |
|   | |_CHAR______|                |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_ | |
|   |___CLOB_____________________|                        |_EBCDIC__|      |_MIXED_|          |
|                                                          |_UNICODE_|                          |
|                                                                                               |
|            __(1)_____________                                                                 |
|___GRAPHIC_|_______________|_______________________________________________________________|
| |          |_(__integer__)____|              |_CCSID___ASCII___|                            |
| |_VARGRAPHIC__(__integer__)__|                      |_EBCDIC__|                            |
| |          __(1M)_____________                       |_UNICODE_|                            |
| |_DBCLOB_|_______________|                                                                   |
|          |_(integer___)______|                                                                |
|            _(1)________                                                                       |
|_ _BINARY__|____________|_______________________________________________________________|
| |          |_(integer)__|                                  |                                  |
| |__BINARY VARYING _(integer)_____________________________|                                  |
| | |_VARBINARY_____|                                        |                                  |
| |                          _(1M)_____________________      |                                  |
| |_BINARY LARGE OBJECT_____|_________________________|_____|_______________________________|
|  |_BLOB_______________|  |_(__integer_________)____|                                        |
|                                          |_K_|                                                |
|                                          |_M_|                                                |
|                                          |_G_|                                                |
|__DATE_____________________________________________________________________________________|
 |_TIME_____________________________________________________________________________________|
 |            __(_6_)_____     _WITHOUT TIME ZONE_                                              |
 |_TIMESTAMP_|____________|___|____________________|_____________________________________|
             |_(integer_)_|   |_WITH TIME ZONE____|
```

```
data-type2:
>______INTEGER_____________________________________________________________________>
  | |_INT___|_____________________________|                                          |
  |_VARCHAR_____________(integer)_____________________________________________|
   |_CHARACTER_VARYING_|        |_CCSID_ASCII____||_FOR_SBCS____DATA_|
                                          |_EBCDIC__|  |_MIXED_|
                                          |_UNICODE_|  |_BIT___|
```

CREATE TYPE(distinct)

```
>>__CREATE TYPE_distinct-type-name_AS_source-data-type_____________________>
>_____________________________________________________________________________>
     |_INLINE LENGTH_integer_|
```

```
source-data-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|              ______(5,0)_____________________                                          |
|__DECIMAL____|_____________________________|_____________________________________|
||_DEC_____|  |_(__integer_________________)____|                                        |
||_NUMERIC_|                 |_, integer_|                                               |
|            _(34)_                                                                       |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                      |
|           _(53)__________                                                               |
|___FLOAT__|______________|_____________________________________________________________ |
| |         |_(__integer__)_|                                                             |
|_|_REAL_____________________|                                                             |
| |           _PRECISION_   |                                                             |
|_|_DOUBLE__|____________|__|                                                             |
|                      __(1)___________                                                   |
|_______CHARACTER____|_______________|_____________________________________________|
| | | |_CHAR______|  |_(_integer_)____|  |    |_CCSID__ASCII___| |_FOR___SBCS____DATA_|   | |
| | |___CHARACTER__VARYING__(_integer__)_|          |_EBCDIC__|       |_MIXED_|          | |
| |  | |_CHAR_____|        |                        |_UNICODE_|       |_BIT___|          | |
| |  |__VARCHAR____________|                                                             | |
```

```
| |                                 _(1M)_______                                                  | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_____________________________________________| |
|   | |_CHAR______|                |_(_integer_)_| |_CCSID__ASCII___| |_FOR__SBCS____DATA_|  |
|   |___CLOB_____________________|                      |_EBCDIC__|      |_MIXED_|          |
|                                                        |_UNICODE_|                          |
|                                                                                             |
|            __(1)_____________                                                                |
|___GRAPHIC_|_________________|_____________________________________________________________|
| |         |_(__integer__)____|              |_CCSID___ASCII___|                            |
| |_VARGRAPHIC__(__integer__)__|                      |_EBCDIC__|                            |
| |          __(1M)_____________                       |_UNICODE_|                            |
| |_DBCLOB_|_________________|                                                                |
|          |_(integer___)______|                                                                |
|            _(1)________                                                                      |
|_ _BINARY__|_________________|_____________________________________________________________|
| |         |_(integer)__|                                  |                                  |
| |__BINARY VARYING _(integer)_____________________________|                                  |
| | |_VARBINARY_____|                                       |                                  |
| |                          _(1M)_____________________     |                                  |
| |_BINARY LARGE OBJECT_____|_____________________|_____|_____________________________|
|  |_BLOB_______________|  |_(__integer_________)____|                                        |
|                                        |_K_|                                                |
|                                        |_M_|                                                |
|                                        |_G_|                                                |
|___DATE_____________________________________________________________________________________|
| |_TIME_____________________________________________________________________________________|
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                           |
| |_TIMESTAMP_|____________|___|____________________|_____________________________________|
|              |_(integer_)_|   |_WITH TIME ZONE____|                                        |
|_ROWID_____________________________________________________________________________________|
```

CREATE VARIABLE

```
>>__CREATE VARIABLE_variable-name_| data-type |_____________________>
      _DEFAULT NULL_______________
>___ |_____________________________|__________| built-in type |__________>
     |_DEFAULT__constant__________|         |_array-type-name_|
              |_special register_|
```

built-in-type:

```
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                            |
| | |INT__|  |                                                                            |
| |_BIGINT___|                                                                            |
|              ______(5,0)_____________________                                            |
|__DECIMAL____|_____________________________|_____________________________________________|
||_DEC_____|  |_(__integer_________________)____|                                          |
||_NUMERIC_|                 |_, integer_|                                                 |
|            _(34)_                                                                         |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                        |
|            _(53)__________                                                                |
|___FLOAT__|_________________|_____________________________________________________________ |
| |        |_(__integer__)_|                                                                |
|_|_REAL_____________________|                                                               |
| |          _PRECISION_    |                                                               |
|_|_DOUBLE__|____________|__|                                                               |
|                     __(1)___________                                                      |
|_______CHARACTER____|_________________|_____________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  |        |_FOR___SBCS____DATA_|                 | |
| | |___CHARACTER__VARYING__(_length__)__|                  |_MIXED_|                    | |
| |  | |_CHAR_____|        |                                |_BIT___|                    | |
| |  |__VARCHAR____________|                                                               | |
| |                                 _(1M)_______                                          | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_____________________________________| |
|   | |_CHAR______|                |_(_integer_)_|  |_FOR__SBCS____DATA_|                  |
|   |___CLOB_____________________|                      |_MIXED_|                          |
|            __(1)_____________                                                                |
|___GRAPHIC_|_________________|_____________________________________________________________|
```

```
| |         |_(__integer___)___|        |                                                  |
| |_VARGRAPHIC__(__integer__)___________|                                                  |
| |         __(1M)______________                                                           |
| |_DBCLOB_|_____________________|                                                          |
|          |_(integer)__________|                                                          |
|           _(1)________                                                                    |
|_ _BINARY__|___________|_____________________________________________________________|
| |         |_(integer)__|                                   |                              |
| |__BINARY VARYING _(integer)_____________________________|                              |
| | |_VARBINARY_____|                                        |                              |
| |                          _(1M)_____________________      |                              |
| |_BINARY LARGE OBJECT_____|_____________________|_____|                              |
|  |_BLOB_________________|  |_(__integer_________)____|                                    |
|                                          |_K_|                                            |
|                                          |_M_|                                            |
|                                          |_G_|                                            |
|___DATE_____________________________________________________________________________|
  |_TIME_____________________________________________________________________________|
  |          __(_6_)_____      _WITHOUT TIME ZONE_                                        |
  |_TIMESTAMP_|____________|___|____________________|_____________________________________|
             |_(integer_)_|   |_WITH TIME ZONE____|
```

CREATE VIEW

```
>>__CREATE VIEW__view-name_____________________________________________________>
                              |   <_,___________    |
                              |_(___column-name_|_)_|
>_____________________________________________________ AS__fullselect ______>
         |      <__,_____________________    |
         |_WITH common-table-expression_|__|
>_____________________________________________________________________________><
       |         _CASCADED_                 |
       |_WITH__|___________|__CHECK OPTION_|
               |_LOCAL____|
```

DECLARE CURSOR

```
                              _NO SCROLL____________________________
 >>__DECLARE__cursor-name__|_____________________________________|______>
                            |   _ASENSITIVE______________          |
                            |__|___________________________|_SCROLL_|
                               |_INSENSITIVE_____________|
                               |             _DYNAMIC_   |
                               |_SENSITIVE_|__________|__|
                                           |_STATIC__|
            <_________________________
 >__CURSOR____ ____________________ _|____________________________________>
              |_holdability________|
              |_returnability______|
              |_rowset-positioning_|
 >__FOR__ _select-statement_ ____________________________________________><
         |_statement-name___|

holdability:
     _WITHOUT HOLD_
>>__|______________|_____________________________________________________><
    |_WITH HOLD____|
returnability:
     _WITHOUT RETURN_______________
>>__|_______________________________|_____________________________________><
```

```
    |                _TO CALLER_    |
    |_WITH RETURN__|___________|___|
                   |_TO CLIENT_|
rowset-positioning:
     _WITHOUT ROWSET POSITIONING_
>>__|___________________________|_______________________________><
    |_WITH ROWSET POSITIONING____|
```

DECLARE GLOBAL TEMPORARY TABLE

```
>>__DECLARE GLOBAL TEMPORARY TABLE__table-name_______________________>
       <_,____________
>_(_____column-spec___|_)___________________________________________>
   |_LIKE___table-name____|_____________________________|
    |      |_view-name__|      |   |_copy-options_|
    |_as-result-table__________|
   <_______________________________________________
>_______________________________________________|_____________________><
   |_CCSID___ASCII_______________________________|
   |       |_EBCDIC__|                           |
   |       |_UNICODE_|                           |
   |            _DELETE ROWS___                  |
   |_ON COMMIT_|_PRESERVE_ROWS_|_______________|
   |           |_DROP_TABLE____|                 |
   |                                             |
   |  __LOGGED_____________________________________  |
   |_|_____________________________________________|_|
     |              _ON ROLLBACK DELETE_ROWS_   |
     |_NOT LOGGED__|_________________________|__|
                   |_ON ROLLBACK PRESERVE ROWS-_|

column spec:
>>__column-name__data-type_____________________________________________>
    <_____________________________________________________
 >_____________________________________________________|___________><
     |_NOT NULL_____________________________________________|
     |   _WITH_                                             |
     |__|______|_DEFAULT_____________________________________|
     |                   |_constant______|                  |
     |                   |_SESSION_USER__|                  |
     |                   ||_USER_______| |                  |
     |                   |_CURRENT SQLID_|                  |
     |                   |_NULL__________|                  |
     |_GENERATED___ALWAYS_____________________________________|
     |           |_BY DEFAULT_|  |_as-identity-clause_|   |
     |_NOT NULL_____________________________________________|

data-type:
>>___built-in type_____________________________________________________><
   |_distinct_type_name_|

>__SMALLINT_____________________________________________________________><
| |_INTEGER__|                                                          |
| | |INT__|  |                                                          |
| |_BIGINT___|                                                          |
|            ______(5,0)_____________________                            |
```

```
|__DECIMAL___|_________________________________|_________________________________________|
||_DEC____|  |_(__integer_______________)____|                                           |
||_NUMERIC_|                 |_, integer_|                                               |
|            _(34)_                                                                       |
|_DECFLOAT_ |_______|_________________________________________________________________________|
|           |_(16)_|                                                                       |
|          _(53)__________                                                                |
|___FLOAT__|_______________|_________________________________________________________________|
| |        |_(__integer__)_|                                                               |
|_|_REAL_____________________|                                                              |
| |          _PRECISION_    |                                                              |
|_|_DOUBLE__|___________|__|                                                              |
|                __(1)___________                                                          |
|_______CHARACTER____|_______________|_____________________________________________________|
|  | |_CHAR______|  |_(_length__)____|  |         |_FOR___SBCS___DATA_|  |                |
|  |___CHARACTER__VARYING__(_length__)__|         |     |_MIXED_|         |                |
|   | |_CHAR_____|        |                       |     |_BIT___|         |                |
|   |__VARCHAR_____________|                       |__CCSID 1208__________|                |
|                __(1)______________                                                       |
|___GRAPHIC_|_______________|_____________________________________________________________|
| |         |_(__integer___)___|        |    |              |                              |
| |_VARGRAPHIC__(__integer__)___________|    |___CCSID 1200_|                              |
|                _(1)________                                                              |
|_ _BINARY__|____________|_____________________________________________________________|
| |         |_(integer)__|                                 |                              |
| |__BINARY VARYING _(integer)_____________________________|                              |
|   |_VARBINARY_____|                                                                     |
|__DATE_____________________________________________________________________________________|
 |_TIME_____|                                                                            |
 |            __(_6_)_____      _WITHOUT TIME ZONE_                                       |
 |_TIMESTAMP_|____________|___|___________________|_________________________________|
             |_(integer)_|   |_WITH TIME ZONE____|
```

as-result-table:

```
>>____AS__(fullselect)__WITH NO DATA_____________________________________><
```

copy-options:

```
                                _COLUMN ATTRIBUTES_
       _EXCLUDING IDENTITY__|____________________|_
 >>__|_____________________________________________|____________________>
     |                     _COLUMN ATTRIBUTES_  |
     |_INCLUDING IDENTITY__|____________________|_|
                  _COLUMN_
     _EXCLUDING_|________|_DEFAULTS_
 >__|_____________________________|_________________________________><
    |             _COLUMN_        |
    |_INCLUDING_|________|_DEFAULTS_|
    |_USING TYPE DEFAULTS_____________|
```

as-identity-clause:

```
>>__AS IDENTITY_____________________________________________________________><
                |    <_,_____________________________________________      |
                |                     _1_________________        |     |
                |_(_______START WITH_|_numeric-constant_|______|__)_|
                       |                _1_________________   |
                       |_INCREMENT BY_|_numeric-constant_|__|
                       |  _CACHE 20_______                   |
                        |_|_NO CACHE_______|_________________|
                        | |_CACHE__integer_|                 |
                        |  _NO CYCLE_                        |
                        |_|_CYCLE____|_________________________|
                        |  _NO MAXVALUE_________________     |
                        |_|_MAXVALUE__numeric-constant_|_____|
                        |  _NO MINVALUE_________________     |
```

```
                                |_|_MINVALUE__numeric-constant__|____|
                                |  _NO ORDER_                         |
                                |_|___________|_________________________|
                                  |_ORDER____|
```

DECLARE STATEMENT

```
                <_,_______________
 >>__DECLARE____statement-name_|__STATEMENT_______________________________><
```

DECLARE TABLE

```
>>_DECLARE__table-name_____________________________________________________>
           |_view-name__|
                    <_,_____________________________________________________
>_TABLE(column-name__built-in-data-type_____________________________|_)_><
                     |_distinct-type-name_||_NOT NULL_______________|
                                          |_NOT NULL WITH DEFAULT_|
built-in-type:

>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|                ______(5,0)_____________________                                      |
|__DECIMAL____|_________________________________|_____________________________________|
||_DEC_____|  |_(__integer_________________)____|                                      |
||_NUMERIC_|                  |_, integer_|                                             |
|            _(34)_                                                                     |
|_DECFLOAT_ |______|_____________________________________________________________________|
|           |_(16)_|                                                                     |
|           _(53)__________                                                             |
|___FLOAT__|______________|_____________________________________________________________ |
| |        |_(__integer__)_|                                                             |
|_|_REAL_____________________|                                                            |
| |          _PRECISION_    |                                                            |
|_|_DOUBLE__|___________|__|                                                            |
|                      __(1)___________                                                 |
|_______CHARACTER____|_______________|_____________________________________________________|
| | | |_CHAR______|  |_(_length__)____|  |                                            | |
| | |___CHARACTER__VARYING__(_length__)__|                                            | |
| |  | |_CHAR_____|        |                                                           | |
| |  |__VARCHAR____________|                                                           | |
| |                                 _(1M)_______                                        | |
| |_____CHARACTER___LARGE OBJECT_ |____________|_____________________________________| |
|   | |_CHAR______|               |_(_integer_)_|                                        |
|   |___CLOB_______________________|                                                     |
|            __(1)_______________                                                        |
|___GRAPHIC_|_______________|_____________________________________________________________|
| |         |_(__integer___)___|        |                                                |
| |_VARGRAPHIC__(__integer__)___________|                                                |
| |          __(1M)_____________                                                         |
| |_DBCLOB_|_____________________|                                                       |
|          |_(integer)__________|                                                       |
|            _(1)________                                                                |
|_ _BINARY__|_____________|_____________________________________________________________|
| |         |_(integer)__|                                 |                              |
| |__BINARY VARYING _(integer)_____________________________|                              |
| | |_VARBINARY_____|                                      |                              |
| |                          _(1M)_____________________     |                              |
| |_BINARY LARGE OBJECT_____|_________________________|_____|                              |
|  |_BLOB_______________|  |_(__integer_________)____|                                    |
|                                        |_K_|                                            |
|                                        |_M_|                                            |
|                                        |_G_|                                            |
|___DATE_____________________________________________________________________________________|
| |_TIME_____________________________________________________________________________________|
```

```
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                  |
| |_TIMESTAMP_|___________|___|_______________|____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                  |
|_ROWID_____________________________________________________________________________|
```

DECLARE VARIABLE

```
            <_,___________              _CCSID EBCDIC__
>>_DECLARE__host-variable|_VARIABLE_|_______________|___________________><
                                    ||_CCSID ASCII___| |_FOR SBCS DATA__||
                                    ||_CCSID UNICODE_| |_FOR MIXED DATA_||
                                    |                  |_FOR BIT DATA___||
                                    |_CCSID__integer_____________________|
```

DELETE

```
searched delete:
>>__DELETE FROM__table-name_____________________________________________>
                |_view-name__| |_period-clause_| |_correlation-name_|
>_______________________________________________________________________>
     |_include-column_|       |_SET assignment-clause_|
>_______________________________________________________________________>
       |_WHERE__search-condition_|  |_isolation-clause__|
                                    |_SKIP LOCKED DATA__|
>_______________________________________________________________________><
       |_QUERYNO__integer_|
positioned delete:
>>__DELETE FROM____table-name____WHERE CURRENT OF__cursor-name________><
                  |_view-name__|
>_______________________________________________________________________><
  |_FOR ROW___host-variable______OF ROWSET_|
            |_integer-constant__|
period-clause:
>>__FOR PORTION OF BUSINESS_TIME_FROM_value1 TO value2_________________><
                                |_BETWEEN value1 AND value2_|
include-column:
>>__INCLUDE__(__column-name__data-type__)_______________________________><

data-type:
>>___built-in type_____________________________________________________><
   |_distinct_type_name_|

built-in-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|              ______(5,0)_____________________                                  |
|__DECIMAL____|_______________________________|_______________________________|
||_DEC_____|  |_(__integer_________________)____|                               |
||_NUMERIC_|                 |_, integer_|                                      |
|            _(34)_                                                             |
|_DECFLOAT_ |______|_____________________________________________________________|
|           |_(16)_|                                                             |
|           _(53)__________                                                     |
|___FLOAT__|______________|_____________________________________________________|
| |        |_(__integer__)_|                                                     |
|_|_REAL_____________________|                                                  |
| |          _PRECISION_    |                                                  |
|_|_DOUBLE__|___________|__|                                                    |
|                    __(1)___________                                           |
|_______CHARACTER____|_______________|___________________________________________|
```

```
| | | |_CHAR_____|  |_(_integer_)____|  |                        |_FOR___BIT____DATA_|      |
| | |___CHARACTER__VARYING__(_integer_)__|                                                  |
| |  | |_CHAR_____|        |                                                                |
| |  |__VARCHAR____________|                                                                |
|            __(1)____________                                                                |
|___GRAPHIC_|_____________|_____________________________________________________________|
| |         |_(__integer__)____|        |                                                   |
| |_VARGRAPHIC__(_ integer_)____________|                                                   |
|            _(1)________                                                                     |
|_ _BINARY__|_____________|_____________________________________________________________|
| |         |_(integer)__|                                  |                                |
| |__BINARY VARYING _(integer)____________________________|                                |
| | |_VARBINARY_____|                                                                        |
|___DATE_____________________________________________________________________________________|
  |_TIME_____________________________________________|
  |            __(_6_)_____     _WITHOUT TIME ZONE_  |
  |_TIMESTAMP_|_____________|___|_________________|_|
              |_(integer_)_|   |_WITH TIME ZONE____|
```

```
assignment-clause:
     <__,_____________________________________________________
>>_____column-name___expression_____________________________|____________><
    |               |_NULL_________|                        |
    |   <_,___________        <_,_________________         |
    |_(_column-name___|_)_(________expression____|_____)__|
                           |      |_NULL_________| |
                           |_row-fullselect________|
isolation-clause:
>>_WITH___RR_____________________________________________________________><
        |_RS_|
        |_CS_|
```

DESCRIBE CURSOR

```
>>__DESCRIBE CURSOR____cursor-name______INTO__descriptor-name____________><
                      |_host-variable_|
```

DESCRIBE INPUT

```
>>__DESCRIBE INPUT____statement-name____INTO__descriptor-name____________><
```

DESCRIBE OUTPUT

```
             _OUTPUT_
>>_DESCRIBE_|________|_statement-name____INTO__descriptor-name___________>
>_____________________________________________________________________________><
       |          _NAMES__  |
       |_USING__|_LABELS_|_|
                |_ANY____|
                |_BOTH___|
```

DESCRIBE PROCEDURE

```
>>__DESCRIBE PROCEDURE____procedure-name____INTO__descriptor-name________><
                        |_host-variable__|
```

DESCRIBE TABLE

```
>>_DESCRIBE_TABLE___host-variable_________INTO__descriptor-name___________>
>_____________________________________________________________________________><
       |          _NAMES__  |
       |_USING__|_LABELS_|_|
                |_ANY____|
```

```
                |_BOTH___|
```

DROP

```
                                                  _FOR TABLE____
>>_DROP_________________ALIAS__alias-name__|______________|_______________><
       | |_PUBLIC_|                          |_FOR SEQUENCE_|                |
       |_DATABASE__database-name_____________________________________________|
       |_TYPE_______________distinct-type-name__RESTRICT____________________|
       |__FUNCTION__function-name_____________________________RESTRICT__|
       | |                        |    <_,_________________     |     | |
       | |                        |_(_______________________|__)_|     | |
       | |                                  |_parameter-type_|           | |
       | |__SPECIFIC FUNCTION specific-name______RESTRICT______________| |
       |_INDEX__index-name___________________________________________________|
       |_MASK_mask-name______________________________________________________|
       |_PACKAGE__collection-id.package-id___________________________________|
       |                                      | _VERSION_              |  |
       |                                      |_|________|__version-id_|  |
       |_PERMISSION__permission-name_________________________________________|
       |_PROCEDURE__procedure-name__RESTRICT_________________________________|
       |_ROLE_role-name__RESTRICT____________________________________________|
       |_SEQUENCE__sequence-name_____________________________________________|
       |_STOGROUP__stogroup-name_____________________________________________|
       |_SYNONYM__synonym____________________________________________________|
       |_TABLE__table-name___________________________________________________|
       |_TABLESPACE_____________________table-space-name_____________________|
       |              |_database-name._|                                     |
       |_TRIGGER__trigger-name_______________________________________________|
       |_TRUSTED CONTEXT__context-name_______________________________________|
       |_TYPE_ type-name____RESTRICT_________________________________________|
       |_VIEW__view-name_____________________________________________________|
parameter type:
>>____data-type_____________________________________________________________><
                   |_AS LOCATOR____|
data type:
>>____built-in-data-type____________________________________________________><
    |_distinct-type-name_|
    |_array-type-name____|

built-in-data-type:

>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|              ______(5,0)_______________________                                        |
|__DECIMAL____|_______________________________|_________________________________________|
||_DEC____|  |_(__integer_________________)____|                                         |
||_NUMERIC_|                 |_, integer_|                                               |
|            _(34)_                                                                      |
|_DECFLOAT_ |______|_______________________________________________________________________|
|           |_(16)_|                                                                      |
|           _(53)__________                                                              |
|___FLOAT__|______________|_______________________________________________________________|
| |        |_(__integer__)_|                                                              |
|_|_REAL_______________________|                                                          |
| |          _PRECISION_    |                                                              |
|_|_DOUBLE__|___________|__|                                                              |
|                      __(1)___________                                                  |
|_______CHARACTER____|_______________|_______________________________________________|
```

```
| | | |_CHAR______|  |_(_integer__)____|  |    |_CCSID__ASCII___| |_FOR___SBCS____DATA_|  | |
| | |___CHARACTER__VARYING__(_integer__)__|          |_EBCDIC__|       |_MIXED_|          | |
| |  | |_CHAR_____|        |                         |_UNICODE_|       |_BIT___|          | |
| |  |__VARCHAR____________|                                                                | |
| |                                 _(1M)_______                                            | |
| |_____CHARACTER___LARGE OBJECT_ |____________|_____________________________________| |
|   | |_CHAR______|               |_(_integer_)_|  |_CCSID__ASCII___| |_FOR__SBCS___DATA_|  |
|   |___CLOB_______________________|                     |_EBCDIC__|      |_MIXED_|          |
|                                                         |_UNICODE_|                         |
|                                                                                             |
|            __(1)_____________                                                               |
|___GRAPHIC_|_____________________|_____________________________________________________|
| |         |_(__integer___)___|         |     |_CCSID___ASCII___|                          |
| |_VARGRAPHIC__(__integer__)____________|             |_EBCDIC__|                          |
| |          __(1M)_____________                        |_UNICODE_|                          |
| |_DBCLOB_|_____________________|                                                           |
|          |_(integer)_________|                                                             |
|            _(1)________                                                                     |
|_ _BINARY__|___________|_____________________________________________________________|
| |         |_(integer)__|                                 |                                 |
| |__BINARY VARYING _(integer)_____________________________|                                 |
| | |_VARBINARY_____|                                      |                                 |
| |                          _(1M)_____________________     |                                 |
| |_BINARY LARGE OBJECT_____|_____________________|_____|_____________________________|
|  |_BLOB_________________|  |_(__integer_________)____|                                     |
|                                          |_K_|                                             |
|                                          |_M_|                                             |
|                                          |_G_|                                             |
|___DATE_____________________________________________________________________________________|
| |_TIME_____________________________________________________________________________________|
| |            __(_6_)_____     _WITHOUT TIME ZONE_                                          |
| |_TIMESTAMP_|____________|___|____________________|_____________________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                        |
|_ROWID_____________________________________________________________________________________|
|_XML_______________________________________________________________________________________|
```

END DECLARE SECTION

```
>>__END DECLARE SECTION_____________________________________________________________><
```

EXCHANGE

```
>>__EXCHANGE DATA BETWEEN TABLE table-name1_AND_table-name2 ____________><
```

EXECUTE

```
>>__EXECUTE__statement-name_____________________________________________________>
    >_____________________________________________________________________________><
       |          <_,_____________                  |
       |_USING____variable________|______________|
       |          |_array-variable[array-index]__|
       |_USING__DESCRIPTOR__descriptor-name___| |
       |_ source-row-data_________________________|
source-row-data:
              <_,_____________________
 >>__ _USING___ _host-variable-array_ |__ ________________________________>
     |          |_host-variable_______|   |
     |_USING DESCRIPTOR__descriptor-name_|
 >__ ________________________________ ________________________________________><
    |_FOR_ _host-variable____ _ROWS_|
          |_integer-constant_|
```

EXECUTE IMMEDIATE

```
>>__EXECUTE IMMEDIATE____string-expression_____________________________________><
```

```
                          |_host-variable_____|
```

EXPLAIN

```
>>__EXPLAIN_____________________________________________________________>
 >_ _ _PLAN_ __ _________________________ _FOR_sql-statement_ ______________><
   | |_ALL__|  |_SET QUERYNO=integer_|                     |
   |_STMTCACHE__ALL_____________________________________|
   |           |_STMTID__ _id-host-variable_ _______|    |
   |           |         |_integer-constant_|       |    |
   |           |_STMTTOKEN__ _token-host-variable_ _|    |
   |                       |_string-constant_____|      |
   |_PACKAGE__package-specification_____________________|
   |                                                    |
   |_STABILIZED DYNAMIC QUERY STMTID__id-host-variable___|
   |                                 |_integer-constant_| |
   |     _COPY 'CURRENT'_                               |
   |___|_________________|__________________________________|
       |_COPY 'INVALID'_|

Pacakge-specification:
>>__COLLECTION-collection-name_____________________________________________>
>___PACKAGE-package-name___________________________________________________><
                          |_VERSION_version-name|  |_COPY_copy-id_|
```

FETCH

```
                                                                  _FROM_
>>__FETCH_ ___________________________________fetch-orientation____|______|___>
          |_INSENSITIVE_| |_WITH CONTINUE_|
          |_SENSITIVE___|
 >__cursor-name__ _________________________ ________________________________><
                 |__ single-row-fetch ____|
                 |__ multiple-row-fetch __|
fetch-orientation:
>_ _BEFORE_________________ ______________________________________________>
  |_AFTER_________________|
  |___row-positioned______|
  |___rowset-positioned___|
row-positioned:
  _NEXT_____________________________
 |__________________________________|_____________________________________>
 |_PRIOR____________________________|
 |_FIRST____________________________|
 |_LAST_____________________________|
 |_CURRENT__________________________|
 |_ABSOLUTE_ _host-variable____ __|
 |          |_integer-constant_|  |
 |_RELATIVE_ _host-variable____ __|
            |_integer-constant_|
rowset-positioned:
    _NEXT ROWSET_____________________________________________ _________________>
   |_PRIOR ROWSET____________________________________________|
   |_FIRST ROWSET____________________________________________|
   |_LAST ROWSET_____________________________________________|
   |_CURRENT ROWSET__________________________________________|
```

```
   |_ROWSET STARTING AT_ _ABSOLUTE_ __ _host-variable____ __|
                        |_RELATIVE_|  |_integer-constant_|
single-row-fetch:
    ____________________________________________________________________>
   |      <_,___________                |
   |_INTO__target-variable|_____________|
   |     |_array-variable[array-index]_||
   |_INTO DESCRIPTOR descriptor-name_|__|

target-variable:
>____global-variable-name_____________________________________________>
  |__host-variable-name_______|
  |__SQL-parameter-name_______|
  |__SQL-variable-name________|
  |__transition-variable-name_|

multiple-row-fetch:
   |__ ________________________________ ____________________________>
      |_FOR__ _host-variable____ __ROWS_|
             |_integer-constant_|
   >__ ________________________________ ____________________________>
      |       <_,_________________      |
      |_INTO___host-variable-array|_____|
      |_INTO DESCRIPTOR descriptor-name_|
```

FREE LOCATOR

```
                  <_,_____________
>>__FREE LOCATOR____host_variable_|_____________________________________><
```

GET DIAGNOSTICS

```
>>__GET DIAGNOSTICS__ __statement-information _ ________________________><
                     |__condition-information _|
                     |__combined-information  _|
statement-information:
      <_,_____________________________________________________
 >__ ___host-variable1__=__| statement-information-item-name |_|_ ___________>
    |_host-variable1__=__DB2_GET_DIAGNOSTICS_DIAGNOSTICS_________|
    |_host-variable1_=_DB2_SQL_NESTING_LEVEL_____________________|

statement-information-item-name:
    <_,_____________________________________
 >____ _DB2_LAST_ROW_________________ _|_____________________________>
      |_DB2_NUMBER_PARAMETER_MARKERS____|
      |_DB2_NUMBER_RESULT_SETS__________|
      |_DB2_RETURN_STATUS_______________|
      |_DB2_SQL_ATTR_CURSOR_HOLD________|
      |_DB2_SQL_ATTR_CURSOR_ROWSET______|
      |_DB2_SQL_ATTR_CURSOR_SCROLLABLE__|
      |_DB2_SQL_ATTR_CURSOR_SENSITIVITY_|
      |_DB2_SQL_ATTR_CURSOR_TYPE________|
      |_MORE____________________________|
      |_NUMBER__________________________|
      |_ROW_COUNT_______________________|
```

```
condition-information:
>__CONDITION__ _host-variable2_ ____________________________________________>
              |_integer________|
     <_,____________________________________________________________
>__host-variable3__ =__ ___condition-information-item-name ___ _|___________>
                       |___connection-information-item-name __|

condition-information-item-name:
>__ _CATALOG_NAME_______________ ____________________________________________>
   |_CONDITION_NUMBER___________|
   |_CURSOR_NAME_________________|
   |_DB2_ERROR_CODE1____________|
   |_DB2_ERROR_CODE2____________|
   |_DB2_ERROR_CODE3____________|
   |_DB2_ERROR_CODE4____________|
   |_DB2_INTERNAL_ERROR_POINTER_|
   |_DB2_LINE_NUMBER____________|
   |_DB2_MESSAGE_ID_____________|
   |_DB2_MODULE_DETECTING_ERROR_|
   |_DB2_ORDINAL_TOKEN_n________|
   |_DB2_REASON_CODE____________|
   |_DB2_RETURNED_SQLCODE_______|
   |_DB2_ROW_NUMBER_____________|
   |_DB2_SQLERRD_SET____________|
   |_DB2_SQLERRD1_______________|
   |_DB2_SQLERRD2_______________|
   |_DB2_SQLERRD3_______________|
   |_DB2_SQLERRD4_______________|
   |_DB2_SQLERRD5_______________|
   |_DB2_SQLERRD6_______________|
   |_DB2_TOKEN_COUNT____________|
   |_MESSAGE_TEXT_______________|
   |_RETURNED_SQLSTATE__________|
   |_SERVER_NAME_________________|

connection-information-item-name:
>__ _DB2_AUTHENTICATION_TYPE_ ______________________________________________>
   |_DB2_AUTHORIZATION_ID____|
   |_DB2_CONNECTION_STATE____|
   |_DB2_CONNECTION_STATUS___|
   |_DB2_ENCRYPTION_TYPE_____|
   |_DB2_SERVER_CLASS_NAME___|
   |_DB2_PRODUCT_ID__________|

combined-information:
                           <_,____________________________________
>__host-variable4__=__ALL___ _STATEMENT_____________________________|________><
                            |_ _CONDITION__ __ _________________ _|
                              |_CONNECTION_|  |_host-variable5_|
                                              |_integer________|
```

GRANT

```
>>__GRANT__authorization-specification_____________________________________>
       <_,____________________________
>__TO______authorization-name________|_____________________________________><
```

```
          |_PUBLIC___________________|    |_WITH GRANT OPTION_|
          |_ROLE_role-name___________|
```

GRANT (collection privileges)

```
                                                  <_,_____________
>>__GRANT____CREATE_______ON____COLLECTION______collection-id_|_____________>
           |_PACKADM_|  |_IN_|              |_*__________________|
       <_,_______________________
>__TO______authorization-name___|_______________________________________________><
          |_PUBLIC_____________|    |_WITH GRANT OPTION_|
          |_ROLE_role-name_____|
```

GRANT (database privileges)

```
           <_,_____________                 <_,_____________
>>__GRANT______DBADM_______|__ON DATABASE____database-name_|_______________>
              |_DBCTRL____|
              |_DBMAINT___|
              |_CREATETAB_|
              |_CREATETS__|
              |_DISPLAYDB_|
              |_DROP______|
              |_IMAGCOPY__|
              |_LOAD______|
              |_RECOVERDB_|
              |_REORG_____|
              |_REPAIR____|
              |_STARTDB___|
              |_STATS_____|
              |_STOPDB____|
       <_,_______________________
>__TO______authorization-name___|_____________________________________________><
           |_PUBLIC_____________|    |_WITH GRANT OPTION_|
           |_ROLE_role-name_____|
```

GRANT (function or procedure privileges)

```
>>__GRANT__EXECUTE__ON_____________________________________________________>
                  <_,_____________________________________________
>____FUNCTION______function-name_____________________________|_______>
      |           |              |    <_,__________________     |   | |
      |           |              |_(_______________________|__)_|   | |
      |           |                      |_parameter-type_|         | |
      |           |_*_____________________________________________| |
      |                    <_,_____________                          |
      |_SPECIFIC FUNCTION____specific-name_|_________________________|
      |              <_,_______________                               |
      |_PROCEDURE______procedure-name_|_______________________________|
                   |_*__________________|
          <_,_______________________
   >__TO______authorization-name___|_______________________________________><
            |_PUBLIC_____________|    |_WITH GRANT OPTION_|
            |_ROLE_role-name_____|
parameter type:
>>____data-type_____________________________________________________________><
                   |_AS LOCATOR____|
```

```
data type:
>>____built-in-data-type_____________________________________________><
     |_distinct-type-name_|
     |_array-type-name____|
built-in data type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                   |
| | |INT__|  |                                                                   |
| |_BIGINT___|                                                                   |
|              ______(5,0)_____________________                                  |
|__DECIMAL____|_____________________________|_______________________________________|
||_DEC_____|  |_(__integer_______________)____|                                   |
||_NUMERIC_|                 |_, integer_|                                        |
|            _(34)_                                                               |
|_DECFLOAT_ |_____|_______________________________________________________________|
|           |_(16)_|                                                              |
|           _(53)__________                                                       |
|___FLOAT__|______________|_______________________________________________________|
| |        |_(__integer__)_|                                                      |
|_|_REAL_______________|                                                          |
| |          _PRECISION_   |                                                      |
|_|_DOUBLE__|___________|__|                                                      |
|                    __(1)___________                                             |
|_______CHARACTER____|_______________|_____________________________________________|
| | | |_CHAR_____|  |_(_integer__)____|  |    |_CCSID__ASCII___| |_FOR___SBCS____DATA_|  | |
| | |___CHARACTER__VARYING__(_integer__)__|          |_EBCDIC__|       |_MIXED_|          | |
| |  | |_CHAR_____|        |                         |_UNICODE_|       |_BIT___|          | |
| |  |__VARCHAR____________|                                                        | |
| |                                _(1M)_______                                     | |
| |_____CHARACTER___LARGE OBJECT_ |____________|_____________________________________| |
|   | |_CHAR_____|               |_(_integer_)_|  |_CCSID__ASCII___| |_FOR__SBCS___DATA_|  |
|   |___CLOB_______________________|                     |_EBCDIC__|      |_MIXED_|        |
|                                                        |_UNICODE_|                      |
|                                                                                  |
|            __(1)____________                                                     |
|___GRAPHIC_|______________|_______________________________________________________|
| |         |_(__integer___)___|         |     |_CCSID___ASCII___|                 |
| |_VARGRAPHIC__(__integer__)____________|            |_EBCDIC__|                 |
| |         __(1M)____________                        |_UNICODE_|                 |
| |_DBCLOB_|_________________|                                                      |
|           |_(integer)_________|                                                  |
|            _(1)________                                                          |
|_ _BINARY__|____________|_______________________________________________________|
| |         |_(integer)__|                                |                        |
| |__BINARY VARYING _(integer)_____________________________|                        |
| | |_VARBINARY_____|                                     |                        |
| |                         _(1M)_____________________     |                        |
| |_BINARY LARGE OBJECT_____|_____________________|_____|_______________________|
|  |_BLOB_______________|  |_(__integer_________)____|                             |
|                                        |_K_|                                     |
|                                        |_M_|                                     |
|                                        |_G_|                                     |
|___DATE_____________________________________________________________________________|
| |_TIME_____________________________________________________________________________|
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                |
| |_TIMESTAMP_|____________|___|____________________|_____________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                               |
|_ROWID_____________________________________________________________________________|
|_XML_______________________________________________________________________________|
```

GRANT (package privileges)

```
>>__GRANT____ALL_____________________ON____PACKAGE_____________________________>
           | <_,_______________  |       |_*_______|
           |_____BIND___________|_|
                |_COPY_________|
                |___EXECUTE___|
                 |_RUN_____|
```

```
        <_,_____________________________
    >____collection-id.___package-id____|_____________________________________>
                         |_*___________|
            <_,_______________________
    >__TO______authorization-name___|_____________________________________________><
              |_PUBLIC_____________|    |_WITH GRANT OPTION_|
              |_ROLE_role-name_____|
```

GRANT (plan privileges)

```
            <_,___________            <_,_________
>>__GRANT______BIND______|__ON PLAN____plan-name_|_____________________________>
              |_EXECUTE_|

            <_,_______________________
    >__TO______authorization-name___|_____________________________________________><
              |_PUBLIC_____________|    |_WITH GRANT OPTION_|
              |_ROLE_role-name_____|
```

GRANT (schema privileges)

```
            <_,____________                 <_,___________
>>__GRANT______ALTERIN____|__ON__SCHEMA______schema-name_|____________________>
              |_CREATEIN_|
              |_DROPIN___|
          <_,_______________________
  >__TO______authorization-name___|_____________________________________________><
            |_PUBLIC_____________|    |_WITH GRANT OPTION_|
            |_ROLE_role-name_____|
```

GRANT (sequence privileges)

```
            <_,__________                   <_,____________
>>__GRANT______ALTER____|__ON_SEQUENCE______sequence-name_|____________________>
              |_USAGE____|                |_*______________|
          <_,_______________________
  >__TO______authorization-name___|_____________________________________________><
            |_PUBLIC_____________|    |_WITH GRANT OPTION_|
            |_ROLE_role-name_____|
```

GRANT (system privileges)

```
                    <_,_________________
>>__GRANT__________ACCESSCTRL___________|_____________________________________>
                 |_ARCHIVE_____________________________________________|
                 |_BINDADD_____________________________________________|
                 |_BINDAGENT___________________________________________|
                 |_BSDS________________________________________________|
                 |_CREATEALIAS_________________________________________|
                 |_CREATEDBA___________________________________________|
                 |_CREATEDBC___________________________________________|
                 |_CREATESG____________________________________________|
                 |_CREATETMTAB_________________________________________|
                 |_CREATE_SECURE_OBJECT________________________________|
                 |_DATAACCESS__________________________________________|
                 |        _WITH ACCESSCTRL_____  _WITH DATAACCESS____  |
                 |_DBADM_|_____________________||_____________________|_|
                 |       |_WITHOUT ACCESSCTRL__||_WITHOUT DATAACCESS_| |
                 |_DEBUGSESSION________________________________________|
```

```
                  |_DISPLAY_____________________________________________|
                  |_EXPLAIN_____________________________________________|
                  |_MONITOR1____________________________________________|
                  |_MONITOR2____________________________________________|
                  |_RECOVER_____________________________________________|
                  |_SQLADM______________________________________________|
                  |_STOPALL_____________________________________________|
                  |_STOSPACE____________________________________________|
                  |_SYSADM______________________________________________|
                  |_SYSCTRL_____________________________________________|
                  |_SYSOPR______________________________________________|
                  |_TRACE_______________________________________________|
>_____________________________________________________________________________>
       |_ON SYSTEM_|

       <_,_______________________
>__TO______authorization-name___|_____________________________________________><
         |_PUBLIC_____________|    |_WITH GRANT OPTION_|
         |_ROLE_role-name_____|
```

GRANT (table or view privileges)

```
                    _PRIVILEGES_
>>__GRANT____ALL__|____________|_____________________________________________>
               | <_,_____________________________________________  |
               |_____ALTER_____________________________________|_|
                   |_DELETE_____________________________________|
                   |_INDEX______________________________________|
                   |_INSERT_____________________________________|
                   |_SELECT_____________________________________|
                   |_REFERENCES_________________________________|
                   |              |   <_,___________    | |
                   |              |_(___column-name_|_)_| |
                   |_TRIGGER____________________________________|
                   |_UPDATE_____________________________________|
                             |   <_,___________    |
                             |_(___column-name_|_)_|

            _TABLE_   <_,_______________
    >__ON__|_______|______table-name___|_____________________________________>
                        |_view-name__|
           <_,_______________________________
    >__TO______authorization-name________|_____________________________________><
             |_PUBLIC_______________|       |_WITH GRANT OPTION_|
             |_ROLE_role-name_______|
```

GRANT (type or JAR privileges)

```
                     <_,_____________
>>__GRANT__USAGE ON__TYPE__type-name_|_____________________________________>
                   |      <_,________                          |
                   |_JAR____jar-name_|__________________________|
        <_,_____________________
>__TO______authorization-name___|_____________________________________________><
          |_PUBLIC_____________|    |_WITH GRANT OPTION_|
          |_ROLE_role-name_____|
```

GRANT (variable privileges)

```
                    _PRIVILEGES_
>>__GRANT____ALL___|____________|__ON_VARIABLE__variable-name_______________>
           |  <_,_________         |
           |______READ___|_______|
                |_WRITE_|
        <_,_______________________
>__TO______authorization-name___|_______________________________________________><
          |_PUBLIC______________|    |_WITH GRANT OPTION_|
          |_ROLE_role-name_____|
```

GRANT (use privileges)

```
>>__GRANT USE OF_____________________________________________________________>
                 <_,____
>____BUFFERPOOL___bpname|____________________________________________________>
    |_ALL BUFFERPOOLS_____________________________________________
    |           <_,_____________                                  |
    |_STOGROUP____stogroup-name_|_____________________________|
    |             <_,_____________________________________  |
    |_TABLESPACE_____________________table-space-name_|_|
                  |_database-name._|
       <_,_______________________
>__TO______authorization-name___|_______________________________________________><
           |_PUBLIC______________|    |_WITH GRANT OPTION_|
           |_ROLE_role-name_____|
```

HOLD LOCATOR

```
                  <_,_____________
>>__HOLD LOCATOR____host_variable_|_______________________________________________><
```

INCLUDE

```
>>__INCLUDE____SQLCA_________________________________________________________________><
             |_SQLDA_______|
             |_member-name_|
```

INSERT

```
>>__INSERT INTO____table-name_________________________________________________>
                  |_view-name__|  |    <_,___________     |
                                 |_(____column-name_|__)_|
>_____________________________________________________________________________>
    |_include-column_|   |_OVERRIDING USER VALUE_|

>____VALUES_____expression_____________________________________________________><
    |        | |_DEFAULT____|       |                    |
    |        | |_NULL_______|       |                    |
    |        |   <_,____________    |                    |
    |        |_(____expression__|_)_|                    |
    |             |_DEFAULT____|                          |
    |             |_NULL_______|                          |
    |      <_,_____________________                       |
    |_WITH common-table-expression |_____________________|
    |_fullselect_____________________________________________|
    |            |_WITH____RR___|  |_QUERYNO__integer_| |
```

```
    |                       |_RS_|                          |
    |                       |_CS_|                          |
    |_multi-row-insert_____________________________________|

include-column:
                <_,_______________________
>>__INCLUDE__(__column-nmae__data-type_|_)_______________________________><

data-type:
>>___built-in type_____________________________________________________________><
   |_distinct_type_name_|

built-in-type:
>__SMALLINT_____________________________________________________________________________><
| |_INTEGER__|                                                                          |
| | |INT__|  |                                                                          |
| |_BIGINT___|                                                                          |
|              ______(5,0)_____________________                                          |
|__DECIMAL____|_____________________________|_________________________________________|
||_DEC_____|  |_(__integer_________________)____|                                        |
||_NUMERIC_|                 |_, integer_|                                              |
|            _(34)_                                                                       |
|_DECFLOAT_ |______|_______________________________________________________________________|
|           |_(16)_|                                                                      |
|           _(53)__________                                                               |
|___FLOAT__|______________|_______________________________________________________________|
| |        |_(__integer__)_|                                                              |
|_|_REAL_______________|                                                                 |
| |          _PRECISION_   |                                                              |
|_|_DOUBLE__|___________|__|                                                              |
|                     __(1)___________                                                    |
|_______CHARACTER____|_______________|_______________________________________________|
| | | |_CHAR______|  |_(_integer_)____|  |                    |_FOR___BIT____DATA_|     |
| | |___CHARACTER__VARYING__(_integer_)__|                                                |
| |  | |_CHAR_____|        |                                                              |
| |  |__VARCHAR____________|                                                              |
|            __(1)_____________                                                           |
|___GRAPHIC_|_______________|_______________________________________________________|
| |         |_(__integer__)____|        |                                                |
| |_VARGRAPHIC__(_ integer_)___________|                                                 |
|            _(1)________                                                                 |
|_ _BINARY__|_____________|_______________________________________________________|
| |         |_(integer)__|                                 |                             |
| |__BINARY VARYING _(integer)_______________________________|                             |
| | |_VARBINARY_____|                                                                     |
|___DATE_____________________________________________________________________________|
  |_TIME_____________________________________________|
  |            __(_6_)_____      _WITHOUT TIME ZONE_  |
  |_TIMESTAMP_|___________|___|_________________|_|
              |_(integer_)_|   |_WITH TIME ZONE____|

multi-row-insert:
>>__VALUES__ _ _expression__________ ________ ______________________________>
             | |_host-variable-array_|        |
             | |_NULL________________|        |
             | |_DEFAULT_____________|        |
             |   <_,_____________________     |
             |_(__ _expression__________ |_)_|
                  |_host-variable-array_|
                  |_NULL________________|
                  |_DEFAULT_____________|
   >__ ____________________________________ ______________________________>
      |                                     |
      |_FOR__ _host-variable____ __ROWS____|
```

```
             |_integer-constant_|
        _ATOMIC_____________________________________
    >__|_____________________________________________|___________________________><
       |                                             |
       |_NOT ATOMIC CONTINUE ON SQLEXCEPTION____|
```

LABEL

```
>>__LABEL ON___TABLE____table-name_______________IS_string-constant_____><
            | |        |_view-name__|             |                 |
            | |_ALIAS__alias-name_________________|                 |
            | |_COLUMN____table-name.column-name__|                 |
            |           |_view-name.column-name__|                  |
            |              <_,_________________________________      |
            |_table-name_(___column-name__IS__string-constant_|__)__|
              |_view-name__|
```

LOCK TABLE

```
>>__LOCK TABLE__table-name_____________________________________________>
                              |_PARTITION__integer_|
>__IN____SHARE________MODE_____________________________________________><
       |_EXCLUSIVE_|
```

MERGE

```
>>__MERGE INTO____table-name_____________________________________________>
                 |_view-name__|    |                     |
                                   |_correlation-clause_|
>_______________________________________________________________________>
    |_include-columns_|

>__USING_table-reference_ON_search-condition_____________________________>
        |_source-values_|
 <_____________________________________________________   _ELSE IGNORE_
>_WHEN_matching-condition_THEN_modification-operation|_|_____________|___>

>_______________________________________________________________________><
  |_NOT ATOMIC CONTINUE ON SQL EXCEPTION_|  |_QUERYNO_integer_|

include-column:
               <_,_______________________
>___INCLUDE__(__column-name__data-type_|_)_______________________________><

Correlation-clause:
>_______________________________________________________________________><
  |  _AS_                                          |
  |_|____|_correlation-name_____________________|
                             |  <_,_______________  |
                             |_(_column-name_)____|_|
data-type:
>>___built-in type_____________________________________________________><
   |_distinct_type_name_|

built-in-type:

>__SMALLINT_____________________________________________________________><
| |_INTEGER__|                                                          |
| | |INT__|  |                                                          |
```

```
| |_BIGINT___|                                                                  |
|                 _____(5,0)_____________________                                |
|__DECIMAL____|__________________________________|____________________________|
||_DEC_____|  |_(__integer_________________)____|                              |
||_NUMERIC_|                 |_, integer_|                                     |
|                 _(34)_                                                         |
|_DECFLOAT_ |______|_____________________________________________________________|
|                |_(16)_|                                                        |
|               _(53)_________                                                   |
|___FLOAT__|______________|_____________________________________________________|
| |          |_(__integer__)_|                                                   |
|_|_REAL_________________|                                                      |
| |             _PRECISION_   |                                                  |
|_|_DOUBLE__|____________|__|                                                    |
|                        __(1)___________                                        |
|_____CHARACTER___|_________________|_____________________________________________|
| | | |_CHAR______|  |_(_integer_)____|  |                      |_FOR___BIT____DATA_|      |
| | |___CHARACTER__VARYING__(_integer_)__|                                      |
| |  | |_CHAR____|        |                                                     |
| |  |__VARCHAR____________|                                                    |
|              __(1)_____________                                                |
|___GRAPHIC_|_________________|___________________________________________________|
| |          |_(__integer__)____|        |                                      |
| |_VARGRAPHIC__(_ integer_)____________|                                       |
|                _(1)________                                                    |
|_ _BINARY__|_________________|___________________________________________________|
| |          |_(integer)__|                                |                    |
| |__BINARY VARYING _(integer)_____________________________|                    |
| | |_VARBINARY_____|                                                            |
|___DATE_____________________________________________________________________________|
  |_TIME_____________________________________________|
  |              __(_6_)_____       _WITHOUT TIME ZONE_  |
  |_TIMESTAMP_|_____________|___|_____________________|_|
               |_(integer_)_|   |_WITH TIME ZONE____|
```

source-table:

```
                                        _AS_                      <,___________
>>_(VALUES__values-single-row____)_|__|_correlation-name_(_column-name_|_)_><
          |_values-multiple-row_|
```

values-single-row:

```
>>____expression_____________________________________________________________><
    | |_NULL_______|            |
    |  <,_________________      |
    |_(_expression_______|__)__|
        |__NULL_______|
```

values-multiple-row:

```
>>_____expression___________________FOR__host-variable_____________ROWS______><
    | |_host-variable-array_|    |     |_integer-constant_|
    | |_NULL_______|             |
    |  <,_______________________ |
    |_(_expression____________|_)_|
        |__NULL_________________|
        |_host-variable-array_|
```

matching-condition:

```
>>_____________MATCHED_______________________________________________________><
     |_NOT_|              |_AND_search-condition___|
```

modification-operation:

```
>>____update-operation______________________________________________________><
    |_insert-operation_____________________|
    |_delete-operation_____________________|
```

```
assignment-clause:
       <,_____________________________________________________
>>_column-name______expression_____________________________|___________><
    |               |_DEFAULT_______|                          |
    |               |_NULL__________|                          |
    |   <,_________________              <,____________        |
    |_(_column-name________|__)______(___expression_____|__)__|
                                      | |_DEFAULT____|    |
                                      | |_NULL_______|    |
                                      |_row-fullselect____|
update-operation:
>>__UPDATE SET assignment-clause_____________________________________________><

insert-operation:
>>__INSERT______VALUES_________________expression___________________________><
             |  <,___________     |   |  |_DEFAULT______|       |
             |_(_column-name_|__)_|   |  |_NULL________|        |
                                      |    <,______________     |
                                      |_(___expression_____|__)_|
                                           |_DEFAULT____|
                                           |_NULL_______|
delete-operation:
>>__DELETE___________________________________________________________________><
```

OPEN

```
>>__OPEN__cursor-name_____________________________________________________><
                        |          <_,______________              |
                        |_USING___________variable_|_____________|
                        |        |_array-variable[array-index]_|_|
                        |_USING DESCRIPTOR_______descriptor-name_|
```

PREPARE

```
>>__PREPARE__statement-name_______________________________________________>
>_____________________________________________________________________________>
    |_INTO__descriptor-name_________________________|
                             |          _NAMES__   |
                             |_USING__|_LABELS_|_|
                                      |_ANY____|
                                      |_BOTH___|
>__FROM____string-expression_____________________________________________><
  |_____________________________________FROM_host-variable_____|
    |__ATTRIBUTES__attr-host-variable_|

attribute-string
       <_____________________
>>_______ASENSITIVE ___________|_____________________________________________><
    ||__INSENSITIVE___________|                |
    ||__SENSITIVE__STATIC_____|                |
    |            |_DYNAMIC_|                   |
    |  _NO SCROLL_                             |
    |_|_SCROLL____|______________________________|
    |_holdability_______________________________|
    |_returnability_____________________________|
```

```
    |_rowset-positioning_____________________|
    |_fetch-first-clause_____________________|
    |__read-only-clause______________________|
    | |_update-clause___|                    |
    |_optimize-clause________________________|
    |_isolation-clause_______________________|
    |__FOR MULTIPLE ROWS_____________________|
    | |_FOR SINGLE ROW___|                   |
    |  _ATOMIC_                              |
    |_|________|_____________________________|
    | |_NOT ATOMIC CONINUE ON SQLEXCEPTION_|  |
    |__SKIP LOCKED DATA______________________|
    | |_USE CURRENTLY COMMITTED_|            |
    | |_WAIT FOR OUTCOME________|            |
    |__WITHOUT EXTENDED INDICATORS___________|
    | |_WITH EXTENDED INDICATORS___|         |
    |__CONCENTRATE STATEMENTS OFF____________|
    ||_CONCENTRATE STATEMENTS WITH LITERALS_|_|

holdability :
>>_____________________________________________________________________><
    |_WITHOUT HOLD_|
    |_WITH HOLD____|
returnability :
>>___ WITHOUT RETURN ______________________________________________><
    |                _TO CALLER_  |
    |_WITH RETURN_|____________|_|
                  |_TO CLIENT_|
rowset-positioning :
>>_____________________________________________________________________><
    |_WITHOUT ROWSET POSITIONING_|
    |_WITH ROWSET POSITIONING____|
concurrent-access-resolution :
>>___SKIP LOCKED DATA______________________________________________><
    |_USE CURRENTLY COMMITTED__|
    |_WAIT FOR OUTCOME_________|
```

REFRESH TABLE

```
>>__REFRESH_TABLE table-name_____________________________________><
                              |_QUERYNO integer_|
```

RELEASE

```
>>__RELEASE____location-name_____________________________________><
              |_host-variable_|
              |_CURRENT_______|
              |       _SQL_   |
              |_ALL_|_____|___|
```

RELEASE SAVEPOINT

```
                _TO_
>>__RELEASE___|____|___SAVEPOINT__svpt-name_____________________><
```

RELEASE (connection)

```
>>__RELEASE__ _location-name_ ___________________________________><
```

```
             |_host-variable_|
             |_CURRENT_______|
             |      _SQL_    |
             |_ALL_|_____|___|
```

RENAME

```
             _TABLE_
>>__RENAME__|_______|__source-table-name__TO__new-table-identifier____><
           |_INDEX__source-index-name__TO__new-index-identifier___|
```

REVOKE

```
>>__REVOKE__authorization-specification_____________________________________>
          <_,_____________________________
>__FROM______authorization-name________|_____________________________________>
            |_PUBLIC_________________|
            |_ROLE-role-name__________|
>_____________________________________________________________________________><
   |       <_,_________________    |
   |_BY______authorization-name_|___|
          |_ALL____________________|

>___INCLUDING DEPENDENT PRIVILEGES_____________________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|        |_RESTRICT____|
```

REVOKE (collection privileges)

```
                                                  <_,_____________
>>__REVOKE____CREATE_______IN____COLLECTION______collection-id_|______________>
             |_PACKADM_|  |_ON_|              |_*_________________|
          <_,_____________________
>__FROM______authorization-name___|_____________________________________________>
            |_PUBLIC______________|
            |_ROLE-role-name_____|
>_____________________________________________________________________________>
   |       <_,_________________    |
   |_BY______authorization-name_|___|
         |_ALL____________________|

>___INCLUDING DEPENDENT PRIVILEGES_____________________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (database privileges)

```
            <_,_____________                <_,_____________
>>__REVOKE______DBADM_______|__ON DATABASE____database-name_|_________________>
               |_DBCTRL____|
               |_DBMAINT___|
               |_CREATETAB_|
               |_CREATETS__|
               |_DISPLAYDB_|
               |_DROP______|
               |_IMAGCOPY__|
               |_LOAD______|
               |_RECOVERDB_|
```

```
                |_REORG_____|
                |_REPAIR____|
                |_STARTDB___|
                |_STATS_____|
                |_STOPDB____|
           <_,_____________________
>__FROM______authorization-name___|_______________________________________>
            |_PUBLIC______________|
            |_ROLE-role-name_____|
>_____________________________________________________________________________>
   |       <_,_________________    |
   |_BY______authorization-name_|___|
          |_ALL____________________|

>___INCLUDING DEPENDENT PRIVILEGES_____________________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (function or procedure privileges)

```
>>__REVOKE__EXECUTE__ON_____________________________________________________>
                  <_,_____________________________________
>____FUNCTION__function-name_____________________________|_________________>
     |       |              |  <_,_________________     |   | |
     |       |              |_(____________________|__)_|   | |
     |       |                        |_parameter-type_|      | |
     |       |_*_____________________________________________| |
     |                    <_,_____________                     |
     |_SPECIFIC FUNCTION____specific-name_|___________________|
     |              <_,_______________                         |
     |_PROCEDURE______procedure-name_|_______________________|
                  |_*_________________|
           <_,_____________________
 >__FROM______authorization-name___|_______________________RESTRICT_______>
             |_PUBLIC______________| |    <_,_________________    |
             |_ROLE-role-name_____| |_BY___authorization-name_|___|
                                        |_ROLE-role-name_________|
                                        |_ALL____________________|
>___INCLUDING DEPENDENT PRIVILEGES_____________________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|

parameter type:
 >>____data-type_____________________________________________________________><
                   |_AS LOCATOR____|
data type:
 >>____built-in-data-type____________________________________________________><
     |_distinct-type-name_|
     |_array-type-name____|
built-in data type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                 |
| | |INT__|  |                                                                 |
| |_BIGINT___|                                                                 |
|              ______(5,0)_____________________                                |
|__DECIMAL____|_______________________________|_______________________________|
||_DEC_____|  |_(__integer_______________)____|                               |
||_NUMERIC_|                |_, integer_|                                      |
|           _(34)_                                                             |
```

```
|_DECFLOAT_ |______|_______________________________________________________________|
|           |_(16)_|                                                                |
|           _(53)__________                                                         |
|___FLOAT__|______________|_______________________________________________________ |
| |        |_(__integer__)_|                                                        |
|_|_REAL_______________|                                                            |
| |          _PRECISION_   |                                                        |
|_|_DOUBLE__|____________|__|                                                        |
|                      __(1)___________                                              |
|_______CHARACTER____|_______________|_____________________________________________|
| | | |_CHAR______|  |_(_integer__)____|  |    |_CCSID__ASCII___| |_FOR___SBCS____DATA_|  | |
| | |___CHARACTER__VARYING__(_integer__)__|          |_EBCDIC__|       |_MIXED_|          | |
| |  | |_CHAR_____|        |                         |_UNICODE_|       |_BIT___|          | |
| |  |__VARCHAR____________|                                                          | |
| |                                 _(1M)_______                                      | |
| |_____CHARACTER___LARGE OBJECT_ |_____________|_____________________________________| |
|   | |_CHAR______|               |_(_integer_)_|  |_CCSID__ASCII___| |_FOR__SBCS___DATA_|  |
|   |___CLOB_____________________|                     |_EBCDIC__|      |_MIXED_|        |
|                                                       |_UNICODE_|                       |
|                                                                                       |
|            __(1)_____________                                                         |
|___GRAPHIC_|______________|_______________________________________________________|
| |         |_(__integer___)___|         |     |_CCSID___ASCII___|                     |
| |_VARGRAPHIC__(__integer__)____________|            |_EBCDIC__|                     |
| |          __(1M)_____________                      |_UNICODE_|                     |
| |_DBCLOB_|______________|                                                            |
|          |_(integer)_________|                                                        |
|            _(1)________                                                               |
|_ _BINARY__|_________|_______________________________________________________________|
| |         |_(integer)__|                                |                            |
| |__BINARY VARYING _(integer)_____________________________|                            |
| | |_VARBINARY_____|                                     |                            |
| |                          _(1M)_____________________     |                            |
| |_BINARY LARGE OBJECT_____|_____________________________|_____|_____________________|
|  |_BLOB_________________|  |_(__integer_________)____|                                |
|                                        |_K_|                                          |
|                                        |_M_|                                          |
|                                        |_G_|                                          |
|___DATE_______________________________________________________________________________|
| |_TIME_______________________________________________________________________________|
| |            __(_6_)_____      _WITHOUT TIME ZONE_                                    |
| |_TIMESTAMP_|____________|___|____________________|_____________________________|
|             |_(integer_)_|   |_WITH TIME ZONE____|                                   |
|_ROWID_______________________________________________________________________________|
|_XML_________________________________________________________________________________|
```

REVOKE (package privileges)

```
>>__REVOKE____ALL_____________________________________________________________>
              | <_,_________________  |
              |____BIND____________|_|
                 |_COPY________|
                 |___EXECUTE___|
                    |_RUN_____|
                      <_,_______________________________
>__ON____PACKAGE______collection-id.___package-id____|_______________>
        |_PROGRAM_|                    |_*__________|
          <_,_______________________
>__FROM______authorization-name___|_______________________________________>
            |_PUBLIC______________|
            |_ROLE_role-name_____|
>_______________________________________________________________________________>
    |       <_,_________________     |
    |_BY______authorization-name_|___|
          |_ALL_____________________|
          |_ROLE_role-name_________|
```

```
>___INCLUDING DEPENDENT PRIVILEGES_____________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (plan privileges)

```
              <_,__________              <_,__________
>>__REVOKE______BIND______|__ON PLAN____plan-name_|____________________>
                |_EXECUTE_|
          <_,_______________________
>__FROM______authorization-name___|_____________________________________>
            |_PUBLIC______________|
            |_ROLE_role-name_____|
>_____________________________________________________________________>
    |        <_,__________________    |
    |_BY_____authorization-name_|___|
          |_ALL_____________________|
          |_ROLE_role-name_________|

>___INCLUDING DEPENDENT PRIVILEGES_____________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (schema privileges)

```
              <_,___________                  <_,___________
>>__REVOKE______ALTERIN____|__ON__SCHEMA______schema-name_|___________>
               |_CREATEIN_|                |_*_______________|
               |_DROPIN___|
          <_,_______________________
>__FROM______authorization-name___|_____________________________________>
           |_PUBLIC______________|
           |_ROLE_role-name_____|
>_____________________________________________________________________>
    |        <_,__________________    |
    |_BY_____authorization-name_|___|
          |_ALL_____________________|
          |_ROLE_role-name_________|
>___INCLUDING DEPENDENT PRIVILEGES_____________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (sequence privileges)

```
              <_,___________                  <_,___________
>>__REVOKE______ALTER______|__ON__SEQUENCE____schema-name_|___________>
               |_USAGE______|
          <_,_______________________
>__FROM______authorization-name___|_____________________________________>
           |_PUBLIC______________|
           |_ROLE_role-name_____|            _RESTRICT_
>_____________________________________________|___________|_______________>
    |        <_,__________________    |
    |_BY_____authorization-name_|___|
          |_ALL_____________________|
          |_ROLE_role-name_________|

>___INCLUDING DEPENDENT PRIVILEGES_____________________________________><
```

```
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (system privileges)

```
                <_,_____________________        <_,_________________
>>__REVOKE______ACCESSCTRL_____________|__FROM_authorization-name__|_>
                |_ARCHIVE_______________|      |_PUBLIC______________|
                |_BINDADD_______________|      |_ROLE_role-name_____|
                |_BINDAGENT_____________|
                |_BSDS__________________|
                |_CREATEALIAS___________|
                |_CREATEDBA_____________|
                |_CREATEDBC_____________|
                |_CREATESG______________|
                |_CREATETMTAB___________|
                |_CREATE_SECURE_OBJECT_|
                |_DATAACCESS____________|
                |_DBADAM________________|
                |_DEBUGSESSION__________|
                |_DISPLAY_______________|
                |_EXPLAIN_______________|
                |_MONITOR1______________|
                |_MONITOR2______________|
                |_RECOVER_______________|
                |_SQLADM________________|
                |_STOPALL_______________|
                |_STOSPACE______________|
                |_SYSADM________________|
                |_SYSCTRL_______________|
                |_SYSOPR________________|
                |_TRACE_________________|
>_______________________________________________________________________________>
    |       <_,__________________    |
    |_BY______authorization-name_|___|
          |_ALL____________________|
          |_ROLE_role-name_________|

>___INCLUDING DEPENDENT PRIVILEGES_____________________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (table or view privileges)

```
                      _PRIVILEGES_
>>__REVOKE____ALL__|____________|_____________________________________________>
             | <_,_______________   |
             |_____ALTER________|__|
                 |_DELETE_____|
                 |_INDEX______|
                 |_INSERT_____|
                 |_REFERENCES_|
                 |_SELECT_____|
                 |_TRIGGER____|
                 |_UPDATE_____|
         _TABLE_   <_,_____________
>__ON__|_______|______table-name___|_____________________________________________>
```

```
                    |_view-name__|
          <_,_______________________
>__FROM______authorization-name________|_____________________________________>
           |_PUBLIC_________________|
           |_ROLE_role-name__________|
>_____________________________________________________________________________>
   |       <_,_________________    |
   |_BY______authorization-name_|___|
          |_ALL_____________________|
          |_ROLE_role-name_________|

>___INCLUDING DEPENDENT PRIVILEGES_____________________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (type or JAR privileges)

```
                                          <_,_________________
>>__REVOKE__USAGE ON_________ TYPE_________________type-name_|______________>
                                    |        <_,______            |
                                    |_JAR____jar-name_|___________|
          <_,_____________________zZ
>__FROM______authorization-name___|_____________________________________________>
            |_PUBLIC_____________|
            |_ROLE-role-name_____|
>_____________________________________RESTRICT_____________________________>
    |       <_,_________________    |
    |_BY______authorization-name_|___|
          |_ALL_____________________|

>___INCLUDING DEPENDENT PRIVILEGES_____________________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (use privileges)

```
>>__REVOKE USE OF_____________________________________________________________>
                  <_,_____
>____BUFFERPOOL____bpname_|_____________________________________________________>
   |_ALL BUFFERPOOLS_____________________________________|
   |           <_,_____________                          |
   |_STOGROUP____stogroup-name_|_____________________________|
   |             <_,_____________________________________  |
   |_TABLESPACE_____________________table-space-name_|_|
                    |_database-name._|
          <_,_____________________
>__FROM______authorization-name___|_____________________________________________>
           |_PUBLIC_____________|
           |_ROLE_role-name_____|
>_____________________________________________________________________________>
   |       <_,_________________    |
   |_BY______authorization-name_|___|
         |_ALL_____________________|
         |_ROLE_role-name_________|

>___INCLUDING DEPENDENT PRIVILEGES_____________________________________________><
  |_NOT INCLUDING DEPENDENT PRIVILEGES__|
```

REVOKE (variable privileges)

```
                    _PRIVILEGES_
>>_REVOKE____ALL___|____________|__ON_VARIABLE__variable-name_______________>
           |  <_,_________        |
           |______READ___|_______|
                |_WRITE_|
        <_,_______________________
>_FROM______authorization-name___|_________________________________RESTRICT__><
          |_PUBLIC______________|  |_BY___________________________|
          |_ROLE_role-name_____|    |   <_,_________________  |
                                     |__ authorization-name_|_|
                                     |___ROLE_role-name_______|
                                     |___ALL__________________|
```

ROLLBACK

```
               _WORK_
>>__ROLLBACK__|______|_____________________________________________________><
                         |_TO SAVEPOINT_________________|
                                         |_svpt-name_|
```

SAVEPOINT

```
>>__SAVEPOINT__svpt-name_____________________________________________________>
                            |_UNIQUE_| _ON ROLLBACK RETAIN LOCKS_
>__ON ROLLBACK RETAIN CURSORS__________|____________________________|__________><
```

SELECT INTO

```
>_____________________________________________________________________________>
    |        <___________________________  |
    |_WITH __common-table-expression___|_|
                        <_,_________________
>__select-clause__INTO____target-variable_|_from-clause_____________________>
                                                          |_where-clause_|
>_____________________________________________________________________________>
  |_group-by-clause_|  |_having-clause_| |_order-by-clause_|
    <_,___________________
>_____________________|_____________________________________________________>
    |_SKIP_LOCKED_DATA_|         |_QUERYNO__integer_|
    |_WITH____RR_______|
            |_RS_|
            |_CS_|
            |_UR_|
>__ ____________________________________ ____________________________________><
   |                _1_                 |
   |_FETCH FIRST__|___|__ _ROW__ __ONLY_|
                         |_ROWS_|
target-variable:
>___global-variable-name_____________________________________________________><
    |_host-variable-name_______|
    |_SQL-parameter-name_______|
    |_SQL-variable-name________|
    |_transition-variable-name_|
```

SET CONNECTION

```
>>__SET CONNECTION____location-name_____________________________________________><
                   |_host-variable___|
```

SET assignment statement

```
>>__SET ____assignment-clause_____________________________________________________><

assignment-clause:
|_array-variable-name__(_array-index_)_-___expression_____________________________|
  |                                        |_NULL______|                          |
  |   <_,_____________________________________________________________________|
  |_target-variable_____________________________expression_________________|__|
  |                                        |_NULL______|                          |
  |                                        |_DEFAULT___|                          |
  |   <_,_______________           <_,_________________                          |
  |_(_ target-variable_|_)_-_(______expression_______|__________________)_|
                                |  |__NULL__________|                  |
                                |  |_DEFAULT________|                  |
                                |_row subselect_____________________________|
                                |_VALUES____expression_________________|
                                         |  |__NULL__________|       |
                                         |  |_DEFAULT________|       |
                                         |    <_,_______________     |
                                         |_(____expression______|_)__|
                                             |_NULL__________|
                                             |_DEFAULT_______|
target-variable:
>___global-variable-name_____________________________________________________________><
    |_host-variable-name_______|
    |_SQL-parameter-name_______|
    |_SQL-variable-name________|
    |_transition-variable_name_|
```

SET CURRENT APPLICATION COMPATIBILITY

```
                                                  _=_
>>__SET CURRENT_APPLICATION COMPATIBILITY_____|___|___sting-constant_______><
                                                      |_host-variable__|
```

SET CURRENT APPLICATION ENCODING SCHEME

```
                 _APPLICATION_                    _=_
>>__SET CURRENT_|______________|_ENCODING SCHEME__|___|_______________________>
>___string-constant_____________________________________________________________><
  |_host-variable____|
```

SET CURRENT DEBUG MODE

```
                              _=_
>>__SET CURRENT_DEBUG MODE_|___|___host-variable_____________________________><
                                  |_DISALLOW______|
                                  |_ALLOW_________|
                                  |_DIABLE________|
```

SET CURRENT DECFLOAT ROUNDING MODE

```
                                          _=_
>>__SET CURRENT DECFLOAT ROUNING MODE_|___|___ROUND_CEILING_________________><
                                          |_ROUND_DOWN__________|
                                          |_ROUND_FLOOR__________|
                                          |_ROUND_HALF_DOWN______|
                                          |_ROUND_HALF_EVEN______|
                                          |_ROUND_HALF_UP________|
                                          |_ROUND_UP_____________|
                                          |_string-constant______|
                                          |_host-variable________|
```

SET CURRENT DEGREE

```
>>__SET CURRENT DEGREE =___string-constant_____________________________________><
                         |_host-variable___|
```

SET CURRENT EXPLAIN MODE

```
>>__SET CURRENT EXPLAIN MODE =__NO_____________________________________________><
                              |_YES___________|
                              |_EXPLAIN_______|
                              |_host-variable_|
```

SET CURRENT GET_ACCEL_ARCHIVE

```
                                       _=_
>>__SET CURRENT_GET_ACCEL_ARCHIVE_|___|___NO_________________________________><
                                          |_YES___________|
                                          |_host-variable_|
```

SET CURRENT LOCALE LC_CTYPE

```
                                                   _=_
>>__SET_____________________________LC_CTYPE_____|___|_______________________>
         | |_CURRENT_____________|           |
         |            |_LOCALE_|             |
         |_CURRENT_LC_CTYPE___________________|
>____string-constant___________________________________________________________><
    |_host-variable___|
```

SET CURRENT LOCK TIMEOUT

```
                                 _=_
>>__SET CURRENT_LOCK TIMEOUT_|___|___WAIT_____________________________________><
                                     |_NOT WAIT_____|
                                     |_ALLOW________|
                                     |_NULL_________|
                                     |_WAIT_integer_|
                                     |_variable_____|
```

SET CURRENT MAINTAINED TABLE TYPES FOR OPTIMIZATION

```
                            _TABLE_          _FOR OPTIMIZATION_    _=_
>>__SET CURRENT MAINTAINED_|_______|_TYPES_|___________________|_|___|______>
>__ALL_____________ ___________________________________________________________><
  |_NONE___________|
  |_SYSTEM_________|
```

```
  |_SESSION_USER__|
  ||_USER________||
  |_host-variable_|
```

SET CURRENT OPTIMIZATION HINT

```
>>__SET CURRENT OPTIMIZATION HINT =____string-constant_____________________><
                                    |_host-variable___|
```

SET CURRENT PACKAGE PATH

```
                                 _=_    <_,___________________________
>>__SET CURRENT PACKAGE PATH_|___|___ _collection-id___________ |_________><
                                    |_SESSION_USER____________|
                                    ||_USER__________|        |
                                    |_CURRENT PACKAGE PATH____|
                                    |_CURRENT PATH____________|
                                    |_host-variable___________|
                                    |_string-constant_________|
```

SET CURRENT PACKAGESET

```
>>__SET CURRENT PACKAGESET =____SESSION USER_______________________________><
                              ||_USED________|  |
                              |_string-constant_|
                              |_host-variable___|
```

SET CURRENT PRECISION

```
>>__SET CURRENT PRECISION =____string-constant_____________________________><
                               |_host-variable___|
```

SET CURRENT QUERY ACCELERATION

```
                                        _=_
>>__SET CURRENT QUERY ACCELERATION_|___|_ _NONE_____________________________><
                                         |_ENABLE________________|
                                         |_ENABLE WITH FAILBACK_|
                                         |_ELIGIBLE______________|
                                         |_ALL___________________|
                                         |_host-variable________|
```

SET CURRENT REFRESH AGE

```
                                    _=_
>>__SET CURRENT REFRESH AGE___|___|___ _numeric-constant_ _________________><
                                       |_ANY_______________|
                                       |_host-variable____|
```

SET CURRENT RULES

```
>>__SET CURRENT RULES =____string-constant_________________________________><
                         |_host-variable___|
```

SET CURRENT ROUTINE VERSION

```
                                     _=_
>>__SET CURRENT ROUTINE VERSION_|___|__routine-version-id___________________><
                                       |_string-constant___|
                                       |_host-variable_____|
```

SET CURRENT SQLID

```
>>__SET CURRENT SQLID =___SESSION_USER_____________________________________><
                        ||_USER________|  |
                        |_string-constant_|
                        |_host-variable___|
```

SET CURRENT TEMPORAL BUSINESS_TIME

```
                                          _=_
>>__SET CURRENT TEMPORAL BUSINESS_TIME_|___|_____NULL_____________________><
                                                |_expression___|
```

SET CURRENT TEMPORAL SYSTEM_TIME

```
                                        _=_
>>__SET CURRENT TEMPORAL SYSTEM_TIME_|___|_____NULL_____________________><
                                              |_expression___|
```

SET ENCRYPTION PASSWORD

```
                                 _=_
>>__SET ENCRYPTION PASSWORD___|___|___ _password-host-variable_____________>
                                       |_password-string-const__|
>_____________________________________________________________________________><
  |            _=_                          |
  |_WITH HINT_|___|__hint-host-variable___|
                  |_hint-string-const__|
```

SET PATH

```
          _CURRENT_           _=_
>>__SET__|_________|__PATH__|___|_____________________________________________>
     <_,_______________________
>____ _schema-name_________ _|_____________________________________________><
     |_SYSTEM PATH__________|
     |_SESSION_USER_________|
     ||_USER__________|     |
     |  _CURRENT_           |
     |_|_________|__PATH____|
     |_CURRENT PACKAGE PATH_|
     |_host-variable________|
     |_string-constant______|
```

SET SCHEMA

```
          _CURRENT_              _=_
>>__SET__|_________|__SCHEMA___|___|____schema-name___________________________>
        |_CURRENT_SCHEMA_____|        |_SESSION USER_________|
                                      ||_USER____________|   |
                                      |_host-variable________|
                                      |_string-constant______|
                                      |_DEFAULT______________|
```

SET SESSION TIME ZONE

```
                                 _=_
>>__SET_SESSION TIME ZONE___|___|____string-constant___________________________>
                                    |_host-variable______|
```

SIGNAL SQLSTATE

```
                          _VALUE_
>>__SIGNAL__SQLSTATE_|_______|__sqlstate-string-constant_____________________>
           |                   |_variable_name___________|  |
           |_condition-name_____________________________________|
>__(__diagnostic-string-constant__)_____________________________________________><
```

TRANSFER OWNERSHIP

```
>>__TRANSFER OWNERSHIP OF_object_TO_new-owner___REVOKE PRIVILEGES_____________>

object:
>_____DATABASE_database-name_____________________________________________________><
     |_INDEX index-name___________________________|
     |_STOGROUP stogroup-name_____________________|
     |_TABLE table-name___________________________|
     |_TABLESPACE_______________tablespace-name_|
     |           |_database-name_|                |
     |_VIEW view-name_____________________________|

new-owner:
>_____ROLE_role-name_____________________________________________________________><
     |_USER authorization-name___|
     |_SESSION_USER______________|
```

TRUNCATE

```
              _TABLE_                     ___DROP STORAGE___
>>__TRUNCATE_|_______|___table-name__|____________________|_____________________>
                                       |_REUSE STORAGE_|

       _IGNORE DELETE TRIGGERS___________
>_____|_RESTRICT WHEN DELETE TRIGGERS____|_____________________________________><
                                                   |_IMMEDIATE_|
```

UPDATE

```
 searched update:
  >>__UPDATE___table-name_____________________________________________________>
             |_view-name__|  |_correlation-name_|  |_include_column_|
  >__SET__assignment-clause___________________________________________________>
                            |_WHERE__search-condition_|
  >___________________________________________________________________________><
     |_SKIP LOCKED DATA_|      |_QUERYNO__integer_|
     |_WITH____RR_______|
            |_RS_|
            |_CS_|

positioned update:
>>__UPDATE___table-name_________________________SET_assignment-clause___________>
            |_view-name__| |_correlation-name_|
>_WHERE CURRENT OF_cursor-name______________________________________________><
                            |_FOR ROW__host-variable___OF ROWSET_|
                                      |integer-constant|
period-clause:
```

```
>>_FOR PORTION OF BUSINESS_TIME__FROM_value1_TO_value2_____________________><
                                  |_BETWEEN value1 AND value2___|

include-column:
               <_,_______________________
>>_INCLUDE_(__column-name____data-type__|___)_______________________________><

data-type:
>>___built-in type_____________________________________________________________><
   |_distinct_type_name_|

built-in-type:
>__SMALLINT_____________________________________________________________________><
| |_INTEGER__|                                                                  |
| | |INT__|  |                                                                  |
| |_BIGINT___|                                                                  |
|              ______(5,0)_____________________                                 |
|__DECIMAL____|_____________________________|_______________________________|
||_DEC_____|  |_(__integer_________________)____|                              |
||_NUMERIC_|                 |_, integer_|                                      |
|            _(34)_                                                             |
|_DECFLOAT_ |______|_____________________________________________________________|
|           |_(16)_|                                                             |
|           _(53)__________                                                     |
|___FLOAT__|______________|_____________________________________________________|
| |        |_(__integer__)_|                                                    |
|_|_REAL_______________|                                                        |
| |           _PRECISION_   |                                                    |
|_|_DOUBLE__|___________|__|                                                    |
|                    __(1)___________                                           |
|_______CHARACTER____|_______________|_____________________________________________|
| | | |_CHAR______|  |_(_integer_)____|  |                  |_FOR___BIT____DATA_|   |
| | |___CHARACTER__VARYING__(_integer_)__|                                      |
| |  | |_CHAR_____|        |                                                    |
| |  |__VARCHAR____________|                                                    |
|            __(1)______________                                                |
|___GRAPHIC_|_______________|_____________________________________________________|
| |         |_(__integer__)____|        |                                       |
| |_VARGRAPHIC__(_ integer_)____________|                                       |
|            _(1)________                                                       |
|_ _BINARY__|____________|_____________________________________________________|
| |         |_(integer)__|                                |                     |
| |__BINARY VARYING _(integer)_______________________|                         |
| | |_VARBINARY_____|                                                           |
|___DATE_____________________________________________________________________|
  |_TIME_____________________________________________|
  |            __(_6_)_____     _WITHOUT TIME ZONE_  |
  |_TIMESTAMP_|___________|___|_________________|_|
              |_(integer_)_|   |_WITH TIME ZONE____|

assignment clause:
      <_,_____________________________________________________________
 >>_______column-name=___expression_____________________________________|________><
        |               |_DEFAULT_________________|                 |
        |               |_NULL____________________|                 |
        |  <_,__________                <_,_______________           |
        |_(_column-name_|_)__=__(_________expression___|_______)_|
                                      |   |_DEFAULT____|        |
                                      |   |_NULL_______|        |
                                      |_row-fullselect__________|
                                      |_UNPACK function invoc.__|
```

VALUES

```
>>__VALUES____expression_______________________________________________________><
```

```
              |   <_,____________     |
              |_(____expression__|_)_|
```

VALUES INTO

```
>>__VALUES___CURRENT PACKAGESET_____INTO__target-variable_________________><
          | |_CURRENT PACKAGE PATH_|                                      |
          | |_CURRENT SERVER_______|                                      |
          |   <_,____________                <_,_______________            |
          |_(____expression__|_)_INTO_____target-variable___|___________|
               |_NULL_______|        |_array-variable_(_array-index_)_|

target-variable:
>___global-variable-name_____________________________________________________><
    |_host-variable-name_______|
    |_SQL-parameter-name_______|
    |_SQL-variable-name________|
    |_transition-variable_name_|
```

WHENEVER

```
>>__WHENEVER____NOT FOUND_______CONTINUE_____________________________________><
               |_SQLERROR___|  |___GOTO_____host-label_|
               |_SQLWARNING_|    |_GO TO_|
```

Commands

-ACCESS DATABASE

```
                          <_,_____________
>>__ACCESS DATABASE__(_____database-name_|_______)_______________________________>
                      |_*_______________________|
                      |_dbname1:dbname2_______|
                      |_dbname*_______________|
                      |_*dbname_______________|
                      |_*dbname*______________|
                      |_*dbstring1*dbstring2*_|
> ____________________________________________________________________________________>
 |                <_,________                                                        |
 |_SPACENAM(_ ___space-name_|_________)_____________________________________|
             |_*_____________________________||          <_,_______     |
             |_spacename1:spacename2_______||_PART(_ ___integer_|_)_|
             |_spacename*__________________|        |_int1:int2_|
             |_*spacename__________________|
             |_*spacename*_________________|
             |_*spacestring1*spacestring2*_|
>_____MODE(__OPEN_______)_____________________________________________________><
          |_NGBPDEP_|
          |_STATS___|
```

-ALTER BUFFERPOOL

```
>>__ALTER BUFFERPOOL__(__bpname__)__ _________________ _______________________>
                                    |_VPSIZE(integer)_|
>____________________________________________________________________________________>
    |              ___*_______  |  |              ___*_______  |
    |_VPSIZEMIN_|_(integer)_|_|  |_VPSIZEMAX_|_(integer)_|_|
>__ _________________ _________________ _____________________________________>
   |_FRAMESIZE(__4K___)_| |_VPSEQT(integer)_|  |_VPPSEQT(integer)_|
               |_1M_|
               |_2G_|
>__ _________________ _____________________________________________________>
   |_DWQT(integer)_|   |_VDWQT(integer1,integer2)_|
>__ _________________ _____________________________________________________>
   |_PGSTEAL__(____LRU_____)_|
                |_FIFO_|
                |_NONE_|
>__ _____________________________________________________________________________><
   |            __NO___     |  |              _NO__    |
   |_PGFIX__(_|__YES__|__)_|  |_AUTOSIZE_(_|_YES_|_)_|
>__ _________________ _____________________________________________________>
   |_SPSIZE(integer)_|   |_SPSEQT(integer)_|
```

-ACTIVATE

```
>>__ACTIVE FUNCTION LEVEL__(_function-level_)_________________________________>
                                              |_TEST_|
```

-ACTIVATE NEW FUNCTION

```
>>__ACTIVE NEW FUNCTION ____________________________________________________>
```

-ALTER GROUPBUFFERPOOL

```
>>__ALTER GROUPBUFFERPOOL__(__ _gbpname________ __)___________________________>
                              |_structure-name_|
>__ _________________ __ _________________ ____________________________>
   |_GBPCACHE(_ _YES_ _)_|  |_AUTOREC(_ _YES_ _)_|
              |_NO__|                 |_NO__|
>__ _______________ __ ____________________ ____________________________________>
   |_RATIO(ratio)_|  |_CLASST(Thr1, Thr2)_|  |_GBPOOLT(integer)_|
>__ _______________ ____________________________________________________><
   |_GBPCHKPT(integer)_|
```

-ALTER UTILITY

```
>>__ALTER__UTILITY__(__utility-id__)__REORG_____________________________________>
                                      |_REBUILD_|
>__ ____________________________ __ ____________________ ____________________>
   |_DEADLINE(_ _NONE______ _)_|  |_MAXRO(_ _integer_ _)_|
              |_timestamp_|                |_DEFER___|
>__ ____________________________ __ ____________________ ____________________><
   |_LONGLOG(_ _CONTINUE_ _)_|  |_DELAY(___integer___)_|
             |_TERM_____|
             |_DRAIN____|
```

-ARCHIVE LOG

```
>>__ARCHIVE LOG_____________________________________________________________>
    _SCOPE(MEMBER)_____________________________________________
>__|____________________________________________________|____________________><
   |_SCOPE(GROUP)_____________________________________________|
   |_MODE(QUIESCE)__ _____________ __ _________________ _|
   |                |_TIME(nnn)_|  |         _NO__     | |
   |                                |_WAIT(_|_YES_|_)_| |
   |_CANCEL OFFLOAD_____________________________________________|
```

-BIND PACKAGE

```
>>_BIND PACKAGE_(_________________collection-id__)_______________________)_____>
                |_location-name._|              |_OWNER(authorization-id)_|
>_________________________________enable-block___member-block_________________>
   |_QUALIFIER(qualifier-name)_|
>_____________________________________________________________________________>
   |_DEFER(PREPARE)__________| |_ACTION__(REPLACE)_____________________|
   |_NODEFER(PREPARE)________| |        |_REPLVER(version-id)_|   |
   |_DEFER(INHERITFROMPLAN)_| |_(ADD)_____________________________|
>_____________________________________________________________________________>
    |                _NO__    |     |                     |
    |_CURRENTDATA(_|_YES_|_)|     |__DECSTAT(__NO___)__|
                                              |_YES_|
>_ ____________________________________________________________________________>
  |                _DRDA____    ||          _1___    ||_DYNAMICRULES(_RUN_)_|
  |_DBPROTOCOL_(_|_DRDACBF_|_)_||_DEGREE(_|_ANY_|_)_|          |_BIND_______|
                                                                |_DEFINEBIND_|
```

```
                                                                  |_DEFINERUN__|
                                                                  |_INVOKEBIND_|
                                                                  |_INVOKERUN__|
>_____________________________________________________________________________>
 |_ENCODING(_ _ASCII___)_| |            _NO___     |         |         _I_     |
             |_EBCDIC__|   |_EXPLAIN(_|_YES__|_)_|         |_FLAG(_|_W_|_)_|
             |_UNICODE_|              |_ONLY_|                     |_E_|
             |_ccsid___|                                           |_C_|
>_____________________________________________________________________________>
   |_IMMEDWRITE_(__NO____)________|         |_ISOLATION(_ _RR_ _)_|
                |_YES_____________|                       |_RS_|
                                                          |_CS_|
                                                          |_UR_|
                                                          |_NC_|
                                        __NONE__
>_____________________________________|_______|_____________________________>
 |               _NO__     | |_REOPT(_|_ALWAYS_|_)|_OPTHINT__(_'hint-id'__)_|
 |_KEEPDYNAMIC(_|_YES_|_)_|          |_ONCE___|
                                     |_AUTO___|
>_____________________________________________________________________________>
 |      <_,_______________     |     |_RELEASE(_ _COMMIT___________)__|
 |_PATH(__ _schema-name_ |_)_|                |_DEALLOCATE______|
          |_USER________|
>_____________________________________________________________________________>
   |            _NOPACKAGE_    |              |            _RUN__     |
   |_SQLERROR(_|_CONTINUE__|_)_|              |_VALIDATE(_|_BIND_|_)_|
               |_CHECK_____|
>_____________________________________________________rounding-block_______>
   |                     _NO__   ||_GENERIC(_'string'_)_|
   |_EXTENDEDINDICATOR_|_YES_|_|
>_____________________________________________________________________________>
   |_CONCURRENTACCESSRESOLUTION_(_USECURRENTLYCOMMITTED_)_|
                                 |_WAITFOROUTCOME______|
>_____________________________________________________________________________>
   |          _NONE__   |  |            _NONE__   |
   |_AREUSE_|_ERROR_|_|  |_ACOMPARE_|_WARN__|_|
            |_WARN__|                |_ERROR_|
>_____________________________________________________________________________>
   |                     _YES_    |   |                     _YES__     |
   |_SYSTIMESENSITIVE(_|_NO__|_)_|   |_BUSTIMESENSITIVE(_|_NO__|_)__|
>_____________________________________________________________________________>
   |                     _YES__     |   |                        |
   |_ARCHIVESENSITIVE(_|_NO__|_)__|   |_APPLCOMPAT(__V10R1__)_|
                                                   |_V11R1_|
member-block:
>____MEMBER(dbrm-member-name)_____________________________________________>
 |                          |_LIBRARY(dbrm-library-name__|                |
 |_COPY(collection-id.package-id)_____________________________________|
 |                                |COPYVER(ver-id)||          _COMPOSITE_ | |
 |                                                |OPTIONS(|_COMMAND__|)| |
 |_DEPLOY(collection-id.package-id)_COPYVER(ver-id)_____________________|

enable-block:
>>__ ________________________________________________________________________><
    |  _ENABLE(*)_____________________________                                |
```

```
    | |                 <_,__________    |  <_______________________________  |
    |_|_ _ENABLE__ __(___ _BATCH____ |_)_|_________________________________|_|
        |_DISABLE_|      |_DLIBATCH_|      |           <_,______________    |
                         |_DB2CALL__|      |_DLIBATCH(_connection-name_|_)_|
                         |_CICS_____|      |       <_,______                |
                         |_IMS______|      |_CICS(___applid_|_)______________|
                         |_IMSBMP___|      |         <_,_____               |
                         |_IMSMPP___|      |_IMSBMP(___imsid_|_)____________|
                         |_REMOTE___|      |         <_,_____               |
                         |_RRSAF____|      |_IMSMPP(___imsid_|_)____________|
                                           |        <_,_________________    |
                                           |_REMOTE(___location-name_ _|_)_|
                                                      |_<luname>__|
rounding-block:
>>__ROUNDING__(__CELING______)_______________________________________________><
                |_DOWN_____|
                |_FLOOR____|
                |_HALFDOWN_|
                |_HALFEVEN_|
                |_UP_______|
```

-BIND PLAN

```
>>_BIND_____________________________________________________________________________>
       |_PLAN(plan-name)_||_OWNER(authorization-id)_||_QUALIFIER(qual-name)_|
                                _NODEFER(PREPARE)_
>__enable-block__pklist-block_|__________________|____________________________>
                               |_DEFER(PREPARE)___| |            _USE______    |
                                                    |_ACQUIRE(_|_ALLOCATE_|_)|
>_____________________________________________________________________________________>
   |          _(__REPLACE__)__ ________ _   |  |_CACHESIZE(decimal-value)_|
   |         |                |_RETAIN_| | |
   |_ACTION__|_(ADD)_____________________|_|
>__ _____________________________________________________________________________>
   |                _NO__     |  |_CURRENTSERVER(location-name)_|
   |_CURRENTDATA(_|_YES_|_)_|
>__ _____________________________________________________________________________>
   |_DBPROTOCOL__(___DRDA______)_|  |           _1___     |
                                     |_DEGREE(_|_ANY_|_)_|
>__ _____________________________________________ ____________________________>
   |              _EXPLICIT____     |  |                _RUN__     |
   |_DISCONNECT(_|_AUTOMATIC___|_)_|  |_DYNAMICRULES(_|_BIND_|_)_|
                 |_CONDITIONAL_|
>_____________________________________________________________________________________>
      |_ENCODING(_ _ASCII___ _)_|  |           _NO__     |  |         _I_     |
                  |_EBCDIC__|      |_EXPLAIN(_|_YES_|_)_|  |_FLAG(_|_W_|_)_|
                  |_UNICODE_|                                        |_E_|
                  |_ccsid___|                                        |_C_|
>__ _____________________________________________________________________________>
   |_IMMEDWRITE(_ _NO__ _)_||_ISOLATION(_ _RR_ _)_||                _NO__    |
                 |_YES_|                 |_RS_|    |_KEEPDYNAMIC(_|_YES_|_)|
                                         |_CS_|
                                         |_UR_|
          _NONE___
>_REOPT_(|_ALWAYS_|)_______________________________________________________________>
         |_ONCE___| |_OPTHINT_(_'hint-id'_)_||       <_,_______________    |
```

```
         |_AUTO___|                          |_PATH(__ _schema-name_ |_)_|
                                                   |_USER________|
>_____________________________________________________________________________>
 |           _COMMIT_____    ||            _DB2_   ||            _RUN__    |
 |_RELEASE(_|_DEALLOCATE_|_)_||_SQLRULES(_|_STD_|_)||_VALIDATE(_|_BIND_|_)_|

>_____________________________________________________________________________><
  |_ROUNDING(___CELING___)__|           |            _DISABLE_    |
              |_DOWN_____|              |_PROGAUTH(_|_ENABLE__|_)_|
              |_FLOOR____|
              |_HALFDOWN_|
              |_HALFEVEN_|
              |_HALFUP___|
              |_UP_______|
>_____________________________________________________________________________>
   |_CONCURRENTACCESSRESOLUTION_(_USECURRENTLYCOMMITTED_)_|
                                 |_WAITFOROUTCOME______|

enable-block:
>>_ ________________________________________________________________________><
   |  _ENABLE(*)___________________________                                  |
   | |                  <_,__________    |  <_____________________________  |
   |_|_ _ENABLE__ __(___ _BATCH____ |_)_|_______________________________|_|
       |_DISABLE_|      |_DLIBATCH_|      |           <_,______________    |
                        |_DB2CALL__|      |_DLIBATCH(_connection-name_|_)_|
                        |_CICS_____|      |       <_,______                 |
                        |_IMS______|      |_CICS(___applid_|_)____________|
                        |_IMSBMP___|      |         <_,_____                |
                        |_IMSMPP___|      |_IMSBMP(___imsid_|_)____________|
                        |_RRSAF____|      |         <_,_____                |
                                          |_IMSMPP(___imsid_|_)____________|

Pklist-block:
              <_,_______________________________________________
>>_PKLIST(_____________________,_collection-id____package-id_ ___|_)______><
             |_location-name._| |_*___________| |_*__________|
             |_*._____________|
```

-BIND QUERY

```
>>__BIND QUERY_____________________________________________________________><
            |          _NO___     | |_EXPLAININPUTSCHEMA(schema-name)_|
            |_LOOKUP(_|_YES__|__)_|
```

-CANCEL THREAD

```
>>__CANCEL__ _THREAD(token)_____________________________________________>
            |_DDF THREAD(_ _luwid_ _)_|  |_DUMP_| |_LOCAL_| |_NOBACKOUT_|
                          |_token_|
>_____________________________________________________________________________><
   |_FORCE_|
```

/CHANGE IMS

```
>>__/CHANGE__ _SUBSYS__subsystem-name_____________________ _____________>
             |_SUBSYS__ALL_____________________________________|
             |_SUBSYS__subsystem-name__OASN__schedule-number_|
>__RESET_____________________________________________________________________><
```

DCLGEN

```
>>__DCLGEN__TABLE(_ _table-name_ _)__ ____________________ ____________________>
                   |_view-name__|    |_OWNER(owner-name)_|
 >__ ____________________ ____________________________________________________>
    |_AT(location-name)_|
 >__LIBRARY(library name_ _______________ __ ___________ _)___________________>
                         |_(member-name)_|  |_/password_|
 >__ ____________________ __ ____________________________ ____________________>
    |          _ADD_____    |  |                          |
    |_ACTION(_|_REPLACE_|_)_|  |_LANGUAGE(___PLI______)_|
                                            |_C______|
                                            |_IBMCOB_|
                                            |_CPP____|
 >__ ______________ __ ____________________________ __ _______ _____________>
    |_NAMES(prefix)_|  |_STRUCTURE(structure-name)_|  |_APOST_|
                                                      |_QUOTE_|
 >__ ________________ __ ____________________ ________________________________>
    |        _NO__    |  |_DBCSSYMBOL(_ _G_ _)_|
    |_LABEL_|_YES_|__|                 |_N_|
 >__ ____________________ __ ____________________ ____________________________>
    |             _YES_    |  |             _NO__    |
    |_DBCSDELIM(_|_NO__|_)_|  |_COLSUFFIX(_|_YES_|_)_|
 >__ ____________________________________________________________________________><
    |          _NO__    ||            _STD__    ||          _NO_    |
    |_INDVAR(_|_YES_|_)_||_RMARGIN_(_|_WIDE_|_)_||_DCLBIT_(_|YES_|_)_|
```

/DISPLAY IMS

```
                        <_,______________
>>__/DISPLAY__ _SUBSYS___subsystem-name_|______ ______________________________><
              |_SUBSYS__ALL____________________|
              |            <_,_______________   |
              |_OASNSUBSYS___subsystem-name_|__|
              |_OASN__SUBSYS__ALL______________|
```

-DISPLAY ACCEL

```
                     _(_*_)___________________________
                    |      <_,_______________       |
>>__DISPLAY__ACCEL _|__(___accelerator-name_|___)__|___________________________>
                                                    |_DETAIL__|
>____________________________________________________________________________________>
  |_LIST_(__*__________)_______|   |                      |
           |_ACTIVE_|              |           _LOCAL_    |
                                   |_SCOPE__(_|_GROUP_| )_|
>____________________________________________________________________________________><
   |                     |
   |_MEMBER(member-name)_|
```

-DISPLAY ARCHIVE

```
>>__DISPLAY ARCHIVE_____________________________________________________________><
```

-DISPLAY BLOCKERS

```
                          <_,______________
```

```
>>__DISPLAY BLOCKERS__(_ ___database-name_|_____ _)_____________________________>
                        |_*_______________________|      |_DETAIL_|
                        |_dbname1:dbname2_______|
                        |_dbname*_______________|
                        |_*dbname_______________|
                        |_*dbname*______________|
                        |_*dbstring1*dbstring2*_|
```

-DISPLAY BUFFERPOOL

```
                         _(_ACTIVE__)______
>>__DISPLAY BUFFERPOOL__|___________________|_________________________________>
                        |_(__*__)___________|
                        |    <_,______      |
                        |_(____bpname_|__)_|
 >__ ________________________ __ ____________________ ________________________>
    |          _INTERVAL_    |  |        _ACTIVE_    |
    |_DETAIL(_|__________|_)_|  |_LIST(_|________|_)_|
              |_*________|              |_*______|
                    _ACTIVE_
 >__ ________ __(__|________|__)_______________________________________________>
    |_LSTATS_|     |_*______|
 >__ ____________________________ ____________________________________________>
    |          _*_______________    |
    |         | <_,______________  |   |
    |_DBNAME(_|___database-name_|_|_)_|
              |_name1:name2_______|
              |_name*_____________|
 >__ ____________________________ __ ____________________ ______________>
    |            _*______________    |  |_GBPDEP(_ _YES_ _)_|
    |           | <_,___________  |   |            |_NO__|
    |_SPACENAM(_|___space-name_|_|_)_|
               |_name1:name2____|
               |_name*__________|
 >__ ____________________ ____________________________________________________><
    |_CASTOWNR(_ _YES_ _)_|
               |_NO__|
```

-DISPLAY DATABASE

```
                          <_,_____________
>>__DISPLAY DATABASE__(_ ___database-name_|_____ _)_____________________________>
                        |_*_______________________|
                        |_dbname1:dbname2_______|
                        |_dbname*_______________|
                        |_*dbname_______________|
                        |_*dbname*______________|
                        |_*dbstring1*dbstring2*_|
>_ _ __________ ____________________________________________________________>
  | |_USE______|                                                            |
  | |_CLAIMERS_|                                                            |
  | |_LOCKS____|                                                            |
  | |_LPL______|                                                            |
  | |_WEPR_____|                                                            |
  |                <_,__________                                             |
  |_SPACENAM__(__ ___space-name_|_______________)_________________________|
```

```
  |              |_*_________________________|  |_______________________| |
  |              |_spacename1:spacename2______|     |_USE______||_ONLY_|  |
  |              |_spacename*_________________|     |_CLAIMERS_|          |
  |              |_*spacename_________________|     |_LOCKS____|          |
  |              |_*spacename*________________|     |_LPL______|          |
  |              |_*spacestring1*spacestring2*|     |_WEPR_____|          |
  |_ONLY_____________________________________________________________________|

>_______________________________________________________________________________><
  |          <_,_______              |     |              |
  |_PART(_ ___integer_|_______ _)_|     |__OVERVIEW__|
          |_integer1:integer2_|
>_______________________________________________________________________________><
  |         |_50______    |
  |_LIMIT(_|_integer_|_)_|
           |_*_______|
>_______________________________________________________________________________><
 |_AFTER_||_ACTIVE_||_RESTRICT___(______)_||_ADVISORY__(__ ____________)_|
                                | <_,_____  |                | <_,_____  |
                                |_ACHKP___|_|                |___ICOPY_|_|
                                |_CHKP______|                |___AUXW____|
                                |_COPY______|                |___ARBDP___|
                                |_GRECP_____|                |___AREO*___|
                                |_LPL_______|                |___AREOR___|
                                |_RBDP______|
                                |_RECP______|
                                |_REORP_____|
                                |_RO________|
                                |_STOP______|
                                |_UT________|
                                |_UTRO______|
                                |_UTRW______|
                                |_UTUT______|
                                |_UT*_______|
                                |_WEPR______|
```

-DISPLAY DDF

```
>>__DISPLAY DDF_____________________________________________________________><
                 |_ALIAS (alias-name)_| |_DETAIL_|
```

-DISPLAY DYNQUERYCAPTURE

```
>>__DISPLAY DYNQUERYCAPTURE__ ________________________________ _________>
                              |       _(*)_________________________  |
                              |     |   <_,_________________     | |
                              |_CNO(|_(___integer___________ _|_)_|_|
```

-DISPLAY FUNCTION SPECIFIC

```
>>__DISPLAY FUNCTION SPECIFIC_____________________________________________>
    _(*.*)_____________________________________
>__|_______________________________________|_________________________>
   |   <_,_____________________________   |
   |_(___ _schema.specific-function-name_ _|_)_|
         |_schema.partial-name*___________|
>__ ____________________ ____________________________________________><
   |           _LOCAL_    |
```

```
   |_SCOPE__(_|_______|_)_|
              |_GROUP_|
```

-DISPLAY GROUP

```
>>__DISPLAY GROUP__ ________ ______________________________________________><
                   |_DETAIL_|
```

-DISPLAY GROUPBUFFERPOOL

```
>>__DISPLAY GROUPBUFFERPOOL__ ________________________________ _________>
                             |  _(*)___________________________  |
                             | |   <_,___________________    | |
                             |_|_(___ _gbpname________ _|_)_|_|
                                    |_structure-name_|
   >__ ______________________ __ ______________________________ ____>
      |           _*_______     |  |_MDETAIL__ ________________ _|
      |_TYPE__(__|_GCONN___|__)_|             |    _INTERVAL_    |
                 |_MCONN___|                  |_(_|__________|_)_|
                 |_NOCACHE_|                      |_*________|
   >__ ________________________________ __ ______________________ ____><
      |_GDETAIL__ ________________ _|  |              _NO__     |
                 |    _INTERVAL_    |    |_CONNLIST__(__|_YES_|__)_|
                 |_(_|__________|_)_|
                     |_*________|
```

-DISPLAY LOCATION

```
                        _(*)_______________________________
>>__DISPLAY LOCATION__|_______________________________|______________>
                      |    <_,_______________________     | |_DETAIL_|
                      |_(____ _location-name_____ _|__)_|
                             |_partial-location*_|
                             |_<luname>__________|
                             |_ipaddr____________|
```

-DISPLAY LOG

```
>>__DISPLAY LOG_____________________________________________________________><
```

-DISPLAY ML

```
>>__DISPLAY ML______________________________________________________________><
```

-DISPLAY PROCEDURE

```
                         _(*.*)_______________________________
>>__DISPLAY PROCEDURE__|_______________________________|___________>
                       |    <_,_______________________     |
                       |__(___ _schema.procedure-name_ _|_)_|
                              |_schema.partial-name*__|
                              |_procedure-name________|
                              |_partial-name*_________|

>_____________________________________________________________________________><
      |           _LOCAL_    |
      |_SCOPE__(_|_______|_)_|
                 |_GROUP_|
```

-DISPLAY PROFILE

```
>>__DISPLAY PROFILE_____________________________________________________><
```

-DISPLAY RLIMIT

```
>>__DISPLAY RLIMIT______________________________________________________><
```

-DISPLAY RESTSVC

```
                        _(*.*)_____________________________________
>>__DISPLAY RESTSVC__|_____________________________________________|______>
                     |    <_,_____________________________________     |
                     |__(___Coll-id.service-name.version-id_ |_)_|
                             |_coll-id.service-name_________|
                             |_coll-id.partial-name*________|
                             |_service-name_________________|
                             |_partial-name*________________|

>_____________________________________________________________________________><
      |              ___*_______     |   |          |___100___|   |
      |_STATUS__(_|_STARTED___|_)_|   |_LIMIT_(_|_integer_|_)_|
                  |_STOPPREJ__|                  |____*____|
>_____________________________________________________________________________><
      |_SCOPE__(_GROUP_)_|
```

-DISPLAY STATS

```
>>__DISPLAY_STATS__(_INDEXMEMORYUSAGE_)_____________________________________><
   |_DIS___|          |_IDXMEMUSE_____|  |_LIMIT_(_integer_)_|
                                                 |_,________|
```

-DISPLAY THREAD

```
>>__DISPLAY THREAD___ ____________________________________ _______________>
                     |    <_,_________________________     |
                     |_(____ _connection-name_____ _|__)_|
                     |      |_partial-connection*_|      |
                     |_(__*__)_____________________________|

  >__ _______________________ __ _______________________ _________________>
     |            _LOCAL__    |  |         _ACTIVE____    |
     |_SCOPE__(_|________|_)_|  |_TYPE(_|_INDOUBT___|_)_|
                |_GROUP__|              |_*_________|
                                        |_INACTIVE__|
                                        |_POSTPONED_|
                                        |_PROC______|
                                        |_SYSTEM____|
  >__ ____________________________________________ __ ________ _______>
     |                <_,_________________________        |  |_DETAIL_|
     |_ _LOCATION(_ ___ _location-name_____ _|_ _)_ _|
       |           |   |_partial-location*_|   |   |
       |           |_*_________________________|   |
       |        <_,_________________                |
       |_LUWID(__ _luwid__________ |_)______________|
                 |_partial-luwid*_|
                 |_token__________|
 >__ ____________________________ ____________________________________________><
```

```
  |             <_,______        |        |          _512_____     |
  |_RRSURID_ _(__rrs-urid|_)_ __|        |_LIMIT(_|_integer_|_)_|
            |_( * )__________|                    |_*_______|
```

-DISPLAY TRACE

```
                    _(__*__)_______
>>__DISPLAY TRACE__|_______________|__ ____________________ ___________>
                   |_(__PERFM__)___|  |           _LOCAL_    |
                   |_(__ACCTG__)___|  |_SCOPE__(_|_______|_)_|
                   |_(__STAT__)____|             |_GROUP_|
                   |_(__AUDIT__)___|
                   |_(__MONITOR__)_|
 >__ _________________ __ _______________ ____________________________>
    |_destination block_|  |_constraint block_|
 >__ _________________ __ _______________ ____________________________><
    |_DETAIL(output-type)_|  |_COMMENT(string)_|     |_RMID_|

 destination block:
          <_,_____
 >__DEST(__ _GTF_ |_)_____________________________________________________>
           |_SMF_|
           |_SRV_|
           |_OPn_|

 constraint block:
           _*_____________                _*_________________________
          | <_,_________  |              | <_,_______________________  |
 >__PLAN(_|___plan-name_|_|_)__PKGLOC(_|__package-location________|_|_)__>
                                         |_partial-package-location_|
             _*_____________
            | <_,_______    |
 >__AUTHID(_|___auth-id_|____|_)_____________________________________________>
            |_partial-userid_|

            _*___________            _*___________
           | <_,_______  |          | <_,_______  |
 >__CLASS(_|___integer_|_|_)__TNO(_|___integer_|_|_)_____________________>

               _*_________________              _*_________________
              | <_,______________  |            | <_,________      |
 >__LOCATION(_|___location-name_|_|_)__USERID(|___user-id__|_____|_______>
              |_<luname>__________|             |_partial-userid_|
              |_partial-element___|
              |_ipaddr____________|
              |_partial-ipaddr____|

              _*_________________________
             | <_,_________________     |
 >__APPLNAME(_|___application-name_|_____|_)_________________________________>
             |_partial-application-name_|

            _*_________________________
           | <_,_________________      |
 >__WRKSTN(_|___workstation-name_|_____|_)_________________________________>
           |_partial-workstation-name_|
```

```
              _*____________________________
             | <_,_________________      |
  >__CONNID(_|___connection-role-id_|_____|_)_______________________________>
             |_partial-connection-name____|

              _*____________________________
             | <_,_________________      |
  >__CORRID(_|___correlation-role-id_|_____|_)_______________________________>
             |_partial-correlation-name____|
              _*_______________________________
             | <_,_________________        |
  >__ROLE(___|___correlation-role___|_______|_)_______________________________>
             |_partial-correlation-role-id__|   |_constraint block 2_|

constraint block 2:
            <_,__________                      <_,_______________
>__XPLAN(____plan-name_|______)__XPKGLOC(___package-location_|_______)_____>
            |_partial-plan-name_|            |_partial-pkge-location_|
            <_,_______________________________
>__XPKGCOL(____package-collection-id ______|__)_______________________________>
            |_partial-package-collection-id_|
             <_,_______________________________
>__XPKGPROG(____package-program-name________|__)_______________________________>
            |_partial-package-program-name__|
             <_,_______________________________
>__XAUTHID(_____authorization-id____________|__)_______________________________>
            |_partial-authorization-id______|
               <_,__________                          <_,_____
>__XLOC(_____location-name_|___________)__XUSERID_(_____userid_|______)____>
            |_partial-location-name__|              |_partial-userid_|
            |_<luname>_______________|
            |_partial <luname>_______|
            |_ipaddr_________________|
            |_partial-ipaddr_________|
               <_,_________________
>__XAPPNAME(_____application-name_|_______)_______________________________________>
             |_partial-application-name_|
              <_,_________________
>__XWRKSTN(_____workstation-name_|_______)_______________________________________>
            |_partial-workstation-name_|
              <_,_________________
>__XCONNID(_____connection-role-id_|_______)_______________________________________>
            |_partial-connection-name____|
              <_,_________________
>__XCORRID(____correlation-role-id_|_______)_______________________________________>
            |_partial-correlation-name____|
              <_,_________________
>__XROLE(_______correlation-role___|_________)_______________________________________>
            |_partial-correlation-role-id_|
```

-DISPLAY UTILITY

```
>>__DISPLAY UTILITY__(_ _utility-id__________ _)_______________________________>
                       |_partial-utility-id*_|
                       |_*___________________|
```

```
>___ _______________________ ______________________________________________><
    |          <_,_________    |
    |_MEMBER(__member-name|_)_|
```

DSN TSO

```
>>__DSN__ ____________________________________________________________________>
          |           _DSN_________________________    |
          |_SYSTEM(_|_subsystem-name___________|_)_|
                    |_group-attachment-name____|
                    |_subgroup-attachment-name_|
>__ _______________________ __ _______________ ______________________________>
   |          _0_______    |  |_TEST(integer)_|
   |_RETRY(_|_integer_|_)_|
>__ _______________ ____________________________________________________________><
   |          _YES_    |      |_ASUSER(userid)_|
   |_GROUP(_|_NO__|_)_|
```

DSNC (CICS attachment facility)

```
>>__DSNC__ _____________ __db2-command_____________________________________><
          |_destination_|
```

DSNC DISCONNECT (CICS attachment facility)

```
>>__DSNC DISCONNECT__plan-name_____________________________________________><
```

DSNC DISPLAY (CICS attachment facility)

```
>>__DSNC DISPLAY__ _PLAN__ ___________ _____________ _______________________>
                   |       |_plan-name_|              |
                   |_TRANSACTION__ _______________ _|
                   |              |_transaction-id_| |
                   |_STATISTICS_______________________|
 >_____________________________________________________________________________><
              |_destination_|
```

DSNC MODIFY(CICS attachment facility)

```
>>__DSNC MODIFY__ _DESTINATION__old__new____________________________________><
                 |_TRANSACTION__transaction-id__integer_|
```

DSNC STOP (CICS attachment facility)

```
                 _QUIESCE_
>>__DSNC STOP__|_FORCE___|_________________________________________________><
```

DSNC START (CICS attachment facility)

```
>>__DSNC STRT__ _______ ____________________________________________________><
                |_ssid__|
```

DSNH (TSO CLIST)

```
>>__DSNH__INPUT(data-set-name)______________________________________________><
                                          | <_________________  |
                                          |___clist-parameter_|_|
```

END

```
>>__END_____________________________________________________________________><
```

FREE STABILIZED DYNAMIC QUERY (DSN)

```
>>__FREE STABILIZED DYNAMIC QUERY STBLGRP______stabilization-group__________>
>_SDQSTMTID_(__statement-id__)_____________________________________________>
>_____________________________________________________________________________>
   |                    ___ALL___    |   |                  _NO__      |
   |_PLANMGMTSCOPE (_|__________|_)_|   |__INVALID ONLY(_|_____|___)_|________><
                     |_INVALID_|                        |_YES_|
```

FREE PACKAGE

```
>>__FREE PACKAGE____________________________________________________________>
   <_,_____________________________________________________________________
>(_____________________collection-id_._package-id_____________________|__)_>
  ||_location-name.||_*___________| |_*________| |_.(_ _______________)_|  |
  |                                                  |_version-id_|     |
  |                                                  |_*__________|     |
  |_*_____________________________________________________________________|
>_____________________________________________________________________________><
   |         _I_    ||                  _ALL______                  _NO__   |
   |_FLAG(_|_W_|_)_||_PLANMGMTSCOPE(_|__________|_)______________(_|_____|_)|
           |_E_|                     |_INACTIVE_| |              | |_YES_|
           |_C_|                     |_PREVIOUS_| |_INVALIDONLY_|
                                     |_ORIGINAL_|
                                     |_PHASEOUT_|
```

FREE PLAN

```
                   <_,_________
>>__FREE PLAN__(_ ___plan-name_|_ _)__ _______________ ____________________><
                 |_*______________|    |         _I_    |
                                      |_FLAG(_|_W_|_)_|
                                              |_E_|
                                              |_C_|
```

FREE QUERY

```
>>__FREE QUERY__FILTER('filter-name')_____________________________________>
               |_PACKAGE(package-name)_|
               |_QUERYID(number)_______|
               |_QUERYID(ALL)__________|
>>_____________________,_collection-id_,__package-id_,_(_______________)____><
   |_location_name_|  |_,___________|  |_,_________|   |_version-id_|
```

FREE SERVICE

```
>>__FREE SERVICE____________________________________________________________>
>(_____________________collection-id_._service-name_____________________|_)_>
   |_location-name._|                                  |_.(version-id)_|
```

MODIFY admtproc,APPL=SHUTDOWN

```
>>__MODIFY__admtproc,APPLs____SHUTDOWN_____________________________________><
```

MODIFY admtproc,APPL=TRACE

```
>>__MODIFY__admtproc,APPLs____SHUTDOWN________ON_______________________________><
                                             |_OFF_|
```

-MODIFY DDF

```
>>__MODIFY DDF__ALIAS(alias-name)____ADD_____________________________________>
               |                    |_DELETE_________________|  |
               |                    |_START__________________|  |
               |                    |_STOP___________________|  |
               |                    |_CANCEL_________________|  |
               |                    |_PORT(port-name)________|  |
               |                    |_SECPORT(secport-name)__|  |
               |                    |_NPORT__________________|  |
               |                    |_NSECPORT_______________|  |
               |                    |_IPV4(ipv4-address)_____|  |
               |                    |_IPV6(ipv6-address)_____|  |
               |                    |_NIPV4__________________|  |
               |                    |_NIPV6__________________|  |
               |                 _____*_____                     |
               |__RQSTWLB_(_|__loc-name__|_|_)__________________|
               |            |_alias-name_|                      |
               |                 _____*_____                     |
               |__DFLTWLB_(_|__loc-name__|_|_)__________________|
               |            |_alias-name_|                      |
               |                                                |
               |            _BNDOPT__                           |
               |__PKGREL(_|_COMMIT|_|_)___________________________|
               |           |_BDNPOOL_|                          |
               |_SESSIDLE_(_session-idle-limit)_________________|
```

MODIFY IRLMPROC, ABEND

```
                                _,DUMP___
>>__MODIFY__irlmproc,ABEND_|_________|_____________________________________><
                            |_,NODUMP_|
```

MODIFY IRLMPROC, DIAG

```
>>__MODIFY__irlmproc,DIAG_ _,DELAY_ ____________________________________><
                         |_,PLOCK_|
                         |_,ALL___|
                         |_,NONE__|
                         |_,HANG__|
```

MODIFY IRLMPROC, PURGE

```
>>__MODIFY__irlmproc,PURGE,db2name_____________________________________><
```

MODIFY IRLMPROC, SET

```
>>__MODIFY__irlmproc,SET__ _,DEADLOCK=nnnn_____________________________><
                         |_,LTE=nnnn_____________________|
                         |_,PVT=nnnn_____________________|
                         |_,MVT=nnnnnU___________________|
                         |_,TIMEOUT=nnnn,subsystem-name_|
                         |           _10__               |
                         |_,TRACE=_|_nnn_|_______________|
```

MODIFY IRLMPROC, STATUS

```
                                _,irlmx__
>>__MODIFY__irlmproc,STATUS_|________|_____________________________________><
                             |_,ALLD__|
```

```
                                |_,ALLI__|
                                |_,MAINT_|
                                |_,STOR__|
                                |_,TRACE_|
```

-MODIFY TRACE (DB2)

```
                                                  _*___________
                                                 | <_,_______  |
>>__MODIFY TRACE__(_ _PERFM___ _)__CLASS(_|___integer_|_|_)_________________>
                   |_ACCTG___|
                   |_STAT____|
                   |_AUDIT___|
                   |_MONITOR_|
                         _*_______________
                        | <_,___________  |
 >__TNO(integer)__IFCID(_|____ifcid_nbr__|_|_)_______________________________>
                                                |_COMMENT(string)_|
```

REBIND PACKAGE

```
>>__REBIND PACKAGE_____________________________________________________________>
>>_(_____________________collection-id__._package-id_ _____________________>
   ||_location-name._| |_* ___________| |_* ________||_.(_______________)_| |
   |                                                  |_version-id_|    |
   |                                                  |_*__________|    |
   |_*_____________________________________________________________________|
>_enable-block______plan-management-block_________acceleration-block________>
>_____________________________________________________________________________>
 |_OWNER(auth-id)_|   |_QUALIFIER(qualifier-name)_|  |_CURRENTDATA(_YES__)_|
                                                        |_NO_|
>_____________________________________________________________________________>
  |_DBPROTOCOL_(_DRDACBF_)_||_DEFER(PREPARE)_________| |_DEGREE(_ _1___ _)_|
               |_DRDA_|     |_NODEFER(PREPARE)_______|          |_ANY_|
                            |_DEFER(INHERITFROMPLAN)_|
>_____________________________________________________________________________>
 |_DYNAMICRULES(_RUN_____)_||_RELEASE(_COMMIT____)__| |_DECSTAT(__NO____)_|
                |_BIND___|            |_DEALLOCATE__|           |_YES_|
                |_DEFINE_|
                |_INVOKE_|
>_____________________________________________________________________________>
 |_ENCODING(_ _ASCII___)_| |            _NO___     |       |         _I_    |
            |_EBCDIC__|   |_EXPLAIN(_|_YES__|_)_|       |_FLAG(_|_W_|_)_|
            |_UNICODE_|              |_ONLY_|                  |_E_|
            |_ccsid___|                                        |_C_|
>_____________________________________________________________________________>
   |_IMMEDWRITE_(__NO_________________)_|      |_ISOLATION(_ _RR_ _)_|
                 |_YES______________|                      |_RS_|
                 |_INHERITFROMPLAN_|                       |_CS_|
                                                           |_UR_|
                                                           |_NC_|
>_____________________________________________________________________________>
 |                _NO__     | |         _NONE___     | |_OPTHINT_(_'hint-id'__)_|
 |_KEEPDYNAMIC(_|_YES_|_)_| |_REOPT(|_ALWAYS_|)_|
                                      |_ONCE___|
                                      |_AUTO___|
>_____________________________________________________________________________>
```

```
 |      <_,_______________    | |_PATHDEFAULT_| |            _RUN__    |
 |_PATH(__ _schema-name_ |_)_|                 |_VALIDATE(_|_BIND_|_)_|
          |_USER________|
>_______________________________________________________________________>
  |                    _NO__  ||_GENERIC('string')_||_SWITCH_(__PREVIOUS_)_|
  |_EXTENDEDINDICATOR_|_YES_|_|                                |_ORIGINAL_|
>_______________________________________________________________________>
   |_CONCURRENTACCESSRESOLUTION_(_USECURRENTLYCOMMITTED_)_|
                                 |_WAITFOROUTCOME______|
>_______________________________________________________________________>
   |                     _YES_   |   |                     _YES_     |
   |_SYSTIMESENSITIVE(_|_NO__|_)_|   |_BUSTIMESENSITIVE(_|_NO__|_)__|
>_______________________________________________________________________>
   |                     _YES_     |   |                       |
   |_ARCHIVESENSITIVE(_|_NO__|_)__|   |_APPLCOMPAT(__V10R1__)_|
                                                  |_V11R1_|
                                                  |_V12R1_|
>_______________________________________________________________________>
   |                    _YES_    |
   |_CONCENTRATESTMT(_|_NO__|_)_|


enable-block:
>>__ ______________________________________________________________________><
    |  _ENABLE(*)_______________________                                    |
    | |                 <_,___________    |  <_______________________________  |
    |_|_ _ENABLE__ __(___ _BATCH____ |_)_|_________________________________|_|
        |_DISABLE_|      |_DLIBATCH_|      |           <_,______________    |
                         |_DB2CALL__|      |_DLIBATCH(_connection-name_|_)_|
                         |_CICS_____|      |       <_,______                |
                         |_IMS______|      |_CICS(___applid_|_)____________|
                         |_IMSBMP___|      |         <_,_____               |
                         |_IMSMPP___|      |_IMSBMP(___imsid_|_)___________|
                         |_REMOTE___|      |         <_,_____               |
                         |_RRSAF____|      |_IMSMPP(___imsid_|_)___________|
                                            |        <_,_________________    |
                                            |_REMOTE(___location-name_ _|_)_|
                                                      |_<luname>__|
plan-management-block:
>_______________________________________________________________________>
   |                          |  |                _YES__   |
   |_PLANMGMT_(__BASIC______)_|  |__APRETAINDUP_|_NO___|_|
               |_EXTENDED__|
               |_OFF_______|
>_______________________________________________________________________>
  |          _NONE__  | |            _NONE__  ||                 _CURRENT__  |
  |_AREUSE_|_ERROR_|_| |_ACOMPARE_|_WARN__|_||_APREUSESOURCE_(|___________|_|
           |_WARN__|               |_ERROR_|                   |_PREVIOUS_|
                                                               |_ORIGINAL_|

acceleration-block:
>_______________________________________________________________________>
 |_GETACCELARCHIVE_(__________)_||_QUERYACCELERATION_(_____________________|_|
                     |_NO__|                          |_NONE_______________|
                     |_YES_|                          |_ENABLE_____________|
```

```
                                                                  |_ENABLEWITHFAILBACK_|
                                                                  |_ELIGBLE____________|
                                                                  |_ALL|_______________|
```

REBIND PLAN

```
                        <_,_________
>>__REBIND PLAN__(_ ___plan-name_|_ _)_____________________________________>
                    |_*______________|    |_OWNER(authorization-id)_|
>__ ______________________________________________________________________>
   |_QUALIFIER(qualifier-name)_|
>______________________________________________________________________>
   |          <_,_____________________________________________________  |
   |_PKLIST(___ _________________ __ _collection-id_ __ _.package-id_ _|_)_|
   |           |_location-name._|  |_*______________|  |_.*___________|     |
   |           |_*._____________|                                          |
   |_NOPKLIST_____________________________________________________________|
>______________________________________________________________________>
 |_NODEFER(PREPARE)_||_ACQUIRE(_ _USE______ )||_CACHESIZE(decimal-value)_|
 |_DEFER(PREPARE)___|           |_ALLOCATE_|

>______________________________________________________________________>
    |_CURRENTDATA(_ _NO__ _)_|  |_CURRENTSERVER(location-name)_|
                   |_YES_|
>_____________________________________ ____________________________________>
    |_DBPROTOCOL__(__ _DRDA____ __)_|  |_DEGREE(_ _1___ _)_|
                                                  |_ANY_|
>______________________________________________________________________>
    |_DISCONNECT(_ _EXPLICIT____ _)_|  |_DYNAMICRULES(_ _RUN__ _)_|
                  |_AUTOMATIC___|                      |_BIND_|
                  |_CONDITIONAL_|
>__ ______________________________________________________________________>
   |_ENCODING(_ _ASCII___ _)_|  |_EXPLAIN(_ _NO__ _)_|   |         _I_    |
                |_EBCDIC__|                |_YES_|       |_FLAG(_|_W_|_)_|
                |_UNICODE_|                                      |_E_|
                |_ccsid___|                                      |_C_|
>______________________________________________________________________>
  |_IMMEDWRITE(_ _NO__ _)_||_ISOLATION(_ _RR_ _)_||                _NO__   |
                |_YES_|                 |_RS_|    |_KEEPDYNAMIC(_|_YES_|_)|
                                        |_CS_|
                                        |_UR_|
>______________________________________________________________________>
 |         _NONE___   ||_OPTHINT_(__'hint-id'__)_||     <_,_____________   |
 |_REOPT(|_ALWAYS_|_)|                            |_PATH(__schema-name__|_)|
         |_ONCE___|                                      |___USER_____ |
         |_AUTO___|
>______________________________________________________________________>
    |             | |_RELEASE(_ _COMMIT_____ _)_| |_SQLRULES(_ _DB2_ _)_|
    |_PATHDEFAULT_|            |_DEALLOCATE_|                 |_STD_|
>_____________ ________________________________________________________>
     |_VALIDATE(_ _RUN__ _)_|          |              _DISABLE_    |
                 |_BIND_|              |_PROGGAUTH(_|_ENABLE__|_)_|
>______________________________________________________________________>
   |_CONCURRENTACCESSRESOLUTION_(_USECURRENTLYCOMMITTED_)_|
                                 |_WAITFOROUTCOME______|
```

```
enable-block
>>__ ____________________________________________________________________________><
    |  _ENABLE(*)_____________________________                                    |
    | |                 <_,___________   |  <_______________________________   |
    |_|_ _ENABLE__ __(___ _BATCH____ |_)_|_____________________________________|_|
        |_DISABLE_|      |_DLIBATCH_|       |            <_,_______________    |
                         |_DB2CALL__|       |_DLIBATCH(_connection-name_|_)_|
                         |_CICS_____|       |        <_,______                  |
                         |_IMS______|       |_CICS(___applid_|_)______________|
                         |_IMSBMP___|       |          <_,_____                 |
                         |_IMSMPP___|       |_IMSBMP(___imsid_|_)____________|
                         |_RRSAF____|       |          <_,_____                 |
                                            |_IMSMPP(___imsid_|_)____________|
```

REBIND TRIGGER PACKAGE

```
>>_REBIND TRIGGER PACKAGE(____________________collection-id_._package-id_)_>
                          |_location-name._| |_*___________| |_*________|
>____________________________________________________________________________>
 |_CURRENTDATA(_YES__)_||_DECSTAT(_NO__)_|     |_EXPLAIN(__YES___)_|
               |_NO_|             |_YES__|                |_NO___|
                                                           |_ONLY_|
>____________________________________________________________________________>
  |_PLANMGMT(__BASIC_____)_|   |                 _YES_  | |         _I_   |
             |_EXTENDED_|      |_APRETAINDUP(_|_NO__|_| |_FLAG(_|_W_|_)|
             |_OFF______|                     |_WARN_           |_E_|
                                                                |_C_|
>____________________________________________________________________________>
 |_IMMEDWRITE(_ _NO__ _)| |_ISOLATION(__RR__)_||_RELEASE(___COMMIT_____)_|
               |_YES_|                |_RS_|             |_DEALLOCATE_|
                                      |_CS_|
                                      |_UR_|
                                      |_NC_|
>____________________________________________________________________________>
   |_CONCURRENTACCESSRESOLUTION_(_USECURRENTLYCOMMITTED_)_|
                                |_WAITFOROUTCOME______|
>____________________________________________________________________________>
   |                           |  |                 _NONE___   |
   |_PLANMGMT_(__BASIC______)_|  |__APRETAINDUP_|_WARN___|_|
               |_EXTENDED__|                    |_ERROR__|
               |_OFF_______|
>____________________________________________________________________________>
  |          _NONE__   | |            _NONE__   ||                  _CURRENT__   |
  |_AREUSE_|_ERROR_|_| |_ACOMPARE_|_WARN__|_||_APREUSESOURCE_(|__________|_|
           |_WARN__|              |_ERROR_|                    |_PREVIOUS_|
                                                               |_ORIGINAL_|
>____________________________________________________________________________><
  |_SWITCH_(__PREVIOUS__)_|
            |_ORIGINAL_|
>____________________________________________________________________________>
   |                     _YES_    |   |                     _YES_      |
   |_SYSTIMESENSITIVE(_|_NO__|_)_|   |_BUSTIMESENSITIVE(_|_NO__|_)__|
>____________________________________________________________________________>
   |                     _YES_      |   |                       |
   |_ARCHIVESENSITIVE(_|_NO__|_)__|   |_APPLCOMPAT(__V10R1__)_|
                                                  |_V11R1_|
```

```
                                                                  |_V12R1_|
```

-RECOVER BSDS

```
>>__RECOVER BSDS_____________________________________________________________><
```

-RECOVER INDOUBT

```
>>__RECOVER INDOUBT__ ____________________ __ACTION(_ _COMMIT_ _)____________>
                     |_(connection-name)_|          |_ABORT__|
            <_,______________
 >__ _ID(_ ___correlation-id_|_ _)_ ____________________________________________><
    |     |_*__________________|   |
    |      <_,___________            |
    |_NID(___network-id_|_)________|
    |        <_,_______             |
    |_LUWID(__ _luwid_ |_)__________|
              |_token_|
```

-RECOVER POSTPONED

```
>>__RECOVER POSTPONED__ ________ ____________________________________________><
                       |_CANCEL_|
```

-REFRESH DB2, EARLY

```
>>__REFRESH DB2, EARLY_______________________________________________________><
```

-RESET GENERICLU

```
                          <_,_________________
>>__RESET GENERICLU__ _(___ _luname_______ _|_)_ ____________________________><
                     |     |_netid.luname_|     |
                     |_(*)_________________________|
```

-RESET INDOUBT

```
>>__RESET INDOUBT____________________________________________________________>
                <_,______
>__ _LUNAME(_ ___luname_|_ _)_ _______ ____________________________________><
   |          |_*___________|   |_FORCE_|                 |
   |           <_,______________                           |
   |_LOCATION(___location-name_|_)_______________________|
   |            <_,_______________________                 |
   |_IPADDR(_ _______ipaddr..port_____|_ _)_ _______ __|
   |          |_*___________________________|   |_FORCE_|  |
   |         <_,_______                                   |
   |_LUWID(__ _luwid_ |_)_ ____________________________ __|
             |_token_|    |_LOCATION(location-name)_|
```

RUN

```
>>__RUN__ _PROGRAM(program-name)__ ________________ _ ____________________>
         |                          |_PLAN(plan-name)_| |
         |_CP__PLAN(plan-name)_____________________________|
>__ ________________________ __ ____________________________ ________________><
   |_LIBRARY(library-name)_|  |_PARMS(parameter-string)_|
```

-SET ARCHIVE

```
>>__SET ARCHIVE__ __ __________ __ ____________________________________________><
                |  |_COUNT__(__integer__)_||_TIME(_ _minutes_ __)_|  |
```

```
                 |                              |      |_,seconds_|   |  |
                 |                              |_,seconds____________|  |
                 |                              |_1440________________|  |
                 |                              |_NOLIMIT_____________|  |
                 |_DEFAULT_____________________________________________|
```

-SET LOG

```
>>__SET LOG_______________LOGLOAD(integer)_______________________________>
            |_SINGLE_| |                      |_CHKTIME(integer)_|  |
            |_BOTH___| |_CHKTIME(integer)_____________________________|
                       |                       |_LOGLOAD(integer)_| |
                       |_SUSPEND_____________________________________|
                       |_RESUME______________________________________|
                       |_NEWLOG_(_data-set-name_)_COPY_(_log-copy_)_|
```

-SET SYSPARM

```
>>__SET SYSPARM__ _LOAD(_ _DSNZPARM_________ _)_ _______________________><
                 |       |_load-module-name_|   |
                 |_RELOAD_________________________|
                 |_STARTUP________________________|
```

SPUFI

```
>>__SPUFI_____________________________________________________________><
```

/SSR

```
>>__/SSR__subsystem-command___________________________________________><
```

-START ACCEL

```
                 _(_*_)_______________________________
                |        <_,______________            |
>>__START ACCEL_|_(_ ___accelerator-name_|_____ _)__|___________________>
>_____________________________________________________________________>
  |           _*______________     |  |          _LOCAL_     |
  |_ACCESS_(_|_MAINT__________|__)_|  |_SCOPE_(_|_GROUP_|_)_|
            |_EXPLAINONLY___|
>_____________________________________________________________________><
     |             <_,___________     |
     |_MEMBER(_____member-name__|__)_|
```

-START admtproc

```
>>__START admtproc____________________________________________________><
                   |_TRACE________ON______|
                                |_OFF__|
```

-START CCDS

```
>>__START CCDS________________________________________________________><
```

/START IMS

```
>>__/START____________________________________________________________><
   |                          |
   |     <_,_________________  |
   |                        | |
   |_SUBSYS __subsystem-name_|_|
   |_SUBSYS__ALL_______________|
```

-START DATABASE

```
                        <_,_____________
>>__START DATABASE__(_ ___database-name_|_____ _)_______________________>
                      |_*_______________________|
                      |_dbname1:dbname2_______|
                      |_dbname*_______________|
                      |_*dbname_______________|
                      |_*dbname*______________|
                      |_*dbstring1*dbstring2*_|
> ______________________________________________________________________>
   |              <_,________                  |
   |_SPACENAM(_ ___space-name_|________)________|
               |_*_______________________|
               |_spacename1:spacename2_______|
               |_spacename*__________________|
               |_*spacename__________________|
               |_*spacename*_________________|
               |_*spacestring1*spacestring2*_|
> ______________________________________________________________________>
    |         <_,____________        |  |_CLONE_|
    |_PART(_ ___integer______|____)_|
            |_integer1:integer2__|
                __RW____
 >_____ACCESS(_|_RO____|_)____________________________________________><
               |_UT____|
               |_RREPL_|
               |_FORCE_|
```

-START DB2

```
>>__START DB2__ ______________________________________________________>
               |                        |    |        _DSNDECP___    |
               |_PARM(__module name__)_|    |_DECP(_|___________|_)_|
                                                   |_decp-name_|
>__ ____________________ __ ________________ ________________________>
   |          _*_____    |  |          _NO_________    |
   |_ACCESS(_|_MAINT_|_)_|  |_LIGHT(_|_YES________|_)_|
                                     |_NOINDOUBTS_|
                                     |_CASTOUT____|
>__ ____________________ __ ____________________ ______________>
   |_MSTR(jcl-substitution)_|  |_DBM1(jcl-substitution)_|
>__ ____________________ ____________________________________________><
   |_DIST(jcl-substitution)_|
```

-START DDF

```
>>__START DDF_____________________________________________________________><
```

-START DYNQUERYCAPTURE

```
>>__START DYNQUERYCAPTURE__STBLGRP(stabilization-group)_________________>
  |   ____________________________________cache-snap_spec_______
  |  |              _2_______    |                                |
  |  |_|THRESHOLD(_|_integer_|_)_|                                |
  |_______________________________________________________________|_____>
  |_STMTID_(_integer_)_____________________________________________|
  |_STMTTOKEN_(_string_constant_)__________________________________|
```

```
Cache-snap-spec:
>_____________________________________________________________________________>
  |             _*_____     ||            _NO___     ||           _LOCAL_    |
  |_CURSQLID(_|_SQLID_|_)_||_MONITOR(_|_YES__|_)_||_SCOPE_(_|_GROUP_|_)|
```

-START FUNCTION SPECIFIC

```
>>__START FUNCTION SPECIFIC_____________________________________________________>
    _(*.*)_____________________________________________
>__|_____________________________________________|_____________________________>
   |   <_,_____________________________________    |
   |_(___ _schema.specific-function-name_ _|_)_|
         |_schema.partial-name*__________| |
>__ _______________________ ___________________________________________________><
   |            _LOCAL_    |
   |_SCOPE__(_|_______|_)_|
              |_GROUP_|
```

-START admtproc

```
>>__START__irlmproc,__ ____________________________________________________________><
                      |_TRACE=__ON_____|
                              |_OFF_|
```

-START irlmproc

```
                     <_,_____________________________
>>__START__irlmproc,__ ____________________________ |_______________________><
                      |_DEADLOK='iiii,kkkk'_______|
                      |_IRLMGRP='irlm-group-name__|
                      |_IRLMID=n__________________|
                      |_IRLMNM=irlmname___________|
                      |_LOCKTABL=irlmltnm_________|
                      |_MAXCSA=nnn________________|
                      |_MAXUSRS=nnn_______________|
                      |_PC=_ _YES_ ________________|
                      |     |_NO__|                |
                      |_PGPROT=_ _YES_ ____________|
                      |          |_NO__|           |
                      |_SCOPE=_ _LOCAL____ _______|
                      |         |_GLOBAL___|       |
                      |         |_NODISCON_|       |
                      |_TRACE=_ _NO__ _____________|
                              |_YES_|
```

-START ML

```
>>__START ML_______________________________________________________________________>
```

-START PROCEDURE

```
                      _(*.*)_____________________________
>>__START PROCEDURE__|_____________________________________|_______________>
                     |   <_,_____________________________    |
                     |_(___ _schema.procedure-name_ _|_)_|
                           |_schema.partial-name*__|
```

```
                              |_procedure-name________|
                              |_partial-name*_________|
>__ ______________________ ______________________________________________><
   |            _LOCAL_    |
   |_SCOPE__(_|_______|_)_|
              |_GROUP_|
```

-START PROFILE

```
>>__START PROFILE_____________________________________________________________><
```

-START RLIMIT

```
>>__START RLIMIT__ _______ ____________________________________________________><
                  |_ID=id
```

-START RESTSVC

```
                       _(*.*)_____________________________________
>>__START RESTSVC____|_____________________________________________|_______>
                     |    <_,_________________________________     |
                     |__(___Coll-id.service-name.version-id_ |_)_|
                              |_coll-id.service-name_________|
                              |_coll-id.partial-name*________|
                              |_service-name_________________|
                              |_partial-name*________________|

>_____________________________________________________________________________><
      |_SCOPE__(_GROUP_)_|
```

-START TRACE

```
>>__START TRACE__(_ _PERFM___ _)__ ____________________ _______________>
                   |_ACCTG___|    |            _LOCAL_    |
                   |_STAT____|    |_SCOPE__(_|_______|_)_|
                   |_AUDIT___|               |_GROUP_|
                   |_MONITOR_|
>__ ____________________ __ ________________ ______________________________>
   |_destination block_|  |_constraint block_|  |_RMID_|
>__ _______________ ____________________________________________________><
   |_COMMENT(string)_|  |_filtering block_|

destination block:
         <_,_____
>__DEST(__ _GTF_ |_)_____________________________________________________>
          |_SMF_|
          |_SRV_|
          |_OPn_|
          |_OPX_|

constraint block:
          _*_________________              _*_________________________
         | <_,_________      |            | <_,_______________________  |
>__PLAN(_|___plan-name_|_____|_)_PKGLOC(_|__package-location_______|_|_)__>
         |_partial-plan-name_|            |_partial-package-location_|
             <_,_______________________
>___PKGCOL(____package-collection-id ______|__)_____________________________>
           |_partial-package-collection-id_|
             _*_______________________________
```

```
            | <_,_________________________  |
>__PKGPROG(_|__package-program-name______|_|_)_______________________________>
            |_partial-package-program-name_|
            _*_____________
           | <_,_______    |
>__AUTHID(_|___auth-id_|____|_)_____________________________________________>
             |_partial-authid_|
           _*___________           _*___________
          | <_,_______  |         | <_,_______  |
>__CLASS(_|___integer_|_|_)__TNO(_|___integer_|_|_)___________________________>
             _*_________________
            | <_,_______________  |
>__LOCATION(_|___location-name_|_|_)_____________________________________________>
               |_<luname>__________|
               |_partial-element___|
               |_ipaddr____________|
            |_partial-ipaddr____|
           _*_____________
          | <_,_______    |
>__USERID(_|___user-id_|____|_)_____________________________________________>
          |_partial-userid_|
             _*_______________________
            | <_,_________________     |
>__APPLNAME(_|___application-name_|_____|_)_________________________________>
            |_partial-application-name_|
           _*_________________________
          | <_,_________________      |
>__WRKSTN(_|___workstation-name_|_____|_)_________________________________>
            |_partial-workstation-name_|
           _*_________________________
          | <_,_________________     |
>__CONNID(_|___connection-role-id_|_____|_)_________________________________>
            |_partial-connection-name____|
           _*_________________________
          | <_,_________________      |
>__CORRID(_|___correlation-role-id_|_____|_)_________________________________>
          |_partial-correlation-name____|
           _*_________________________
          | <_,_________________       |
>__ROLE(___|___correlation-role___|_______|_)_________________________________>
          |_partial-correlation-role-id__|
          _*__________
         | <_,______  |              _*_______
>__IFCID(_|___ifcid__|_|_)_BUFSIZE_(_|_k_bytes_|_____________________________>
          <_,____________                <_,__________
>__TDATA(__ _CORRELATION_ |_)__AUDTPLCY(_|_policy-name_|_ASID(x'dddd')_____>
          |_TRACE________|
          |_CPU__________|
          |_DISTRIBUTED__|

filtering block:
           <_,________                      <_,_____________
>__XPLAN(____plan-name_|______)__XPKGLOC(___package-location_|_______)_____>
           |_partial-plan-name_|           |_partial-pkge-location_|
           <_,_______________________________
```

```
>__XPKGCOL(____package-collection-id ______|__)______________________________>
            |_partial-package-collection-id_|
             <_,_____________________________
>__XPKGPROG(____package-program-name________|__)______________________________>
            |_partial-package-program-name__|
             <_,_____________________________
>__XAUTHID(_____authorization-id____________|__)______________________________>
            |_partial-authorization-id______|
               <_,_________                          <_,_____
>__XLOC(_____location-name_|___________)__XUSERID_(_____userid_|______)____>
            |_partial-location-name__|              |_partial-userid_|
            |_<luname>_______________|
            |_partial <luname>_______|
            |_ipaddr_________________|
            |_partial-ipaddr_________|
               <_,_________________
>__XAPPNAME(_____application-name_|_______)__________________________________>
             |_partial-application-name_|
              <_,_________________
>__XWRKSTN(_____workstation-name_|_______)__________________________________>
            |_partial-workstation-name_|
              <_,_________________
>__XCONNID(_____connection-role-id_|_______)__________________________________>
            |_partial-connection-name____|
              <_,_________________
>__XCORRID(____correlation-role-id_|_______)__________________________________>
            |_partial-correlation-name____|
              <_,_________________
>__XROLE(_______correlation-role___|_________)________________________________>
            |_partial-correlation-role-id_|
```

-STOP ACCEL

```
                 _(_*_)_______________________________
                |        <_,______________           |
>>__STOP ACCEL__|_(_ ___accelerator-name_|_____ _)__|_______________________>

>_____________________________________________________________________________>
  |          _QUIESCE_______      |  |           _LOCAL_     |
  |_MODE_(_|_FORCE_________|__)_|  |_SCOPE_(_|_GROUP_|_)_|
>_____________________________________________________________________________>
  |_MEMBER(member-name)_|
```

/STOP IMS

```
                     <_,_______________
>>__/STOP__ _SUBSYS____subsystem-name_|_ ____________________________________><
           |_SUBSYS__ALL_________________|
```

STOP admtproc

```
>>__STOP____admtproc_______________________________________________________________><
```

-STOP CCDS

```
>>__STOP CCDS_____________________________________________________________________><
```

-STOP DATABASE

```
                    <_,_____________
>>__STOP DATABASE_(___database-name_|_________ _)_______________________________>
                    |_*_______________________|
                    |_dbname1:dbname2_______|
                    |_dbname*_______________|
                    |_*dbname_______________|
                    |_*dbname*______________|
                    |_*dbstring1*dbstring2*_|
>_____________________________________________________________________________)___>
  |            <_,__________                                                    |
  |_SPACENAM(_ ___space-name_|_______________ _)___________________________|
              |_*_______________________________|  |        <_,_______    |
              |_spacename1:spacename2_______|  |_PART(___integer__|_)_|
              |_spacename*__________________|         |_int1:int2_|
              |_*spacename__________________|
              |_*spacename*_________________|
              |_*spacestring1*spacestring2*_|
>_____________________________________________________________________________><
        |_CLONE_|  |_AT(COMMIT)_|
```

-STOP DB2

```
                _MODE(QUIESCE)_     _CASTOUT(YES)_
>>__STOP DB2__|_______________|__|______________|_____________________________><
              |_MODE(FORCE)___|  |_CASTOUT(NO)__|
```

-STOP DDF

```
                _MODE(QUIESCE)_________________
>>__STOP DDF__|_______________________________|_______________________________><
              |_MODE(FORCE)___________________|
              |_MODE(SUSPEND)_ _CANCEL(n)_ __|
                              |_WAIT(n)___|
```

-STOP DYNQUERYCAPTURE

```
>>__DISPLAY DYNQUERYCAPTURE__ ____________________________________________>
                              |       _(*)_____________________________  |
                              |      |   <_,_____________________    | |
                              |_CNO(|_(___integer___________ _|_)_|_|
>_____________________________________________________________________________><
   |            _LOCAL_     |
   |_SCOPE__(_|_GROUP_|_)_|
```

-STOP FUNCTION SPECIFIC

```
>>__STOP FUNCTION SPECIFIC_____________________________________________________>
    _(*.*)_____________________________________
>__|_______________________________________|_______________________________>
   |   <_,_____________________________________   |
   |_(___ _schema.specific-function-name_ _|_)_|
         |_schema.partial-name*__________|
>_____________________________________________________________________________><
   |            _QUEUE__     |  |            _LOCAL_     |
   |_ACTION__(_|_REJECT_|_)_|  |_SCOPE__(_|_GROUP_|_)_|
```

STOP irlmproc

```
>>__STOP__irlmproc_____________________________________________________________>
```

-STOP CCDS

```
>>__STOP CCDS__________________________________________________________________><
```

-STOP PROCEDURE

```
                      _(*.*)_______________________________
>>__STOP PROCEDURE__|_____________________________________|____________________>
                    |   <_,_______________________________    |
                    |_(___ _schema.procedure-name_ _|_)_|
                            |_schema.partial-name*__|
                            |_procedure-name________|
                            |_partial-name*_________|
>__ ______________________ __ ____________________ ______________________><
   |            _QUEUE__    |  |            _LOCAL_    |
   |_ACTION__(_|_REJECT_|_)_|  |_SCOPE__(_|_______|_)_|
                                          |_GROUP_|
```

-STOP PROFILE

```
>>__STOP PROFILE_______________________________________________________________><
```

-STOP RLIMIT

```
>>__STOP RLIMIT________________________________________________________________><
```

-STOP RESTSVC

```
                       _(*.*)_____________________________________
>>__STOP RESTSVC_____|_____________________________________________|______>
                     |    <_,_____________________________________    |
                     |__(___Coll-id.service-name.version-id_ |_)_|
                              |_coll-id.service-name_________|
                              |_coll-id.partial-name*________|
                              |_service-name_________________|
                              |_partial-name*________________|
>_____________________________________________________________________________><
          |_SCOPE__(_GROUP_)_|   |_ACTION__(_REJECT_)_|
```

-STOP TRACE

```
>>__STOP TRACE__(_ _PERFM___ _)_______________________________ASID(x'dddd')___>
                 |_ACCTG___|    |            _LOCAL_    |
                 |_STAT____|    |_SCOPE__(_|_______|_)_|
                 |_AUDIT___|               |_GROUP_|
                 |_MONITOR_|
                 |_*_______|
         <_,________
>___DEST____________|_____________________________________________________>
          |_GTF_____|   |_constraint block_| |_filtering block_|
          |_SMF_____|
          |_SRV_____|
          |_OPn_____|
>_____________________________________________________________________________>
      |_RMID_| |_COMMENT(string)_|

constraint block:
```

```
          _*_________________              _*_________________________
         | <_,_________      |            | <_,_______________________ |
>__PLAN(_|___plan-name_|_____|_)_PKGLOC(_|__package-location_______|_|_)___>
         |_partial-plan-name_|            |_partial-package-location_|
             <_,_____________________________
>___PKGCOL(____package-collection-id ______|__)_______________________________>
           |_partial-package-collection-id_|
             _*_____________________________
            | <_,_____________________________ |
>__PKGPROG(_|__package-program-name_______|_|_)_______________________________>
            |_partial-package-program-name_|
            _*_______________
           | <_,_______      |
>__AUTHID(_|___auth-id_|____|_)_____________________________________________>
              |_partial-authid_|
           _*___________            _*___________
          | <_,_______  |          | <_,_______  |
>__CLASS(_|___integer_|_|_)__TNO(_|___integer_|_|_)_____________________________>
              _*_________________
             | <_,_______________  |
>__LOCATION(_|___location-name_|_|_)_____________________________________________>
                |_<luname>__________|
                |_partial-element___|
                |_ipaddr____________|
             |_partial-ipaddr____|
            _*_______________
           | <_,_______      |
>__USERID(_|___user-id_|____|_)_____________________________________________>
           |_partial-userid_|
              _*_________________________
             | <_,_________________      |
>__APPLNAME(_|___application-name_|_____|_)_____________________________________>
             |_partial-application-name_|
            _*_________________________
           | <_,_________________      |
>__WRKSTN(_|___workstation-name_|_____|_)_____________________________________>
             |_partial-workstation-name_|
            _*_________________________
           | <_,_________________      |
>__CONNID(_|___connection-role-id_|_____|_)_____________________________________>
             |_partial-connection-name_|
            _*_____________________________
           | <_,_____________________      |
>__CORRID(_|___correlation-role-id_|_____|_)_____________________________________>
           |_partial-correlation-name____|
            _*_____________________________
           | <_,_________________        |
>__ROLE(___|___correlation-role___|_______|_)_____________________________________>
           |_partial-correlation-role-id__|
              _*_______________
             | <_,___________  |
>__AUDTPLCY(_|___policy-name_|_|_____________________________________________>
```

filtering block:

```
            <_,________                          <_,_____________
>__XPLAN(____plan-name_|______)__XPKGLOC(___package-location_|_______)_____>
            |_partial-plan-name_|           |_partial-pkge-location_|
            <_,_____________________________
>__XPKGCOL(____package-collection-id ______|__)_______________________________>
            |_partial-package-collection-id_|
             <_,_____________________________
>__XPKGPROG(____package-program-name________|__)_______________________________>
            |_partial-package-program-name__|
             <_,_____________________________
>__XAUTHID(_____authorization-id____________|__)_______________________________>
            |_partial-authorization-id______|
               <_,_________                                <_,_____
>__XLOC(_____location-name_|___________)__XUSERID_(_____userid_|______)____>
            |_partial-location-name__|              |_partial-userid_|
            |_<luname>_______________|
            |_partial <luname>_______|
            |_ipaddr_________________|
            |_partial-ipaddr_________|
               <_,_________________
>__XAPPNAME(_____application-name_|_______)_________________________________>
             |_partial-application-name_|
              <_,_________________
>__XWRKSTN(_____workstation-name_|_______)_________________________________>
            |_partial-workstation-name_|
              <_,_________________
>__XCONNID(_____connection-role-id_|_______)_________________________________>
            |_partial-connection-name____|
              <_,_________________
>__XCORRID(____correlation-role-id_|_______)_________________________________>
            |_partial-correlation-name____|
              <_,_________________
>__XROLE(_______correlation-role___|_________)_______________________________>
            |_partial-correlation-role-id_|
```

-TERM UTILITY

```
>>__TERM UTILITY__(_ _utility-id________ _)_________________________________><
                   |_partial-utility-id*_|
                   |_*___________________|
```

TRACE IMS

```
>>__/TRACE__SET_ _ON__ ___ ____________________________________________________>
                |_OFF_|   |         _ALL__    |
                          |_TABLE_|_SUBS_|__|
>__ ____________________ ____________________________________________________><
   |          _NOLOG_    |
   |_OPTION_|_LOG___|__|
```

TRACE CT

```
                                          _,WRAP___
 >>__TRACE CT,____ _WTRSTART=parmlibmem_|_________|___________________________><
                  |                      |_,NOWRAP_|         |
                  |_WTRSTOP=jobname_____________________________|
                  |_ON,__COMP=irlmnm__ ________________________ _|
                  |                   |_,SUB=(_ _DBM_ _)_| |
```

```
|                                |_EXP_|     |
|                                |_INT_|     |
|                                |_SLM_|     |
|                                |_XCF_|     |
|                                |_XIT_|     |
|_OFF_____________________________________|
```

SQL Control Statements

SQL Control Statement

```
>>____assignment-statement_____________________________________________________><
    |_CALL statement_______|
    |_CASE statement_______|
    |_compound-statement___|
    |_FOR statement________|
    |_GET DIAGNOSTICS stmt_|
    |_GOTO statement_______|
    |_IF statement_________|
    |_ITERATE statement____|
    |_LEAVE statement______|
    |_LOOP statement_______|
    |_REPEAT statement_____|
    |_RESIGNAL statement___|
    |_RETURN statement_____|
    |_SIGNAL statement_____|
    |_WHILE statement______|
```

Assignment

```
>>______________SET____assignment-clause_____________________________________><
    |_label:_|

assignment-clause:

>_____SQL-parameter-name__=_CURRENT SERVER_____________________________________><
  | |_SQL-variable-name__| |_CURRENT PACKAGESET____|                          |
  |                        |_CURRENT PACKAGE PATH__|                          |
  |    <_,_________________________________                                    |
  |_____SQL-parameter-name__=_expression__|_________________________________|
     | |_SQL-variable-name_| |_NULL______|                                  |
     |    <_,_________________        <_,__________                         |
     |_(____SQL-parameter-name_|_)_=_(__expression__|_____________________|
           |_SQL-variable-name_|      ||_NULL______|                 |
                                      |_VALUES___expression_________|
                                                ||_NULL__________|   |
                                                |  <_,___________    |
                                                |_(_expression__|_)_|
                                                   |_NULL_____|
```

CALL

```
>>__CALL__procedure-name_______________________________________________________>
>_______________________________________________________________________________><
   |_(_______________________________________________)_|
        | <_,_________________________________  |
        |_____SQL-variable-name_______________|_|
            |_SQL-parameter-name___________|
            |_expression___________________|
            |_NULL_________________________|
```

CASE

```
>__CASE______________searched-case-statement-when-clause_____________________>
```

```
                  |_simple-case-statement-when-clause___|
>_____________________________________________END CASE___________________________>
      |       <_____________________________  |
      |_ELSE____SQL-procedure-statement__;_|_|
searched-case-statement-when-clause:
<_____________________________________________________________________
                                  <_____________________________  |
>____WHEN__search-condition__THEN____SQL-procedure-statement__;_|_|__________>
simple-case-statement-when-clause:
>__expression_____________________________________________________________________>
<_____________________________________________________________
                              <_____________________________  |
>____WHEN__expression__THEN____SQL-procedure-statement__;_|_|_______________>
```

Compound

```
                         _NOT ATOMIC_
>>_______________BEGIN__|____________|_____________________________________>
     |_label:_|
>_____________________________________________________________________________>
   | <_____________________________  |
   |_____SQL-variable-declaration____;_|_|
        |_condition-declaration____|
        |_return-codes-declaration_|
>_____________________________________________________________________________>
    | <_____________________________  |
    |___DECLARE-CURSOR-statement__;_|_|
                                  <_____________________________
>_____________________________________SQL-procedure-statement__;_|____________>
    | <_____________________________  |
    |___handler-declaration__;_|_|
>__END_____________________________________________________________________><
            |_label_|

SQL-variable-declaration:
>>__DECLARE_____________________________________________________________________>
  <_,_________________                _DEFAULT NULL___________
>__SQL-variable-name_|_data-type__|_________________________|_______________><
                      |             |_DEFAULT__constant_|     |
                      |_RESULT_SET_LOCATOR VARYING___________|

condition-declaration:
>>__DECLARE__condition-name__CONDITION__FOR___string-constant_______________><
                                                |_SQLSTATE____________|
                                                  |_VALUE_|
return-codes-declaration:
                                  _DEFAULT '00000'_______
 >>__DECLARE__ _SQLSTATE__CHAR(5)__|_________________________|_______________><
              |                   |__DEFAULT__constant____| |
              |                   _DEFAULT 0______________   |
              |_SQLCODE__INTEGER__|_ _____________________ _|__|
                                  |_DEFAULT__constant
statement-declaration:
>>__DECLARE__statement-name__STATMENT_____________________________________><

handler-declaration:
```

```
>>__DECLARE____CONTINUE____HANDLER__FOR_____________________________________>
              |_EXIT_____|
>____specific-condition-value_______SQL-procedure-statement_______________><
    |_general-condition-value_|
specific-condition-value:
    <_,_____________________________
                  _VALUE_           |
>>_____SQLSTATE__|_______|__string__|_____________________________________><
     |_condition-name_______________|
general-condition-value:
>>____SQLEXCEPTION_____________________________________________________________><
    |_SQLWARNING___|
    |_NOT FOUND____|
```

FOR

```
>>__________FOR_____________________________________________________________>
  |_label:_|   |_for-loop-name_AS_||                  _WITHOUT HOLD_      |
                                   |_csr-name_CURSOR_|_______________|_FOR_|
                                                      |_WITH HOLD__|
                         <_______________________
>_select-statement__DO__SQL-procedure-statement_|_;__END FOR_______________><
                                                          |_label:_|
```

GET DIAGNOSTICS

```
>>__GET DIAGNOSTICS__SQL-variable-name__=__ROW_COUNT_______________________><
```

GOTO

```
>>_____________GOTO__target-label_____________________________________________><
   |_label:_|
```

IF

```
                                 <_____________________________
>>__IF__search-condition__THEN____SQL-procedure-statement__;_|______________>
   <_____________________________________________________
>_____________________________________________________|___________________>
  |                                    <_____________________________   |
  |_ELSEIF__search-condition__THEN____SQL-procedure-statement__;_|_|
>_______________END IF_______________________________________________________><
        |       <_____________________________   |
        |_ELSE____SQL-procedure-statement__;_|_|
```

ITERATE

```
>>_____________ITERATE__target-label_________________________________________><
   |_label:_|
```

LEAVE

```
>>_____________LEAVE____target-label_________________________________________><
   |_label:_|
```

LOOP

```
                      <_____________________________
>>_______________LOOP____SQL-procedure-statement__;_|__END LOOP______________><
    |_label:_|                                                  |_label_|
```

REPEAT

```
                         <____________________________
>>______________REPEAT____SQL-procedure-statement__;_|_______________________>
     |_label:_|
>__UNTIL__search-condition__END REPEAT_____________________________________><
                                          |_label_|
```

RESIGNAL

```
>>______________RESIGNAL_____________________________________________________>
   |_label:_|
>____________________________________________________________________________>
  |             _VALUE_                                                      |
  |__SQLSTATE__|_______|__sqlstate-string-constant_________________________|
    |                    |_SQL-variable-name_______|||_signal-information_|
    |                     |_SQL-parameter-name____| |
    |_SQL-condition-name_____________________________|

signal-information:
>>__SET MESSAGE_TEXT _=__diagnostic-string-expression_________________________>
```

RETURN

```
>>______________RETURN_______________________________________________________>
   |_label:_|           |_expression_____________________________________|
                        |_NULL__________________________________________|
                        |_________________________________fullselect_|
                          |  <_____________________________  |
                          |_WITH_common-table-expresssion_|_|
```

SIGNAL

```
>>______________SIGNAL_______________________________________________________>
   |_label:_|
>____________________________________________________________________________>
  |             _VALUE_                                                      |
  |__SQLSTATE__|_______|__sqlstate-string-constant_________________________|
    |                    |_SQL-variable-name_______|||_signal-information_|
    |                     |_SQL-parameter-name_____||
    |_SQL-condition-name_____________________________|

signal-information:
>>__SET MESSAGE_TEXT _=__diagnostic-string-expression_________________________>
```

WHILE

```
>>__________WHILE_search-condition_DO_SQL-procedure-statement_;_END WHILE___>
  |_label:_|                                                        |_label_|
```

SQL Procedure Statement

```
>>__SQL-control-statement____________________________________________________><
        ALLOCATE CURSOR statement
        ALTER DATABASE statement
        ALTER FUNCTION statement (external scalar, external table, sourced, SQL
        scalar, or SQL table)
        ALTER INDEX statement
        ALTER PROCEDURE statement (external, SQL-external, or SQL-native)
```

ALTER SEQUENCE statement
ALTER STOGROUP statement
ALTER TABLE statement
ALTER TABLESPACE statement
ALTER TRUSTED CONTEXT statement
ALTER VIEW statement
ASSOCIATE LOCATORS statement
CALL statement
CLOSE statement
COMMENT statement
COMMIT statement
CONNECT statement
CREATE ALIAS statement
CREATE DATABASE statement
CREATE FUNCTION statement (external scalar,external table,sourced)
CREATE GLOBAL TEMPORARY TABLE statement
CREATE INDEX statement
CREATE PROCEDURE statement (external)
CREATE ROLE statement
CREATE SEQUENCE statement
CREATE STOGROUP statement
CREATE TABLE statement
CREATE TABLESPACE statement
CREATE TRUSTED CONTEXT statement
CREATE TYPE statement
CREATE VIEW statement
DECLARE CURSOR statement
DECLARE GLOBAL TEMPORARY TABLE statement
DELETE statement
DROP statement
EXCHANGE statement
EXECUTE statement
EXECUTE IMMEDIATE statement
FETCH statement
GET DIAGNOSTICS statement
GRANT statement
INSERT statement
LABEL statement
LOCK TABLE statement
MERGE statement
OPEN statement
PREPARE statement
REFRESH TABLE statement
RELEASE statement
RELEASE SAVEPOINT statement
RENAME statement
REVOKE statement
ROLLBACK statement
SAVEPOINT statement
SELECT INTO statement
SET CONNECTION statement
SET special-register statement
TRUNCATE statement
UPDATE statement
VALUES INTO statement

Explain Tables

PLAN_TABLE

Contains information about access paths for queries that were explained or hints.

Column name	Data type	Description
QUERYNO	INTEGER	A number to identify the statement being explained
QBLOCKNO	SMALLINT	A number that identifies each query block within a query. Numbers are not in any particular order, nor are they consecutive.
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
PLANNO	SMALLINT	Number of steps in which query indicated in QBLOCKNO was processed. Indicates order in which the steps were executed.
METHOD	SMALLINT	Join method used for the step: 0 = First table accessed, continuation of previous table accessed, or not used 1 = Nested loop join 2 = Merge scan join 3 = Sorts needed by ORDER BY, GROUP BY, SELECT DISTINCT, UNION, a quantified predicate, or an IN predicate 4 = Hybrid join
CREATOR	VARCHAR(128)	Creator of the new table accessed in this step; blank if METHOD is 3
TNAME	VARCHAR(128)	Name of a table, materialized query table, created or declared temporary table, materialized view, or materialized table expression. Blank if METHOD is 3. Can also contain name of a table in the form DSNWFQB(*qblockno*). DSNWFQB(*qblockno*) is used to represent the intermediate result of a UNION ALL, an INTERSECT ALL, an EXCEPT ALL, or an outer join that is materialized. If a view is merged, the name of the view does not appear. DSN_DIM_TBLX(qblockno) is used to represent the work file of a star join dimension table. DSB_SPIX_TBLX(qblockno) is used for a sparse index for a sideways table reference.
TABNO	SMALLINT	IBM use only
ACCESSTYPE	CHAR(2)	Method of accessing the new table: DI = An intersection of multiple DOCID lists to return final DOCID list DU = Union of multiple DOCID lists to return the final DOCID list DX = An XML index scan of the index named in ACCESSNAME to return a DOCID list E = Direct row using a row change timestamp column H = Hash access HN = Hash access using an IN predicate, or an IN

		predicate that Db2 generates IN = Index scan when matching predicate contains an IN predicate and the IN-list is accessed through an in-memory table I = An index (identified in ACCESSCREATOR and ACCESSNAME) I1 = One-fetch index scan M = Multiple index scan (followed by MX, MI, MH, or MU) MH = Hash overflow index MX = Index scan on index named in ACCESSNAME. When the access method MX follows the access method DX, DI, or DU, the table is accessed by the DOCID index using the DOCID list returned by DX, DI, or DU MI = Intersection of multiple indexes MU = Union of multiple indexes N = Index scan when matching predicate contains the IN keyword or by an index scan when Db2 rewrites a query using the IN keyword NR = Range list access O = Work file scan, as a result of a subquery P = Dynamic pair-wise index scan R = Table space scan RW = work file scan of materialized user-defined table function V = Buffers for an INSERT statement within a SELECT Blank = Not applicable to the current row
MATCHCOLS	SMALLINT	For ACCESSTYPE I, I1, N, NR, MX, or DX, number of index keys used in an index scan; otherwise, 0
ACCESSCREATOR	VARCHAR(128)	For ACCESSTYPE I, I1, N, NR, MX, or DX, creator of index
ACCESSNAME	VARCHAR(128)	For ACCESSTYPE I, I1, H, MH, N, NR, MX, or DX, name of index
INDEXONLY	CHAR(1)	If access to an index alone is used, or if data, too, must be accessed. Y = Yes; N = No
SORTN_UNIQ	CHAR(1)	New table is sorted to remove duplicate rows Y=Yes; N= No
SORTN_JOIN	CHAR(1)	New table is sorted for join method 2 or 4 Y = Yes; N = No
SORTN_ORDERBY	CHAR(1)	New table is sorted for ORDER BY Y = Yes; N = No
SORTN_GROUPBY	CHAR(1)	New table is sorted for GROUP BY Y = Yes; N = No
SORTC_UNIQ	CHAR(1)	Composite table is sorted to remove duplicate rows. Y = Yes; N = No
SORTC_JOIN	CHAR(1)	Composite table is sorted for join method 1, 2, or 4 Y = Yes; N = No
SORTC_ORDERBY	CHAR(1)	Composite table is sorted for an ORDER BY clause or a quantified predicate. Y = Yes; N = No
SORTC_GROUPBY	CHAR(1)	Composite table is sorted for a GROUP BY clause Y = Yes; N = No

TSLOCKMODE	CHAR(3)	Indication of mode of lock to be acquired on new table or its table space or table space partitions. If the isolation can be determined at bind time, the values are: IS = Intent share lock IX = Intent exclusive lock S = Share lock U = Update lock X = Exclusive lock SIX = Share with intent exclusive lock N = UR isolation; no lock If the isolation cannot be determined at bind time, the lock mode determined by the isolation at runtime is shown by the following values. NS = For UR isolation, no lock; for CS, RS, or RR, an S lock NIS = For UR isolation, no lock; for CS, RS, or RR, an IS lock NSS = For UR isolation, no lock; for CS or RS, an IS lock; for RR, an S lock SS = For UR, CS, or RS isolation, an IS lock; for RR, an S lock The data in this column is right-justified. For example, IX appears as a blank followed by I followed by X. If the column contains a blank, no lock is acquired. If the access method in the ACCESSTYPE column is DX, DI, or DU, no latches are acquired on the XML index page, and no lock is acquired on the new base table data page or row, nor on the XML table and the corresponding table spaces
TIMESTAMP	CHAR(16)	Deprecated, use EXPLAIN_TIME instead
REMARKS	VARCHAR(762)	Can insert any character string of 762 or fewer characters
PREFETCH	CHAR(1)	If data pages are read in advance by prefetch: D = Optimizer expects dynamic prefetch S = Pure sequential prefetch L = Prefetch through a page list U = List prefetch with an unsorted RID list Blank = Unknown at bind time or no prefetch
COLUMN_FN_EVAL	CHAR(1)	When a SQL aggregate function is evaluated: R = While data is being read from the table or index S = While performing a sort to satisfy a GROUP BY clause X = While data is read from a table or index, for aggregate functions when an OFFSET clause is specified Y = While performing a sort, for aggregate functions when an OFFSET clause if specified Blank = After data retrieval after any sorts
MIXOPSEQ	SMALLINT	Sequence number of a step in a multiple index operation: 1, 2, . . . *n* = For steps of multiple index procedure (ACCESSTYPE is MX, MI, MU, DX, DI, or DU), the

		sequence number of the OR predicate in the SQL statement (ACCESSTYPE is NR) 0 = For any other rows
VERSION	VARCHAR(122)	Version identifier for the package
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, column is schema of compiled SQL function, native SQL procedure or advanced trigger
ACCESS_DEGREE	SMALLINT	Number of parallel tasks or operations activated by a query determined at bind time
ACCESS_PGROUP_ID	SMALLINT	Identifier of parallel group for accessing new table
JOIN_DEGREE	SMALLINT	Number of parallel operations or tasks used in joining composite table with new table
JOIN_PGROUP_ID	SMALLINT	Identifier of parallel group for joining composite table with new table
SORTC_PGROUP_ID	SMALLINT	Parallel group identifier for parallel sort of composite table
SORTN_PGROUP_ID	SMALLINT	Parallel group identifier for parallel sort of new table
PARALLELISM_MODE	CHAR(1)	Mode of parallelism. C = CP parallelism
MERGE_JOIN_COLS	SMALLINT	Number of columns joined during merge scan join
CORRELATION_ NAME	VARCHAR(128)	Correlation name of a table or view that is specified in the statement
PAGE_RANGE	CHAR(1)	If page range screening is used. Y = Yes; blank = No
JOIN_TYPE	CHAR(1)	Type of an outer join: F = Full outer join L = Left outer join P = Pair-wise join S = Star join Blank = Inner join or no join RIGHT OUTER JOIN converts to a LEFT OUTER JOIN so that JOIN_TYPE contains L.
GROUP_MEMBER	VARCHAR(24)	Name of subsystem that executed EXPLAIN
IBM_SERVICE_DATA	VARCHAR(254)	IBM use only

WHEN_OPTIMIZE	CHAR(1)	When access path was determined: blank = At bind time, using a default filter factor for any host variables, parameter markers, or special registers B = At bind time, using a default filter factor for any host variables, parameter markers, or special registers; however, the statement is reoptimized at runtime using input variable values for input host variables, parameter markers, or special registers. The bind option REOPT(ALWYAS), REOPT(ONCE), or REOPT(AUTO), must be specified for reoptimization to occur R = At runtime, using input variables for any host variables, parameter markers, or special registers. The bind option REOPT(ALWAYS), REOPT(ONCE), or REOPT(AUTO) must be specified for this to occur
QBLOCK_TYPE	CHAR(6)	For each query block, the type of SQL operation performed. For outermost query, identifies statement type. SELECT = SELECT INSERT = INSERT UPDATE = UPDATE MERGE = MERGE DELETE = DELETE SELUPD = SELECT with FOR UPDATE OF DELCUR = DELETE WHERE CURRENT OF CURSOR UPDCUR = UPDATE WHERE CURRENT OF CURSOR CORSUB = Correlated subquery TRUNCA = TRUNCATE NCOSUB = Noncorrelated subquery TABLEX = Table expression TRIGGR = WHEN clause on CREATE TRIGGER UNION = UNION UNIONA = UNION ALL INTERS = INTERSECT INTERA = INTERSECT ALL EXCEPT = EXCEPT EXCEPTA = EXCEPT ALL
OPTHINT	VARCHAR(128)	String used to identify row as optimization hint
HINT_USED	VARCHAR(128)	APREUSE - When an access path was successfully reused because APREUSE option was specified at bind or rebind '*opthint-value*' - When PLAN_TABLE access path hints are used *opthint-value* is value of OPTHINT column for hint that was used SYSQUERYPLAN *query-id* - When statement-level access path hints are used. *query-id* is value of QUERYID column in SYSQUERYPLAN catalog table for hint SYSQUERYSEL *query-id* - When a predicate

		selectivity override is used. *query-id* is the value of the QUERYID column of the SYSQUERYSEL catalog table row for the hint EXPLAIN PACKAGE: COPY *copy-id* – When row is result of an EXPLAIN PACKAGE statement. *copy-id* is one of following values: 0 = Current copy 1 = Previous copy 2 = Original copy
PRIMARY_ ACCESSTYPE	CHAR(1)	Whether direct row access will be attempted first: D = Db2 will try to use direct row access. If it cannot use direct row access at runtime, it uses the access path described in the ACCESSTYPE column of PLAN_TABLE P = Db2 used data partitioned secondary index and a part-level operation to access the data S = Db2 used sparse index access for sideways table reference T = Base table or result file is materialized into a work file, and the work file is accessed via sparse index access. If a base table is involved, ACCESSTYPE is how base table is accessed Blank = Db2 will not try to use direct row access ACCESSTYPE column provides information on the method of accessing the table
PARENT_QBLOCK	SMALLINT	Number that indicates QBLOCKNO of parent query
TABLE_TYPE	CHAR(1)	Type of new table: B = Buffers for SELECT from INSERT, SELECT from UPDATE, SELECT from MERGE, or SELECT from DELETE statement. C = Common table expression F = Table function I = New table is generated from an IN-LIST predicate. If IN-LIST predicate is selected as the matching predicate, it will be accessed as an in-memory table M = Materialized query table Q = Temporary intermediate result table (not materialized). For name of view or nested table expression, a value of Q indicates that the materialization was virtual and not actual. Materialization can be virtual when the view or nested table expression definition contains a UNION ALL that is not distributed. R = Recursive common table expression S = Subquery (correlated or non-correlated) T = Table W = Work file Value is null if query uses GROUP BY, ORDER BY, or DISTINCT, which requires an implicit sort
TABLE_ENCODE	CHAR(1)	Encoding scheme of table A = ASCII E = EBCDIC U = Unicode

		M = Table contains multiple CCSID sets
TABLE_SCCSID	SMALLINT	SBCS CCSID value of the table If TABLE_ENCODE is M, value is 0
TABLE_MCCSID	SMALLINT	Mixed CCSID value of the table If TABLE_ENCODE is M, value is 0 IF MIXED=NO in application defaults, value is -2
TABLE_DCCSID	SMALLINT	DBCS CCSID value of the table If TABLE_ENCODE is M, value is 0 If MIXED=NO in application defaults, value is -2
ROUTINE_ID	INTEGER	IBM use only
CTREF	SMALLINT	If referenced table is a common table expression, the value is the top-level query block number
STMTTOKEN	VARCHAR(240)	A user-specified statement token
PARENT_PLANNO	SMALLINT	Corresponds to the plan number in the parent query block where a correlated subquery is involved. Or, for non-correlated subqueries, corresponds to the plan number in the parent query block that represents the work file for the subquery
BIND_EXPLAIN_ONLY	CHAR(1)	Identifies whether the row was inserted by the BIND command with the EXPLAIN(ONLY) option
SECTNOI	INTEGER	Section number of the statement
EXPLAIN_TIME	TIMESTAMP	Time when EXPLAIN information was captured: All cached statements - When statement entered the cache Non-cached static statements - When statement was bound Non-cached dynamic statements - When EXPLAIN was executed
MERGC	CHAR(1)	If composite table is consolidated before join Y = Yes N = No
MERGN	CHAR(1)	If new table is consolidated before join, or if access that used a DPSI involved a merge operation Y = Yes N = No D = Access involved a merge operation. U = Access did not involve a merge operation
SCAN_DIRECTION	CHAR(1)	For index access, direction of index scan: F = Forward R = Reverse Blank = Index scan is not used
EXPANSION_ REASON	CHAR(1)	Applies to only statements that reference archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_COLDIST_TABLE

Column distribution table contains non-uniform column group statistics that are obtained dynamically by the optimizer

Column name	Data type	Description
QUERYNO	INTEGER	Number to identify the statement being explained

APPLNAME	VARCHAR(128)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger.
GROUP_MEMBER	VARCHAR(128)	Member name of subsystem that executed EXPLAIN
SECTNOI	INTEGER	Section number of the statement
VERSION	VARCHAR(122)	Version identifier for the package
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
SCHEMA	VARCHAR(128)	Schema of table that contains column
TBNAME	VARCHAR(128)	Name of the table that contains the column
NAME	VARCHAR(128)	Name of column
COLVALUE	VARCHAR(2000)	Contains data of a frequently occurring value in column
TYPE	CHAR(1)	The type of statistics: C = Cardinality F = Frequent value H = Histogram T = Real-time table cardinality L = Real-time column cardinality (unique index only) P = Real-time partition cardinality
CARDF	FLOAT	TYPE=C = number of distinct values for column group TYPE=H = number of distinct values for column group in a quantile indicated by value of QUANTILENO column TYPE = T = value related to real-time statistics determined by COLVALUE TYPE = L= value related to real-time statistics column QUANTILENO contains column number and NAME contains partition number
COLGROUPCOLNO	VARCHAR(254)	Identity of set of columns associated with the statistics
NUMCOLUMNS	SMALLINT	Number of columns associated with the statistics
FREQUENCYF	FLOAT	Percentage of rows in table with value specified in COLVALUE column when number is multiplied by 100
QUANTILENO	SMALLINT	Ordinary sequence number of a quantile in the whole consecutive value range, from low to high
LOWVALUE	VARCHAR(2000)	TYPE=H, lower bound for quantile indicated by value of the QUANTILENO column
HIGHVALUE	VARCHAR(2000)	TYPE=H, higher bound for the quantile indicated by the value of the QUANTILENO column
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_DETCOST_TABLE

Contains information about detailed cost estimation of the mini-plans in a query

Column name	Data type	Description
QUERYNO	INTEGER	Number to identify the statement being explained
QBLOCKNO	SMALLINT	Number used to identify each query block within a query
PLANNO	SMALLINT	Number used to identify each mini-plan within query block
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
OPENIO	FLOAT(4)	Do-at-open I/O cost for the non-correlated subquery
OPENCPU	FLOAT(4)	Do-at-open CPU cost for the non-correlated subquery
OPENCOST	FLOAT(4)	Do-at-open total cost for the non-correlated subquery
ONECOMPROWS	FLOAT(4)	Number of rows qualified after applying local predicates
IMFF	FLOAT(4)	Filter factor of matching predicates only
IMFFADJ	FLOAT(4)	Filter factor of matching and screening predicates
DMCOLS	FLOAT(4)	Number of data manager columns
DMROWS	FLOAT(4)	Number of data manager rows returned (after all stage 1 predicates are applied)
RDSROW	FLOAT(4)	Number of RDS rows returned (after all stage 1 and stage 2 predicates are applied)
SNCOLS	SMALLINT	Number of columns as sort input for a new table
SNROWS	FLOAT(4)	Number of rows as sort input for a new table
SNRECSZ	INTEGER	Record size for new table
SNPAGES	FLOAT(4)	Page size for new table
SNRUNS	FLOAT(4)	Number of runs generated for a sort of a new table
SNMERGES	FLOAT(4)	Number of merges needed during a sort
SNCCOLS	FLOAT(4)	Number of columns as sort input for a composite table
SCROWS	FLOAT(4)	Number of rows as sort input for a composite table
SCRECSZ	INTEGER	Record size for a composite table
SCPAGES	FLOAT(4)	Page size for a composite table
SCRUNS	FLOAT(4)	Number of runs generated during sort of composite table
SCMERGES	FLOAT(4)	Number of merges during a sort of composite table
COMPCARD	FLOAT(4)	Total composite cardinality
COMPCOST	FLOAT(4)	Total cost
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
GROUP_MEMBER	VARCHAR(24)	Member name of Db2 subsystem that executed EXPLAIN
UNCERTAINTY	FLOAT(4)	Describes uncertainty factor of inner table index access
UNCERTAINTY_1T	FLOAT(4)	Describes uncertainty factor of ONECOMPROWS column
SECTNOI	INTEGER	Section number of the statement
COLLID	VARCHAR(128)	Collection ID
VERSION	VARCHAR(128)	Version identifier for the package
IXSCAN_SKIP_ DUPS	CHAR(1)	Duplicate index key values are skipped during index scan Y = Duplicate key values are skipped N = Duplicate key values are not skipped
IXSCAN_SKIP_ SCREEN	CHAR(1)	Key ranges disqualified by index screening predicates are skipped during an index scan Y = Disqualified key ranges are skipped N = Key ranges are not skipped
EARLY_OUT	CHAR(1)	If fetching from the table stops after the first qualified row Y = Internal fetching stops after the first qualified row

		N = Internal fetching continues after the first qualified row Blank = EXPLAIN data captured in a previous release
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tables or temporal tables. Else, blank
BLOCK_FETCH	CHAR(1)	Whether block fetch was used for query: (Y or N)
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_FILTER_TABLE

Contains information about how predicates are used during query processing.

Column name	Data type	Description
QUERYNO	INTEGER	Identification of statement being explained
QBLOCKNO	SMALLINT	Identification of each query block within a query
PLANNO	SMALLINT	Identification of each mini-plan within a query block
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger
ORDERNO	INTEGER	Order a predicate is applied within each stage
PREDNO	INTEGER	A number used to identify a predicate within a query
STAGE	CHAR(9)	Indicates at which stage the predicate is evaluated • Matching • Screening • Pagerange • Stage 1 • Stage 2
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
GROUP_MEMBER	VARCHAR(24)	Member name of subsystem that executed EXPLAIN
SECTNOI	INTEGER	Section number of the statement
VERSION	VARCHAR(122)	Version identifier for the package
PUSHDOWN	CHAR(1)	Whether predicate is pushed down into Index Manager or Data Manager subcomponents for evaluation I = Index Manager evaluates the predicate D = Data Manager evaluates the predicate Blank = predicate is not pushed down for evaluation
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tablesor temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement ID for SQL statements

DSN_FUNCTION_TABLE

Contains information about the cost of user-defined functions used in a SQL statement.

Column name	Data type	Description
QUERYNO	INTEGER	Identifier of statement being explained
QBLOCKNO	INTEGER	Number of query block within a query
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger
GROUP_MEMBER	VARCHAR(24)	Member name that executed EXPLAIN, or blank
EXPLAIN_TIME	TIMESTAMP	Time at which the statement is processed
SCHEMA_NAME	VARCHAR(128)	Schema name of function invoked in statement
FUNCTION_NAME	VARCHAR(128)	Name of function invoked in statement
SPEC_FUNC_ID	VARCHAR(128)	Specific name of function invoked in statement
FUNCTION_TYPE	CHAR(2)	Type of function invoked in statement: CU = Column function SU = Scalar function TU = Table function
VIEW_CREATOR	VARCHAR(128)	If function specified in FUNCTION_NAME column is referenced in a view definition, the creator of the view
VIEW_NAME	VARCHAR(128)	Name of view if FUNCTION_NAME referenced in a view definition
PATH	VARCHAR(2048)	SQL path used to resolve schema of function
FUNCTION_TEXT	VARCHAR(1500)	Text of function reference
FUNC_VERSION	VARCHAR(122)	Version of a non-inline SQL scalar function
SECURE	CHAR(1)	Indicates whether user-defined function is secure
SECTNOI	INTEGER	Section number of statement
VERSION	VARCHAR(122)	Version identifier for package
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement ID for SQL statement

DSN_KEYTGTDIST_TABLE

Contains non-uniform index expression statistics obtained dynamically by the optimizer.

Column name	Data type	Description
QUERYNO	INTEGER	Number to identify statement being explained
APPLNAME	VARCHAR(128)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package for explained statement
COLLID	VARCHAR(128)	Collection ID:

		DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger
GROUP_MEMBER	VARCHAR(128)	Member name of subsystem that executed EXPLAIN
SECTNOI	INTEGER	Section number of statement
VERSION	VARCHAR(122)	Version identifier for package
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
IXSCHEMA	VARCHAR(128)	Qualifier of the index
IXNAME	VARCHAR(128)	Name of the index
KEYSEQ	VARCHAR(128)	Numeric position of the key-target in the index
KEYVALUE	VARCHAR(2000)	Contains the data of a frequently occurring value
TYPE	CHAR(1)	Type of statistics: C = Cardinality F = Frequent value H = Histogram I = Real-time index statistics
CARDF	FLOAT	TYPE=C = number of distinct values for column group TYPE=H = number of distinct values for column group in a quantile indicated by value of QUANTILENO TYPE=T = value related to real-time index statistics determined by KEYVALUE
KEYGROUPKEYNO	VARCHAR(254)	Value that identifies set of keys associated with the statistics. If statistics are associated with more than a single key, if contains an array of SMALLINT key numbers with a dimension that is equal to the value in NUMKEYS. If statistics are only associated with a single key, it contains 0
NUMKEYS	SMALLINT	Number of keys that are associated with the statistics
FREQUENCYF	FLOAT	Percentage of rows in table with value that is specified in KEYVALUE column when the number is multiplied by 100
QUANTILENO	SMALLINT	Ordinary sequence number of a quantile in the whole consecutive value range, from low to high
LOWVALUE	VARCHAR(2000)	TYPE=H = lower bound for the quantile indicated by value of QUANTILENO column
HIGHVALUE	VARCHAR(2000)	For TYPE=H = higher bound for quantile indicated by value of QUANTILENO column
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_PGRANGE_TABLE

Contains information about qualified partitions for all page range scans in a query.

Column name	Data type	Description
QUERYNO	INTEGER	ID of statement being explained
QBLOCKNO	SMALLINT	ID of each query block within a query
TABNO	SMALLINT	Table number
RANGE	SMALLINT	Sequence number of the current page range
FIRSTPART	SMALLINT	Starting partition in the current page range
LASTPART	SMALLINT	Ending partition in the current page range
NUMPARTS	SMALLINT	Number of partitions in the current page range
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
GROUP_MEMBER	VARCHAR(24)	Member name of subsystem that executed EXPLAIN
SECTNOI	INTEGER	Section number of the statement
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(24)	Name of program or package for Explained statement
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger
VERSION	VARCHAR(122)	Version identifier for the package
EXPANSION_ REASON	CHAR(2)	Column applies to only statements that reference archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement ID or SQL statements

DSN_PGROUP_TABLE

Contains information about the parallel groups in a query.

Column name	Data type	Description
QUERYNO	INTEGER	ID of statement being explained
QBLOCKNO	SMALLINT	ID of each query block within a query
PLANNAME	VARCHAR(24)	Application plan name
COLLID	VARCHAR(24)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, column is schema of compiled SQL function, native SQL procedure or advanced trigger
PROGNAME	VARCHAR(128)	Program name (binding an application) or package name (binding a package)

EXPLAIN_TIME	TIMESTAMP	Explain timestamp
VERSION	VARCHAR(122)	Version identifier for the package
GROUPID	SMALLINT	Parallel group identifier within the current query block
FIRSTPLAN	SMALLINT	Plan number of first contributing mini-plan associated within this parallel group
LASTPLAN	SMALLINT	Plan number of last mini-plan associated with this parallel group
CPUCOST	REAL	Estimated CPU cost of parallel group in milliseconds
IOCOST	REAL	Estimated I/O cost of parallel group in milliseconds
BESTTIME	REAL	Estimated elapsed time parallel for task for group
DEGREE	SMALLINT	Degree of parallelism determined at bind time
MODE	CHAR(1)	Parallel mode: I = I/O parallelism C = CPU parallelism N = No parallelism
REASON	SMALLINT	Reason for downgrading parallelism mode
LOCALCPU	SMALLINT	Number of CPUs currently when preparing the query
TOTALCPU	SMALLINT	Total number of CPUs in Sysplex
FIRSTBASE	SMALLINT	Table number of table that on which partitioning is performed
LARGETS	CHAR(1)	Y = table space is large in this group
PARTKIND	CHAR(1)	Partitioning type: L = Logical partitioning P = Physical partitioning
GROUPTYPE	CHAR(1)	Indicates operations in parallel group: table access, join, or sort (A, AJ, or AJS)
ORDER	CHAR(1)	Ordering requirement of this parallel group: N = No order T = Natural order K = Key order
STYLE	CHAR(4)	Input/output format style of parallel group RIRO = Records IN, Records OUT WIRO = Work file IN, Records OUT WIWO = Work file IN, Work file OUT
RANGEKIND	CHAR(1)	Range type: K = Key range L = IN-list elements partitioning P = Page range R = Record range partitioning
NKEYCOLS	SMALLINT	Number of key columns that will participate in key operation for this parallel group
LOWBOUND	VARCHAR(40)	Low bound of the parallel group
HIGHBOUND	VARCHAR(40)	High bound of the parallel group
LOWKEY	VARCHAR(40)	Low key of range if partitioned by key range
HIGHKEY	VARCHAR(40)	High key of range if partitioned by key range
FIRSTPAGE	CHAR(4)	First page in range if partitioned by page range
LASTPAGE	CHAR(4)	Last page in range if partitioned by page range
GROUP_MEMBER	VARCHAR(24)	Name of subsystem where EXPLAIN was executed
APPLNAME	VARCHAR(24)	Application plan name
SECTNOI	INTEGER	Section number of the statement
EXPANSION_ REASON	CHAR(2)	Column applies to only statements that reference archive tables or temporal tables. Else, blank

PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_PREDICAT_TABLE

Contains information about all the predicates in a query.

Column name	Data type	Description
QUERYNO	INTEGER	ID of statement being explained
QBLOCKNO	SMALLINT	ID of each query block within a query
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(24)	Name of program or package containing statement being explained
PREDNO	INTEGER	A number used to identify a predicate within a query
TYPE	CHAR(8)	String used to indicate type/operation of predicate: AND, OR, EQUAL, RANGE, BETWEEN, IN, LIKE, NOT LIKE, EXISTS, COMPOUND, NOT EXIST, SUBQUERY, HAVING, OTHERS
LEFT_HAND_SIDE	VARCHAR(128)	If left-hand side (LHS) of predicate is a table column (LHS_TABNO > 0, indicates column name: VALUE, COLEXP, NONCOLEXP, CORSUB, NONCORSUB, SUBQUERY, EXPRESSION, blank
LEFT_HAND_PNO	INTEGER	If LHS of the predicate is a table column (LHS_TABNO > 0), indicates column name: VALUE, COLEXP, NONCOLEXP, CORSUB, NONCORSUB, SUBQUERY, EXPRESSION, blank
LHS_TABNO	SMALLINT	If LHS of predicate is a table column, indicates a number that uniquely identifies corresponding table reference within a query
LHS_QBNO	SMALLINT	If LHS of predicate is a table column, indicates a number that uniquely identifies corresponding table reference within a query
RIGHT_HAND_SIDE	VARCHAR(128)	If right-hand side (RHS) of predicate is a table column (RHS_TABNO > 0), indicates column name: VALUE, COLEXP, NONCOLEXP, CORSUB, NONCORSUB, SUBQUERY, EXPRESSION, blanks
RIGHT_HAND_PNO	INTEGER	If predicate is a compound (AND/OR), indicates second child predicate
RHS_TABNO	CHAR(1)	If RHS of predicate is a table column, indicates a number that uniquely identifies corresponding table reference within a query
RHS_QBNO	CHAR(1)	If RHS of predicate is a subquery, indicates a number that uniquely identifies corresponding query block within a query
FILTER_FACTOR	FLOAT	Estimated filter factor
BOOLEAN_TERM	CHAR(1)	If predicate can be used to determine truth value of whole WHERE clause
SEARCHARG	CHAR(1)	Whether predicate can be processed by data manager (DM) stage 1
AFTER_JOIN	CHAR(1)	Indicates predicate evaluation phase: A = After join D = During join Blank = Not applicable
ADDED_PRED	CHAR(1)	Whether predicate is generated by Db2, and reason predicate is added:

		Blank = Db2 did not add the predicate B = bubble up C = correlation J = join K = LIKE for expression-based index L = localization P = push down R = page range S = simplification T = transitive closure
REDUNDANT_ PRED	CHAR(1)	Whether predicate is a redundant predicate
DIRECT_ACCESS	CHAR(1)	Predicate is direct access directly to row via ROWID
KEYFIELD	CHAR(1)	Whether predicate includes the index key column of the involved table
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
TEXT	VARCHAR(2000)	Text of transformed predicate
MARKER	CHAR(1)	Predicate includes host variables, parameter markers, or special registers
PARENT_PNO	INTEGER	Parent predicate number
NEGATION	CHAR(1)	Whether the predicate is negated via NOT
LITERALS	VARCHAR(128)	Literal value or literal values separated by colon
CLAUSE	CHAR(8)	Clause where the predicate exists: HAVING = HAVING clause ON = ON clause WHERE = WHERE clause SELECT = The SELECT clause
GROUP_MEMBER	VARCHAR(24)	Member name of the Db2 that executed EXPLAIN
ORIGIN	CHAR(1)	Indicates the origin of the predicate Blank = generated by Db2 C = column mask R = row permission U = specified by the user
UNCERTAINTY	FLOAT(4)	Describes uncertainty factor of a predicate's estimated filter factor - Larger value = high degree of uncertainty - Zero = no uncertainty or not considered
SECTNOI	INTEGER	Section number of the statement
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, column is schema of compiled SQL function, native SQL procedure or advanced trigger
VERSION	VARCHAR(122)	Version identifier for the package
EXPANSION_	CHAR(2)	Column applies to only statements that reference

REASON		archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statments

DSN_PREDICATE_SELECTIVITY

Contains information about selectivity of predicates used for access path selection. It is used as an input table for the BIND QUERY command when selectivity overrides are specified.

Column name	Data type	Description
QUERYNO	INTEGER	Number to identify the statement being explained
QBLOCKNO	SMALLINT	Number that identifies each query block within a query
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
SECTNOI	INTEGER	Section number of the statement
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, column is schema of compiled SQL function, native SQL procedure or advanced trigger
VERSION	VARCHAR(122)	Version identifier for the package
PREDNO	INTEGER	Identifies a specific predicate within a query
INSTANCE	SMALLINT	Selectivity instance. Used to group related selectivities
SELECTIVITY	FLOAT	Selectivity estimate
WEIGHT	FLOAT(4)	Percentage of executions with specified selectivity
ASSUMPTION	VARCHAR(128)	NULL = How selectivity was estimated, or is used NORMAL = Selectivity is estimated using normal selectivity assumptions OVERRIDE = Selectivity is based on an override
INSERT_TIME	TIMESTAMP	Time when row was inserted or updated
EXPLAIN_TIME	TIMESTAMP	Time when EXPLAIN information was captured: - All cached statements - When statement entered cache - Non-cached static statements - When statement was bound, - Non-cached dynamic statements - When EXPLAIN was executed
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_QUERYINFO_TABLE

Contains information about the eligibility of query blocks for automatic query rewrite.

Column name	Data type	Description
QUERYNO	INTEGER	ID of statement being explained
QBLOCKNO	SMALLINT	ID of each query block within a query
QINAME1	VARCHAR(128)	TYPE=A: - REASON_CODE=0, value is name of accelerator server to which query is sent - REASON_CODE<>0, query was not sent to a accelerator server
QINAME2	VARCHAR(128)	TYPE=A and REASON_CODE=0, is name of location
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
VERSION	VARCHAR(122)	Version identifier for the package
GROUP_MEMBER	VARCHAR(24)	Member name of subsystem that executed EXPLAIN.
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE - row originates from dynamic statement cache DSNEXPLAINMODEYES - row originates from an application with YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN **-** row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When SQL statement is embedded in a non-inline SQL function or native SQL procedure, column is not used.
SECTNOI	INTEGER	Section number of statement
SEQNO	INTEGER	Sequence number for row if QI_DATA exceeds size of its column
EXPLAIN_TIME	TIMESTAMP	Time when EXPLAIN information was captured: All cached statements - When statement entered cache Non-cached static statements - When statement was bound Non-cached dynamic statements - When EXPLAIN was executed
TYPE	CHAR(8)	Type of output for this row: A **=** row for query that Db2 attempts to run on an accelerator server
QI_DATA	CLOB(2M)	TYPE=A: - REASON_CODE values other than 0, value is description of REASON_CODE value - REASON_CODE value of 0, value is query text, after it is converted for processing by accelerator
EXPANSION_ REASON	CHAR(2)	Column applies to only statements that reference archive tables or temporal tables
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_PTASK_TABLE

Contains information about the parallel tasks in a query.

Column name	Data type	Description
QUERYNO	INTEGER	ID of statement being explained

QBLOCKNO	SMALLINT	ID of each query block within a query
PGDNO	SMALLINT	Parallel group identifier within current query block
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statements
LPTNO	SMALLINT	Parallel task number
KEYCOLID	SMALLINT	Key columns ID (KEY range only)
DPSI	CHAR(1)	Whether a data partition secondary index (DPSI) used
LPTLOKEY	VARCHAR(40)	Low key value for this key column for this parallel task (KEY range only)
LPTHIKEY	VARCHAR(40)	High key value for this key column for this parallel task (KEY range only)
LPTLOPAG	CHAR(4)	Low page information if partitioned by page range
LPTLHIPAG	CHAR(4)	High page information if partitioned by page range
LPTLOPG	CHAR(4)	Lower bound page number for parallel task (page range or DPSI enabled)
LPTHIPG	CHAR(4)	Upper bound page number for parallel task (page range or DPSI enabled)
LPTLOPT	SMALLINT	Lower bound partition number for parallel task(page range or DPSI enabled)
KEYCOLDT	SMALLLINT	Data type for this key column (KEY range only)
KEYCOLPREC	SMALLINT	Precision/length for this key column (KEY range only)
KEYCOLSCAL	SMALLINT	Scale for this key column (KEY range with decimal data type only)
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
GROUP_MEMBER	VARCHAR(24)	Member name of subsystem that executed EXPLAIN
SECTNOI	INTEGER	Section number of the statement
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, column is the schema of compiled SQL function, native SQL procedure or advanced trigger
VERSION	VARCHAR(122)	Version identifier for the package
EXPANSION_ REASON	CHAR(2)	Column applies to only statements that reference archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_QUERY_TABLE

Contains information about an SQL statement and displays the statement before and after query transformation in XML.

Column Name	Data Type	Description
QUERYNO	INTEGER	ID of statement being explained
TYPE	CHAR(8)	Type of the data in the NODE_DATA column
QUERY_STAGE	CHAR(8)	Stage during query transformation

SEQNO	INTEGER	Sequence number for row if NODE_DATA exceeds size of its column
NODE_DATA	CLOB(2M)	XML data containing the SQL statement and its query block, table, and column information
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
QUERY_ROWID	ROWID	ROWID of the statement
GROUP_MEMBER	VARCHAR(24)	Name of subsystem that executed EXPLAIN
HASHKEY	INTEGER	Hash value of the contents in NODE_DATA
HASH_PRED	CHAR(1)	When NODE_DATA contains an SQL statement, indicates whether statement contains a parameter marker literal, a non-parameter marker literal, or no predicates
SECTNOI	INTEGER	Section number of the statement
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger
VERSION	VARCHAR(122)	Version identifier for the package
EXPANSION_ REASON	CHAR(2)	Column applies to only statements that reference archive tables or temporal tables. Else, blank

DSN_SORTKEY_TABLE

Contains information about sort keys for all the sorts required by a query.

Column name	Data Type	Description
QUERYNO	INTEGER	ID os statement being explained
QBLOCKNO	SMALLINT	ID of query block within a query
PLANNO	SMALLINT	ID of mini-plan within a query block
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced

		trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger
SORTNO	SMALLINT	Sequence number of the sort
ORDERNO	SMALLINT	Sequence of the sort key
EXPTYPE	CHAR(3)	Type of the sort ke: COL, EXP , QRY
TEXT	VARCHAR(128)	Sort key text = column name, scalar subquery, or Record ID
TABNO	SMALLINT	Identifies corresponding table reference within query
COLNO	SMALLINT	ID that corresponds with column within a query
DATATYPE	CHAR(18)	Data type of sort key: HEXADECIMAL, CHARACTER, PACKED FIELD , FIXED(31), FIXED(15), DATE, TIME, VARCHAR, PACKED FLD ,FLOAT TIMESTAMP, UNKNOWN DATA TYPE’
LENGTH	INTEGER	Length of the sort key
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
GROUP_MEMBER	VARCHAR(24)	Name of subsystem that executed EXPLAIN
SECTNOI	INTEGER	Section number of statement
VERSION	VARCHAR(122)	Version identifier for package
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_SORT_TABLE

Contains information about sort operations required for a query.

Column name	Data Type	Description
QUERYNO	INTEGER	Number to identify statement being explained
QBLOCKNO	SMALLINT	Number to identify each query block within query
PLANNO	SMALLINT	Number to identify each mini-plan within query block
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: Row from dynamic statement cache. DSNEXPLAINMODEYES: Row from an application that specifies YES for value of CURRENT EXPLAIN MODE special register. DSNEXPLAINMODEEXPLAIN: Row from an application that specifies EXPLAIN for value of CURRENT EXPLAIN MODE special register. When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger.
SORTC	CHAR(5)	Reasons for sort of composite table G = Group By O = Order By J = Join U = Uniqueness
SORTN	CHAR(5)	Reasons for sort of composite table G = Group By O = Order By

		J = Join U = Uniqueness
SORTNO	SMALLINT	Sequence of the sort
KEYSIZE	SMALLINT	Sum of the lengths of the sort keys
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
GROUP_MEMBER	VARCHAR(24)	Member name of subsystem that executed EXPLAIN
SECTNOI	INTEGER	Section number of the statement
VERSION	VARCHAR(122)	Version identifier for package
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_STATEMENT_CACHE_TABLE

Contains information about the SQL statements in the statement cache.

Column name	Data Type	Description
STMT_ID	INTEGER	An EDM unique token
STMT_TOKEN	VARCHAR(240)	A user-provided identification string
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: Row from dynamic statement cache. DSNEXPLAINMODEYES: Row originates from an application that specifies YES for value of CURRENT EXPLAIN MODE special register. DSNEXPLAINMODEEXPLAIN: Row from an application that specifies EXPLAIN for value of the CURRENT EXPLAIN MODE special register. When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger
PROGRAM_NAME	VARCHAR(128)	Name of package or DBRM that performed initial PREPARE
INV_DROPALT	CHAR(1)	Invalidated by DROP/ALTER
INV_REVOKE	CHAR(1)	Invalidated by REVOKE
INV_LRU	CHAR(1)	Removed from cache by LRU
INV_RUNSTATS	CHAR(1)	Invalidated by RUNSTATS
CACHED_TS	TIMESTAMP	Timestamp when statement was cached
USERS	INTEGER	Number of current users of statement. These are the users that have prepared or executed the statement during their current unit of work
COPIES	INTEGER	Number of copies of statement owned by all threads in the system
LINES	INTEGER	Precompiler line number from the initial PREPARE
PRIMAUTH	VARCHAR(128)	Primary auth ID of user that did initial PREPARE
CURSQLID	VARCHAR(128)	CURRENT SQLID of user that did initial prepare
BIND_QUALIFIER	VARCHAR(128)	Bind object qualifier for unqualified table names
BIND_ISO	CHAR(2)	ISOLATION bind option: UR = Uncommitted read CS = Cursor stability RS = Read stability RR =Repeatable read
BIND_CDATA	CHAR(1)	DATA CURRENTDATA bind option:

		Y = CURRENTDATA(YES) N = CURRENTDATA(NO)
BIND_DYNRL	CHAR(1)	DYNAMICRULES bind option: B = DYNAMICRULES(BIND) R = DYNAMICRULES(RUN)
BIND_DEGRE	CHAR(1)	CURRENT DEGREE value: A = ANY 1 = 1
BIND_SQLRL	CHAR(1)	CURRENT RULES value: D = Db2 S = SQL
BIND_CHOLD	CHAR(1)	Cursor WITH HOLD bind option: Y = PREPARE done for a cursor WITH HOLD N = PREPARE not done for a cursor WITH HOLD
STAT_TS	TIMESTAMP	Timestamp of stats when IFCID 318 is started
STAT_EXEC	INTEGER	Column is deprecated. Use STAT_EXECB instead
STAT_GPAG	INTEGER	Column is deprecated. Use STAT_GPAGB instead
STAT_SYNR	INTEGER	Column is deprecated. Use STAT_SYNRB instead
STAT_WRIT	INTEGER	Column is deprecated. Use STAT_WRITB instead
STAT_EROW	INTEGER	Column is deprecated. Use STAT_EROWB instead
STAT_PROW	INTEGER	Column is deprecated. Use STAT_PROWB instead
STAT_SORT	INTEGER	Column is deprecated. Use STAT_SORTB instead
STAT_INDX	INTEGER	Column is deprecated. Use STAT_INDXB instead
STAT_RSCN	INTEGER	Column is deprecated. Use STAT_RSCNB instead
STAT_PGRP	INTEGER	Column is deprecated. Use STAT_PGRPB instead
STAT_ELAP	FLOAT	Accumulated elapsed time used for statement
STAT_CPU	FLOAT	Accumulated CPU time used for statement
STAT_SUS_SYNIO	FLOAT	Accumulated wait time for synchronous I/O
STAT_SUS_LOCK	FLOAT	Accumulated wait time for lock and latch requests
STAT_SUS_SWIT	FLOAT	Accumulated wait time for synchronous execution unit switch
STAT_SUS_GLCK	FLOAT	Accumulated wait time for global locks
STAT_SUS_OTHR	FLOAT	Accumulated wait time for read activity done by another thread
STAT_SUS_OTHW	FLOAT	Accumulated wait time for write activity done by another thread
STAT_RIDLIMT	INTEGER	Column is deprecated. Use STAT_RIDLMTB instead
STAT_RIDSTOR	INTEGER	Column is deprecated. Use STAT_RIDSTORB instead
EXPLAIN_TS	TIMESTAMP	When the statement cache table is populated
SCHEMA	VARCHAR(128)	CURRENT SCHEMA value
STMT_TEXT	CLOB(2M)	Statement text
STMT_ROWID	ROWID	Statement ROWID
BIND_RO_TYPE	CHAR(1)	Current specification of REOPT option for statement: N = REOPT(NONE) 1 = REOPT(ONCE) or its equivalent A = REOPT(AUTO) or its equivalent 0 = No need for REOPT(AUTO)
BIND_RA_TOT	INTEGER	Total number of REBIND commands issued for dynamic statement because of REOPT(AUTO) option
GROUP_MEMBER	VARCHAR(24)	Name of Db2 subsystem that inserted row
STAT_GPAGB	BIGINT	Number of getpage operations performed
STAT_SYNRB	BIGINT	Number of synchronous buffer reads performed

STAT_WRITB	BIGINT	Number of buffer write operations performed
STAT_EROWB	BIGINT	Number of rows that are examined
STAT_PROWB	BIGINT	Number of rows that are processed
STAT_SORTB	BIGINT	Number of sorts that are performed
STAT_EXECB	BIGINT	Number of times this statement has been run. For a statement with a cursor, this is the number of OPENs
STAT_INDXB	BIGINT	Number of index scans that are performed
STAT_RSCNB	BIGINT	Number of table space scans that are performed
STAT_PGRPB	BIGINT	Number of parallel groups that are created
STAT_RIDLIMTB	BIGINT	Number of times a RID list was not used because the number of RIDs would have exceeded Db2 limits
STAT_RIDSTORB	BIGINT	Number of time a RID list was not used because there is not enough storage available to hold the list of RIDs
LITERAL_REPL	CHAR(1)	Identifies cached statements where literal values are replaced by '&': R = Statement is prepared with CONCENTRATE STATEMENTS WITH LITERALS behavior and literal constants in statement have been replaced with '&' D = Statement is a duplicate statement instance with different literal reusability criteria Blank = Literal values are not replaced
STAT_SUS_LATCH	FLOAT	Accumulated wait time for latch requests
STAT_SUS_PLATCH	FLOAT	Accumulated wait time for page latch requests
STAT_SUS_DRAIN	FLOAT	Accumulated wait time for a drain lock requests
STAT_SUS_CLAIM	FLOAT	Accumulated wait time for claim count requests
STAT_SUS_LOG	FLOAT	Accumulated wait time for the log writer requests
EXPANSION_ REASON	CHAR(2)	Applies only to statements that reference archive tables or temporal tables. Else, blank
ACCELERATED	CHAR(10)	Whether cached statement was prepared for acceleration server. NO, YES, NEVER
STAT_ACC_ELAP	BIGINT	Accumulated elapsed time for accelerator
STAT_ACC_CPU	BIGINT	Accumulated CPU time for accelerator
STAT_ACC_ROW	BIGINT	Accumulated number of rows returned from accelerator
STAT_ACC_BYTE	BIGINT	Accumulated number of bytes returned from accelerator
STAT_ACC_1ROW	BIGINT	Time waited for first row to be returned from accelerator
STAT_ACC_DB2	BIGINT	Total time accelerator waited for Db2 to request query results
STAT_ACC_EXEC	BIGINT	Accumulrated execution time for accelerator
STAT_ACC_WAIT	BIGINT	Accumulated wait time for accelerator
ACCEL_OFFLOAD_ ELIGIBLE	CHAR(1)	NO – statement not eligible for acceleration YES – statement is candidate for acceleration
ACCELERATOR_ NAME	VARCHAR(128)	Concatenated name of accelerator server that processed query
STAT_SUS_ CHILDLLOCKS	FLOAT	Accumulated wait time for child L-locks for statement
STAT_SUS_ OTHERLLOCKS	FLOAT	Accumulated wait time for other L-locks for statement
STAT_SUS_ PPPLOCKS	FLOAT	Accumulated wait time for P/PP-Locks for statement
STAT_SUS_	FLOAT	Accumulated wait time for page P-locks for statement

PAGEPLOCKS		
STAT_SUS_ OTHERPLOCKS	FLOAT	Accumulated wait time for other P-locks for statement
PER_STMT_ID	BIGINT	Statement identifier for stabilized dynamic SQL
STBLGRP	VARCHAR(128)	Stabilization group specified in a START DYNQRY
QUERY HASH	CHAR(16)	Hash key generated by the statement user
QUERY_HASH_ VERSION	INTEGER	Version of QUERY_HASH
STABILIZED	CHAR(1)	Indicates whether the statement was stabilized
APPLCOMPAT	CHAR(10)	Application compatibility level of a dynamic SQL statement
CNO	BIGINT	Command number for the dynamic query capture monitor
STAT_SUS_PIPE	FLOAT	Accumulated wait time for latch requests

DSN_STATEMNT_TABLE

Contains information about the estimated cost of specified SQL statements.

Column name	Data Type	Description
QUERYNO	INTEGER	Number to identify the statement being explained
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row originates from dynamic statement cache DSNEXPLAINMODEYES: row originates from an application that specifies YES for CURRENT EXPLAIN MODE special register DSNEXPLAINMODEEXPLAIN: row originates from an application that specifies EXPLAIN for CURRENT EXPLAIN MODE special register When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger
GROUP_MEMBER	VARCHAR(24)	Name of subsystem that executed EXPLAIN, or blank
EXPLAIN_TIME	TIMESTAMP	Time statement is processed, same as BIND_TIME in PLAN_TABLE
STMT_TYPE	CHAR(6)	Type of statement being explained: SELECT = SELECT INSERT = INSERT UPDATE = UPDATE DELETE = DELETE MERGE = MERGE TRUNCA = TRUNCATE SELUPD = SELECT with FOR UPDATE OF DELCUR = DELETE WHERE CURRENT OF CURSOR UPDCUR = UPDATE WHERE CURRENT OF CURSOR
COST_CATEGORY	CHAR(1)	If Db2 was forced to use default values when making

		its estimates: A = Cost estimatation made without using default values B = Some condition exists for which Db2 was forced to use default values. REASON to determine why Db2 was unable to put estimate in cost category A
PROCMS	INTEGER	Estimated processor cost in milliseconds for SQL statement
PROCSU	INTEGER	Estimated processor cost in service units for SQL statement
REASON	VARCHAR(254)	Reasons for putting an estimate into cost category B: ACCELMODEL ELIGIBLE: eligible for acceleration ACCELMODEL NOT ELIGIBLE: not eligible for acceleration HAVING CLAUSE: A subselect in SQL statement contains a HAVING HOST VARIABLES: The statement uses host variables, parameter markers, or special registers. OPTIMIZATION HINTS: statement level or access path hint applied PROFILEID: Profile id if using profile monitoring REFERENTIAL CONSTRAINTS: Referential constraints of the type CASCADE or SET NULL exist on the target table of a DELETE statement. TABLE CARDINALITY: cardinality statistics are missing for one or more of the tables used in the statement. UDF: The statement uses user-defined functions. TRIGGERS: Triggers are defined on the target table of an INSERT, UPDATE, or DELETE statement.
STMT_ENCODE	CHAR(1)	Encoding scheme of the statement. If the statement represents a single CCSID set, possible values are: A = ASCII E = EBCDIC U = Unicode If statement has multiple CCSID sets, value is M
TOTAL_COST	FLOAT	Overall estimated cost of statement
SECTNOI	INTEGER	Section number of the statement
VERSION	VARCHAR(122)	Version identifier for the package
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tables or temporal tables. Else, blank
APCOMPARE_ STATUS	CHAR(1)	Status of access path comparison operation for APCOMPARE option on BIND or REBIND S = Access path comparison succeded F = New access path does not match previous, comparison failed N = No match
APREUSE_STATUS	CHAR(1)	Status of access path comparison operation for APREUSE option on BIND or REBIND S = Access path reuse succeded F = Access path reuse failed N = No match
APREUSE_ VERSION	VARCHAR(122)	Version identifier of package

APREUSE_COPYID	INTEGER	Copy number of identifier for package
EXPLAIN_TYPE	CHAR(1)	Type of action that created row: A = Automatic rebind B = BIND command C = EXPLAIN STATEMENT CACHE statement D = Dynamic EXPLAIN statement R = REBIND command S = EXPLAIN STABILIZED DYNAMIC QUERY statement
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements
QUERY_HASH	CHAR(16)	Hash key generated by statement text

DSN_STAT_FEEDBACK

Recommendations for capturing missing or conflicting statistics defined during EXPLAIN.

Column name	Data Type	Description
QUERYNO	INTEGER	Number to identify the statement being explained
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: Row from dynamic statement cache. DSNEXPLAINMODEYES: Row from an application that specifies YES for the value of the CURRENT EXPLAIN MODE special register. DSNEXPLAINMODEEXPLAIN: Row from an application that specifies EXPLAIN for the value of the CURRENT EXPLAIN MODE special register. When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, column is schema of compiled SQL function, native SQL procedure or advanced trigger
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
GROUP_MEMBER	VARCHAR(24)	Member name of the Db2 subsystem that executed EXPLAIN
SECTNOI	INTEGER	Section number of statement
VERSION	VARCHAR(122)	Version identifier for package
TBCREATOR	VARCHAR(128)	Creator of table
TBNAME	VARCHAR(128)	Name of table
IXCREATOR	VARCHAR(128)	Creator of index
IXNAME	VARCHAR(128)	Name of index
COLNAME	VARCHAR(128)	Name of column
NUMCOLUMNS	SMALLINT	Number of columns in the column group
COLGROUPCOLNO	VARCHAR(254)	Identifies set of columns associated with statistics
TYPE	CHAR(1)	Type of statistic to collect: C = Cardinality F = Frequency H = Histogram I = Index T =Table
DBNAME	VARCHAR(24)	Name of database
TSNAME	VARCHAR(24)	Name of table space

REASON	CHAR(8)	Reason that the statistic was recommend: BASIC - A basic statistic value for a column table or index is missing. No statistics were collected for the identified object KEYCARD - Cardinalities of index key columns are missing LOWCARD - Cardinality of the column is a low value, which indicates that data might be skewed NULLABLE - Distribution statistics are not available for a nullable column, which indicates that data might be skewed DEFAULT - A predicate references a value that is probably a default value, which indicates that data might be skewed RANGEPRD - Histogram statistics not available for a range predicate PARALLEL - Parallelism could be improved by uniform partitioning of key ranges CONFLICT - Another statistic contains a value that conflicts with the value of this statistic. COMPFFIX - Multi-column cardinality statistics are needed for an index compound filter factor 'STALE – A statistic appears to be out of sync
REMARKS	VARCHAR(254)	Free form text for extensibility

DSN_STRUCT_TABLE

Contains information about the query blocks in a query.

Column name	Data Type	Description
QUERYNO	INTEGER	Number to identify the statement being explained
QBLOCKNO	SMALLINT	Number used to identify each query block within a query
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
PARENT	SMALLINT	Parent query block number of current query block in structure of SQL text; same as PARENT_QBLOCKNO in PLAN_TABLE.
TIMES	FLOAT	Estimated number of rows returned by Data Manager and number of executions of the query block.
ROWCOUNT	INTEGER	Estimated number of rows returned by RDS (query cardinality)
ATOPEN	CHAR(1)	Whether query block is moved up for do-at-open processing. Y if done-at-open or N otherwise
CONTEXT	CHAR(10)	Context of current query block. Values are: TOP LEVEL, UNION, UNION ALL, PREDICATE,TABLE EXP, UNKNOWN
ORDERNO	SMALLINT	Not used
DOATOPEN_PARENT	SMALLINT	Parent query block number of current query block. Do-at-open parent if the query block is done-at-open, may differ from PARENT_QBLOCKNO in PLAN_TABLE

QBLOCK_TYPE	CHAR(6)	Type of the current query block: SELECT ,INSERT, UPDATE, DELETE, SELUPD, DELCUR ,UPDCUR, CORSUB, NCOSUB, TABLEX, TRIGGR, UNION ,UNIONA, CTE Equivalent to QBLOCK_TYPE column in PLAN_TABLE, except for CTE
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
GROUP_MEMBER	CHAR(8)	Name of subsystem that executed EXPLAIN
ORIGIN	CHAR(1)	Indicates the origin of the query block Blank = generated by Db2 C = column mask R = row permission U = specified by the user
SECTNOI	INTEGER	Section number of the statement
COLLID	VARCHAR(128)	Collection ID: DSNDYNAMICSQLCACHE: row from dynamic statement cache. DSNEXPLAINMODEYES: Row from an application that specifies YES for the value of the CURRENT EXPLAIN MODE special register. DSNEXPLAINMODEEXPLAIN: Row from an application that specifies EXPLAIN for value of CURRENT EXPLAIN MODE . When the SQL statement is embedded in a compiled SQL function, native SQL procedure or advanced trigger, this column is the schema of the compiled SQL function, native SQL procedure or advanced trigger
VERSION	VARCHAR(122)	Version identifier for the package
EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tables or temporal tables. Else, blank
PER_STMT_ID	BIGINT	Persistent statement identifier for SQL statements

DSN_VIEWREF_TABLE

Contains information about all views and materialized query tables used to process a query.

Column name	Data Type	Description
QUERYNO	INTEGER	Number to identify the statement being explained
APPLNAME	VARCHAR(24)	Name of application plan for row
PROGNAME	VARCHAR(128)	Name of program or package containing statement being explained
VERSION	VARCHAR(122)	Version identifier for the package
COLLID	VARCHAR(128)	Collection ID
CREATOR	VARCHAR(128)	Authorization ID of the owner of the object
NAME	VARCHAR(128)	Name of the object
TYPE	CHAR(1)	Type of object: V = View R = MQT tused to replace the base table for rewrite M = MQT
MQTUSE	SMALLINT	IBM internal use only
EXPLAIN_TIME	TIMESTAMP	EXPLAIN timestamp
GROUP_MEMBER	VARCHAR(24)	Name of subsystem that executed EXPLAIN
SECTNOI	INTEGER	Section number of the statement

EXPANSION_ REASON	CHAR(2)	Applies to only statements that reference archive tables or temporal tables. Else, blank

Db2 Input Tables

DSN_USERQUERY_TABLE

Identifies statements whose access paths are influenced.

Column name	Data type	Description
QUERYNO	INTEGER	Unique identifier of the query, used to correlate with PLAN_TABLE rows for statement-level access paths
SCHEMA	VARCHAR(128)	Default schema name of unqualified database objects in the query, or blank
HINT_SCOPE	SMALLINT	Scope at which matching applies **0** System-level access path hint **1** Package-level access plan hint
QUERY_TXT	CLOB(2M)	The text of the SQL statement
USERFILTER	CHAR(8)	A filter name that you can specify to group a set of rows together, or blank
OTHER_OPTIONS	CHAR(128)	For IBM® internal use only, or blank
COLLECTION	VARCHAR(128)	Collection name of package from SYSPACKAGE catalog table
PACKAGE	VARCHAR(128)	Name of package for SYSPACKAGE table
VERSION	VARCHAR(128)	Version of package for retrieval of bind options for SYSPACKAGE catalog table
REOPT	VARCHAR(128)	Value of the REOPT bind option: A = REOPT(AUTO) 1 = REOPT(ONCE) N = REOPT(NONE) Y = REOPT(ALWAYS) Blank = Not specified
STARJOIN	CHAR(1)	Whether star join processing was enabled Y = STARJOIN enabled N = STARJOIN disabled Blank = Not specified
MAX_PAR_ DEGREE	INTEGER	Maximum degree of parallelism
DEF_CURR_ DEGREE	CHAR(3)	Whether parallelism was enabled: ONE = Parallelism disabled ANY = Parallelism enabled Blank = Not specified
SJTABLES	INTEGER	Minimum number of tables to qualify for star join
QUERYID	BIGINT	Identifies relevant access plan hint information in the SYSQUERY and SYSQUERYPLAN catalog tables
OTHER_PARMS	VARCHAR	For IBM internal use only, or BLANK
SELECTVTY_ OVERRIDE	CHAR(1)	Whether row creates selectivity overrides: Y - Selectivity overrides are created N - Selectivity overrides are not created
ACCESSPATH_ HINT	CHAR(1)	Whether row specifies an access path for query Y - Access paths are specified N - Access path are not specified Blank- Access path might be specified

OPTION_ OVERRIDE	CHAR(1)	If statement-level optimization parameters are created: Y - Optimization parameters are created N - Optimization parameters are not created Blank - Optimization parameters might be created

DSN_VIRTUAL_INDEXES

Enables optimization tools to test the effect of creating and dropping indexes on the performance of particular queries.

Column name	Data type	Description
TBCREATOR	VARCHAR(128)	Schema or auth ID of owner of table which index created or dropped
TBNAME	VARCHAR(128)	Name of table which index is created or dropped
IXCREATOR	VARCHAR(128)	Schema or authorization ID of owner of index
IXNAME	VARCHAR(128)	Index name
ENABLE	CHAR(1)	If index should be considered in scenario being tested Y - Use this index N - Do not use this index
MODE	CHAR(1)	Whether index is being created or dropped C - index is to be created D - index is to be dropped
UNIQUERULE	CHAR(1)	Whether index is unique D - index is not unique U - index is unique
COLCOUNT	SMALLINT	Number of columns in the key
CLUSTERING	CHAR(1)	Indicates whether index is clustered Y - index is clustered N - index is not clustered
NLEAF	INTEGER	Number of active leaf pages in index
NLEVELS	SMALLINT	Number of levels in index tree
INDEXTYPE	CHAR(1)	Index type 2 – non-partitioned secondary index D - data-partitioned secondary index
PGSIZE	SMALLINT	Size, in KB, of leaf pages in index
FIRSTKEY CARDF	FLOAT	Number of distinct values of first key column
FULLKEY CARDF	FLOAT	Number of distinct values of key
CLUSTER RATIOF	FLOAT	Percentage of rows in clustering order
PADDED	CHAR(1)	Whether keys are padded for varying-length column data Y - Padded N - Not padded
COLNO1	SMALLINT	Column number of first column in index key
ORDERING1	CHAR(1)	Order of the first column in index key: A - Ascending D - Descending
COLNO*n*	SMALLINT	Column number of *n*th column in index key
ORDERING*n*	CHAR(1)	Order of *n*th column in index key A - Ascending D - Descending

KEYTARGET_ COUNT	SMALLINT	Number of key-targets for an extended index
UNIQUE_ COUNT	SMALLINT	Number of columns or key-targets that make up unique constraint of an index
IX_ EXTENSION_ TYPE	CHAR(1)	Type of extended index: S - Index on a scalar expression V - XML index Blank - A simple index
DATAREPEAT FACTORF	FLOAT	Number of data pages expected to be touched when an index key order is followed
SPARSE	CHAR(1)	Whether the index is sparse: N - No Y - Yes X - Index excludes entries for data rows in which the key column contains the NULL value

DSN_VIRTUAL_KEYTARGETS

Contains information about expression-based indexes and XML indexes.

Column name	Data type	Description
IXNAME	VARCHAR(128)	Name of index
IXSCHEMA	VARCHAR(128)	Qualifier of index
KEYSEQ	SMALLINT	Numeric position of key-target in index
COLNO	SMALLINT	Numeric position of column in table if expression is a single column
ORDERING	CHAR(1)	Order of key: A - Ascending order
TYPESCHEMA	VARCHAR(128)	Schema of data type
TYPENAME	VARCHAR(128)	Name of data type
LENGTH	SMALLINT	Length attribute of key-target
LENGTH2	INTEGER	Maximum length of data retrieved from column 0 - Not a ROWID column. 40 - For a ROWID column, length of value
SCALE	SMALLINT	Scale of decimal data
NULLS	CHAR(1)	Whether key can contain null values: N - No Y - Yes
CCSID	INTEGER	CCSID of the key
SUBTYPE	CHAR(1)	Subtype of data, for character keys only B - Bit data M - Mixed data S - SBCS data Blank - Non-character data.
DERIVE_FROM	VARCHAR	Text of scalar expression to generated key-target value
CARDF	FLOAT	Estimated number of distinct values

Db2 SQL Data Insight Input Tables

SYSAIDB.SYSAIOBJECTS

Contains a row for each Db2 table or view you select for an SQL DI AI object.

Column Name	Data Type	Description
OBJECT_ID	BIGINT	Unique identifier for the AI object
OBJECT_NAME	VARCHAR(32)	User-defined name for the AI object
OBJECT_TYPE	CHAR(1)	Identifies a Db2 table or view: T - Specifies a Db2 table V - Specifies a Db2 view
SCHEMA	VARCHAR(128)	Schema of the AI object
NAME	VARCHAR(128)	Name of the AI object
STATUS	VARCHAR(16)	Status of the AI query enabling process: Enabled - AI object is enabled with AI query and that the row for the AI object model is populated Disabled - AI object is not enabled with AI query and that the row for the AI object model is not populated Training - AI object is being enabled with AI query and that the row for the AI object model is being updated Failed - AI query enabling process for the AI object failed
CONFIGURATION_ID	BIGINT	Identifier for the configuration used for the active model. A null value indicates that there is no active configuration
MODEL_ID	BIGINT	Identifier for the active model. A null value indicates that there is no active model table created yet
CREATED_BY	VARCHAR(32)	SQLID of the user to which the object is registered
CREATED_DATE	VARCHAR(32)	Timestamp when the object was registered
LAST_UPDATED_BY	VARCHAR(32)	SQLID of the user who last updated the object
LAST_UPDATED_DATE	TIMESTAMP	Timestamp when the object was last updated
DESCRIPTION	VARCHAR(256)	A user-specified description of the object

SYSAIDB.SYSAICONFIGURATIONS

Contains a row for each column that you select for a column configuration.

Column Name	Data Type	Description
CONFIGURATION_ID	BIGINT	A unique identifier for this configuration
NAME	VARCHAR(32)	A user-defined name for the configuration
OBJECT_ID	BIGINT	An identifier of the object for which this configuration is created
RETRAIN_INTERVAL	INTEGER	Interval at which retraining occurs
KEEP_ROWIDENTIFIER_KEY	CHAR(1) NOT NULL	Indicator for presence of row identifier key in a model: Y Row identifier key is kept in the model N Row identifier key is not kept in the model
NEGLECT_VALUES	VARCHAR (1024)	Semicolon-separated string of values to be treated as null in model
CREATED_BY	VARCHAR(32)	SQLID of the user to which the object is registered
CREATED_DATE	VARCHAR(32)	Timestamp when the object was registered
LAST_UPDATED_BY	VARCHAR(32)	SQLID of the user who last updated the object

Column Name	Data Type	Description
LAST_UPDATED_ DATE	TIMESTAMP	Timestamp when the object was last updated

SYSAIDB.SYSAICOLUMNCONFIG

Contains a row for each column and related attributes within a column configuration.

Column Name	Data Type	Description
CONFIGURATION _ID	BIGINT	A unique identifier for the column configuration
COLUMN_NAME	VARCHAR(128)	Name of the column in the column configuration
COLUMN_ AISQL_TYPE	CHAR(1)	A SQL DI data type that you assign to a column in the column configuration: K - Column is assigned the key data type C - Column is assigned the categorical data type N - Column is assigned the numeric data type I - Column is not assigned a data type U - Column is assigned an unsupported data type
COLUMN_ PRIORITY	CHAR(1)	(Reserved) Processing priority that you assign to a column in the column configuration: H - High M - Medium L - Low
NEGLECT_ VALUES	VARCHAR (1024)	A semicolon-separated string of values to be treated as null in the model

SYSAIDB.SYSAIMODELS

Contains a row for each AI object model and related table and state information.

Column Name	Data Type	Description
MODEL_ID	BIGINT	Unique identifier for the model
NAME	VARCHAR(32)	User-defined name for the model
OBJECT_ID	BIGINT	Identifier of the object for which this configuration is created
CONFIGURATION_I D	BIGINT	Unique identifier for the configuration that is used to create this model
VECTOR_TABLE_C REATOR	VARCHAR(128)	Name of the user who created the vector table
VECTOR_ TABLE_NAME	VARCHAR(128)	Name of the vector table
VECTOR_TABLE_ STATUS	CHAR(2)	Status of the vector table I Initialized for current process L Table is loading A Table is available for use E Table is in error state
VECTOR_ TABLE_DBID	SMALLINT	Internal identifier of the vector table database
VECTOR_ TABLE_OBID	SMALLINT	Internal identifier of the vector table database
VECTOR_ TABLE_IXDBID	SMALLINT	Internal identifier of the vector table index database
VECTOR_ TABLE_IXOBID	SMALLINT	Internal identifier of the vector table index
VECTOR_TABLE_V	SMALLINT	Internal format number of the vector table

Column Name	Data Type	Description
ERSION		
METRICS	CLOB(8K)	A JSON object to store metrics about the model for display in the user interface
INTERPRETABILITY _OCCURENCE_ STRUCT	BLOB(2G)	Reserved
CREATED_BY	VARCHAR(32)	SQLID of the user who created thee model
CREATED_ DATE	TIMESTAMP	Timestamp when the model was created
LAST_UPDATED_ BY	VARCHAR(32)	SQLID of the user who last updated the model
LAST_UPDATED_ DATE	TIMESTAMP	Timestamp when the model was last updated
MODEL_ROWID	ROWID	A rowid column to support a LOB table

SYSAIDB.SYSAICOLUMNCENTERS

Contains a row for each column centroid for a trained model.

Column Name	Data Type	Description
MODEL_ID	BIGINT	Unique identifier of the model to which the centroid belongs
COLUMN_NAME	VARCHAR(128)	Name of the column to which the centroid belongs
CLUSTER_MIN	FLOAT	Numeric center of a cluster
LABEL	VARCHAR(5)	Label of the vector corresponding to the cluster
MODEL_ID	BIGINT	Unique identifier of the model to which the centroid belongs
COLUMN_NAME	VARCHAR(128)	Name of the column to which the centroid belongs
CLUSTER_MIN	FLOAT	Numeric center of a cluster
LABEL	VARCHAR(5)	Label of the vector corresponding to the cluster

SYSAIDB.SYSAITRAININGJOBS

Contains a row for each training job that you initiate and job status information.

Column Name	Data Type	Description
TRAINING_JOB_ID	BIGINT	A unique identifier for the model training job
OBJECT_ID	BIGINT	Identifier for the object for which the model is being trained
CONFIGURATION_ ID	BIGINT	Identifier for configuration that is used for the model training
MODEL_ID	BIGINT	Identifier for the model that is created as a result of training
STATUS	CHAR(2) NOT NULL	Status of the model training for the object: I Training process is being initialized L Data is being loaded fortraining job P Data is being processed T Training is started C Training process is completed F Training process failed
PROGRESS	SMALLINT	Percentage of the training process completed
RESOURCE	VARCHAR(512)	JSON object describing resources allocated to training job
MESSAGES	CLOB(8K)	Output of the training job
START_TIME	TIMESTAMP	start time of the training job
END_TIME	TIMESTAMP	End time of the training job
CREATED_BY	VARCHAR(32)	The SQLID of the user who initiated the training job

Column Name	Data Type	Description
CREATED_DATE	TIMESTAMP	Timestamp when the training job started
LAST_UPDATED_BY	VARCHAR(32)	SQLID of the user who last updated the training job
LAST_UPDATED_DATE	TIMESTAMP	Timestamp when the training job was last updated
END_TIME	TIMESTAMP	End time of the training job. Null value = not yet completed

DSNZPARMs

Parameter	**Description**	**Acceptable values** (defaults in **bold**)	**Online**
ABEXP	EXPLAIN processing	**YES**, NO	Yes
ABIND	Auto BIND	**YES**, NO	Yes
ACCEL	Accelaration Startup	**NO**, AUTO, COMMAND	No
ACCELMODEL	Enable modeling	**NO**, YES	Yes
ACCESS_CNTL_ MODULE	Db2 access control routine load module	1-8 Char (install), **DSNX@XAC (migration)**	No
ACCUMACC	DDF/RRSAF accumulation data	**NO**, 2–65535	Yes
ACCUMUID	Aggregation fields	**0**–10	Yes
ADMTPROC	JCL procedure used to start administrative scheduler	1-8, **ssnADM**T	No
AEXITLIM	Authorization exit limit	0**–**32676; **10**	Yes
AGCCSID	ASCII coded character set (graphic)	**0–**65533	—
ALLOW_UPD_DEL_ INS_WITH_UR	Allow Update, Insert or Delete with UR	**NO,** YES	Yes
ALTERNATE_CP	Alternate copy pool	**Blank,** name of copy pool	Yes
AMCCSID	ASCII coded character set (mixed)	**0–**65533	—
APPENSCH	Application encoding	ASCII, **EBCDIC**, UNICODE, ccsid	—
APPLCOMPAT	Application compatibility	V10R1, **V11R1**	Yes
ARCPFX1	Copy 1 prefix	1–34 char	Yes
ARCPFX2	Copy 2 prefix	1–34 char	Yes
ARCRETN	Retention period	0–**9999**	Yes
ARCWRTC	WTOR route code	1–16; **1,3**,**4**	Yes
ARCWTOR	Write to operator	NO, **YES**	Yes
ARC2FRST	Read copy 2 archive	**NO**, YES	Yes
ASCCSID	ASCII coded character set (single-byte)	**0**–65533	—
AUDITST	Audit trace	**NO**, YES, list, *	No
AUTH	Use protection	**YES**, NO	No
AUTHCACH	Plan auth cache	0–4096; **1024**	Yes
AUTH_ COMPATIBILITY	Release Authorization rules	**Blank**, SELECT_FOR_UNLOAD	Yes
AUTHEXIT_ CACHEREFRESH	Authorization cache refresh	ALL**, NONE**	Yes
AUTHEXIT_CHECK	ID for authorization	**PRIMARY**, DB2	Yes
BACKODUR	Backout duration	0–255; **5**	No
BIF_ COMPATIBILITY	Built-in function format	**CURRENT,** V9_DECIMAL_VARCHAR	Yes
BINDNV	Bind new package	**BINDADD**, BIND	Yes
BLKSIZE	Block size	8192–**28672**	Yes
BMPTOUT	IMS BMP timeout	1–254; **4**	Yes
CACHEDYN	Cache dynamic SQL	NO, **YES**	Yes
CACHEDYN_ STABILIZATION	Allow dynamic statement stabilization	**BOTH**, CAPTURE, LOAD, NONE	Yes

CACHEPAC	Package authorization cache	0–2MB; **5M**	No
CACHERAC	Routine authorization cache	0–2 MB; **5M**	No
CATALOG	Catalog alias	1–8 char; **DSNCAT**	Yes
CATDDACL	SMS class for catalog and directory table spaces	Valid SMS class**, blank**	Yes
CATDMGCL	SMS class for catalog and directory table spaces	Valid SMS class**, blank**	Yes
CATDSTCL	SMS class for catalog and directory table spaces	Valid SMS class**, blank**	Yes
CATXDACL	SMS class for catalog and directory indexes	Valid SMS class**, blank**	Yes
CATXMGCL	SMS class for catalog and directory indexes	Valid SMS class**, blank**	Yes
CATXSTCL	SMS class for catalog and directory indexes	Valid SMS class**, blank**	Yes
CDSSRDEF	Current degree	**1**, ANY	Yes
CHECK_ FASTREPLICATION	Type of replication used to copy objects	PREFERRED, **REQUIRED**	Yes
CHECK_SETCHKP	CHECK DATA and CHECK LOB place inconsistent objects in CHECK PENDING	YES, **NO**	Yes
CHGDC	DROP support	**1**, 2, 3	Yes
CHKFREQ	Number of log records created between checkpoints	1000-16000000 (CHKTYPE= LOGRECS), NOTUSED, (CHKTYPE= MINUTES), **5** , 99999999 (CHKTYPE=BOTH)	Yes
CHKLOGR	Number of log records created between checkpoints	1000-16000000 (CHKTYPE= LOGRECS), **NOTUSED** (CHKTYPE= MINUTES), 99999999 (CHKTYPE=BOTH)	Yes
CHKMINS	Number of minutes between log checkpoints	NOTUSED (CHKTYPE=LOGRECS), 1-60**, 5** (CHKTYPE= MINUTES), 1-439 (CHKTYPE=BOTH)	Yes
CHKTYPE	Interval between checkpoints	LOGRECS**, MINUTES,** BOTH	Yes
CMTSTAT	DDF threads	**ACTIVE**, INACTIVE	No
COMCRIT	Use multilevel security	**NO,** YES	Yes
COMPACT	Compact data	**NO**, YES	Yes
COMPRESS_ DIRLOB	Compress Db2 Directory LOB	**NO,** YES	Yes
COMPRESS_ SPT01	Compress SPT01 directory table space	**YES**, NO	Yes
CONDBAT	Max remote connected	0–25000; **64**	Yes
COPY_ FASTREPLICATION	Copy Fast Replication	**PREFFERED**, REQUIRED, NONE	Yes
CTHREAD	Max users	1–2000; **70**	Yes
DBACRVW	DBADM can create view for other authid	YES, **NO**	Yes
DATE	Date format	**ISO**, USA, EUR, JIS, LOCAL	—
DATELEN	Local date length	**0**, 10–254	—
DB2SUPLD	Serviceability parameter	**—**	—
DDF	DDF startup option	**NO**, AUTO, COMMAND	No
DDF_ COMPATIBILITY	DDF connection characteristics	**Blank,** DISABLE_IMPACT_JV, IDNTFY_V12_PRIOR_VER,	Yes

		IGNORE_TZ, SP_PARMS_NJV	
DDL_ MATERIALIZATION	When Db2 materlization occurs	**1 (immediate),** 2 (pending)	Yes
DDLTOX	DDL timeout	**1**-254	Yes
DEALLCT	Deallocate period	**0**–1439 min, 0–59 sec, NOLIMIT	Yes
DECARTH	Decimal arithmetic	DEC15, DEC31, 15, 31	—
DECDIV3	Minimum divide scale	**NO**, YES	No
DECIMAL	Decimal point	**,** .	—
DEF_DECFLOAT_ ROUND_MODE	Decfloat rounding mode	ROUND_CELING, ROUND_DOWN, ROUND_FLOOR, ROUND_HALF_DOWN, **ROUND_HALF_EVEN**, ROUND_HALF_UP, ROUND_HALF_EVEN	—
DEFAULT_INSERT_ ALGORITHM	Default insert algorithm	1 (basic), **2 (fast)**	Yes
DEFLANG	Language default	ASM, C, CPP, COBOL, COB2, **IBMCOB**, FORTRAN, PL1	—
DEFLTID	Unknown authid	**IBMUSER**, authid	No
DELIM	String delimiter	**DEFAULT**, “, ‘	—
DEL_ CFSTRUCTS_ ON_RESTART	Delete coupling facility structures on restart	**NO,** YES	No
DESCSTAT	Describe for static	**NO**, YES	Yes
DISABLE_EDMRTS	Disable EDM RTS	**NO**, YES	Yes
DISALLOW_SEL_ INTO_UNION	Disallow Select into Union	**YES,** NO	Yes
DISALLOW_ SSARAUTH	User address spaces blocked from Db2 address space as secondary	**NO,** YES	Yes
DLDFREQ	Level ID update frequency	0–32767; **ON**	Yes
DLITOUT	DL/I batch timeout	1–254; **6**	Yes
DPSEGSZ	Default Partition Segsize	0,4,12,..64(multiples of4), **32**	Yes
DSHARE	Data sharing	**Yes**, No, blank	No
DSMAX	Data set maximum	1–32767; **20000**	Yes
DSQLDELI	Dist SQL string delimiter	**‘**, ‘’	—
DSSTIME	Data set stats time	1–1440; **5**	Yes
DSCVI	Vary DS control interval	**YES**, NO	Yes
DYNRULS	Use for dynamic rules	**YES**, NO	—
EDM_SKELETON_ POOL	Minimum size of EDM skeleton pool in KB	5120-2097152, **10240K**	Yes
EDMDBDC	DBD cache	**5000K**–2097152K	Yes
EDMSTMTC	Statement cache size	0–1048576K; **113386K**	Yes
EDPROP	DROP support	**1**, 2, 3	Yes
EN_PJSJ	Enable index ANDing	ON, **OFF**	Yes
ENCRYPTION_ KEYLABEL	ICSF key lable for DFSMS for encryption	**Blank,** 1-64 bytes	Yes
ENSCHEME	Default encoding scheme	**EBCDIC**, ASCII	—
EVALUNC	Predicate evaluation with UR and RS	YES, **NO**	Yes
EXTRAREQ	Extra blocks requestor	0–**100**	Yes
EXTRASRV	Extra blocks server	0–**100**	Yes

EXTSEC	Extended security	**NO**, YES	Yes
FCCOPYDDN	Default for FCCOPYDDN of FLASHCOPY clause for utilities	Valid Db2 utilities template, **HLQ.&DB.&SN.N&DS.D&JU.T&TL**	Yes
FLASHCOPY	Default setting for FLASHCOPY for utilities	**NO**, YES, CONSISTENT	Yes
FLASHCOPY_COPY	FLASHCOPY clause default for COPY utility	NO, **YES**	Yes
FLASHCOPY_LOAD	FLASHCOPY clause default for LOAD utility	NO, **YES**	Yes
FLASHCOPY_PPRC	FLASHCOPY behavior with PPRC	NO, **YES**	Yes
FLASHCOPY_ REBUILD_INDEX	FLASHCOPY default for REBUILD INDEX utility	NO, **YES**	Yes
FLASHCOPY_ REORG_INDEX	FLASHCOPY default for REORG INDEX utility	NO, **YES**	Yes
FLASHCOPY_ REORG_TS	FLASHCOPY default for REORG TABLESPACE utility	NO, **YES**	Yes
FLASHCOPY_XRCP	Flashcopy XRPC	**YES**, NO	Yes
FTB_NON_UNIQUE _INDEX	FTB used for non-unique indexes	**YES**, NO	Yes
GCCSID	EBCDIC coded character set	0–65533	—
GET_ACCEL_ ARCHIVE	Get Accel Archive	**NO**, YES	Yes
GRPNAME	Group name	1–8 char; **DSNCAT**	No
HONOR_ KEEPDICTIONARY	Honor KEEPDICTIONARY on LOAD or REORG	YES**, NO**	Yes
IDAUTH_MODULE	Db2 connect auth exit	1–8 char; **DSN3@ATH**	No
IDBACK	Max batch connect	1–2000; **40**	Yes
IDFORE	Max TSO connect	1–2000; **40**	Yes
IDTHTOIN	Idle thread timeout	0–9999	Yes
IDXBPOOL	Default BP for user indexes	**BP0**–BPx	Yes
IGNSORTN	Ignore SORTNUM in utilities	YES**, NO**	Yes
IMMEDWRI	Immediate write	**NO**, YES, PH1	Yes
IMPDSDEF	Define datasets	YES, **NO**	Yes
IMPDSSIZE	Max DSSIZE for implicit	1,2,**4,**8,16,32,64	Yes
IMPLICIT_ TIMEZONE	Default for time zone	**CURRENT**, SESSION, 12:59 to +14:00	_
IMPTKMOD	Trackmod for implicit	**YES**, NO	Yes
IMPTSCMP	Use data compression	YES, **NO**	Yes
INDEX_CLEANUP_ THREADS	Index Cleanup Threads	0-128, **10**	Yes
INDEX_MEMORY_ CONTROL	Index memory control	**AUTO,** DISABLE, 10-200000	Yes
INDEX_IO_ PARALLELISM	I/O parallelism enable for index insertion I/O	**YES,** NO	Yes
INLISTP	IN list elements	1–5000; **50**	Yes
IRLMAUT	Auto start	**YES**, NO	No
IRLMPRC	Proc name	**IRLMPROC**, IRLM procedure name	No
IRLMRWT	Resource timeout	1–3600; **30**	Yes
IRLMSID	Subsystem name	**IRLM**, IRLM name	No
IRLMSWT	Time to autostart	1–3600; **120**	Yes

IX_TB_PART_ CONV_EXCLUDE	Exclude trailing columns	**NO,** YES	Yes
IXQTY	Indexspace default size	**0–**4194304	Yes
LBACKOUT	Postpone backward log processing	**AUTO**, YES, NO	No
LC_CTYPE	Locale LC_CTYPE	Valid locale, 0–50 char	—
LIKE_BLANK_ INSIGNIFICANT	Blank signifance in LIKE	**NO,** YES	Yes
LOAD_DEL_ IMPLICIT_SCALE	Load format delimited implicit decimal scale	**NO,** YES	Yes
LOAD_RO_ OBJECTs	Load utility disallowed for read-only objects	**NO,** YES	
LOB_INLINE_ LENGTH	Default length for inline LOBs	**0**-32680	Yes
LRDRTHLD	Long-running reader threshold	0–1439 minutes, **10**	Yes
MAINTYPE	Current maintenance types for MQTs	NONE, **SYSTEM**, USER, ALL	Yes
MATERIALIZE_ NODET_SQLTUDF	Materialize non deterministic table func	**NO,** YES	Yes
MAXSORT_IN_ MEMORY	Max in-memory sort size	**1000** to value of SRTPOOL	Yes
MAX_ CONCURRENT_ PKG_OPS	Max automatic bind requests processed simultaneously	**10**	Yes
MAXARCH	Recording max	10–**1000**	No
MAXCONQN	Max queued connections	**OFF**, ON, 1-19999	Yes
MAXCONQW	Max queued wait time	**OFF**, ON, 5-3600	Yes
MAXDBAT	Max remote active	0–1999; **64**	Yes
MAX_NUM_CUR	Max open cursors	0–99999; **500**	Yes
MAX_ST_PROC	Max number of stored procedures	0–99999; **2000**	Yes
MAXKEEPD	Max kept dynamic statements	0–65535; **5000**	Yes
MAXOFILR	Max number of data sets concurrently open for LOB file references	0 to value of MAX USERS, **100**	Yes
MAXRBLK	RID pool size	0, 16K–1000000K; **400MB**	Yes
MAXRTU	Read tape units	1–99; **2**	Yes
MAXTEMPS	Max temp/stage agent	**0**–214748364	Yes
MAXTEMPS_RID	Max temp storage in work files for RIDs	**NONE,** NOLIMIT**, or 1 to 329166**	Yes
MAXTYPE1	Max type 1 inactive	**0**–MAX REMOTE CON value	Yes
MAX_UDF	Max number of external UDFs run in a thread	0-99999 **2000**	Yes
MCCSID	EBCDIC coded character set	**0**–65533	—
MEMBNAME	Member name	1–8 char; **DSN1**	No
MFA_AUTHCACHE_ UNUSED_TIME	MFA Auth unused time	**0**, 120-7200	Yes
MINDVSCL	Min scale for decimal division	**NONE**, 3, 6	Yes
MGEXTSZ	Optimize extent sizing	YES, **NO**	Yes
MINSTOR	Thread management	YES, **NO**	Yes
MIXED	Mixed data	**NO**, YES	—

MON	Monitor trace	**NO**, YES	No
MXDTCACH	Max size of memory for data caching	0-512, **20**	Yes
MONSIZE	Monitor size	256K-**1MB**	No
MOVE_TO_ ARCHIVE_ DEFAULT	Default for MOVE_TO _ARCHIVE global variable	**N,** E, Y	Yes
MXAIDTCACH	Memory allocation for AI queries	**0-**512	Yes
NPGTHRSH	Use of index after table growth	**0**, –1, n	Yes
NUMLKTS	Locks per table space	0–50000; **2000**	Yes
NUMLKUS	Locks per user	0–100000; **10000**	Yes
OBJECT_CREATE_ FORMAT	Objects created with basic or extended log	BASIC(migration), EXTENDED(install)	Yes
OPT1ROWBLOCK SORT	Block sort operations for OPT FOR 1 ROW	ENABLE, **DISABLE**	Yes
OPTHINTS	Optimization hints	**NO**, YES	Yes
OTC_LICENSE	Accept terms of one-time change license	YES, **none**	No
OUTBUFF	Output buffer	40K–400MB; **400K**	No
PADIX	Pad index by default	YES, **NO**	Yes
PADNTSTR	Pad null-terminated strings	YES, **NO**	Yes
PAGESET_ PAGENUM	Page set page numbering	**ABSOLUTE**, RELATIVE	Yes
PARA_EFF	Parallelism efficiency	0-100, **50**	Yes
PARAMDEG	Degree of parallelism	**0**–no upper limit	Yes
PARAMDEG_DPSI	Deg of parallelism for DPSI	**0-**254, DISABLE	Yes
PARAMDEG_UTIL	Deg of parallelism for utilities	**0**-32767	Yes
PCLOSEN	RO switch checkpoints	1–32767; **5**	Yes
PCTFREE_UPD	Percent free for update	AUTO, **0**-99	Yes
PCLOSET	RO switch time	1–32767; **10**	Yes
PEER_RECOVERY	Peer recovery	**NONE,** RECOVER, ASSIST, BOTH	Yes
PKGREL_COMMIT	Package Release Commit	**YES**, NO	Yes
PLANMGMT	Default plan management	OFF, ON, BASIC, **EXTENDED**	Yes
PLANMGMT SCOPE	Default plan management scope	ALL, STATIC, DYNAMIC	Yes
POOLINAC	Pool thread timeout	0–9999; **120**	Yes
PRIQTY	Primary quantity	**Blank**, 1–9999999	Yes
PREVENT_ ALTERTB_ LIMITKEY	Prevent Alter Limitkey	**NO,** YES	Yes
PREVENT_NEW_ IXCTRL_PART	Prevent Index Part Create	**NO,** YES	Yes
PRIVATE_ PROTOCOL	Execute authorization behavior from remote	**NO,** AUTH	Yes
PROFILE_ AUTOSTART	Profile autostart	**NO,** YES	No
PROTECT	Archive logs RACF protected	**NO**, YES	Yes
PTASKROL	Include accounting traces for parallel tasks	**YES**, NO	Yes
QUERY_ACCEL_	Acceleration Options	**NONE,** YES	Yes

OPTIONS			
QUERY_ ACCELERATION	Default for CURRENT QUERY ACCELERATION special register	**NONE**, ENABLE, ENABLE_WITHFAILBACK	Yes
QUERY_ACCEL_ WAITFORDATA	Wait for data	**0.0**, 36000.0	Yes
QUIESCE	Quiesce period	0–999; **5**	Yes
RANDOMATT	Db2 member can be used for randomized group attach	**YES,** NO	Yes
REALSTORAGE_ MANAGEMENT	Whether Db2 manages real storage	ON, OFF, **AUTO**	Yes
REALSTORAGE_ MAX	Maximum GB or real and auxiliary storage Db2 can consume	**NOLIMIT**, 1-65535	Yes
REC_FAST REPLICATION	Use FLASHCOPY w/recover	NONE**, PREFERRED,** REQUIRED	Yes
RECALL	Recall database	**YES**, NO	No
RECALLD	Recall delay	0–32767; **120**	Yes
REFSHAGE	Current refresh age	**0**, ANY	Yes
REMOTE_COPY_ SW_ACCEL	Remote copy sw accel	**DISABLE,** ENABLE	Yes
RENAMETABLE	Rename table	**DISALLOW_DEP_VIEW_SQLTUDF,** ALLOW_DEP_VIEW_SQLTUDF	Yes
REORG_DROP_ PBG_PARTS	Remove trailing empty partitions during REORG	**DISABLE,** ENABLE	Yes
REORG_IC_LIMIT_ DASD	Reorg IC Limit DASD	**0**, 32767	Yes
REORG_IC_LIMIT_ TAPE	Reorg IC Limit Tape	**0**, 32767	Yes
REORG_INDEX_NO NOSYSUT1	Reorg Index NOSYSUT1	**FL500 YES**	No
REORG_LIST_ PROCESSING	Default for PARALLEL option on REORG	**PARALLEL**, SERIAL	Yes
REORG_MAPPING_ DATABASE	Default database for mapping table	**Blank,** 8 byte character string	Yes
REORG_PART_ SORT_NPSI	Default for sorting nonpartitioned index during REORG	**AUTO**, NO, YES	Yes
REORG_TS_ NOPAD_DEFAULT	Default for NOPAD of UNLOAD EXTERNAL	**YES,** NO	Yes
RESTART	Restart or defer	**RESTART**, DEFER	—
RESTORE_ RECOVER_ FROMDUMP	Recovery/restore	YES, **NO**	Yes
RESTORE_ TAPEUNITS	Maximum tape units	**NOLIMIT**, 1–255	Yes
RESTRICT_ALT_ COL_FOR_DCC	Restrictions during ALTER TABLE ALTER COLUMN - DATA CAPTURE CHANGES	**NO**, YES	Yes
RESYNC	Resync interval	1–99; **2**	Yes
RETLWAIT	Retained lock timeout	**0–**254	Yes
RETRY_STOPPED_ OBJECT	Retry stopped object	**NO,** YES	Ni

REVOKE_DEP_ PRIVILEGES	Revoked privileges are also revoked from dependents	NO, YES, **SQLSTMT**	Yes
RGFCOLID	Registration owner	1–8 char; **DSNRGCOL**	No
RGFDBNAM	Registration database	1–8 char; **DSNRGFDB**	No
RGFDEDPL	Control all applications	**NO**, YES	No
RGFDEFLT	Unregistered DDL default	APPL, **ACCEPT**, REJECT	No
RGFESCP	ART/ORT escape character	Non-alphanumeric char	No
RGFFULLQ	Require full names	**YES**, NO	No
RGFINSTL	Install DD control support	**NO**, YES	No
RGFNMORT	OBJT registration table	1–17 char; **DSN_REGISTER_OBJT**	No
RGFNMPRT	APPL registration table	1–17 char; **DSN_REGISTER_APPL**	No
RLF	RLF auto start	**NO**, YES	No
RLFENABLE	RLF scope	**DYNAMIC,** STATIC, ALL	No
RLFAUTH	Resource authid	**SYSIBM**, authid	Yes
RLFERR	RLST access error	**NOLIMIT**, NORUN, 1–500000	Yes
RLFERRD	Remote dynamic SQL	**NOLIMIT**, NORUN, 1–50000000	Yes
RLFERRSTC	Static SQL	**NOLIMIT**, NORUN, 1–50000000	Yes
RLFERRDSTC	Remote static SQL	**NOLIMIT**, NORUN,1–50000000	Yes
RLFTBL	RLST name suffix	**01**, 2 alphanumeric char	Yes
ROUTCDE	WTO route codes	**1**, 1–14 route codes	No
RRULOCK	U lock for RR/RS	NO, **YES**	Yes
SCCSID	EBCDIC coded character set	**0**-65533	—
SECADM1	Security administrator	**SECADM,** AUTHID 1-8 characters	Yes
SECADM1_TYPE	Type of security administrator	**AUTHID,** ROLE	Yes
SECADM1_INPUT_ STYLE	Setting passed as hex string or character	**CHAR,** HEX	Yes
SECADM2	Second security administrator	**SECADM,** AUTHID 1-8 characters	Yes
SECADM2_INPUT_ STYLE	Setting passed as hex string or character	**CHAR,** HEX	Yes
SECADM2_TYPE	Type of security administer	**AUTHID,** ROLE	Yes
SECQTY	Secondary quantity	**Blank (clist calculated)**, 1–9999999	Yes
SEPARATE_ SECURITY	Separate Db2 and system security administration	**NO,** YES	Yes
SIGNON_MODULE			No
SIMULATED_CPU_ COUNT	Number of CPUs being simulated	**OFF,** 1-255	Yes
SIMULATED_CPU_ SPEED	Microseconds of execution time for CPU being simulated	**OFF,** 1-2147483647	Yes
SITETYP	Site type	**LOCALSITE**, RECOVERYSITE	No
SJTABLES	# of tables in star join	1–255; **10**	Yes
SKIPUNCI	Skip uncommitted inserts	YES, **NO**	Yes
SMF89	Measured usage pricing	YES, **NO**	Yes
SMFACCT	SMF accounting	NO, **YES(1)**, list (1–5,7,8), *	No
SMFCOMP	Compression SMF	**OFF,** ON	Yes
SMFSTAT	SMF statistics	**YES (1**,**3**,**4)**, NO, list(1–5) , *	No
SPREG_LOCK_ TIMEOUT_MAX	Lock timeout max	**-1,** 32767	Yes
SPT01_INLINE_ LENGTH	Max inline length of LOB in SPT01	**NOINLINE,** 1-32138	Yes
SQLDELI	SQL string delimiter	**Default**, ‘, “	—
SQLLVEL	Precompiler SQL level	V10R1, V11R1, **function-level**	Yes
SRTPOOL	Sort pool size	240K–64000K; **10000K**	Yes

SSID	Subsystem name	**DSN**, *SSID*	—
STARJOIN	Enabling star join	**Disable**, enable, 1, 2–32768	Yes
STATFDBK_ PROFILE	Statistics profile feeback	**YES,** NO	Yes
STATFDBK_SCOPE	Statistics feedback	**ALL**,DYNAMIC,NONE, STATIC	Yes
STATHIST	Collect historical statistics	SPACE, **NONE**, ALL, ACCESSPATH	Yes
STATSINT	Time to write RTS stats	1–1440 min; **30**	Yes
STATROLL	Runstats aggregates partition-level statistics	YES, **NO**	Yes
STATIME	Statistics time interval	1–60 min; **1**	Yes
STATIME_MAIN	Statistics time for stats not collected by STATIME	5-60 sec, **10**	Yes
STDSQL	Standard SQL language	**NO**, YES	—
STORMXAB	Max abend count	**0–**225	Yes
STORTIME	Timeout value	5–1800 sec; **180**	Yes
SUBSTR_ COMPATIBILITY	SUBSTR compatibility	**PREVIOUS,** CURRENT	Yes
SUBQ_MIDX	Multiple index access	**ENABLE,** DISABLE	Yes
SUPERRS	Suppress logrec recording during soft errors	**YES**, NO	Yes
SUPPRESS_HINT_ SQLCODE_DYN	Suppress SQLCODE for hints	**NO,** STMT, ALL	Yes
SVOLARC	Single volume	YES, **NO**	Yes
SYNCVAL	Statistics sync	**NO**, 0–59	Yes
SYSADM	System admin 1	**SYSADM**, authid	Yes
SYSADM2	System admin 2	**SYSADM**, authid	Yes
SYSOPR1	System operator 1	**SYSOPR**, authid	Yes
SYSOPR2	System operator 2	**SYSOPR**; authid	Yes
SYSTEM_LEVEL_ BACKUPS	System-level backups	**YES**, NO	Yes
TABLE_COL_NAME _EXPANSION	If column names > 30 bytes	ON, **OFF**	Yes
TBSBP8K	Default 8K BP for user data	Any 8K buffer pool; **BP8K0**	Yes
TBSBP16K	Default 16K BP for user data	Any 16K buffer pool; **BP16K0**	Yes
TBSBPLOB	Default BP for LOBs	Any 4Kb, 8KB, 16KB or 32KB, **BP0**	Yes
TBSBP32K	Default 32K BP for user data	Any 32K buffer pool; **BP32K0**	Yes
TBSBPOOL	Default BP for user data	**BP0**–BPx	Yes
TBSBPXML	Default BP for XML	Any 16K bufferpool**, BP16K**	Yes
TCPALVER	TCP/IP already verified	**NO**, YES	Yes
TCPKPALV	TCP/IP keep alive	**ENABLE**, DISABLE, 1–65524	Yes
TEMPLATE_TIME	Template time	**UTC,** LOCAL	Yes
TIME	Time format	**ISO**, JIS, USA, EUR, LOCAL	—
TIMELEN	Local time length	0, 8–254	—
TRACSTR	Trace auto start	**NO**, YES (1–3), list (1–9)	No
TRACTBL	Trace size	4K–396K; **64K**	No
TRKRSITE	Tracker site usage	**NO**, YES	No
TS_COMPRESSION _TYPE	Table space compression type	**FIXED_LENGTH,** HUFFMAN	Yes
TSQTY	Default allocation for table space	**0–**4194304	Yes
TSTAMP	Timestamp archives	**NO**, YES	Yes
TWOACTV	Number of active copies	**2**, 1	No

TWOARCH	Number of archive copies	**2**, 1	No
TWOBSDS	Number of BSDSs	YES, NO	No
UGCCSID	Unicode CCSID (graphic)	**1208**	—
UIFCIDS	Unicode IFCIDS	YES, **NO**	Yes
UMCCSID	Unicode CCSID (Mixed)	**1208**	—
UNION_ COLNAME_7	V7 behavior for union	YES**, NO**	Yes
UNIT	Device type 1	**TAPE**, any device	Yes
UNIT2	Device type 2	**Device or unit name**	Yes
URCHKTH	UR check frequency	0–255**, 5**	Yes
URLGWTH	UR log write check	0K**–1000K**	Yes
USCCSID	Unicode CCSID (single-byte)	**1208**	—
UTIL_DBBSG	DB backup stg grp	**Blank,** *SMS-stogroup-name*	Yes
UTIL_LGBSG	Log backup stg grp	**Blank,** *SMS-stogroup-name*	Yes
UTIL_HSM_ MSGDS_HLQ	HSM message DS HLQ	**Blank,** *data-set-qualifier*	Yes
UTIL_TEMP_ STORCLAS	Storage class name for shadow data sets	**Blank,** valid SMS management class name	Yes
UTILS_HSM_ MSGDS_HLQ	HSM message DB HLQ	1-6 characters, **blank**	Yes
UTILS_BLOCK_FOR _CDC	Utility block for CDC	**NO,** YES	Yes
UTILS_DUMP_ CLASS_NAME	Dump class name	**Blank**, valid DFSMS dump class name	Yes
UTILS_USE_ZSORT	Utility use of ZSORT	**NO**, YES	Yes
UTILITY_HISTORY	Utility history collected	**NONE**, UTILITY	Yes
UTILITY_OBJECT_ CONVERSION	Utility object conversion	BASIC, EXTENDED, NOBASIC, **NONE**	Yes
UTIMOUT	Utility timeout	1–254; **6**	Yes
UTSORTAL	RTS used to determine sort work data set sizes	**YES,** NO	Yes
VOLTDEVT	Temporary unit name	**SYSDA**, valid name	Yes
WFDBSEP	Declared temporary tables will use work files with non-zero SECQTY	YES, **NO**	No
WFSTGUSE_ AGENT_ THRESHOLD	Agent level threshold in work file database	**0**-100	Yes
WFSTGUSE_SYST EM_THRESHOLD	System level threshold in work file database	**0**-100	Yes
WLMENV	WLM environment	Valid name (1–18 char)	Yes
XLKUPDT	X lock for searched U/D	YES, **NO**	Yes
XML_RANDOMIZE_ DOCID	Generate XML DOCID values randomly	**NO**, YES	Yes
XMLVALA	Upper limit for storage for per user for XML values	1-2097152, **204,800**	Yes
XMLVALS	Upper limit for system storage for XML values	1-51200, **10240**	Yes
ZOSMETRICS	Enables Db2 to gather z/OS metrics	YES, **NO**	Yes
ZHYPERLINK	Db2 zHyperLink scope	**DISABLE**, ENABLE, DATABASE, ACTIVELOG	Yes

Bind Parameters

Option	Valid values	Plan	Pckg	Trgr	Qry	Svc
ACQUIRE	**USE**, ALLOCATE	X				
Whether to acquire resources specified in the DBRM at first access or allocation						
ACTION	**REPLACE**, ADD	X B O	X B O			
	REPLACE(RPLVER)		X B O			
	REPLACE(RETAIN)	X B O				
Whether object (plan or package) replaces an existing object with same name or is new						
ACOMPARE	**NO, NONE,** WARN, ERROR	X	X	X		
Determines whether new access paths are different from the older access paths						
ACCELERATOR	(accelerator-name)		X			X
Sets the preferred target accelerator server or servers for accelerated static SQL queries						
ACCELERATORWAITFORDATA	*nnnn.m*		X			X
Specifies the maximum amount of time, if any, that an accelerator will delay a static SQL query						
APPLCOMPAT	V10R1, V11R1		X	X		
Specifies the package compatibility level behavior for statis SQL.						
APRETAINDUP	**YES,** NO		R O	X		
Whether or not Db2 retains an old package copy when access paths of the old copy are identical to the incoming copy. Applies to PLANMGMT(BASIC) or PLANMGMT(EXTENDED).						
APREUSE	**NO**, **NONE**, ERROR, WARN		X	X		
Specifies whether Db2 tries to reuse previous access paths for SQL statements in a package						
APREUSESOURCE	**CURRENT**, PREVIOUS, ORGINAL		R O	X		
Specifies whether Db2 tries to reuse previous access paths for SQL statements in a package						
ARCHIVESENSITIVE	**YES,** NO		X	X		
Whether references to archive-enabled tables are effected by SYSIBMADM.GET_ARCHIVE						
BUSTIMESENSITIVE	**YES,** NO		X	X		
Whether references to application-period temporal tables are affected by CURRENT TEMPORAL BUSINESS_TIME special register						
CACHESIZE	**Value of PLAN AUTH CACHE**; decimal	X				
Size (in bytes) of the authorization cache acquired in the EDM pool for the plan						
COPY	Collection-id, package-id, COPYVER		X B O			
Determines that you are copying an existing package and names the package						
COLLID	(collection-id), (*)	X				
Specifies that any DBRMs in the plan are to be bound to packages.						

Option	Valid values	Plan	Pckg	Trgr	Qry	Svc
CONCENTRATESTMT	**NO,** YES		X			
Whether to enforce statement concentration at the package level						
CONCURRENTACCESSRESOLUTION	WAITFOROUTCOME, USECURRENTLYCOMMITTED *Default depends on SKIPUNCI setting*	X	X	X		
Determines which concurrent access resolution option to use for statements in a package.						
CURRENTDATA	YES, **NO**	X	X	X		
Whether to require data currency for RO and ambiguous cursors when isolation level is CS						
CURRENTSERVER	Location-name	X				
Determines the location to connect to before running the plan						
DBPROTOCOL	**DRDA,** DRDACBF (package only)	X	X			
Protocol to use when connecting to a remote site that is identified by a three-part name						
DATE	EUR, ISO, JIS, LOCAL, USA					X
Specifies the format of date output that Db2 returns.						
DEC	15, 31					X
Specifies the maximum precision to be used in decimal arithmetic operations						
DECDEL	Comma, Period					X
Designates whether a period (.) or a comma (,) is used as the decimal point indicator in decimal and floating point literals.						
DESCSTAT	NO, YES		X	X		
Whether Db2 builds a DESCRIBE SQL descriptor when binding statis SQL statements						
DEFER	DEFER(PREPARE), **NODEFER**(PREPARE), DEFER(INHERITFROMPLAN)	X	X			
Whether to defer preparation of dynamic SQL statements that refer to remote objects or to prepare them immediately. DEFER(PREPARE) is assumed for REOPT(AUTO, ALWAYS and ONCE)						
DEGREE	**1**, ANY	X	X			
Whether to attempt to run a query using parallel processing to maximize performance						
DEPLOY ***(deprecated)***	(*collection-id.package-id*), **COPYVER(*version-id*)**		X			
Deploys a native SQL procedure						
DESCRIPTION	*Description-string*					X
Describes the Db2 REST service to be bound						
DISCONNECT	**EXPLICIT**, AUTOMATIC, CONDITIONAL	X				
Determines which remote connections to destroy during commit operations						
DYNAMICRULES	**RUN**, BIND,DEFINEBIND(PKG ONLY), DEFINERUN (PKG ONLY), INVOKEBIND(PKG ONLY), INVOKERUN(PKG ONLY)	X	X			
	DEFINEBIND, DEFINERUN, INVOKEBIND, INVOKERUN		X			
Determines which values apply at runtime for dynamic SQL attributes						
ENABLE/ DISABLE	BATCH, CICS, DB2CALL, DLIBATCH, IMS, IMSBMP, IMSMPP, RRSAF , *****	X	X			

Option	Valid values	Plan	Pckg	Trgr	Qry	Svc
	REMOTE		X			
Determines which connections can use the plan or package						
ENCODING	ASCII, EBCDIC, UNICODE, *ccsid*	X	X			
Application encoding for all static statements in the plan or package (defaults to installed selection)						
EXPLAIN	**NO**, YES, ONLY	X	X	X		
Whether to populate the PLAN_TABLE with information about the SQL statements						
EXTENDEDINDICATOR	**NO, YES**		X			
Determines if Db2 recognizes extended indicator variables when associated package is run						
FILTER	**'filter-name'**				F Q	
Allows you delete a set of queries in the SYSIBM.SYSQUERY table under a {tag} value specified by the SYSQUERY.USERFILTER column. Also works with FREE QUERY						
FLAG	**I**, W, E, C	X	X	X		
Determines what messages to display						
GENERIC	**'string'**	X	X			
Specifies one or more bind options that are supported by the target server, but are not supported by Db2 for z/OS as options for BIND PACKAGE or REBIND PACKAGE.						
GETACCELARCHIVE	**NO**, YES	X	X			
Whether a static SQL query bound for acceleration retrieves archived data						
IMMEDIATE	**NO**, YES, INHERITFROMPLAN	X	X			
Whether immediate writes will be done for updates made to GBP-dependent page sets/partitions						
ISOLATION	**RR**, RS, CS, UR, NC	X	X	X		
Determines how far to isolate an application from the effects of other running applications						
KEEPDYNAMIC	**NO**, YES	X	X			
Determines whether Db2 keeps dynamic SQL statements after commit points						
LIBRARY	*dbrm-pds-name*		X B O			
Determines which partitioned data set to search for DBRMs listed in the member option						
LOOKUP	**NO**, YES				B Q	
Determines whether a query has matching access plan hint information in the SYSQUERYPLAN table.						
MEMBER	*dbrm-member-name*		X B O			
Determines what DBRMs to include in the package						
NAME	*Service-name*					X
Specifies the name of the Db2 REST service to be bound or freed						
OPTHINT	*Hint-id*	X	X			
Controls whether query optimization hints are used for static SQL						
OPTIONS	**COMPOSITE**, COMMAND		X B C			
Specifies which bind options to use for the new package						
OWNER	*Authorization-id*	X	X			
Determines the authorization ID or the owner of the object (plan or package)						
PACKAGE	*Location-name.collection-*		X			

Option	Valid values	Plan	Pckg	Trgr	Qry	Svc
	id.package-id (version-id)					
	(*) – Rebind Only		X R O			
Determines which package or packages to bind or rebind						
PATH	*Schema-name*, USER, (*schema-name*, (USER)…)	X	X			
SQL path that Db2 uses to resolve unqualified UDTs, functions, and stored procedure names						
PATHDEFAULT	Mutually exclusive with PATH	X	X			
Resets PATH for package or plan to "SYSIBM", "SYSFUN", "SYSPROC", or plan/package qualifier						
PKLIST or NOPKLIST	(*Location-name.collection-id.package-id*...), PKLIST only	X				
Determines which package to include for the package list in the plan						
PLAN	*Plan-name*	X				
	(*)	X R O				
Determines which plan or plans to bind or rebind						
PROGAUTH	**DISABLE,** ENABLE	X				
Whether Db2 performs authorization checking to determine whether Db2 can execute a plan.						
PLANMGMT	**OFF**, BASIC, EXTENDED		X	X		
Retains, during a rebind operation, all relevant package information (metadata, query text, dependencies, authorizations, access paths, and so on) in catalog tables and in the directory.						
QUALIFIER	*Qualifier-name*	X	X			
Determines the implicit qualifier for unqualified names of objects in the plan or package						
QUERYACCELERATION	**NONE,** ENABLE, ALL ENABLEWITHFALLBACK, ELIGIBLE	X	X			
Whether a static SQL query is bound for acceleration						
QUERYID	**'number',** ALL				F Q	
Frees entries from SYSIBM.SYSQUERY with same value (or ALL), and corresponding entries in SYSIBM.SYSQUERYPLAN table or SYSIBM.SYSQUERYOPTS table.						
RECORDTEMPORALHISTORY	**YES**, NO		X			
Whether changes to data in a system-period temporal table that are made by static or dynamic SQL statements cause changes to corresponding history table of the system-period temporal table.						
RELEASE	**COMMIT**, DEALLOCATE, INHERITFROMPLAN	X	X	X		
Determines when to release resources that the program uses, either at commit or at termination						
REOPT	ONCE, ALWAYS, AUTO, **NONE**	X	X			
If access path is determined at runtime (host variables, parameter markers, special registers)						
RESTSERVICEDEFAULT	**YES**		X			
Whether the specified REST service package version identified by the PACKAGE option will be modified to be the default						
ROUNDING	CEILING, DOWN, FLOOR HALFDOWN,**HALFEVEN**,HALFUP,UP	X	X			
Specifies the rounding mode at bind time						

Option	Valid values	Plan	Pckg	Trgr	Qry	Svc
SQLDDNAME	*ddname*					X
Specifies the name of a JCL DD statement						
SQLENCODING	**EBCDIC**, ASCII, UNICODE, *ccsid*					X
Specifies the encoding of the SQL statement coded in different system						
SQLERROR	**NOPACKAGE**, CONTINUE,CHECK		X			
Whether to create a package if the package contains an SQL error						
SQLRULES	**DB2**, STD	X				
Whether a Type 2 connection can be made according to Db2 rules for an existing connection						
STRDEL	APOSTROPHE, QUOTE					X
Whether an apostrophe (') or double quotation(") is used as the string delimiter within SQL statements						
SWITCH	PREVIOUS, ORGINAL		X	X		
Restores all previous or original package information in the catalog tables and directory to that of the specified package copy						
SYSTIMESENSITIVE	**YES,**NO		X	X		
Whether references to system-period temporal tables are affected by value of CURRENT TEMPORAL TEMPORAL SYSTEM_TIME.						
TIME	EUR, ISO, JIS, LOCAL, USA					X
Specifies the format of time output that Db2 returns						
VALIDATE		X	X			
Whether to recheck at runtime "not found" and "not authorized" errors found at bind time						
VERSION	*version-id*					X
Defines the version identifier of the Db2 REST service						

BO = BIND only, BC = BIND COPY, RO = REBIND only, FQ=FREE QUERY, BQ = BIND QUERY
BOLD/UNDERSCORE = default

Db2 Limits

Identifier Length Limits

Item	Limit
External-java-routine-name	1305 bytes
Name of an alias, auxiliary table, collection, clone table, constraint, correlation, cursor (except for DECLARE CURSOR WITH RETURN or the EXEC SQL utility), distinct type (both parts of two-part name), function (both parts of two-part name), host identifier, index, JARs, parameter, procedure, role, schema, sequence, specific, statement, storage group, savepoint, SQL condition, SQL label, SQL parameter, SQL variable, synonym, table, trigger, view, XML attribute name, XML element name	128 bytes
Name of an authID or name of a security label.	8 bytes
Routine version identifier	64 EBCDIC bytes, and UTF-8 representation of the name must not exceed 122 bytes.
Name of a column	128 bytes
Name of cursor that is created with DECLARE CURSOR WITH RETURN	30 bytes
Name of cursor created with EXEC SQL utility	8 bytes
Name of a location	16 bytes
Name of buffer pool name, catalog, database, plan, program, table space	8 bytes
Name of package	8 bytes (Only 8 EBCDIC characters are used for packages that are created with the BIND PACKAGE command. 128 bytes can be used for packages that are created as a result of the CREATE FUNCTION (SQL scalar) statement, the CREATE PROCEDURE (SQL - native) statement, the CREATE TRIGGER statement, or a BIND command that specifies a zFS file as DBRM library.)
Name of a profile created with CREATE/ALTER TRUSTED CONTEXT	127 bytes
Name of an ICF catalog	8 bytes

Numeric Limits

Item	Limit
Smallest SMALLINT value	-32768
Largest SMALLINT value	32767
Smallest INTEGER value	-2147483648
Largest INTEGER value	2147483647
Smallest BIGINT value	-9223372036854775808
Largest BIGINT value	9223372036854775807
Smallest REAL value	About -7.2*10(75)
Largest REAL value	About 7.2*10(75)

Item	Limit
Smallest positive REAL value	About 5.4*10(-79)
Largest negative REAL value	About -5.4*10(-79)
Smallest FLOAT value	About -7.2*10(75)
Largest FLOAT value	About 7.2*10(75)
Smallest positive FLOAT value	About 5.4*10(-79)
Largest negative FLOAT value	About -5.4*10(-79)
Smallest DECIMAL value	1 - 10(31)
Largest DECIMAL value	10(31) - 1
Largest DECIMAL precision	31
Smallest DECFLOAT(16) value	$-9.999999999999999\times10^{384}$
Largest DECFLOAT(16) value	$9.999999999999999\times10^{384}$
Smallest positive DECFLOAT(16) value	$1.000000000000000\times10^{-383}$
Largest negative DECFLOAT(16) value	$-1.000000000000000\times10^{-383}$
Smallest DECFLOAT(34) value	$-9.999999999999999999999999999999999\times10^{6144}$
Largest DECFLOAT(34) value	$9.999999999999999999999999999999999\times10^{6144}$
Smallest positive DECFLOAT(34) value	$1.000000000000000000000000000000000\times10^{-6143}$
Largest negative DECFLOAT(34) value	$-1.000000000000000000000000000000000\times10^{-6143}$
Coefficient length for DECFLOAT values	DECFLOAT(16) 16 digits; DECFLOAT(34) 34 digits
Max Exponent (Emax) for DECFLOAT	DECFLOAT(16) is 384; DECFLOAT(34) is 6144
Min Exponent (Emin) for DECFLOAT	DECFLOAT(16) is -383; DECFLOAT(34) is -6143
Bias for DECFLOAT values	DECFLOAT(16) is 398; DECFLOAT(34) is 6176

String Length Limits

Item	Limit
Max length of CHAR	255 bytes
Max length of GRAPHIC	127 DBCS characters
Max length of BINARY	255 bytes
Max length of VARCHAR	4046 bytes for 4-KB pages 8128 bytes for 8-KB pages 16320 bytes for 16-KB pages 32704 bytes for 32-KB pages
Max length of VARCHAR indexed by an XML index	1000 bytes after conversion to UTF-8
Max length of VARGRAPHIC	2023 DBCS characters for 4-KB pgs 4064 DBCS characters for 8-KB pgs 8160 DBCS characters for 16-KB pgs 16352 DBCS characters for 32-KB pgs
Max length of VARBINARY	32704 bytes
Max length of CLOB	2 147 483 647 bytes (2GB - 1 byte)
Max length of DBCLOB	1 073 741 824 DBCS characters
Maxlength of BLOB	2 147 483 647 bytes (2GB - 1 byte)
Max length of a character constant	32704 UTF-8 bytes
Max length of a hexadecimal character constant	32704 hexadecimal digits
Max length of a graphic string constant	32704 UTF-8 bytes
Max length of a hexadecimal graphic string constant	32704 hexadecimal digits
Max length of a text string used for a scalar expression	4000 UTF-8 bytes
Max length of a concatenated character string	2 147 483 647 bytes (2GB - 1 byte)
Max length of a concatenated graphic string	1 073 741 824 DBCS characters
Max length of a concatenated binary string	2 147 483 647 bytes (2GB - 1 byte)
Max length of XML pattern text	4000 bytes after conversion to UTF-8

Item	Limit
Max length of an XML element or attribute name in an XML document	1000 bytes
Maximum length of a namespace uri	1000 bytes
Maximum length of a namespace prefix	998 bytes
Largest depth of an internal XML tree	128 levels

Datetime Limits

Item	Limit
Smallest DATE value (shown in ISO format)	0001-01-01
Largest DATE value (shown in ISO format)	9999-12-31
Smallest TIME value (shown in ISO format)	00.00.00
Largest TIME value (shown in ISO format)	24.00.00
Smallest TIMESTAMP WITHOUT TIME ZONE value	0001-01-01-00.00.00.000000000000
Largest TIMESTAMP WITHOUT TIME ZONE value	9999-12-31-24.00.00.000000000000
Smallest TIMESTAMP WITH TIME ZONE value	0001-01-01-00.00.00.000000000000 +00:00
Largest TIMESTAMP WITH TIME ZONE value	9999-12-31-24.00.00.000000000000 +00:00
TIMSTAMP precision range	0 to 12
TIME ZONE hour range	-12 to 14
TIME ZONE minute range	0 to 59

Db2 Limits on SQL Statements

Item	Limit
Max number of columns in a table or view (depending on complexity of the view) or columns returned by a table function.	750 or fewer (including hidden columns) 749 if the table is a dependent
Max number of columns that can be referenced in the target of MERGE statement.	749
Max number of expressions that can be referenced in the source of a MERGE statement.	750
Max number of base tables in a view, SELECT, UPDATE, INSERT, MERGE, or DELETE	1024
Max number of rows that can be inserted with a single INSERT or MERGE statement	32767
Max row and record sizes for a table	Dependent on type of table created
Max number of volume IDs in a storage group	133
Max number of partitions in a partitioned tablespace or partitioned index	64 for tablespaces that are not defined with LARGE or a DSSIZE > 2GB 4096, depending on DSSIZE or LARGE and the page size
Max sum of the lengths of limit key values of a partition boundary	765 UTF-8 bytes

Item	Limit
Max size of a partition (tablespace or index)	For tablespaces that are not defined with LARGE or a DSSIZE greater than 2GB: 4GB, for 1 to 16 partitions 2GB, for 17 to 32 partitions 1GB, for 33 to 64 partitions For tablespaces that are defined with LARGE: 4GB, for 1 to 4096 partitions For tablespaces defined with a DSSIZE > 2GB: 64GB, depending on the page size, (1 to 256 partitions for 4KB, 1 to 512 partitions for 16KB, 1 to 1024 partitions for 32KB, and 1 to 2048 for 32KB) For range-partition table spaces with relative number: 1TB
Maximum size of a non-partitioned index for a partitioned table space	For 5-byte EA table space: 16TB for 4KB pages 32TB for 8KB pages 64TB for 16KB pages 128TB for 32KB pages For LARGE tablespaces: 16TB
Max length of an index key	Partitioning index: 255-n Nonpartitioning index padded 2000-n Nonpartitioning index not padded 2000-n-2m N=number of columns in the key that allow nulls, and m is number of varying length columns in key
Max number of bytes used in the partitioning of a partitioned index	255 (This maximum limit is subject to additional limitations, depending on the number of partitions in the table space. The number of partitions * (106 + limit key size) must be less than 65394.)
Maxnumber of expressions in an index key	64
Max number of columns in an index key	64
Max number of tables in a FROM clause	225 or less, depending on complexity of statement
Max number of subqueries in a statement	224
Max total length of host and indicator variables pointed to in an SQLDA	32767 bytes 2 147 483 647 bytes (2GB - 1 byte) for a LOB, subject to the limitations imposed by the application environment and host language
Longest host variable used for insert or update	32704 bytes for a non-LOB 2 147 483 647 bytes (2GB - 1 byte) for a LOB, subject to the limitations imposed by the application environment and host language
Maximum number of host variables or parameter markers used in a statement	16,000
Longest SQL statement	2097152 bytes
Maxnumber of elements in a select list	750 or fewer, depending on whether the select list is for the result table of a static scrollable cursor
Max num of predicates WHERE or HAVING	Limited by storage
Max total length of columns of a query operation requiring a sort key (SELECT DISTINCT, ORDER BY, GROUP BY, UNION, EXCEPT and INTERSECT, without ALL, and DISTINCT keyword for aggregate functions)	4000 bytes

Item	Limit
Max total length of columns of a query operation requiring a sort and evaluating column functions (DISTINCT and GROUP BY)	32600 bytes
Maxlength of a sort key	16000 bytes
Max length of a table check constraint	3800 bytes
Max number of bytes that can be passed in a single parameter of an SQL CALL statement	32765 bytes for a non-LOB 2 147 483 647 bytes (2GB - 1 byte) for a LOB, subject to the limitations imposed by the application environment and host language
Max number of stored procedures, triggers, and user-defined functions that an SQL statement can implicitly or explicitly reference	64 nesting levels
Max length of the SQL path	2048 bytes
Max length of a WLM environment name in a CREATE/ALTER PROCEDURE/FUNCTION,	32 bytes
Max number of XPath level in XMLPATTERN clause of the CREATE INDEX statement.	50 nesting levels

Db2 System Limits

Item	Limit
Max number of concurrent Db2 or application agents	Limited by EDM pool size, buffer pool size, and amount of storage used by each Db2 or agent
Max number of concurrently active audit policies	32
Largest non-LOB table or tablespace	128 TB
Largest simple or segmented table space	64 GB
Largest log space	6-byte format 2^{48} bytes 10-byte format 2^{80} bytes
Largest active log data set	768 GB – 1 byte
Largest archive log data set	768 GB – 1 byte
Max number of active log copies	2
Max number of archive log copies	2
Max number of active log data sets (each copy)	93
Max number of archive log volumes (each copy)	10000
Max number of databases accessible to an application or end user	Limited by system storage and EDM pool size
Largest EDM pool	The installation parameter maximum depends on available space
Max number of databases	65217
Max number of implicitly created databases	10000 (SYSIBM.DSNSEQ_IMPLICITDB)
Max number of internal objects for each database	32767
Max number of indexes on declared global temporary tables	10000
Max number of rows per page	255 for all tablespaces except catalog and directory(maximum of 127)
Max size of EDM pool	Depends on available space
Max simple or segmented data set size	2 GB
Max partitioned data set size	See "maximum size of a partition"
Max LOB data set size	256 GB
Max number of rows that can be inserted with a single INSERT statement	32767 rows

Item	Limit
Max number of table spaces that can be defined in a work file database	500
Max number of tables and triggers that can be defined in a work file database	11767

SQL Communication Area (SQLCA)

Assembler, COBOL, or PL/I Name	C Name	Data type	Purpose
SQLCAID	sqlcaid	CHAR(8)	“eye catcher” for storage dumps, containing the text 'SQLCA'. Sixth byte is ’L’ if line number information is returned from parsing a dynamic statement or a native SQL procedure. Is not set when processing an external SQL procedure.
SQLCABC	sqlcabc	INTEGER	Contains the length of the SQLCA: 136.
SQLCODE	SQLCODE	INTEGER	Contains the SQL return code. 0 = Successful execution Positive = Successful execution, but with an exception condition. Negative = Error condition.
SQLERRML	sqlerrml	SMALLINT	Length indicator for SQLERRMC, in the range 0 through 70.0 means that the value of SQLERRMC is not pertinent.
SQLERRMC	sqlerrmc	VARCHAR(70)	Contains one or more tokens, separated by X'FF', that are substituted for variables in the descriptions of error conditions. It may contain truncated tokens. A message length of 70 bytes indicates a possible truncation.
SQLERRP	sqlerrp	CHAR(8)	Provides a product signature and, in the case of an error, diagnostic information such as the name of the module that detected the error. First three characters are 'DSN' .
SQLERRD(1)	sqlerrd[0]	INTEGER	For a sensitive static cursor, contains the number of rows in a result table when the cursor position is after the last row (that is, when SQLCODE is equal to +100). Can also contain an internal error code.
SQLERRD(2)	sqlerrd[1]	INTEGER	For a sensitive static cursor, contains the number of rows in a result table when the cursor position is after the last row (that is, when SQLCODE is equal to +100). Can also contain an internal error code.

Assembler, COBOL, or PL/I Name	C Name	Data type	Purpose
SQLERRD(3)	sqlerrd[2]	INTEGER	Contains the number of rows that qualified to be deleted, inserted, or updated after an INSERT, MERGE, UPDATE, or DELETE statement. The number excludes rows affected by either triggers or referential integrity constraints. The number excludes rows affected by triggers, referential integrity constraints, or inserted rows that are the result of processing a FOR PORTION OF clause for a BUSINESS_TIME period.For the OPEN of a cursor for a SELECT with a data change statement or for a SELECT INTO, SQLERRD(3) contains the number of rows affected by the embedded data change statement. The value is 0 if the SQL statement fails, indicating that all changes made in executing the statement canceled. For a DELETE statement the value will be -1 if the operation is a mass delete from a table in a segmented table space and the DELETE statement did not include selection criteria. If the delete was against a view, neither the DELETE statement nor the definition of the view included selection criteria. For a TRUNCATE statement, the value will be -1. For a REFRESH TABLE statement, SQLERRD(3) contains the number of rows inserted into the materialized query table. For a rowset-oriented FETCH, contains the number of rows fetched. For SQLCODES -911 and -913, SQLERRD(3) contains the reason code for the timeout or deadlock. When an error is encountered in parsing a dynamic statement, or when parsing, binding, or executing a native SQL procedure, SQLERRD(3) will contain the line number where the error was encountered. The sixth byte of SQLCAID must be 'L' for this to be a valid line number. This value will be meaningful only if the statement source contains new line control characters. This information is not returned for an external SQL procedure.
SQLERRD(4)	sqlerrd[3]	INTEGER	Generally contains timerons, a short floating-point value that indicates a rough relative estimate of resources required. It does not reflect an estimate of the time required. When preparing a dynamically defined SQL statement, you can use this field as an indicator of the relative cost of the prepared SQL statement. For a particular statement, this number can vary with changes to the statistics in the catalog. It is also subject to change between releases of Db2 for z/OS.

Assembler, COBOL, or PL/I Name	C Name	Data type	Purpose
SQLERRD(5)	sqlerrd[4]	INTEGER	Contains the position or column of a syntax error for a PREPARE or EXECUTE IMMEDIATE statement.
SQLERRD(6)	sqlerrd[5]	INTEGER	Internal error code.
SQLWARN0	SQLWARN0	CHAR(1)	W if at least one other indicator also contains a W; otherwise, contains a blank.
SQLWARN1	SQLWARN1	CHAR(1)	W if the value of a string column was truncated when assigned to a host variable. Contains an N for non-scrollable cursors and S for scrollable cursors after the OPEN CURSOR or ALLOCATE CURSOR statement. If subsystem parameter DISABSCL is set to YES, the field will not be set to N for non-scrollable cursors.
SQLWARN2	SQLWARN2	CHAR(1)	W if null values were eliminated from the argument of a column function; not necessarily set to W for the MIN function because its results are not dependent on elimination of null values.
SQLWARN3	SQLWARN3	CHAR(1)	W if the number of result columns is larger than the number of host variables. Z if fewer locators were provided in the ASSOCIATE LOCATORS statement than the stored procedure returned.
SQLWARN4	SQLWARN4	CHAR(1)	W if a prepared UPDATE or DELETE statement does not include a WHERE clause. For scrollable cursor, D for sensitive dynamic cursors, I for insensitive cursors, and S for sensitive cursors after the OPEN CURSOR or ALLOCATE CURSOR statement; blank if not scrollable. If DSNZPARM DISABSCL is set to YES, set to N for non-scrollable cursors.
SQLWARN5	SQLWARN5	CHAR(1)	W if the SQL statement was not executed because it is not a valid SQL statement in Db2 for z/OS. Character value of 1 (read only), 2 (read and delete), or 4 (read, delete, and update) to reflect capability of the cursor after the OPEN CURSOR or ALLOCATE CURSOR statement. If DISABSCL is set to YES, the field will not be set to N for non-scrollable cursors.
SQLWARN6	SQLWARN6	CHAR(1)	W if addition of a month or year duration to a DATE or TIMESTAMP value results in invalid day. Indicates that the value of the day was changed to the last day of the month to make the result valid.
SQLWARN7	SQLWARN7	CHAR(1)	W if one or more nonzero digits were eliminated from the fractional part of a number used as the operand of a decimal multiply or divide operation.
SQLWARN8	SQLWARN8	CHAR(1)	W if a character that could not be converted was replaced with a substitute character.
SQLWARN9	SQLWARN9	CHAR(1)	W if arithmetic exceptions were ignored during COUNT or COUNT_BIG processing. Z if the stored procedure returned multiple result sets.

Assembler, COBOL, or PL/I Name	C Name	Data type	Purpose
SQLWARNA	SQLWARNA	CHAR(1)	W if at least one character field of the SQLCA or the SQLDA names or labels is invalid due to a character conversion error.
SQLSTATE	sqlstate	CHAR(5)	A return code for the outcome of the most recent execution of an SQL statement.

REXX SQLCA

Variable	Contents
SQLCODE	The SQL return code.
SQLERRMC	One or more tokens, separated by X'FF', that are substituted for variables in the descriptions of error conditions. It may contain truncated tokens. A message length of 70 bytes indicates a possible truncation.
SQLERRP	A product signature and, in the case of an error, diagnostic information such as the name of the module that detected the error. For Db2 for z/OS, the product signature is “DSN”.
SQLERRD.1	For a sensitive static cursor, contains the number of rows in a results table when the cursor position is after the last row (that is, when SQLCODE is equal to +100) Can also contain an internal error code.
SQLERRD.2	For a sensitive static cursor, contains the number of rows in a results table when the cursor position is after the last row (that is, when SQLCODE is equal to +100) Can also contain an internal error code.
SQLERRD.3	Contains the number of rows that qualified for the operation after an SQL data change statement (but not rows deleted as a result of CASCADE delete). For the OPEN of a cursor for a SELECT with an SQL data change statement or for a SELECT INTO, SQLERRD(3) contains the number of rows affected by the embedded data change statement. Set to 0 if the SQL statement fails, indicating that all changes made in executing the statement were canceled. Set to -1 for a mass delete from a table in a segmented table space, for a truncate operation, or a delete from a view when neither the DELETE statement nor the definition of the view included selection criteria. For rowset-oriented FETCH statements, contains the number of rows returned in the rowset. For SQLCODES -911 and -913, SQLERRD(3) contains the reason code for the timeout or deadlock. After successful execution of the REFRESH TABLE statement, SQLERRD(3) contains the number of rows inserted into the materialized query table. When an error is encountered in parsing a dynamic statement, or when parsing, binding, or executing a native SQL procedure, SQLERRD(3) will contain the line number where the error was encountered. The sixth byte of SQLCAID must be ’L’ for this to be a valid line number. This value will be meaningful only if the statement source contains new line control characters. Not returned for an external SQL procedure.
SQLERRD.4	Generally contains timerons, a short floating-point value that indicates a rough relative estimate of resources required. This value does not reflect an estimate of the time required to execute the SQL statement. After you prepare an SQL statement, you can use this field as an indicator of the relative cost of the prepared SQL statement. For a particular statement, this number can vary with changes to the statistics in the catalog. Subject to change between releases of Db2 for z/OS.
SQLERRD.5	The position or column of a syntax error for a PREPARE or EXECUTE IMMEDIATE statement.
SQLERRD.6	An internal error code.
SQLWARN.0	Blank if all other indicators are blank; W if at least one indicator also contains a W.

Variable	Contents
SQLWARN.1	W if the value of a string column was truncated when assigned to a host variable.
SQLWARN.2	W if null values were eliminated from the argument of a column function; not necessarily set to W for the MIN function because its results are not dependent on the elimination of null values.
SQLWARN.3	W if the number of result columns is larger than the number of host variables. Z if the ASSOCIATE LOCATORS statement contains fewer locators than the stored procedure returned.
SQLWARN.4	W if a prepared UPDATE or DELETE statement does not include a WHERE clause. For a scrollable cursor, contains a D for sensitive dynamic cursors, I for insensitive cursors, and S for sensitive cursors after the OPEN CURSOR or ALLOCATE CURSOR statement, blank if not scrollable.
SQLWARN.5	W if the SQL statement was not executed because it is not a valid SQL statement in Db2 for z/OS. Character value of 1 (read only), 2 (read and delete), or 4 (read, delete, and update) to reflect capability of the cursor after the OPEN CURSOR or ALLOCATE CURSOR statement.
SQLWARN.6	W if the addition of a month or year duration to a DATE or TIMESTAMP value results in an invalid day (for example, June 31). Indicates that the value of the day was changed to the last day of the month to make the result valid.
SQLWARN.7	W if one or more nonzero digits were eliminated from the fractional part of a number that was used as the operand of a decimal multiply or divide operation.
SQLWARN.8	W if a character that could not be converted was replaced with substitute character.
SQLWARN.9	W if arithmetic exceptions were ignored during COUNTor COUNT_BIG processing. Z if the stored procedure returned multiple result sets.
SQLWARN.10	W if at least one character field of the SQLCA is invalid due to a character conversion error.
SQLSTATE	A return code for the outcome of the most recent execution of an SQL statement.

GET DIAGNOSTICS

Statement Information

Item	Description	Data type
DB2_GET_DIAGNOSTICS _DIAGNOSTICS	After a GET DIAGNOSTICS statement, if any error or warning occurred, this item contains all of the diagnostics as a single string	VARCHAR(32672)
DB2_LAST_ROW	After a multiple-row FETCH statement, contains a value of +100 if the last row in the table is in the rowset that was returned.	INTEGER
DB2_NUMBER_ PARAMETER_MARKERS	After a PREPARE statement, contains number of parameter markers in the prepared statement.	INTEGER
DB2_NUMBER_RESULT_ SETS	After a CALL statement that invokes a stored procedure, this item contains the number of result sets that are returned by the procedure.	INTEGER
DB2_NUMBER_ROWS	After an OPEN or FETCH statement for which the size of the result table is known, this item contains the number of rows in the result table. After a PREPARE statement, this item contains the estimated number of rows in the result table for the prepared statement. For SENSITIVE DYNAMIC cursors, this item contains the	DECIMAL(31,0)

Item	Description	Data type
	approximate number of rows.	
DB2_RETURN_STATUS	After CALL statement that invokes an SQL procedure, this item contains the return status if the procedure contains a RETURN statement.	INTEGER
DB2_SQL_ATTR _CURSOR_HOLD	After ALLOCATE or OPEN statement, indicates whether the cursor can be held open across multiple units of work (Y or N).	CHAR(1)
DB2_SQL_ATTR_ CURSOR_ROWSET	After ALLOCATE or OPEN statement, indicates whether the cursor can use rowset positioning (Y or N).	CHAR(1)
DB2_SQL_ATTR _CURSOR_SCROLLABLE	After ALLOCATE or OPEN statement, indicates whether the cursor is scrollable (Y or N).	CHAR(1)
DB2_SQL_ATTR _CURSOR_SENSITIVITY	After ALLOCATE or OPEN statement, indicates whether the cursor shows updates made by other processes (sensitivity A, I, or S).	CHAR(1)
DB2_SQL_ATTR _CURSOR_TYPE	After ALLOCATE or OPEN statement, indicates whether the cursor is declared static (S for INSENSITIVE or SENSITIVE STATIC) or dynamic (D for SENSITIVE DYNAMIC).	CHAR(1)
DB2_SQL_NESTING_ LEVEL	After a CALL statement, this item identifies the current level of nesting or recursion in effect when the GET DIAGNOSTICS statements was executed.	INTEGER
MORE	After any SQL statement, indicates whether some conditions items were discarded because of insufficient storage (Y or N).	CHAR(1)
NUMBER	After any SQL statement, contains the number of condition items. If no warning or error occurred, or if no previous SQL statement has been executed, the number that is returned is 1.	INTEGER
ROW_COUNT	After DELETE, INSERT, UPDATE, or FETCH, contains the number of rows that are deleted, inserted, updated, or fetched. After PREPARE, this item contains the estimated number of result rows in the prepared statement.	DECIMAL(31,0)

Conditional Data Types

Item	Description	Data type
CATALOG_NAME	The server name of the table that owns a constraint that caused an error, or that caused an access rule or check violation.	VARCHAR(128)
CONDITION_NUMBER	Number of the condition.	INTEGER
CURSOR_NAME	Name of a cursor in an invalid cursor state.	VARCHAR(128)
DB2_ERROR_CODE1	This item contains an internal error code	INTEGER
DB2_ERROR_CODE2	This item contains an internal error code	INTEGER
DB2_ERROR_CODE3	This item contains an internal error code.	INTEGER
DB2_ERROR_CODE4	This item contains an internal error code.	INTEGER
DB2_INTERNAL _ERROR_POINTER	Negative value that is an internal error pointer.	INTEGER

Item	Description	Data type
DB2_LINE_NUMBER	Line number where an error is encountered in parsing a dynamic statement.	INTEGER
DB2_MESSAGE_ID	Message ID that corresponds to the message that is contained in the CHAR(10) MESSAGE_TEXT diagnostic item.	CHAR(10)
DB2_MODULE_ DETECTING _ERROR	After any SQL statement, indicates which module detected the error	CHAR(8)
DB2_ORDINAL_TOKEN_n	After any SQL statement, contains the nth token, where n is a value from 1 to 100.	VARCHAR(515)
DB2_REASON_CODE	After any SQL statement, reason code for errors with reason code token in message text.	INTEGER
DB2_RETURNED_SQLCODE	After any SQL statement, contains the SQLCODE for the condition.	INTEGER
DB2_ROW_NUMBER	After any SQL statement that involves multiple rows, contains the row number on which Db2 detected the condition.	DECIMAL(31,0)
DB2_TOKEN_COUNT	After any SQL statement, contains the number of tokens available for the condition.	INTEGER
MESSAGE_TEXT	After any SQL statement, contains message text associated with the SQLCODE.	VARCHAR(32672)
RETURNED_SQLSTATE	After any SQL statement, contains the SQLSTATE for the condition.	CHAR(5)
SERVER_NAME	After a CONNECT, DISCONNECT, or SET CONNECTION statement, contains the name of the server specified in statement.	VARCHAR(128)

Connection Information

Item	Description	Data type
DB2_AUTHENTICATION_TYPE	Authentication type (S, C, T or blank).	CHAR(1)
DB2_AUTHORIZATION_ID	Authorization ID used by connected server.	VARCHAR(128)
DB2_CONNECTION_STATE	Indicates whether connection is unconnected (-1), local (0), or remote (1).	INTEGER
DB2_CONNECTION_STATUS	Indicates whether updates can be committed for the current unit of work (1=Yes, 2= No).	INTEGER
DB2_ENCRYPTION_TYPE	Level of encryption for the connection: A = Only Authentication tokens (authid and password) are encrypted D = All data for the connection is encrypted	CHAR(1)
DB2_SERVER_CLASS_NAME	After a CONNECT or SET CONNECTION statement, contains Db2 server class name.	VARCHAR(128)
DB2_PRODUCT_ID	Contains the Db2 product signature.	VARCHAR(8)

Predicates (Stage 1/2/Indexable)

Predicate Type	Indexable	Stage 1
COL = value	Y	Y
COL = noncol expr	Y	Y
COL IS NULL	Y	Y
COL op value	Y	Y
COL op noncol expr	Y	Y
COL BETWEEN value1 AND value2	Y	Y
COL BETWEEN noncol expr1 AND noncol expr2	Y	Y
value BETWEEN COL1 AND COL2	Y	Y
COL BETWEEN COL1 AND COL2	Y	Y
COL BETWEEN expression1 AND expression2	Y	Y
COL LIKE 'pattern'	Y	Y
COL IN (list)	Y	Y
COL <> value	N	Y
COL <> noncol expr	N	Y
COL IS NOT NULL	Y	Y
COL NOT BETWEEN value1 AND value2	N	Y
COL NOT BETWEEN noncol expr1 AND noncol expr2	N	Y
value NOT BETWEEN COL1 AND COL2	N	N
COL NOT IN (list)	N	Y
COL NOT LIKE ‘ char'	N	Y
COL LIKE '%char'	N	Y
COL LIKE '_char'	N	Y
COL LIKE host variable	Y	Y
COL LIKE UPPER (‘pattern’)	Y	Y
COL LIKE UPPER (host-variable)	Y	Y
COL LIKE UPPER (global-variable)	Y	Y
COL LIKE UPPER (CAST (host-variable AS data-type)	Y	Y
COL LIKE UPPER (CAST (SQL-variable AS data-type)	Y	Y
COL LIKE UPPER (CAST (global-variable AS data-type)	Y	Y
T1.COL = T2 col expr	Y	Y
T1.COL op T2 col expr	Y	Y
T1.COL <> T2 col expr	N	Y
T1.COL1 = T1.COL2	Y	Y
T1.COL1 op T1.COL2	Y	Y
T1.COL1 <> T1.COL2	N	N
COL=(noncor subq)	Y	Y
COL = ANY (noncor subq)	N	Y
COL = ALL (noncor subq)	N	N
COL op (noncor subq)	Y	Y
COL op ANY (noncor subq)	Y	Y
COL op ALL (noncor subq)	Y	Y
COL <> (noncor subq)	N	Y
COL <> ANY (noncor subq)	N	N
COL <> ALL (noncor subq)	N	N
COL IN (noncor subq)	Y	Y
(COL1,...COLn) IN (noncor subq)	Y	Y
COL NOT IN (noncor subq)	N	N
(COL1,...COLn) NOT IN (noncor subq)	N	N

COL = (cor subq)	N	N
COL = ANY (cor subq)	Y	Y
COL = ALL (cor subq)	N	N
COL op (cor subq)	N	N
COL op ANY (cor subq)	N	N
COL op ALL (cor subq)	N	N
COL <> (cor subq)	N	N
COL <> ANY (cor subq)	N	N
COL <> ALL (cor subq)	N	N
COL IN (cor subq)	Y	Y
(COL1,...COLn) IN (cor subq)	N	N
COL NOT IN (cor subq)	N	N
(COL1,...COLn) NOT IN (cor subq)	N	N
COL IS DISTINCT FROM value	N	Y
COL IS NOT DISTINCT FROM value	Y	Y
COL IS DISTINCT FROM noncol expr	N	Y
COL IS NOT DISTINCT FROM noncol expr	Y	Y
T1.COL1 IS DISTINCT FROM T2.COL2	N	N
T1.COL1 IS NOT DISTINCT FROM T2.COL2	Y	Y
T1.COL1 IS DISTINCT FROM T2 col expr	N	Y
T1.COL1 IS NOT DISTINCT FROM T2 col expr	Y	Y
COL IS DISTINCT FROM (noncor subq)	N	Y
COL IS NOT DISTINCT FROM (noncor subq)	Y	Y
COL IS NOT DISTINCT FROM (cor subq)	N	N
SUBSTR(COL, 1, n) = value	Y	Y
SUBSTR(COL, 1, n) op value	Y	Y
DATE(COL) = value	Y	Y
DATE(COL) op value	Y	Y
YEAR(COL) = value	Y	Y
YEAR(COL) op value	Y	Y
EXISTS (subq)	N	N
NOT EXISTS (subq)	N	N
expression = value	N	N
expression <> value	N	N
expression op value	N	N
expression op (subq)	N	N
XMLEXISTS	Y	N
NOT XMLEXISTS	N	N

IFCIDS

Trace Type	Class	IFCID	Description
ACCOUNTING	1	3	ALL ACCOUNTING
		106	SYSTEM PARAMETERS IN EFFECT
		200	UDF ENTRY/EXIT SIGNAL
		239	OVERFLOW FOR PACKAGE ACCOUNTING
	2	200	UDF ENTRY/EXIT SIGNAL
		232	DB2 THREAD ENTRY/EXIT SIGNAL
	3	6	BEGINNING OF A READ I/O OPERATION
		7	CC AFTER READ I/O OPERATION
		8	BEGINNING OF SYNCHRONOUS WRITE I/O
		9	CC OF SYNC OR ASYNC WRITE I/O
		32	BEGIN OF WAIT FOR LOG MANAGER
		33	END OF WAIT FOR LOG MANAGER
		44	LOCK SUSPEND OR IDENTIFY CALL IRLM
		45	LOCK RESUME
		51	SHARED LATCH RESUME. SERVICEABILITY
		52	SHARED LATCH WAIT. SERVICEABILITY
		56	EXCL. LATCH WAIT. SERVICEABILITY
		57	EXCL. LATCH RESUME. SERVICEABILITY
		117	BEGIN THREAD WAIT TIME FOR LOG I/O
		118	END THREAD WAIT TIME FOR LOG I/O
		127	AGENT READY TO SUSPEND PAGE WAIT
		128	PAGE REQUESTOR RESUMED BY I/O INIT.
		170	SUSPEND FOR SYNC EXEC.N UNIT SWITCH
		171	RESUME AGENT WAITING DB2 SERV. TASK
		174	BEGIN ARCHIVE LOG MODE (QUIESCE)
		175	END ARCHIVE LOG MODE (QUIESCE)
		213	BEGIN OF WAIT FOR CLAIM REQUEST
		214	END OF WAIT FOR CLAIM REQUEST
		215	BEGIN OF WAIT FOR DRAIN REQUEST
		216	END OF WAIT FOR DRAIN REQUEST
		226	BEGIN OF SUSPEND FOR PAGE LATCH
		227	END OF SUSPEND FOR PAGE LATCH
		242	BEGIN WAIT FOR SCHED. STORED PROC.
		243	END WAIT FOR SCHED. STORED PROC.

Trace Type	Class	IFCID	Description
		313	MESSAGES FOR LONG-RUNNING URS.
		382	SUSPEND OPERATIOINS FOR PARALLEL TASK SYNC
		383	RESUME OPERATIOINS AFTER PARALLEL TASK SYNC
	4	151	USER-DEFINED ACCOUNTING TRACE
	5	187	ENTRY TO AND EXIT FROM IFI
	7	200	DB2 THREAD ENTRY/EXIT SIGNAL
		232	FOR PACKAGE/DBRM LEVEL ACCOUNTING
		240	EVENT SIGNAL FOR PACKAGE ACCOUNTING
	8	6	BEGINNING OF A READ I/O OPERATION
		7	CC AFTER READ I/O OPERATION
		8	BEGINNING OF SYNCHRONOUS WRITE I/O
		9	CC OF SYNC OR ASYNC WRITE I/O
		32	BEGIN OF WAIT FOR LOG MANAGER
		33	END OF WAIT FOR LOG MANAGER
		44	LOCK SUSPEND OR IDENTIFY CALL IRLM
		45	LOCK RESUME
		51	SHARED LATCH RESUME. SERVICEABILITY
		52	SHARED LATCH WAIT. SERVICEABILITY
		56	EXCL. LATCH WAIT. SERVICEABILITY
		57	EXCL. LATCH RESUME. SERVICEABILITY
		117	BEGIN THREAD WAIT TIME FOR LOG I/O
		118	END THREAD WAIT TIME FOR LOG I/O
		127	AGENT READY TO SUSPEND PAGE WAIT
		128	PAGE REQUESTOR RESUMED BY I/O INIT.
		170	SUSPEND FOR SYNC EXEC.N UNIT SWITCH
		171	RESUME AGENT WAITING DB2 SERV. TASK
		174	BEGIN ARCHIVE LOG MODE (QUIESCE)
		175	END ARCHIVE LOG MODE (QUIESCE)
		213	BEGIN OF WAIT FOR CLAIM REQUEST
		214	END OF WAIT FOR CLAIM REQUEST
		215	BEGIN OF WAIT FOR DRAIN REQUEST
		216	END OF WAIT FOR DRAIN REQUEST
		226	BEGIN OF SUSPEND FOR PAGE LATCH
		227	END OF SUSPEND FOR PAGE LATCH
		241	BEGIN/END SUSPENSION OF PACK/DBRM
		242	BEGIN WAIT FOR SCHED. STORED PROC.
		243	END WAIT FOR SCHED. STORED PROC.

Trace Type	Class	IFCID	Description
		382	SUSPEND OPERATIOINS FOR PARALLEL TASK SYNC
		383	RESUME OPERATIOINS AFTER PARALLEL TASK SYNC
	10	339	PACKAGE DETAIL
AUDIT	1	140	AUTHORIZATION FAILURES
	2	141	EXPLICIT GRANT AND REVOKES
	3	142	CREATES, ALTERS, DROPS – AUDIT
	4	143	FIRST ATTEMPTED WRITE AUDITED OBJ.
	5	144	FIRST ATTEMPTED READ AUDITED OBJ.
	6	145	AUDIT LOG RECORD OF SOME SQL STMTS
	7	55	ISSUANCE OF SET CURRENT SQLID
		83	END IDENTIFY REQUEST
		87	ENDING OF SIGNON REQUEST
		169	DISTRIBUTED AUTHID TRANSLATION
		312	DCE SECURITY
	8	23	UTILITY START INFORMATION
		24	UTILITY OBJECT OR PHASE CHANGE
		25	UTILITY END INFORMATION
		219	LISTDEF DATA SET INFORMATION
		220	UTILITY OUTPUT DATA SET INFORMATION
	9	146	USER-DEFINED AUDIT TRACE
	11	361	AUDIT ADMINISTRATIVE AUTHORITIES
MONITOR	1	1	SYSTEM SERVICES
		2	DATABASE SERVICES
		106	SYSTEM PARAMETERS IN EFFECT
		124	CURRENT SQL STATEMENT
		129	VSAM CI'S – DB2 RECOVER LOG
		147	SUMMARY THREAD STATUS RECORD
		148	DETAILED THREAD STATUS RECORD
		149	LOCK INFORMATION FOR A RESOURCE
		150	LOCK INFORMATION FOR AN AGENT IFCID
		202	SYSTEM PARAMETERS
		230	DATA SHARING GLOBAL STATISTICS
		254	GROUP BUFFER POOL USAGE
		306	LOG RECORD RETRIEVAL
		316	PREPARED STMT. CACHE STATISTICS
		317	PREPARED STMT. CACHE STMT. TEXT
	2	232	DB2 THREAD ENTRY EXIT SIGNAL

Trace Type	Class	IFCID	Description
	3	6	BEGINNING OF A READ I/O OPERATION
		7	CC AFTER READ I/O OPERATION
		8	BEGINNING OF SYNCHRONOUS WRITE I/O
		9	CC OF SYN OR ASYNC WRITE I/O
		32	BEGIN OF WAIT FOR LOG MANAGER
		33	END OF WAIT FOR LOG MANAGER
		44	LOCK SUSPEND OR IDENTIFY CALL IRLM
		45	LOCK RESUME
		51	SHARED LATCH RESUME. SERVICEABILITY
		52	SHARED LATCH WAIT. SERVICEABILITY
		56	EXCL. LATCH WAIT. SERVICEABILITY
		57	EXCL. LATCH RESUME. SERVICEABILITY
		117	BEGIN THREAD WAIT TIME FOR LOG I/O
		118	END THREAD WAIT TIME FOR LOG I/O
		127	AGENT READY TO SUSPEND PAGE WAIT
		128	PAGE REQUESTOR RESUMED BY I/O INIT.
		170	SUSPEND FOR SYNC EXEC. UNIT SWITCH
		171	RESUME AGENT WAITING DB2 SERV. TSK
		174	BEGIN ARCHIVE LOG MODE (QUIESCE)
		175	END ARCHIVE LOG MODE (QUIESCE)
		213	BEGIN OF WAIT FOR CLAIM REQUEST
		214	END OF WAIT FOR CLAIM REQUEST
		215	BEGIN OF WAIT FOR DRAIN REQUEST
		216	END OF WAIT FOR DRAIN REQUEST
		226	BEGIN OF SUSPEND FOR PAGE LATCH
		227	END OF SUSPEND FOR PAGE LATCH
		242	BEGIN WAIT FOR SCHED. STORED PROC.
		243	END WAIT FOR SCHED. STORED PROC.
		382	SUSPEND OPERATIOINS FOR PARALLEL TASK SYNC
		383	RESUME OPERATIOINS AFTER PARALLEL TASK SYNC
	4	155	USER-DEFINED MONITOR TRACE
	5	187	ENTRY OR EXIT TO IFI
	6	185	DATA CAPTURE INFORMATION
	7	232	DB2 THREAD ENTRY/EXIT SIGNAL
		232	FOR PACKAGE/DBRM-LEVEL ACCOUNTING
		240	EVENT SIGNAL FOR PACKAGE ACCOUNTING
	8	6	BEGINNING OF A READ I/O OPERATION

Trace Type	Class	IFCID	Description
		7	CC AFTER READ I/O OPERATION
		8	BEGINNING OF SYNCHRONOUS WRITE I/O
		9	CC OF SYN OR ASYNC WRITE I/O
		32	BEGIN OF WAIT FOR LOG MANAGER
		33	END OF WAIT FOR LOG MANAGER
		44	LOCK SUSPEND OR IDENTIFY CALL IRLM
		45	LOCK RESUME
		51	SHARED LATCH RESUME. SERVICEABILITY
		52	SHARED LATCH WAIT. SERVICEABILITY
		56	EXCL. LATCH WAIT. SERVICEABILITY
		57	EXCL. LATCH RESUME. SERVICEABILITY
		117	BEGIN THREAD WAIT TIME FOR LOG I/O
		118	END THREAD WAIT TIME FOR LOG I/O
		127	AGENT READY TO SUSPEND PAGE WAIT
		128	PAGE REQUESTOR RESUMED BY I/O INIT.
		170	SUSPEND FOR SYNC EXEC. UNIT SWITCH
		171	RESUME AGENT WAITING DB2 SERV. TSK
		174	BEGIN ARCHIVE LOG MODE (QUIESCE)
		175	END ARCHIVE LOG MODE (QUIESCE)
		213	BEGIN OF WAIT FOR CLAIM REQUEST
		214	END OF WAIT FOR CLAIM REQUEST
		215	BEGIN OF WAIT FOR DRAIN REQUEST
		216	END OF WAIT FOR DRAIN REQUEST
		226	BEGIN OF SUSPEND FOR PAGE LATCH
		227	END OF SUSPEND FOR PAGE LATCH
		241	BEGIN/END SUSPENSION OF PACK/DBRM
		242	BEGIN WAIT FOR SCHED. STORED PROC.
		243	END WAIT FOR SCHED. STORED PROC.
		382	SUSPEND OPERATIOINS FOR PARALLEL TASK SYNC
		383	RESUME OPERATIOINS AFTER PARALLEL TASK SYNC
	9	124	ENABLE STATEMENT LEVEL ACCOUNTING
	10	339	PACKAGE DETAIL
	29	316	CACHED STATEMENT STATISTICS
		318	CACHED STATEMENT STATISTICS
		400	STATIC SQL IN EDM POOK STATISTICS
		401	STATIC SQL IN EDM POOK STATISTICS
PERFORMANCE	1	1	SYSTEM SERVICES

Trace Type	Class	IFCID	Description
		2	DATABASE SERVICES
		31	EDM POOL FULL CONDITION
		42	A CHECKPOINT STARTED
		43	A CHECKPOINT ENDED
		76	BEGINNING OF END OF MEMORY REQUEST
		77	ENDING OF AN END OF MEMORY REQUEST
		78	BEGINNING OF AN END OF TASK REQUEST
		79	ENDING OF AN END OF TASK REQUEST
		102	DETECTION OF SHORT ON STORAGE
		103	SETTING OFF OF SHORT ON STORAGE
		105	INTERNAL DBID OBID TO DB/TS
		106	SYSTEM PARAMETERS IN EFFECT
		107	DATA SET OPEN/CLOSE INFORMATION
		153	USER-DEFINED EXCEPT-CONDITION TRACE
	2	3	ALL ACCOUNTING
		68	BEGINNING OF A ROLLBACK REQUEST
		69	ENDING OF A ROLLBACK REQUEST
		70	BEGIN COMMIT PHASE 2 REQUEST
		71	END COMMIT PHASE 2 REQUEST
		72	BEGINNING OF CREATE THREAD REQUEST
		73	ENDING OF A CREATE THREAD REQUEST
		74	BEGINNING OF TERM. THREAD REQUEST
		75	ENDING OF A TERM. THREAD REQUEST
		80	BEGINNING OF AN ESTABLISH EXIT REQ.
		81	ENDING OF AN ESTABLISH EXIT REQUEST
		82	BEGIN IDENTIFY REQUEST
		83	END IDENTIFY REQUEST
		84	BEGIN PHASE 1 COMMIT REQUEST
		85	END PHASE 1 COMMIT REQUEST
		86	BEGINNING OF SIGNON REQUEST
		87	ENDING OF SIGNON REQUEST
		88	BEGINNING OF A SYNC REQUEST
		89	ENDING OF A SYNC REQUEST
		106	SYSTEM PARAMETERS IN EFFECT
		174	BEGIN ARCHIVE LOG MODE (QUIESCE)
		175	END ARCHIVE LOG MODE (QUIESCE)
	3	22	MINIPLANS GENERATED

Trace Type	Class	IFCID	Description
		53	END OF DESCR., COMMIT, RLBCK OR ERR
		55	ISSUANCE OF SET CURRENT SQLID
		58	END OF SQL STATEMENT EXECUTION
		59	START OF FETCH SQL STATEMENT EXEC.
		60	START OF SELECT SQL STATEMENT EXEC.
		61	START OF INSERT, UPDATE, DELETE SQL
		62	START OF DDL STATEMENT EXECUTION
		63	SQL STATEMENT TO BE PARSED
		64	START PREPARE SQL STATEMENT EXEC.
		65	START OPEN CURSOR STATIC/DYN SQL
		66	START CLOSE CURSOR STATIC/DYN SQL
		92	START AN ACCESS METHOD SERVICES
		95	SORT STARTED
		96	SORT ENDED
		97	ACCESS METHOD SERVICES CMD COMPL.
		106	SYSTEM PARAMETERS IN EFFECT
		112	ATTRIBUTES PLAN AFTER THREAD ALLOC.
		177	SUCCESSFUL PACKAGE ALLOCATION
		233	START/END CALL TO USER ROUTINE
		237	SET CURRENT DEGREE INFORMATION
		272	ASSOCIATE LOCATORS INFORMATION
		273	ALLOCATE CURSOR INFORMATION
		324	FUNCTION RESOLUTION INFORMATION
		325	START/END TRIGGER ACTIVATION
		350	COMPLETE SQL STATEMENT
	4	6	BEGINNING OF A READ I/O OPERATION
		7	COMPLETION CODE AFTER READ I/O
		8	BEGINNING OF SYNCHRONOUS WRITE I/O
		9	CC OF SYN OR ASYNC WRITE I/O
		10	BEGINNING OF ASYNC WRITE I/O
		29	START EDM I/O REQ. LOAD DBD OR CT
		30	END OF EDM I/O REQUEST
		105	INTERNAL DBID OBID TO DB/TS
		106	SYSTEM PARAMETERS IN EFFECT
		107	DATA SET OPEN/CLOSE INFORMATION
		127	AGENT READY TO SUSPEND PAGE WAIT
		128	PAGE REQUESTOR RESUMED BY I/O INIT.

Trace Type	Class	IFCID	Description
		226	BEGIN OF SUSPEND FOR PAGE LATCH
		227	END OF SUSPEND FOR PAGE LATCH
	5	32	BEGIN OF WAIT FOR LOG MANAGER
		33	END OF WAIT FOR LOG MANAGER
		34	LOG MANAGER WAIT FOR READ I/O BEGIN
		35	LOG MANAGER WAIT FOR READ I/O END
		36	LOG MANAGER WAIT FOR NON-I/O BEGIN
		37	LOG MANAGER WAIT FOR NON-I/O END
		38	LOG MGR WAIT ACT. LOG WRITE BEGIN
		39	LOG MGR WAIT ACT. LOG WRITE I/O END
		40	LOG MANAGER ARCHIVE WRITE I/O BEGIN
		41	LOG MANAGER ARCHIVE WRITE I/O END
		104	LOG DATA SET MAPPING
		106	SYSTEM PARAMETERS IN EFFECT
		114	START ARCHIVE READ I/O WAIT
		115	END READ ARCHIVE I/O WAIT ON DASD
		116	END READ ARCHIVE I/O WAIT ON TAPE
		117	BEGIN ARCHIVE READ
		118	END ARCHIVE READ
		119	BSDS WRITE I/O BEGINNING
		120	BSDS WRITE I/O END
		228	START ARCHIVE ALLOCATION WAIT
		229	END ARCHIVE ALLOCATION WAIT
	6	20	LOCKING SUMMARY
		44	LOCK SUSPEND OR AN ID. CALL TO IRLM
		45	LOCK RESUME
		105	INTERNAL DBID OBID TO DB/TS
		106	SYSTEM PARAMETERS IN EFFECT
		107	DATA SET OPEN/CLOSE INFORMATION
		172	UNITS OF WORK INVOLVED IN DEADLOCK
		196	LOCK TIMEOUT DETAILS
		213	BEGINNING OF WAIT FOR DRAIN LOCK
		214	END OF WAIT FOR DRAIN LOCK
		218	SUMMARY OF LOCK AVOIDANCE TECHNIQUE
		337	LOCK ESCALATION OCCURRED
	7	21	DETAIL LOCK REQ.ON RETURN FROM IRLM
		105	INTERNAL DBID OBID TO DB/TS

Trace Type	Class	IFCID	Description
		106	SYSTEM PARAMETERS IN EFFECT
		107	DATA SET OPEN/CLOSE INFORMATION
		199	BUFFER POOL DATA SET STATISTICS
		223	DETAIL OF LOCK AVOIDANCE TECHNIQUE
	8	13	INPUT TO HASH SCAN
		14	END OF HASH SCAN
		15	INPUT MATCH./NON-MATCH.INDEX SCAN
		16	INPUT TO THE FIRST INSERT
		17	INPUT TO SEQUENTIAL SCAN
		18	END INDEX SCAN, INSERT, SEQ. SCAN
		105	INTERNAL DBID OBID TO DB/TS
		106	SYSTEM PARAMETERS IN EFFECT
		107	DATA SET OPEN/CLOSE INFORMATION
		125	RID LIST PROCESSING USAGE
		221	PARALLEL DEGREE FOR PARALLEL GROUP
		222	PARALLEL GROUP ELAPSED TIME
		231	PARALLEL GROUP COMPLETION
		305	TABLE CHECK CONSTRAINTS
		311	TEMPORARY TABLES
	9	26	WORK FILE OBTAINED FOR SORT
		27	NUMBER OF ORDERED RECORDS SORT RUN
		28	DETAILED SORT INFORMATION
		95	SORT STARTED
		96	SORT ENDED
		106	SYSTEM PARAMETERS IN EFFECT
	10	23	UTILITY START INFORMATION
		24	UTILITY OBJECT OR PHASE CHANGE
		25	UTILITY END INFORMATION
		90	COMMAND TEXT OF ENTERED DB2 COMMAND
		91	COMPLETION STATUS OF A DB2 COMMAND
		105	INTERNAL DBID OBID TO DB/TS
		106	SYSTEM PARAMETERS IN EFFECT
		107	DATA SET OPEN/CLOSE INFORMATION
		108	BEGINNING OF BIND/REBIND
		109	END OF BIND/REBIND
		110	BEGINNING OF FREE PLAN
		111	END OF FREE PLAN

Trace Type	Class	IFCID	Description
		201	STATUS BEF/AFT ALTER BUFFERPOOL
		256	ATTRIBUTES BEF/AFT ALTER BUFFERPOOL
	11	46	AGENT BEGIN EXEC. UNIT SWITCH
		47	NEW SRB EXECUTION UNIT STARTED
		48	NEW SRB EXECUTION UNIT COMPLETED
		49	BEGIN NEW TCB
		50	END NEW TCB
		51	SHARED LATCH RESUME
		52	SHARED LATCH WAIT
		56	EXCLUSIVE LATCH WAIT
		57	EXCLUSIVE LATCH RESUME
		93	SUSPEND WAS CALLED
		94	EVENT RESUMED
		106	SYSTEM PARAMETERS IN EFFECT
		113	ATTRIBUTES PLAN AFTER AGENT ALLOC.
	12	98	BEGIN GETMAIN/FREEMAIN (NONPOOL)
		99	END GETMAIN/FREEMAIN (NONPOOL)
		100	BEGIN GETMAIN/FREEMAIN (POOL)
		101	END GETMAIN/FREEMAIN (POOL)
		106	SYSTEM PARAMETERS IN EFFECT
	13	11	RESULTS OF A VALIDATION EXIT CALL
		12	RESULTS EDIT EXIT CALL ENCODE RECRD
		19	RESULTS EDIT EXIT CALL DECODE A ROW
		105	INTERNAL DBID OBID TO DB/TS
		106	SYSTEM PARAMETERS IN EFFECT
		107	DATA SET OPEN/CLOSE INFORMATION
	14	67	START OF ACCOUNTING COLLECTION
		106	SYSTEM PARAMETERS IN EFFECT
		121	ENTRY ALLOCATING DB2 CONNECTION
		122	EXIT ALLOCATING DB2 CONNECTION
	15	154	USER-DEFINED ROUTINE COND. PERF.
	16	157	DRDS INTER. WITH RDS RDI CALL TYPES
		158	DRDS INTER. WITH CONVERSATION MGR
		159	DRDS REQUESTING LOCATION DATA
		160	REQUESTING AGENT DATA
		161	SERVING AGENT DATA
		162	DISTRIB TRANS. MGR REQ. AGENT DATA

Trace Type	Class	IFCID	Description
		163	DISTRIB TRANS. MGR RESP. AGENT DATA
		167	CONVERSATION ALLOC. REQUEST QUEUED
		183	DRDS RDS/SCC INTERFACE DATA
	17	211	INFORMATION ABOUT CLAIMS
		212	INFORMATION ABOUT DRAINS
		213	BEGINNING OF WAIT FOR DRAIN LOCK
		214	END OF WAIT FOR DRAIN LOCK
		215	BEGIN OF WAIT OF CLAIM COUNT TO 0
		216	END OF CLAIM COUNT TO GO TO 0
	20	249	EDM POOL DBD INVALIDATION
		250	GROUP BUFFER POOL CON/DISCON
		251	P-LOCK OPERATIONS
		256	ALTER BUFFERPOOL COMMAND
		257	DETAILS OF IRLM NOTIFY REQUEST
		261	GROUP BUFFER POOL CHECKPOINT
		262	GBPOOLT CASTOUT THRESHOLD PROCESSIN
		267	BEGIN CF STRUCT REBLD/EXPAND/CONTR
		268	END CF STRUCTURE REBLD/EXPAND/CONTR
	21	255	BUFFER REFRESH DUE TO XI
		259	P-LOCK REQUEST/NEGOTIATION REQUEST
		263	PAGE SET AND PARTITION CASTOUT DATA
		314	AUTHORIZATION EXIT PARAMETERS
		327	LANGUAGE ENVIRONMENT RUN-TIME INFO
	22	314	AUTHORIZATION EXIT PARAMETERS
STATISTICS	1	1	SYSTEM SERVICES
		2	DATABASE SERVICES
		105	INTERNAL DBID OBID TO DB/TS
		106	SYSTEM PARAMETERS IN EFFECT
		202	BUFFER POOL ATTRIBUTES
		225	SYSTEM STORAGE STATISTICS FOR DBM1
	2	152	USER-DEFINED STATISTICS TRACE
	3	172	UNITS OF WORK INVOLVED IN DEADLOCK
		196	LOCK TIMEOUT DETAILS
		250	CONNECT/DISCONNECT FROM GBP
		258	DATA SET EXTEND INFORMATION.
		330	ACTIVE LOG SHORTAGE
		337	LOCK ESCALATION OCCURRED

Trace Type	Class	IFCID	Description
	4	191	DATA CAPTURE FOR DDIS ERRORS
		192	DDM LEVEL 6A HEADER ERRORS
		193	UOW DISPOSITION/SQLCODE MISMATCH
		194	INVALID SNA FMH-5 RECEIVED
		195	FIRST FAILURE DATA CAPTURE FOR DRDS
		203	HEURISTIC DECISION OCCURRED
		204	PARTNER COLD START DETECTED
		205	INCORRECT LOGNAME/SYNC. PARMS
		206	SNA COMPARE STATES PROTOCOL ERROR
		207	HEURISTIC DAMAGE OCCURRED
		208	SNA SYNC POINT PROTOCOL ERROR
		209	SYNC POINT COMMUNICATION FAILURE
		210	LOG NAME CHANGED ON WARM START
		235	CONDITIONAL RESTART DATA LOSS
		236	EXCHANGE LOG NAMES PROTOCOL ERROR
		238	DB2 RESTART ERROR
		267	START OF CF STRUCTURE REBUILD
		268	END OF CF STRUCTURE REBUILD
	5	230	DATA SHARING GLOBAL STATISTICS
	6	225	STORAGE USAGE DETAILS
	7	326	WLM DELAY MONITOR SUPPORT
	8	199	DATA SET I/O STATISTICS

Exceptions

Status code	Status name	Affected objects	Corrective action(s)
ACHKP	Auxiliary CHECK pending	Base table space, LOB table spaces	1. Update or delete invalid LOBs and XML objects using SQL. 2. Run CHECK DATA with appropriate SCOPE option to verify the validity of LOBs and XML objects.
AUXW	Auxiliary warning	Base table space	1. Update or delete invalid LOBs and XML using SQL. 2. If an orphan LOB or a version mismatch exists between the base table and the auxiliary index, use REPAIR to delete the LOB from the LOB table space. 3. Run CHECK DATA to verify the validity of LOBs and XML objects.
		LOB table space	1. Update or delete invalid LOBs and XML using SQL. 2. If an orphan LOB or a version mismatch exists between the base table and the auxiliary index, use REPAIR to delete the LOB from the LOB table space. 3. Run CHECK LOB to verify the validity of the LOBs and XML objects.
CHKP	CHECK pending	Table space, base table space	Check and correct RI constraints using CHECK DATA. If a table space is in both REORG-pending and CHECK-pending (or auxiliary CHECK-pending) status, run REORG first and then use CHECK DATA.
		Partitioning index, non-partitioning index, index on auxiliary table	1. Run CHECK INDEX on the index. 2. If errors, run REBUILD INDEX.
		LOB table space	Run CHECK LOB. If errors: 1. Correct defects found in LOB table space with REPAIR. 2. Run CHECK LOB again.
COPY	COPY pending	Table space, table space partition	Take an image copy (best action), use –START DATABASE(*db*) SPACENAM(*ts*) ACCESS FORCE, or run REPAIR and reset COPY flag.
DBETE	Database exception table (DBET) error	Table space, partition, index, index partition, logical index partition	Recover or rebuils affected objects using one of the following: - RECOVER - LOAD REPLACE - REBUILD
GRECP	Group buffer pool (GBP)	Table space, index space	RECOVER the object, or use the START DATABASE command.

	recover pending		
ICOPY	Informational COPY pending	Partitioned index, non-partitioned index, index on auxiliary table	Copy the affected index.
		NOT LOGGED table space	Copy the affected table space.
LPL	Logical page list	Table spaces, index space	• START DATABASE ACCESS R/W or R/O • Run RECOVER or REBUILD INDEX utility. • Run LOAD REPLACE. • DROP the object.
PRO	Persistent Read Only	Table space paritions	Run REPAIR SET TABLESPACE NOPRO
ARDBP	Advisory REBUILD pending	Index	Run REBUILD on affected index
RBDP	REBUILD pending	Physical or logical index partition	Run REBUILD or RECOVER on the affected index partition.
RBDP*		Logical partitions of non-partitioned secondary indexes	Run REBUILD INDEX PART or RECOVER on the affected logical partitions.
PSRBD		Non-partitioned secondary index, index on auxiliary table	Run REBUILD INDEX ALL, RECOVER, or REBUILD INDEX.
			Note: The following actions also reset the REBUILD status. • LOAD REPLACE with table space or partition • REPAIR SET INDEX with NORBDPEND on index part (however, this action doesn't correct inconsistencies) • Start database ACCESS FORCE (however, this action doesn't correct inconsistencies) • REORG INDEX SORTDATA on the index
RECP	RECOVER pending	Table space	Run the RECOVER utility on the affected object.
		Table space partition	Recover the logical partition.
		Index on auxiliary table	Run REBUILD INDEX, RECOVER INDEX, or REORG SORTDATA.
		Index space	Run one of the following utilities on the affected index space: • REBUILD INDEX • RECOVER INDEX • REORG INDEX SORTDATA
		Any	The following actions also reset the RECOVER status: • LOAD REPLACE with table space or partition • REPAIR SET TABLESPACE or INDEX with

			NORCVRPEND on index part (however, this action doesn't correct inconsistencies) • Start database ACCESS FORCE (however, this action doesn't correct inconsistencies)
REFP	Refresh pending	Table space, index space	Run a LOAD REPLACE. The object will also be in RECP or RBDP status and will need appropriate action taken.
REORP	REORG pending	Table space	Perform one of the following: • LOAD REPLACE on entire table space • REORG TABLESPACE SHRLEVEL NONE • REORG TABLESPACE PART *n*:*m* SHRLEVEL NONE • REORG TABLESPACE REFERENCE or CHANGE
		Partitioned table space	*For rows <= 32 K:* Run REORG TABLESPACE SHRLEVEL NONE SORTDATA. *For rows > 32 K:* 1. Run REORG TABLESPACE UNLOAD ONLY. 2. Run LOAD TABLESPACE FORMAT UNLOAD.
AREO*	Advisory REORG	Table space	Run one of the following utilities: • REORG TABLESPACE • LOAD REPLACE • REPAIR TABLESPACE
		Index space	Run one of the following utilities: • REORG TABLESPACE • LOAD REPLACE • REORG INDEX • REPAIR INDEX
AREOR	Advisory REORG	Table space	Run one of the following utilities: • REORG TABLESPACE • REPAIR TABLESPACE
		Index space	Run one of the following utilities: • REORG TABLESPACE • LOAD REPLACE • REBUILD INDEX • REPAIR INDEX
RESTP	Restart pending	Table space, partition, index space, physical index partition	Objects are unavailable until back-out work is complete or until restart is canceled and a conditional restart or cold start is performed.
STOPE	Stop error	Table space, index space	RECOVER the table space or index space.
WEPR	Write error page range	Page range in error	Run a RECOVER utility on affected data.

Db2 Catalog Tables

SYSIBM.IPLIST

Allows multiple IP addresses to be specified for a given LOCATION.

Column Name	Data Type	Description
LINKNAME	VARCHAR(24)	Associated with value specified in LINKNAME column in LOCATIONS table and IPNAMES table. Values of other columns in IPNAMES table apply to server identified by LINKNAME
IPADDR	VARCHAR(254)	Contains an IPv4 or IPv6 address, or domain name of a remote TCP/IP host of server
IBMREQD	CHAR(1)	A value of Y means row came from MRM tape

SYSIBM.IPNAMES

Defines the remote DRDA servers Db2 can access using TCP/IP.

Column Name	Data Type	Description
LINKNAME	VARCHAR(24)	Value specified must match value specified in LINKNAME column of associated row in LOCATIONS
SECURITY_OUT	CHAR(1)	DRDA security option used when local Db2 applications connect to remote server associated with TCP/IP host: **A** "already verified" **D** "userid and and security-sensitive data encryption" **E** "userid, password, and security sensitive data encryption" **R** "RACF PassTicket" **P** "password"
USERNAMES	CHAR(1)	Controls outbound auth ID translation. Performed when an auth ID is sent by Db2 to a remote server **O** An outbound ID is subject to translation. USERNAMES table are used to perform ID Translation. No translation or "come from" checking is performed on inbound IDs **S** USERNAMES table is used to obtain system AUTHID used to establish a trusted connection **Blank** No translation occurs
IBMREQD	CHAR(1)	Y indicates row came a MRM tape
IPADDR	VARCHAR(254)	IP address or domain name of a remote TCP/IP host

SYSIBM.LOCATIONS

Contains a row for every accessible remote server.

Column Name	Data Type	Description
LOCATION	VARCHAR(128)	Unique location name for accessible server. Name by which the remote server is known to local Db2 SQL applications
LINKNAME	VARCHAR(128)	Identifies VTAM or TCP/IP attributes associated with this location
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
PORT	VARCHAR(96)	TCP/IP is used for outbound DRDA connections when row exists in IPNAMES, where LINKNAME column matches value specified in LOCATIONS LINKNAME column
TPN	VARCHAR(192)	Used when local Db2 begins SNA conversation with a server
DBALIAS	VARCHAR(128)	Database alias. Name associated with server and used to access a remote database server
TRUSTED	CHAR(1)	Connection to remote server can be trusted (TCP/IP only) **Y** Location is trusted

Column Name	Data Type	Description
		N Location is not trusted
SECURE	CHAR(1)	Use Secure Socket Layer (SSL) protocol for outbound DRDA connections when local Db2 applications connects to remote database server using TCP/IP **Y** Secure connection using SSL required for outbound DRDA **N** Secure connection is not required for outbound DRDA

SYSIBM.LULIST

Allows multiple LU names to be specified for a given LOCATION.

Column Name	Data Type	Description
LINKNAME	VARCHAR(24)	Value of LINKNAME column LOCATIONS with which this row is associated. Also value of LUNAME column in LUNAMES table. Values of other columns in LUNAMES row apply to LU identified by LUNAME column in this row of LULIST
LUNAME	VARCHAR(24)	VTAM logical unit name (LUNAME) of remote database system. LUNAME must not exist in LUNAME column of LUNAMES
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.LUMODES

Provides VTAM w/conversation limits for a specific combination of LUNAME and MODENAME.

Column Name	Data Type	Description
LUNAME	VARCHAR(24)	LU name of the server involved in the CNOS processing
MODENAME	VARCHAR(24)	Name of a logon mode description in the VTAM logon mode table
CONVLIMIT	SMALLINT	Maximum number of active conversations between local Db2 and other system for this mode. Used to override number in the DSESLIM parameter of the VTAMAPPL definition statement for this mode
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.LUNAMES

Contains a row for each remote SNA client or server that communicates with Db2.

Column Name	Data Type	Description
LUNAME	VARCHAR(24)	Name of LU for one or more accessible systems
SYSMODENAME	VARCHAR(24)	Mode used to establish inter-system conversations
SECURITY_IN	CHAR(1)	Defines security options when an SNA client connects to Db2: **V** Verify **A** Already verified
SECURITY_OUT	CHAR(1)	Defines security option used when local Db2 SQL applications connect to any remote server associated with this LUNAME: **A** Already verified **R** RACF PassTicket **P** Password
ENCRYPTPSWDS	CHAR(1)	Only applies to Db2 for z/OS partners. Provided to support connectivity to prior releases of Db2 unable to support RACF PassTickets **N** Passwords are not in internal RACF encrypted format(default) **Y** Outbound requests, encrypted password is extracted from RACF and sent to the server Inbound requests, password is treated as encrypted
MODESELECT	CHAR(1)	Use MODESELECT table: **N** Use default modes:IBMDB2LM(private protocol) and IBMRDB(DRDA)

Column Name	Data Type	Description
		Y Searches MODESELECT for appropriate mode name
USERNAMES	CHAR(1)	Controls inbound and outbound authorization ID translation, and "come from" checking. Inbound translation and "come from" checking are performed when an authorization ID is received from a remote client. Outbound translation is performed when an authorization ID is sent by Db2 to a remote server **I** An inbound ID is subject to translation and "come from checking. No translation is performed on outbound IDs **O** No translation or "come from "checking is performed on inbound IDs. An outbound ID is subject to translation **B** An inbound ID is subject to translation and "come from checking. An outbound ID is subject to translation **blank** No translation occurs
GENERIC	CHAR(1)	Real LU name or generic LU name to identify itself to partner LU **N** Real VTAMLU name of this Db2 subsystem **Y** VTAM generic LU name of this Db2 subsystem
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.MODESELECT

Associates a mode name with any conversation created to support an outgoing SQL request.

Column Name	Data Type	Description
AUTHID	VARCHAR(128)	Auth ID of SQL request. Blank (default) = MODENAME specified for row is to apply to all authorization IDs
PLANNAME	VARCHAR(24)	Plan name associated with SQL request. Blank (default) = MODENAME specified is to apply to all plan names
LUNAME	VARCHAR(24)	LU name associated with SQL request
MODENAME	VARCHAR(24)	Name of logon mode in VTAM logon mode table to be used in support of the outgoing SQL request. If blank, IBMDB2LM is used for Db2 private protocol and IBMRDB is used for DRDA
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.SYSAUDITPOLICIES

Contains one row for each audit policy.

Column Name	Data Type	Description
AUDITPOLICY NAME	VARCHAR(128)	Name of audit policy
OBJECTSCHEMA	VARCHAR(128)	Schema of audited object. Applies to categories, OBJMAINT and EXECUTE
OBJECTNAME	VARCHAR(128)	Name of object
OBJECTTYPE	CHAR(1)	Type of object for categories OBJMAINT and EXECUTE: **A** Alias **C** Clone table **P** Implicit table created for XML columns **T** Table **blank** All of the above object types
CREATEDTS	TIMESTAMP	Time when the row was inserted
ALTEREDTS	TIMESTAMP	Time when the row was last updated
CHECKING	CHAR(1)	Authorization and authentication failures are audited: **A** Audit all failures (Authorization and authentication) **Blank** Audit none

Column Name	Data Type	Description
VALIDATE	CHAR(1)	Auditing enabled for a trusted connection is established or used by a different user: **A** Audit all **Blank** Audit none
OBJMAINT	CHAR(1)	Auditing enabled for table identified by OBJECTSCHEMA, OBJECTNAME, and OBJECTTYPE columns is altered or dropped: **A** Audit when specified table is altered or dropped **Blank** Audit none
EXECUTE	CHAR(1)	Auditing enabled for table identified by OBJECTSCHEMA, OBJECTNAME, and OBJECTTYPE columns is accessed during first operation performed by each unit of work **A** Audit when specified table is accessed during first operation of any kind performed by each unit of work a utility or application process **C** Audit when specified table is accessed during first insert, update, or delete operation performed by each unit of work **Blank** Audit none
CONTEXT	CHAR(1)	Auditing enabled for start of a utility, change to object or phase, and end of utility: **A** Audit all utilities **Blank** Audit none
SECMAINT	CHAR(1)	Auditing enabled for when a grant or revoke is made or a trusted context is created or altered: **A** Audit all utilities **Blank** Audit none
SYSADMIN	VARCHAR(128)	Auditing enabled for when an operation is performed using an administrative authority to perform system admin tasks: **Blank** Audit none ***** Audit all the authorities **I** Installation SYSADM **L** SYSCTRL **O** SYSOPR **R** Installation SYSOPR **S** SYSADM Can be a concatenated string of all supported values
DBADMIN	VARCHAR(128)	Auditing enabled for when an operation is performed using an admin authority to perform database admin tasks: **Blank** Audit none * Audit all the authorities **B** System DBADM **C** DBCTRL **D** DBADM **E** SECADM **G** ACCESSCTRL **K** SQLADM **M** DBMAINT **P** PACKADM **T** DATAACCESS Can be a concatenated string of all supported values
DBNAME	VARCHAR(24)	Database name

Column Name	Data Type	Description
COLLID	VARCHAR(128)	Name of package collection
DB2START	CHAR(1)	Indicates if audit policies are to be started automatically during Db2 start up **Y** Will be started automatically **N** Will not be started automatically
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Delete time deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Unique timestamp per transaction or null value

SYSIBM.SYSAUTOALERTS

Contains one row for each recommendation from autonomic procedures.

Column Name	Data Type	Description
ALERT_ID	BIGINT	ID of alert
HISTORY_ENTRY_ID	BIGINT	ID of entry in ADMIN_UTLPROCEDURES_HIST procedure that produced this alert
ACTION	VARCHAR(32)	Type of action requested by this alert
TARGET_QUALIFIER	VARCHAR(128)	Qualifier of object (database name) to which alert applies
TARGET_OBJECT	VARCHAR(128)	Name of object (table space name) to which alert applies
TARGET_PARTITION	SMALLINT	Partition number of Db2 object to which alert applies. 0, if alert applies to all partitions or if object is not partitioned
OPTIONS	VARCHAR(4000)	Options specified when corresponding action is run: **USE PROFILE** Use options specified in profile **TABLE** Options only apply for this table **COLUMNS** Options only apply for these columns **SAMPLE** Sampling is allowed
CREATEDTS	TIMESTAMP	Timestamp when alert was issued
DURATION	INTEGER	Estimate of time, in seconds, to run corresponding action
STATUS	VARCHAR(32)	Status of actual planned task **OPEN** Alert is not yet resolved **INPROGRESS** Alert execution is in progress **COMPLETED** Alert execution is complete
STARTTS	TIMESTAMP	Timestamp for when alert execution started
ENDTS	TIMESTAMP	Timestamp for when alert execution ended
RETURN_CODE	INTEGER	Return code written directly by autonomic stored procedure that resolved alert
ERROR_MESSAGE	VARCHAR(1331)	Indicates why alert was not resolved successfully
OUTPUT	CLOB(2M)	Output written directly by the autonomic stored procedure that executes the planned task
ROWID	ROWID	ROWID value for CLOB column of this table

SYSIBM.SYSAUTOALERTS_OUT

An auxiliary table for the OUTPUT column of the SYSIBM.SYSAUTOALERTS table.

Column Name	Data Type	Description
OUTPUT	CLOB(2M)	Output of the autonomic stored procedure

SYSIBM.SYSAUTORUNS_HIST

Contains one row for each time an autonomic procedures has been run.

Column Name	Data Type	Description
HISTORY_ENTRY_ID	BIGINT	ID of the entry in history table

Column Name	Data Type	Description
PROC_NAME	VARCHAR(128)	Name of autonomic stored procedure that produced entry
STARTTS	TIMESTAMP	Timestamp when autonomic stored procedure started
ENDTS	TIMESTAMP	Timestamp when autonomic stored procedure ended
OUTPUT	CLOB(2M)	Output of autonomic stored procedure
ERROR_MESSAGE	VARCHAR(1331)	Indicates why autonomic stored procedure not successful
RETURN_CODE	INTEGER	Return code written by autonomic stored procedure
ROWID	ROWID	ROWID value for OUTPUT column of this table

SYSIBM.SYSAUTORUNS_HISTOU

An auxiliary table for the OUTPUT column of the SYSIBM.SYSAUTORUNS_HIST table.

Column Name	Data Type	Description
OUTPUT	CLOB(2M)	Output of the autonomic stored procedure

SYSIBM.SYSAUTOTIMEWINDOWS

Contains one row for each time period during which autonomic procedures can be run.

Column Name	Data Type	Description
WINDOW_ID	BIGINT	ID of time window described in this row
DB2_SSID	CHAR(4)	Db2 member name on which planned tasks have to be run
MONTH_WEEK	CHAR(1)	How value of DAY column is interpreted: **M** Value of DAY column is interpreted as a day of month **W** Value of DAY column is interpreted as day of week
MONTH	INTEGER	Month in which time window applies
DAY	INTEGER	Day of month or day of week for which the time window applies
FROM_TIME	TIME	Time of day at which time window begins
TO_TIME	TIME	Time of day at which time window ends
ACTION	VARCHAR(256)	Comma-separated list of actions allowed during this time window
MAX_TASKS	INTEGER	Number of concurrent actions allowed during time window

SYSIBM.SYSAUXRELS

Contains one row for each auxiliary table created for a LOB column.

Column Name	Data Type	Description
TBOWNER	VARCHAR(128)	Schema of base table
TBNAME	VARCHAR(128)	Name of base table
COLNAME	VARCHAR(128)	Name of LOB column in base table
PARTITION	SMALLINT	Partition number if base tablespace is partitioned. Else, 0
AUXTBOWNER	VARCHAR(128)	Schema of owner of the auxiliary table
AUXTBNAME	VARCHAR(128)	Name of auxiliary table
AUXRELOBID	INTEGER	Internal identifier of relationship between base and auxiliary table
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
RELCREATED	CHAR(1)	Release of Db2 is used to create object. Blank if pre-V9

SYSIBM.SYSCHECKDEP

Contains one row for each reference to a column in a table check constraint.

Column Name	Data Type	Description
TBOWNER	VARCHAR(128)	Schema of towner of table on which check constraint is defined
TBNAME	VARCHAR(128)	Name of table on which the check constraint is defined
CHECKNAME	VARCHAR(128)	Name of check constraint
COLNAME	VARCHAR(128)	Name of column that the table check constraint refers to
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.SYSCHECKS

Contains one row for each table check constraint.

Column Name	Data Type	Description
TBOWNER	VARCHAR(128)	Schema of owner of table on which constraint is defined
CREATOR	VARCHAR(128)	Authorization ID of the creator of the table check constraint
DBID	SMALLINT	Internal identifier of the database for table check constraint
OBID	SMALLINT	Internal identifier of the table check constraint
TIMESTAMP	TIMESTAMP	Time table check constraint was created
RBA	CHAR(10)	Log RBA when table check constraint was created
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
TBNAME	VARCHAR(128)	Name of table on which check constraint is defined
CHECKNAME	VARCHAR(128)	Table check constraint name
CHECKCONDITION	VARCHAR(7400)	Text of table check constraint
RELCREATED	CHAR(1)	Release of Db2 is used to create the object. Blank if pre-V9
ENVID	INTEGER	Internal environement identifier
PERIOD	CHAR(1)	Type of period associated with check constraint: **B** BUSINESS_TIME check constraint **S** SYSTEM_TIME check constraint **Blank** Not applicable

SYSIBM.SYSCHECKS2

Contains one row for each table check constraint.

Column Name	Data Type	Description
TBOWNER	VARCHAR(128)	Schema of owner of table on which constraint is defined
TBNAME	VARCHAR(128)	Name of the table on which the check constraint is defined
CHECKNAME	VARCHAR(128)	Table check constraint name
PATHSCHEMAS	VARCHAR(2048)	SQL path at time check constraint was created
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
RELCREATED	CHAR(1)	Release of Db2 is used to create the object. Blank if pre-V9

SYSIBM.SYSCOLAUTH

UPDATE or REFERENCES privileges held by users on individual columns of table or view.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Auth ID of user who granted privileges.Can be PUBLIC or PUBLIC*
GRANTEE	VARCHAR(128)	Auth ID of us/er who holds privilege or name of plan/package that uses privilege
GRANTEETYPE	CHAR(1)	Type of grantee: **Blank** Authorization ID **L** Role **P** Application plan or a package
CREATOR	VARCHAR(128)	Schema of owner of table or view on which update privilege is held
TNAME	VARCHAR(128)	Name of table or view
COLNAME	VARCHAR(128)	Name of column to which UPDATE privilege applies
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
COLLID	CHAR(128)	If GRANTEE is a package, its collection name. Else, blank
CONTOKEN	CHAR(8)	If GRANTEE is a package, consistency token of DBRM from which package was derived. Else, blank
PRIVILEGE	CHAR(1)	Privilege row describes: **R** REFERENCES privilege **Blank** UPDATE privilege
GRANTEDTS	TIMESTAMP	Time when GRANT was executed

Column Name	Data Type	Description
GRANTORTYPE	CHAR(1)	Type of grantor **L** Role **Blank** Authoriation ID that is not a role
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Delete time deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Unique timestamp per transaction or null value

SYSIBM.SYSCOLDIST

Rows for cardinality, frequency, and histogram statistics for a single column or a column group.

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	Date and time when RUNSTATS updated statistics
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
TBOWNER	VARCHAR(128)	Schema of table that contains column
TBNAME	VARCHAR(128)	Name of table that contains column
	VARCHAR(128)	Name of column
COLVALUE	VARCHAR(2000)	Data of a frequently occurring value
TYPE	CHAR(1)	Type of statistics gathered: **C** Cardinality **F** Frequent value **H** Histogram statistics **N** Nonpadded frequent value
CARDF	FLOAT	TYPE=C, number of distinct values for column group TYPE=H, number of distinct values for column group in a quantile indicated by QUANTILENO
COLGROUPCOLNO	VARCHAR(254)	Set of columns associated with statistics
NUMCOLUMNS	SMALLINT	Number of columns associated with the statistics
FREQUENCYF	FLOAT	Percentage of rows in table with value specified in COLVALUE when the number is multiplied by 100
QUANTILENO	SMALLINT	Ordinary sequence number of quantile in whole consecutive value range, from low to high. Not updatable
LOWVALUE	VARCHAR(2000)	TYPE=H, lower bound for quantile in QUANTILENO
HIGHVALUE	VARCHAR(2000)	TYPE=H, higher bound for quantile in QUANTILENO

SYSIBM.SYSCOLDISTSTATS

Rows per partition for cardinality, frequency, and histogram statistics.

Column Name	Data Type	Description
	SMALLINT	Not used
STATSTIME	TIMESTAMP	Date and time when RUNSTATS updated statistics
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
PARTITION	SMALLINT	Partition number for tablespace that contains table in which column is defined
TBOWNER	VARCHAR(128)	Schema of owner of table that contains column
TBNAME	VARCHAR(128)	Name of table that contains column
NAME	VARCHAR(128)	Name of column
COLVALUE	VARCHAR(2000)	Data of a frequently occurring value
TYPE	CHAR(1)	Type of statistics gathered: **C** Cardinality **F** Frequent value **H** Historgram statistics **N** Non-padded frequent value

Column Name	Data Type	Description
CARDF	FLOAT	TYPE=C, number of distinct values for column group TYPE=N or F, number of rows or keys in partition for which FREQUENCYF value applies TYPE=H, number of distinct values for column group in a quantile in QUANTILENO
COLGROUPCOLNO	VARCHAR(254)	Set of columns associated with statistics
NUMCOLUMNS	SMALLINT	Number of columns associated with the statistics
FREQUENCYF	FLOAT	Percentage of rows in table with value specified in COLVALUE when number is multiplied by 100
QUANTILENO	SMALLINT	Ordinary sequence number of a quantile in whole consecutive value range, from low to high
LOWVALUE	VARCHAR(2000)	TYPE=H, lower bound for quantile in QUANTILENO
HIGHVALUE	VARCHAR(2000)	TYPE=H higher bound for quantile in QUANTILENO

SYSIBM.SYSCOLDIST_HIST

Contains rows from SYSCOLDIST.

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	Date and time when RUNSTATS updated statistics
TBOWNER	VARCHAR(128)	Schema of table that contains column
TBNAME	VARCHAR(128)	Name of table that contains column
NAME	VARCHAR(128)	Name of column. If NUMCOLUMNS >1, first column name of set of columns associated with statistics
COLVALUE	VARCHAR(2000)	Contains data of a frequently occurring value
TYPE	CHAR(1)	Type of statistics gathered: **C** Cardinality **F** Frequent value **H** Histogram statistics **N** Nonpadded frequent value
CARDF	FLOAT(8)	TYPE=C, number of distinct values for column group TYPE=H, number of distinct values for column group in quantile in QUANTILENO. -1 if statistics not gathered
COLGROUPCOLNO	VARCHAR(254)	Set of columns associated with statistics
NUMCOLUMNS	SMALLINT	Number of columns associated with the statistics
FREQUENCYF	FLOAT(8)	Percentage of rows in table, value specified in COLVALUE when number is multiplied by 100
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
QUANTILENO	SMALLINT	Ordinary sequence number of a quantile in the whole consecutive value range, from low to high
LOWVALUE	VARCHAR(2000)	TYPE=H, lower bound for quantile in QUANTILENO
HIGHVALUE	VARCHAR(2000)	TYPE=H, higher bound for quantile in QUANTILENO

SYSIBM.SYSCOLSTATS

Contains partition statistics for selected columns.

Column Name	Data Type	Description
HIGHKEY	VARCHAR(2000)	Highest value of column within partition
HIGH2KEY	VARCHAR(2000)	Second highest value of column within partition
LOWKEY	VARCHAR(2000)	Lowest value of column within partition
LOW2KEY	VARCHAR(2000)	Second lowest value of the column within the partition
COLCARD	INTEGER	Number of distinct column values in the partition

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	Date and time when RUNSTATS updated statistics
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
PARTITION	SMALLINT	Partition number for tablespace that contains table in which column is defined
TBOWNER	VARCHAR(128)	Schema or qualifier of the table that contains the column
TBNAME	VARCHAR(128)	Name of the table that contains the column
NAME	VARCHAR(128)	Name of the column
COLCARDDATA	VARCHAR(1000)	Internal use only
STATS_FORMAT	CHAR(1)	Type of statistics gathered: Blank Statistics have not been collected or varchar column statistical values are padded N Varchar column statistical values are not padded

SYSIBM.SYSCOLUMNS

Contains one row for every column in a table or view.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of the column
TBNAME	VARCHAR(128)	Name of the table or view that contains the column
TBCREATOR	VARCHAR(128)	Schema of the table or view that contains the column
COLNO	SMALLINT	Numeric place of the column in the table or view
COLTYPE	CHAR(8)	Type of the column specified in the definition of the column
LENGTH	SMALLINT	Lenth of column
SCALE	SMALLINT	If column type is DECIMAL, value represents scale
NULLS	CHAR(1)	Column can contain null values: **N** No **Y** Yes
HIGH2KEY	VARCHAR(2000)	Second highest value of column
LOW2KEY	VARCHAR(2000)	Second lowest value of the column
UPDATES	CHAR(1)	Whether the column can be updated: **N** No **Y** Yes The value is N if the column is: * Derived from a function or expression * Column defined AS IDENTITY and GENERATED ALWAYS Value can be Y for columns of a read-only view
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
REMARKS	VARCHAR(762)	A character string provided by user with COMMENT ON
DEFAULT	CHAR(1)	For TYPE column associated SYSTABLES row indicates a table(T) or a created temporary table (G)
KEYSEQ	SMALLINT	Numeric position within primary key. Else, 0
FOREIGNKEY	CHAR(1)	Applies to character or CLOB columns, indicates subtype of data: **B** BIT data **M** MIXED data **S** SBCS data **blank**
FLDPROC	CHAR(1)	Column has a field procedure: **N** No **Y** Yes **Blank** For a view defined prior to V7
LABEL	VARCHAR(90)	Column label provided by user with a LABEL ON; Else, blank
STATSTIME	TIMESTAMP	Date and time when RUNSTATS updated statistics

Column Name	Data Type	Description
DEFAULTVALUE	VARCHAR(1536)	For column being described is for a table (TYPE column of SYSTABLES row is T for table or G for created temporary table)
COLCARDF	FLOAT	Estimated number of distinct values in column
COLSTATUS	CHAR(1)	Status of definition of a column: **I** Incomplete – LOB table space, auxiliary table, or Index not created **Blank** Complete
LENGTH2	INTEGER	Maximum length of the data retrieved from the column **0** Not a LOB or ROWID column **40** For a ROWID column, the length of the returned value **1 to 2 147 483 647** bytes For a LOB column, the maximum length
DATATYPEID	INTEGER	Internal ID of built-in type or distinct type
SOURCETYPEID	INTEGER	Built-in data type = 0 Distinct type = internal ID of built-in data type which it is based
TYPESCHEMA	VARCHAR(128)	If COLTYPE is DISTINCT, schema of distinct type. Else, SYSIBM
TYPENAME	VARCHAR(128)	If COLTYPE is DISTINCT, name of the distinct type. Else, value is same as value of COLTYPE column
CREATEDTS	TIMESTAMP	Timestamp when column was created
STATS_FORMAT	CHAR(1)	Type of statistics gathered: **Blank** Statistics have not been collected or varchar column statistical columns are padded **N** Varchar column statistical values are padded An updateable column
PARTKEY_ COLSEQ	SMALLINT	Position of column within partitioning key. 0 if it not part of partitioning key. Applicable only for table-controlled partitioning
PARTKEY_ ORDERING	CHAR(1)	Order of column in partitioning key **A** Ascending **D** Descending **Blank** Column is not used as part of a partitioning key
ALTERDTS	TIMESTAMP	Timestamp when the alter occurred
CCSID	INTEGER	CCSID of column
HIDDEN	INTEGER	Column is hidden **P** Partically hidden **N** Not hidden
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object
CONTROL_ID	INTEGER	Internal identifier of column access control mask
XML_ TYPEMOD_ID	INTEGER	ID of the XML type modifier
PERIOD	CHAR(1)	Whether column is start or end of the period for a SYSTEM_TIME or BUSINESS_TIME period: **B** Start of period BUSINESS_TIME **C** End of period BUSINESS_TIME with exclusive period **I** End of period BUSINESS_TIME with inclusive period **S** Start of period SYSTEM_TIME **T** End of period SYSTEM_TIME **blank** Not used as start or the end of a period
GENERATED_ ATTR	CHAR(1)	Columns generated attribute: **A** Defined as GENERATED_ALWAYS **D** Defined as GENERATED BY DEFAULT

Column Name	Data Type	Description
		blank Not applicable or value of DEFAULT column is A, D, E, F, I, or J or defined from a prior release of Db2
HASHKEY_ COLSEQ	SMALLINT	Columns numeric position within tables hash key
ENCODING_ SCHEME	CHAR(1)	Encoding scheme of column **A** ASCII **E** EBCDIC **U** Unicode

SYSIBM.SYSCOLUMNS_HIST

Contains rows from SYSCOLUMNS.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of column
TBNAME	VARCHAR(128)	Name of table or view that contains the column
TBCREATOR	VARCHAR(128)	Schema or qualifier of the table or view that contains the column
COLNO	SMALLINT	Numeric place of the column in the table or view
COLTYPE	CHAR(8)	Type of column specified in definition of column
LENGTH	SMALLINT	Length of column
LENGTH2	INTEGER	Maximum length of the data retrieved from the column **0** Not a LOB or ROWID column **40** For a ROWID column, length of the returned value **2 to 2 147 483 647 bytes** For a LOB column, maximum length
NULLS	CHAR(1)	Column can contain null values: **N=**No, **Y=**Yes
HIGH2KEY	VARCHAR(2000)	Second highest value of the column
LOW2KEY	VARCHAR(2000)	Second lowest value of the column
STATSTIME	TIMESTAMP	Date and time when RUNSTATS updated statistics
COLCARDF	FLOAT	Estimated number of distinct values in column
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
STATS_FORMAT	CHAR(1)	Type of statistics gathered

SYSIBM.SYSCONSTDEP

Records dependencies on check constraints or user-defined defaults for a column.

Column Name	Data Type	Description
BNAME	VARCHAR(128)	Name of the object on which the dependency exists
BSCHEMA	VARCHAR(128)	Schema of the object on which the dependency exists
BTYPE	CHAR(1)	Type of object with dependency: **F**=Function instance
DTBNAME	VARCHAR(128)	Name of the table to which the dependency applies
DTBCREATOR	CHAR(8)	Schema of the owner of the table to which dependency applies
DCONSTNAME	VARCHAR(128)	DTYPE = C, unqualified name of check constraint DTYPE = D, a column name
DTYPE	CHAR(1)	Type of object: **C** Check constraint **D** User-defined default constant
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
DTBOWNER	VARCHAR(128)	Auth ID of owner of table or a zero if created prior to V9
OWNERTYPE	CHAR(1)	Type of owner: **blank** Authorization ID **R** Role

SYSIBM.SYSCONTEXT

Contains one row for each trusted context.

Column name	Data Type	Description
NAME	VARCHAR(128)	Name of the trusted context
CONTEXTID	INTEGER	Internal context ID
DEFINER	VARCHAR(128)	Authorization ID or role that defined the trusted context
DEFINERTYPE	CHAR(1)	Type of the definer: **L** Role **blank** Authorization ID
SYSTEMAUTHID	VARCHAR(128)	Primary authorization ID used to establish connection
DEFAULTROLE	VARCHAR(128)	Name of the trusted context default role
OBJECTOWNERTYPE	CHAR(1)	ROLE AS OBJECT OWNER on the trusted context **L** ROLE AS OBJECT OWNER is specified **blank** ROLE AS OBJECT OWNER not specified
CREATEDTS	TIMESTAMP	Time when the trusted context is created
ALTEREDTS	TIMESTAMP	Time when the trusted context is last altered
ENABLED	CHAR(1)	Status of the trusted context: **Y** Enabled **N** Disabled
ALLOWPUBLIC	CHAR(1)	Connection is allowed to be reused for PUBLIC: **Y** Connection reuse is allowed **N** Connection reuse is not allowed
AUTHENTICATEPUBLIC	CHAR(1)	Authentication required for PUBLIC
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
REMARKS	VARCHAR(762)	A character string that is provided COMMENT statement
DEFAULTSECURITYLABEL	VARCHAR(24)	Name of the context default RACF security label
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Delete time deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Unique timestamp per transaction or null value

SYSIBM.SYSCONTEXTAUTHIDS

Contains one row for each authorization ID with which the trusted context can be used.

Column name	Data type	Description
CONTEXTID	INTEGER	Internal trusted context ID
AUTHID	VARCHAR(128)	Primary auth ID that can reuse a connection
AUTHENTICATE	CHAR(1)	Authentication is required for auth ID in AUTHID column: **Y** Authentication token is required for auth ID **N** Authentication is not required
ROLE	VARCHAR(128)	Role for auth ID in AUTHID
CREATEDTS	TIMESTAMP	Time when auth ID is added to the trusted context
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
SECURITYLABEL	VARCHAR(24)	RACF security label for AUTHID
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Delete time deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Unique timestamp per transaction or null value

SYSIBM.SYSCONTROLS

Contains one row for each row permission and column mask.

Column name	Data type	Description
SCHEMA	VARCHAR(128)	Schema of row permission or column mask
NAME	VARCHAR(128)	Name of row permission or column mask
OWNER	VARCHAR(128)	Owner of row permission or column mask
OWNERTYPE	CHAR(1)	Type of the owner: **blank** An authorization ID **L** Role
TBSCHEMA	VARCHAR(128)	Schema of table with row permission or column mask
TBNAME	VARCHAR(128)	Name of table with row permission or column mask
TBCORRELATION	VARCHAR(128)	Correlation name of table for which row permission or column mask is defined. Else, blank
COLNAME	VARCHAR(128)	Column name for which the column mask is defined
COLNO	SMALLINT	Column number for which column mask is defined
CONTROL_ID	INTEGER	Internal access control ID
CONTROL_TYPE	CHAR(1)	Type of access control object: **R** Row permission **M** Column mask
ENFORCED	CHAR(1)	Type of access enforced by row permission **A** All access (Mask always)
IMPLICIT	CHAR(1)	Row permission was implicitly created: **N** Row permission explicitly created or is a mask **Y** Row permission was implicitly created
ENABLE	CHAR(1)	Row permission or column mask is enabled: **N** Not enabled **Y** Enabled
STATUS	CHAR(1)	Status of row permission or column mask definition: **blank** Definition is complete **R** Error occurred when an attempt was made to regenerate row permission or column mask
CREATEDTS	TIMESTAMP	Timestamp row permission or column mask was created
RELCREATED	CHAR(1)	Release of Db2 when row permission or column mask was created
ALTEREDTS	TIMESTAMP	Timestamp when row permission or column mask was last changed
REMARKS	VARCHAR(762)	Character string provided by COMMENT ON statement
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
ENVID	INTEGER	Internal identifier of the environment
ROWID	ROWID	Row identifier to support LOB columns in the table
RULETEXT	CLOB(2MB)	Source text of search condition or expression portion of CREATE PERMISSION or CREATE MASK
DESCRIPTOR	BLOB(2MB)	Internal description of row permission or column mask
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Delete time deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Unique timestamp per transaction or null value
REGENERATETS	TIMESTAMP(12)	Time when object was regenerated

SYSIBM.SYSCOPY

Contains information needed for recovery.

Column Name	Data Type	Description
DBNAME	CHAR(8)	Name of the database
TSNAME	CHAR(8)	Name of the target tablespace or index space
DSNUM	INTEGER	Data set number within tablespace

Column Name	Data Type	Description
ICTYPE	CHAR(1)	Type of operation: **A** ALTER **B** REBUILD INDEX **C** CREATE **D** CHECK DATA LOG(NO) **E** RECOVER (to current point) **F** COPY FULL YES **I** COPY FULL NO **J** REORG TABLESPACE or LOAD REPLACE **L** SQL (type of operation) **M** MODIFY RECOVERY utility **P** RECOVER TOCOPY or RECOVER TORBA **Q** QUIESCE **R** LOAD REPLACE LOG(YES) **S** LOAD REPLACE LOG(NO) **V** REPAIR VERSIONS utility **W** REORG LOG(NO) **X** REORG LOG(YES) **Y** LOAD LOG(NO) **Z** LOAD LOG(YES) **T** TERM UTILITY command (terminated utility)
START_RBA	CHAR(10)	80-bit positive integer for RBA/LRSN of a point in recovery log
FILESEQNO	INTEGER	Tape file sequence number of the copy
DEVTYPE	CHAR(8)	Device type the copy is on
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
DSNAME	CHAR(44)	For ICTYPE='P' (RECOVER TOCOPY only), 'I', or 'F', contains data set name
SHRLEVEL	CHAR(1)	SHRLEVEL parameter on COPY (for ICTYPE F or I only): **C** Change **R** Reference **blank** Does not describe an image copy or was from V1.1
DSVOLSER	VARCHAR(1784)	Volume serial numbers of the data set
TIMESTAMP	TIMESTAMP	Date and time row was inserted
ICBACKUP	CHAR(2)	Type of image copy contained in data set: **Blank** LOCALSITE primary copy **FC** FlashCopy copy **LB** LOCALSITE backup copy **RP** RECOVERYSITE primary copy **RB** RECOVERYSITE backup copy
ICUNIT	CHAR(1)	Media that image copy data set is stored on: **D** DASD **T** Tape **blank**
STYPE	CHAR(1)	**ICTYPE=A:** **A** Partition was added to a table **B** MEMBER CLUSTER was changed **C** Column was added to a table and an index in different commit scopes, or a column was dropped from a table **D** DSSIZE attribute of the table space was altered **E** Data set numbers of a base table and its associated clone table are exchanged **F** Page size attribute of table space or index was altered **G** Index was regenerated

Column Name	Data Type	Description
		I Inline attribute of LOB column was altered by REORG. **L** Logging attribute was altered to LOGGED **M** MAXPARTITIONS attribute was altered **N** An index was altered to not padded **O** Logging attribute was altered to NOT LOGGED **P** Index was altered to padded **R** Table was altered to rotate partitions **S** SEGSIZE attribute of the table space was altered **V** Column was altered for a numeric data type change and column is in an index **X** REORG dropped one or more empty paritions from the related table space **Z** Column in key of an index that was versioned prior to Db2 V8 was altered **ICTYPE=C:** **L** Logging attribute was altered to LOGGED **O** Logging attribute was altered to NOT LOGGED **ICTYPE=E:** **B** RECOVER utility with BACKOUT **blank** RECOVER utility without BACKOUT **ICTYPE=F:** **C** DFSMS concurrent copy (″I″ instance of table space) **J** DFSMS concurrent copy (″J″ instance of tablespace) **N** A FlashCopy copy is not consistent **Q** Sequential copy is consistent **S** LOAD REPLACE(NO) **T** FlashCopy is consistent **U** Sequential copy is not consistent **V** ALTER INDEX NOT PADDED **W** REORG LOG(NO) **X** REORG LOG(YES) **blank** Db2 image copy **ICTYPE=L:** **M** Mass DELETE, TRUNCATE TABLE, or DROP TABLE, LOWDSNUM contains table OBID of affected table **B** Recover to a point in time with BACKOUT YES option ran **C** Recover to a point in time without logonly with consistency **L** Recover to a point in time logonly without consistency **M** Recover to a point in time using logonly with consistency **blank** Recover to a point in time without logonly without consistency **ICTYPE=R or S:** **A** Resetting REORG pending status **T** First materializing default value for a row change timestamp column **F** COPY FULL YES **I** COPY FULL NO **ICTYPE=W or X:** **A** Resetting REORG pending status or REBALANCE **H** Hash organization attributes of the table were altered **T** First materializing the default value for a row change timestamp column For other values of ICTYPE, the value is blank

Column Name	Data Type	Description
PIT_RBA	CHAR(10)	ICTYPE=P, contains LRSN for point in Db2 log
GROUP_ NAME	CHAR(8)	Member name of Db2 subsystem that performed the operation
OTYPE	CHAR(1)	Type of object that the recovery information is for: **I** Index space **T** Table space
LOWDSNUM	INTEGER	Partition number of lowest partition in range for SYSCOPY records created for REORG and LOAD REPLACE for resetting a REORG pending status
HIGHDSNUM	INTEGER	Partition number of highest partition in range
COPYPAGESF	FLOAT(8)	Number of pages written to copy data set
NPAGESF	FLOAT(8)	Number of pages in table space or index at time of COPY
CPAGESF	FLOAT(8)	Total number of changed pages
JOBNAME	CHAR(8)	Job name of the utility
AUTHID	CHAR(8)	Authorization ID of the utility
OLDEST_VERSION	SMALLINT	When ICTYPE= B, F, I, S, W, or X, version number of oldest format of data for an object. Else, value -1
LOGICAL_PART	INTEGER	Logical partition number
LOGGED	CHAR(1)	Logging attribute of table space at time SYSCOPY record is written: **Y** LOGGED **N** NOT LOGGED **Blank** Row was inserted prior to V9
TTYPE	CHAR(8)	**ICTYPE=A** and **STYPE=B:** Value of MEMBER CLUSTER used **Y** Previous member cluster attribute is used **N** Previous member cluster attribute is not being used **ICTYPE=A** and **STYPE=C**: Column added/dropped from table: **blank** Column was added to a table **D** Column was dropped from a table **CMP=N** Index compression activated **CMP=Y** Index compression deactivated **ICTYPE=A** and **STYPE=I:** **D** REORG decremented the inline length of LOB column **I** REORG incremented the inline length of LOB column **ICTYPE=A** and **STYPE=M:** **I** Table space was converted from a single-table simple table space to a partition-by-growth UTS **n** Previous value of MAXPARTITIONS **S** Table space was converted from single-table segmented table space to a partition-by-growth UTS **ICTYPE=A** and **STYPE=P:** **ABSOLUTE** – table space converted from absolute to relative page numbering **ICTYPE=A** and **STYPE=S:** **n** Previous value of SEGSIZE attribute for table space **P** Table space was converted from a partitioned table space to a range-partitioned UTS **ICTYPE=E:** **blank** Full recovery reset the object **N** Full recovery did not reset the object **ICTYPE=F** and **STYPE=N, Q, T, or U:** **A** LOAD RESUME LOG NO **B** REBUILD

Column Name	Data Type	Description
		C COPY **D** LOAD RESUME LOG YES **E** LOAD SHRLEVEL CHANGE **L** LOAD **P** REPAIR **R** LOAD REPLACE LOG YES **S** LOAD REPLACE LOG NO **T** COPYTOCOPY **W** REORG TABLESPACE LOG NO **X** REORG TABLESPACE LOG YES **ICTYPE=P, R, S, W, X:** **B** RBA or LRSN format changed to base 6-byte format **BRF** Basic row format **BRF I** Basic row format, and FORMAT INTERNAL used **E** RBA or LRSN format changed to extended 10-byte **F** REORG utility was run with **RRF** Reordered row format **RRF I** Reordered row format and FORMAT INTERNAL used **S** REORG utility was run with FASTSWITCH NO option **ICTYPE=M and STYPE=R:** **blank** MODIFY RECOVERY deleted rows from SYSLGRNX **N** MODIFY RECOVERY did not delete rows from SYSLGRNX **ICTYPE=T, TTYPE of B:** **ICTYPE=W or X and SYTYPE=H:** **ICTYPE=Y or Z:** **Blank** FORMAT INTERNAL not specified during LOAD **I** FORMAT INTERNAL was specified during LOAD **ICTYPE=A-A, A-R, B, C, P, R, S, W, or X:** **B** Page format converted to basic page format with 6 byte RBA or LRSN values **E** Page format converted to extended page format with 10-byte RBA or LRSN values **ICTYPE=A** and **STYPE=A or R:** **B** Page format converted to basic page format with 6 byte RBA or LRSN values **E** Page format converted to extended page format with 10-byte RBA or LRSN values
INSTANCE	SMALLINT	STYPE = E and ICTYPE = A, is the data set instance number of a base object after EXCHANGE statement completes
RELCREATED	CHAR(1)	Release used to create the object. Blank if created prior to V9
MODECREATED	CHAR(2)	Latest mode to which Db2 subsystem had been migrated when the SYSCOPY record was written: **C** Conversion mode **E** Enabling-new-function mode **N** New-function mode
EVENTID	BIGINT	Event identifier of utility that inserted row (when utility history collection is active)

SYSIBM.SYSCTXTTRUSTATTRS

Contains one row for each list of attributes for a given trusted context.

Column Name	Data Type	Description
CONTEXTID	INTEGER	Internal trusted context ID

NAME	VARCHAR(128)	Name of trust attribute
VALUE	VARCHAR(254)	Value of the trust attribute
CREATEDTS	TIMESTAMP	Time when the attribute is created
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Delete time deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Unique timestamp per transaction or null value

SYSIBM.SYSDATABASE

Contains one row for each database, except for database DSNDB01.

Column Name	Data Type	Description
NAME	VARCHAR(24)	Database name
CREATOR	VARCHAR(128)	Authorization ID of the owner of the database
STGROUP	VARCHAR(128)	Name of default storage group of database
BPOOL	CHAR(8)	Name of default buffer pool of tablespace
DBID	SMALLINT	Internal identifier of database
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
CREATEDBY	VARCHAR(128)	Primary authorization ID of user who created database
TYPE	CHAR(1)	Type of database: **blank** Not a work file database **W** A work file database
GROUP_MEMBER	VARCHAR(24)	Member name of Db2 subsystem using the work file database
CREATEDTS	TIMESTAMP	Time when CREATE statement was executed
ALTEREDTS	TIMESTAMP	Time when most recent ALTER DATABASE was applied
ENCODING_ SCHEME	CHAR(1)	Default encoding scheme for database: **E** EBCDIC **A** ASCII **U** UNICODE **blank** For DSNDB04 or a work file database
SBCS_CCSID	INTEGER	Default SBCS CCSID for the database
DBCS_CCSID	INTEGER	Default DBCS CCSID for the database
MIXED_CCSID	INTEGER	Default mixed CCSID for the database
INDEXBP	CHAR(8)	Name of default buffer pool for indexes
IMPLICIT	CHAR(1)	Database was implicitly created: **Y** Implicitly created **N** Explicitly created
CREATORTYPE	CHAR(1)	Type of creator: **blank** Authorization ID **L** Role
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object

SYSIBM.SYSDATATYPES

Contains one row for each user-defined type defined to the system.

Column Name	Data Type	Description
SCHEMA	VARCHAR(128)	Schema of the data type
OWNER	VARCHAR(128)	Owner of the data type
NAME	VARCHAR(128)	Name of the data type
CREATEDBY	VARCHAR(128)	Primary authid under which the data type was created
SOURCESCHEMA	VARCHAR(128)	Schema of the source data type
SOURCETYPE	VARCHAR(128)	Name of the source type
METATYPE	CHAR(1)	Class of data type: **A** User-defined ordinary array type

Column Name	Data Type	Description
		L User-defined associative array type **T** Distinct type
DATATYPEID	INTEGER	Internal identifier of the data type
SOURCETYPEID	INTEGER	Internal ID of the built-in data type upon which the distinct type or array elements are based
LENGTH	INTEGER	Maximum length or precision for a data type based on DECIMAL data type. Can be distinct type or an array type
SCALE	SMALLINT	Scale of decimal data type
SUBTYPE	CHAR(1)	Subtype of data type, if source type is one of the character types. Data type can be distinct type or array type **B** FOR BIT DATA **S** FOR SBCS DATA **M** FOR MIXED DATA **Blank** Source type is not a character type
CREATEDTS	TIMESTAMP	Time when the data type was created
ENCODING_SCHEME	CHAR(1)	Encoding scheme of the distinct type: **A** ASCII **E** EBCDIC **U** UNICODE
IBMREQD	CHAR(1)	Y indicates that the row came from the MRM tape
REMARKS	VARCHAR(762)	A character string provided by ser with COMMENT ON
OWNERTYPE	CHAR(1)	Type of owner: **blank** Authorization ID **L** Role
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object
INLINE_LENGTH	INTEGER	Inline length attribute of type if based on LOB source type: **-1** Type does not specify INLINE LENGTH **greater than or equal to 0** Inline length attribute (in byte) of the type if it is based on a LOB source type
ARRAYLENGTH	BIGINT	Maximum cardinality, if data type is an array type
ARRAYINDEXTYPEID	INTEGER	Data type of index, if data type is an associative array type
ARRAYINDEXTYPELEN	BIGINT	Max length of array index, if data types is an associative
ARRAYINDEXSUBTYPE	CHAR(1)	Subtype of the array index: **B** FOR BIT DATA **S** FOR SBCS DATA **M** FOR MIXED DATA **blank** Array index is not a character type

SYSIBM.SYSDBAUTH

Records the privileges that are held by users over databases.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Auth ID or role of user who granted privileges
GRANTEE	VARCHAR(128)	Application ID of user who holds privilege
NAME	VARCHAR(24)	Database name
GRANTEETYPE	CHAR(1)	Type of owner: **blank** Authorization ID **L** Role
AUTHHOWGOT	CHAR(1)	Authorization level of user from whom privileges were received **blank** Not applicable **C** DBCTL **D** DBADM

Column Name	Data Type	Description
		E SECADM **G** ACCESSCTRL **L** SYSCTRL **M** DBMAINT **S** SYSADM
CREATETABAUTH	CHAR(1)	GRANTEE can create tables within the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
CREATETSAUTH	CHAR(1)	GRANTEE can create tablespaces within database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
DBADMAUTH	CHAR(1)	GRANTEE has DBADM authority over database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
DBCTRLAUTH	CHAR(1)	GRANTEE has DBCTRL authority over database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
DBMAINTAUTH	CHAR(1)	GRANTEE has DBMAINT authority over database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
DISPLAYDBAUTH	CHAR(1)	GRANTEE can issue the DISPLAY command for the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
DROPAUTH	CHAR(1)	GRANTEE can issue ALTER and DROP DATABASE statement: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
IMAGCOPYAUTH	CHAR(1	GRANTEE can use the COPY, MERGECOPY, MODIFY, and QUIESCE utilities on the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
LOADAUTH	CHAR(1)	GRANTEE can use LOAD utility to load tables in the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
REORGAUTH	CHAR(1)	GRANTEE can use the REORG utility to reorganize table spaces and indexes in the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
RECOVERDBAUTH	CHAR(1)	GRANTEE can use the RECOVER and REPORT utilities on table spaces in the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option

Column Name	Data Type	Description
REPAIRAUTH	CHAR(1)	GRANTEE can use the DIAGNOSE and REPAIR utilities on table spaces and indexes in the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
STARTDBAUTH	CHAR(1)	GRANTEE can use START command against the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
STATSAUTH	CHAR(1)	GRANTEE can use CHECK and RUNSTATS utilities against the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
STOPAUTH	CHAR(1)	GRANTEE can issue the STOP command against the database: **blank** Privilege is not held **G** Privilege held with the GRANT option **Y** Privilege is held without the GRANT option
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
GRANTEDTS	TIMESTAMP	Time when the GRANT statement was executed
GRANTORTYPE	CHAR(1)	Indicates the type of owner: **blank** Authorization ID **L** Role
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Delete time deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Unique timestamp per transaction or null value

SYSIBM.SYSDBRM

Contains one row for each DBRM of each application plan.

Column Name	Data Type	Description
NAME	VARCHAR(24)	Name of the DBRM
TIMESTAMP	CHAR(8)	Consistency token
PDSNAME	CHAR(132)	Name of the partitioned data set of which the DBRM is a member
PLNAME	VARCHAR(24)	Name of the application plan of which this DBRM is a part
PLCREATOR	VARCHAR(128)	Authorization ID of the owner of the application plan
QUOTE	CHAR(1)	SQL string delimiter for the SQL statements in the DBRM: **N** Apostrophe **Y** Quotation mark
COMMA	CHAR(1)	Decimal point representation for SQL statements in the DBRM: **N** Period **Y** Comma
HOSTLANG	CHAR(1)	The host language used **B** Assembler language **C** OS/VS COBOL **D** C **F** Fortran **P** PL/I **2** VS COBOL II or IBM COBOL R1 **3** IBM COBOL (Release 2 or subsequent releases) **4** C++
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

Column Name	Data Type	Description
CHARSET	CHAR(1)	System CCSID for SBCS data was 290 (Katakana) when program was precompiled: **A** No **K** Yes
MIXED	CHAR(1)	Mixed data was in effect when program was precompiled **N** No **Y** Yes
DEC31	CHAR(1)	DEC31 was in effect when program was precompiled **Blank** No **Y** Yes
VERSION	VARCHAR(122)	Version identifier for DBRM
PRECOMPTS	TIMESTAMP	Time when DBRM was precompiled
PLCREATOR TYPE	CHAR(1)	Indicates type of creator: **blank** Authorization ID **L** Role
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object

SYSIBM.SYSDEPENDENCIES

Records the dependencies between objects.

Column Name	Data Type	Description
BNAME	VARCHAR(128)	Name of the object on which another object is dependent
BSCHEMA	VARCHAR(128)	Schema/qualifier of object on which another object is dependent
BCOLNAME	VARCHAR(128)	Column name of object on which another object is dependent
BCOLNO	SMALLINT	Column number of object on which another object is dependent
BTYPE	CHAR(1)	Type of object identified by BNAME, BSCHEMA, and BCOLNAME: **C** Column **E** INSTEAD OF trigger **F** Function **G** Global temporary table **I** Index **M** Materialized query table **O** Procedure **P** Partitioned table space **Q** Sequence **R** Table space **S** Synonym **T** Table **U** Distinct type **V** View **W** SYSTEM_TIME period **Z** BUSINESS_TIME period **0** zero
BOWNER	VARCHAR(128)	Auth ID of owner of object on which another object is dependent
BOWNERTYPE	CHAR(1)	Type of creator of object on which another object is dependent: **L** Role **blank** Authorization ID that is not a role
DNAME	VARCHAR(128)	Name of the object that has dependencies on another object
DSCHEMA	VARCHAR(128)	Schema or qualifier of object that has dependencies on another
DVERSION	VARCHAR(122)	Version identifier of object identified by DSCHEMA and DNAME
DCOLNAME	VARCHAR(128)	Column name of object that has dependencies on another object
DCOLNO	SMALLINT	Column number of object that has dependencies on another

DTYPE	CHAR(1)	Type of object identified by DNAME, DSCHEMA, DCOLNAME: **B** Trigger package for basic trigger **C** Generated column **F** Function **I** Index **M** Materialized query table **O** Procedure **V** View **X** Row permission **Y** Column mask **1** Trigger package for advanced trigger
DOWNER	VARCHAR(128)	Auth ID of owner of object with dependencies on another object
DOWNERTYPE	CHAR(1)	Type of creator of object with dependencies on another object: **L** Role **blank** Authorization ID if not a role
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
BAUTH	SMALLINT	Privilege held on object on which another object is dependent

SYSIBM.SYSDUMMY1

Contains one row in an EBCDIC table space.

Column Name	Data Type	Description
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.SYSDUMMYA

Contains one row in ASCII table space.

Column Name	Data Type	Description
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.SYSDUMMYE

Contains one row in an EBCDIC table space.

Column Name	Data Type	Description
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.SYSDUMMYU

Contains one row in a UNICODE table space.

Column Name	Data Type	Description
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.SYSDYNQRY

Contains information for stabilization of access path for dynamic SQL statement.

Column Name	Data Type	Description
SDQ_STMT_ID	BIGINT	Identifier of stabilized dynamic query
STBLGRP	VARCHAR(128)	Name of stabilization group
COPYID	SMALLINT	Copy type of stabilized runtime structures for query **0** Current copy **4** Invalid copy
CURSQLID	VARCHAR(128)	Current SQLID for stabilized dynamic query
CURSCHEMA	VARCHAR(128)	Current schema for stabilized dynamic query
CURAPPLCOMPAT	VARCHAR(10)	Current application compatibility for stabilized dynamic query
QUERY_HASH	CHAR(16)	Hash key generated for stabilized dynamic query
QUERY_HASH_ VERSION	INTEGER	Version of the query hash

Column Name	Data Type	Description
VALID	CHAR(1)	Whether stabilized dynamic query is valid **A** – ALTER changed table or base table of view **H** - ALTER of object created prior to Db2 V5 **N** – Stabilized access path is not valid **Y** – Stabilized access path for dynamic query is valid
LASTUSED	DATE	Date query that uses stabilized runtime structures was last run
RELBOUND	CHAR(1)	Db2 release when query was stabilized
GROUP_MEMBER	VARCHAR(24)	Data sharing member name that updates row
STBLTIME	TIMESTAMP	Timestamp when statement was stabilized
ROWID	ROWID	Internal use
STMTTEXT	CLOB(2M)	Text of SQL statement and any attribute string
FUNCTION_LVL	VARCHAR(10)	Function level of query when row was inserted

SYSIBM.SYSDYNQRYDEP

Contains information for dependencies for dynamic query packages.

Column Name	Data Type	Description
SDQ_STMT_ID	BIGINT	Identifier of stabilized dynamic query
COPYID	SMALLINT	Copy type of stabilized runtime structures for query **0** Current copy **1** Previous copy **2** Original copy
BQUALIFIER	VARCHAR(128)	Value depends on type of obect - BTYPE **R** Database **B** or **C** Table **F, O** or **Q** Schema name Blank BNAME is role
BNAME	VARCHAR(128)	Name of object query depends on
BTYPE	CHAR(1)	Type of object **B** BUSINESS_TIME **C** SYSTEM_TIME **E** INSTEAD OF Trigger **F** UDF or cast function **G** Global temporary table **I** Index **M** Materialized query table **O** Stored procedure **P** Partitioned tablespace with LARGE or DSSIZE **Q** Sequence pbject **R** Table space **S** Synonym **T** Table **U** Distinct type **V** View **W** SYSTEM_TIME period **Z** BUSINESS_TIME period **0** Alias
CLASS	CHAR(1)	**A** Authorization dependency **D** DDL dependency
BAUTH	SMALLINT	Privilege held on object if CLASS = A **50** SELECTAUTH **51** INSERTAUTH **52** DELETEAUTH

Column Name	Data Type	Description
		53 UPDATEAUTH **64** EXECUTE AUTH **263** USAGEAUTH 2**91** READAUTH **292** WRITEAUTH **0** not used – CLASS = D
AUTHID_TYPE	CHAR(1)	Type of authorization **Blank** Value of CLASS = D or CLASS = A (authid) **L** AUTHID contains name of role
AUTHID	VARCHAR(128)	Owner of privilege on object query is dependent
DBNAME	VARCHAR(128)	Database on which user or role holds DBADM authority
BADMINAUTH	VARCHAR(128)	Authority that allowed access on object. **B** SDBAMAUTH **D** DBADMAUTH **G** ACCESSCTRLAUTH **K** SQLADMCUTH **L** SYSCTRLAUTH **S** SYSADMAUTH **T** DATAACCESSAUTH **Blank** authority not held
PUBLICAUTH	CHAR(1)	**Y** privilege held by public **Blank** privilege not held by pubic or CLASS = D
ALLOBJAUTH	CHAR(1)	**Y** privilege held on all objects within schema **Blank** privilege not held on all objects or CLASS = D
QUERYHASH	BINARY(16)	Hash key of statement text if CLASS = D

SYSIBM.SYSDYNQRY_EXPL

Contains internal information for stabilized dynamic SQL statement.

Column Name	Data Type	Description
DATA2	BLOB(2G)	Internal use only

SYSIBM.SYSDYNQRY_OPL

Contains internal information for stabilized dynamic SQL statement.

Column Name	Data Type	Description
DATA4	BLOB(2G)	Internal use only

SYSIBM.SYSDYNQRY_SHTEL

Contains internal information for stabilized dynamic SQL statement.

Column Name	Data Type	Description
DATA3	BLOB(2G)	Internal use only

SYSIBM.SYSDYNQRY_SPAL

Contains internal information for stabilized dynamic SQL statement.

Column Name	Data Type	Description
DATA1	BLOB(2G)	Internal use only

SYSIBM.SYSDYNQRY_TXTL

Contains internal information for stabilized dynamic SQL statement.

Column Name	Data Type	Description
STMTTEXT	CLOB(2M)	Text of SQL statement

SYSIBM.SYSENVIRONMENT

Records the environment variables when an object is created.

Column Name	Data Type	Description
ENVID	INTEGER	Internal identifier of the environment
CURRENT_SCHEMA	VARCHAR(128)	Current schema
RELCREATED	CHAR(1)	Release when the environment information is created
PATHSCHEMAS	VARCHAR(2048)	Schema path
APPLICATION_ ENCODING_CCSID	INTEGER	CCSID of the application environment
ORIGINAL_ ENCODING_CCSID	INTEGER	Original CCSID of the statement text string
DECIMAL_POINT	CHAR(1)	Decimal point indicator: **C** Comma **P** Period
MIN_DIVIDE_SCALE	CHAR(1)	Minimum divide scale: **N** The usual rules apply for decimal division in SQL **Y** Retain at lease three digits to the right of the decimal point after any decimal division
STRING_DELIMITER	CHAR(1)	String delimiter that is used in COBOL string constants: **A** Apostrophe (') **Q** Quote (")
SQL_STRING_ DELIMITER	CHAR(1)	SQL string delimiter that is used in string constants: **A** Apostrophe (') **Q** Quote (")
MIXED_DATA	CHAR(1)	Uses mixed DBCS data: **N** No mixed data **Y** Mixed data
DECIMAL_ ARITHMETIC	CHAR(1)	Rules used for CURRENT PRECISION and when both operands in decimal operation have precision of 15 or less: **1** DEC15 specifies that the rules do not allow a precision greater than 15 digits **2** DEC31 specifies that the rules allow a precision of up to 31 digits
DATE_FORMAT	CHAR(1)	Date format: **I** ISO - yyyy-mm-dd **J** JIS - yyyy-mm-dd **U** USA - mm/dd/yyyy **E** EUR - dd.mm.yyyy **L** Locally defined by an installation exit routine
TIME_FORMAT	CHAR(1)	Time format: **I** ISO - hh.mm.ss **J** JIS - hh.mm.ss **U** USA - hh:mm AM or hh:mm PM **E** EUR - hh.mm.ss **L** Locally defined by an installation exit routine
FLOAT_FORMAT	CHAR(1)	Floating point format: **I** IEEE floating point format **S** System/390 floating point format
HOST_LANGUAGE	CHAR(8)	Host language: ASM,C, CPP, IBMCOB, PLI, FORTRAN
CHARSET	CHAR(1)	Character set: **A** Alphanumeric
FOLD	CHAR(1)	Applicable when HOST_LANGUAGE is C or CPP **N** Lower case letters in SBCS ordinary identifiers are

		not folded to uppercase **Y** Lower case letters in SBCS ordinary identifiers are folded to uppercase **blank** Not applicable
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
ROUNDING	CHAR(1)	Rounding mode that is used when arithmetic and casting operations are performed on DECFLOAT data: **C** ROUND_CEILING **D** ROUND_DOWN **F** ROUND_FLOOR **G** ROUND_HALF_DOWN **E** ROUND_HALF_EVEN **H** ROUND_HALF_UP **U** ROUND_UP
CREATEDTS	TIMESTAMP	Time the row was created
APPLCOMPAT	VARCHAR(10)	Application compatibility associated with this environment

SYSIBM.SYSFIELDS

Contains one row for every column that has a field procedure.

Column Name	Data Type	Description
TBCREATOR	VARCHAR(128)	Schema or qualifier of the table that contains the column
TBNAME	VARCHAR(128)	Name of the table that contains the column
COLNO	SMALLINT	Numeric place of this column in the table
NAME	VARCHAR(128)	Name of the column
FLDTYPE	VARCHAR(24)	Data type of the encoded values in the field
LENGTH	SMALLINT	Length attribute of field; or, for a decimal field, its precision
SCALE	SMALLINT	Scale if FLDTYPE is DECIMAL; otherwise, the value is 0
FLDPROC	VARCHAR(24)	For field procedure, name of the procedure
WORKAREA	SMALLINT	For field procedure, the size, in bytes, of the work area
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape
EXITPARML	SMALLINT	Length of the field procedure parameter value block
PARMLIST	VARCHAR(735)	Parameter list following FIELDPROC
EXITPARM	VARCHAR(1530)	Parameter value block of field procedure

SYSIBM.SYSFOREIGNKEYS

Contains one row for every column of every foreign key.

Column Name	Data Type	Description
CREATOR	VARCHAR(128)	Authorization ID of the owner of the table that contains the column
TBNAME	VARCHAR(128)	Name of the table that contains the column
RELNAME	VARCHAR(128)	Constraint name for constraint which column is part of foreign key
COLNAME	VARCHAR(128)	Name of the column
COLNO	SMALLINT	Numeric place of the column in its table
COLSEQ	SMALLINT	Numeric place of the column in the foreign key
IBMREQD	CHAR(1)	Y indicates row came from basic (MRM) tape

SYSIBM.SYSINDEXCONTROL

Contains one row time windows to control the use of memory allocated for an index

Column Name	Data Type	Description
SSID	CHAR(4)	Db2 subsystem. If data shaing value is null and applies to all
PARTITION	SMALLINT	Partition number. Null applies to all
IXNAME	VARCHAR(128)	Name of index
IXCREATOR	VARCHAR(128)	Schema of index

Column Name	Data Type	Description
TYPE	CHAR(1)	Purpose for which memory is used **F** Fast Index Traversal(FTB)
ACTION	CHAR(1)	Action being performed **F** Force FTB creation **D** Disable FTB creation **A** Automatic FTB creation
MONTH_WEEK	CHAR(1)	Meaning of value of DAY column **M** Day of month **W** Day of week
MONTH	SMALLINT	Month during which time window applies. Values 1-12
DAY	SMALLINT	Day of month or day of week for which time window applies
FROM_TIME	TIME	Time of day at which time window begins
TO_TIME	TIME	Time of dat at which time window ends

SYSIBM.SYSINDEXCLEANUP

Specifies the time windows to control index cleanup processing.

Column Name	Data Type	Description
DBNAME	VARCHAR(24)	Name of the database that contains the index space
INDEXSPACE	VARCHAR(24)	Name of the index space
ENABLE_DISABLE	CHAR(1)	Enables or disables cleanup for the specified index space **E** Enabled **D** Disabled
MONTH_WEEK	CHAR(1)	Indicates the meaning of the value of the DAY column: **M** Day of the month **W** Day of the week
MONTH	SMALLINT	Month in which time window applies:1-12=January-December
DAY	SMALLINT	Day of month or day of week for which time window applies, as specified by value of MONTH_WEEK
START_TIME	TIME	Local time at beginning of the time window specified by row
END_TIME	TIME	Local time at end of the time window specified by the row

SYSIBM.SYSINDEXES

Contains one row for every index.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of the index
CREATOR	VARCHAR(128)	Schema of the index
TBNAME	VARCHAR(128)	Name of the table on which the index is defined
TBCREATOR	VARCHAR(128)	Schema of the table
UNIQUERULE	CHAR(1)	Whether the index is unique: **C** Yes, and it is used to enforce uniqueness of a UNIQUE constraint or hash key columns. **D** No (duplicates are allowed) **U** Yes **P** Yes, and it is a primary index **C** Yes, and it is an index used to enforce UNIQUE constraint **N** Yes, and it is defined with UNIQUE WHERE **R** Yes, and it is an index used to enforce the uniqueness of a non-primary parent key **G** Yes, and it is an index used to enforce the uniqueness of values in a column defined as ROWID GENERATED BY DEFAULT

Column Name	Data Type	Description
		X Yes, and it is an index used to enformce the uniqueness of values in a column that contains XML data
COLCOUNT	SMALLINT	Number of columns in the key
CLUSTERING	CHAR(1)	Whether CLUSTER was specified when index was created: **N** No **Y** Yes
CLUSTERED	CHAR(1)	Whether table is actually clustered by the index: **N** A significant number of rows are not in clustering order, or statistics have not been gathered **Y** Most of the rows are in clustering order **blank** Not applicable
DBID	SMALLINT	Internal identifier of the database
OBID	SMALLINT	Internal identifier of the index fan set descriptor
ISOBID	SMALLINT	Internal identifier of the index page set descriptor
DBNAME	VARCHAR(24)	Name of the database that contains the index
INDEXSPACE	VARCHAR(24)	Name of the index space
NLEAF	INTEGER	Number of active leaf pages in the index
NLEVELS	SMALLINT	Number of levels in the index tree
BPOOL	CHAR(8)	Name of the buffer pool used for the index
PGSIZE	SMALLINT	Size, in KB, of the leaf pages in the index. 4, 8, 16, or 32
ERASERULE	CHAR(1)	Data sets are erased when dropped: **N** No, **Y** Yes
CLOSERULE	CHAR(1)	Data sets are candidates for closure when limit on number of open data sets is reached: **N** No, **Y** Yes
SPACE	INTEGER	Number of kilobytes of DASD storage allocated to the index, as determined by the last execution of the STOSPACE utility
IBMREQD	CHAR(1)	Y indicates row came MRM tape
CLUSTERRATIO	SMALLINT	Percentage of rows in clustering order
CREATEDBY	VARCHAR(128)	Primary authorization ID of the user who created the index
STATSTIME	TIMESTAMP	Date and time when last invocation of RUNSTATS
INDEXTYPE	CHAR(1)	**2** Type 2 index or hash overflow index on non-partitioned tables. **blank** Type 1 index **D** Data partitioned secondary index **P** Both partitioned and is a partitioning index
FIRSTKEYCARDF	FLOAT	Number of distinct values of first key column
FULLKEYCARDF	FLOAT	Number of distinct values of key
CREATEDTS	TIMESTAMP	Time when CREATE was executed for index
ALTEREDTS	TIMESTAMP	Time when most recent ALTER INDEX was executed
PIECESIZE	INTEGER	Maximum size of a data set in kilobytes for NPIs
COPY	CHAR(1)	COPY YES was specified for index. Index can be copied and SYSLGRNX recording is enabled for the index. **N** No **Y** Yes
COPYLRSN	CHAR(10)	Value can be either an RBA or LRSN
CLUSTERRATIOF	FLOAT	Percentage of rows that are in clustering order (x100)
SPACEF	FLOAT(8)	Kilobytes of DASD storage
REMARKS	VARCHAR(762)	A character field string provided by user with COMMENT ON
PADDED	CHAR(1)	Whether keys within index will be padded for varying-length column data **Y** Index is padded **N** Index is not padded

Column Name	Data Type	Description
		Blank Index does not contain varying length or graphic data
VERSION	SMALLINT	Version of data row format for this index
OLDEST_VERSION	SMALLINT	Version number describing the oldest format of the data in the index space and any image copies of the index
CURRENT_VERSION	SMALLINT	Version number describing the newest format of data in the index space
RELCREATED	CHAR(1)	Release of Db2 use to the object. Blank if before V8
AVGKEYLEN	INTEGER	Average key length within the index
KEYTARGET_COUNT	SMALLINT	Number of key-targets for an extended index
UNIQUE_COUNT	SMALLINT	Number of columns or key-targets that make up the unique constraint of an index, when other non-constraint enforcing columns or key-targets exist. Else, 0
IX_EXTENSION_ TYPE	CHAR(1)	Type of extended index: **blank** Simple index **S** Index on a scalar expression **N** Node ID index **T** Spatial index **V** XML index
COMPRESS	CHAR(1)	Indicates whether index compression is active: **N** Index compression is not active **Y** Index compression is active
OWNER	VARCHAR(128)	Authorization ID of the owner of the index
OWNERTYPE	CHAR(1)	Indicates the type of owner: **blank** Authorization ID **L** Role
DATAREPEAT FACTORF	FLOAT	Anticipated number of data pages touched following an index key order
ENVID	INTEGER	Internal environment identifier
HASH	CHAR(1)	Hash overflow index for a hash table **N** No (default) **Y** Yes
SPARSE	CHAR(1)	Index is sparse or not **N** No (default). Every data row has an index entry **Y** Yes. Index might not have an entry for each data row in the table **X** Excluded. Index will not have an index entry when every data row for a key column contains the NULL value
ROWID	ROWID	ROWID column, created for the lob columns in this table
DSSIZE	INTEGER	Maximum size in KB of partitioned index data set. 0 for NPI
PAGENUM	CHAR(1)	Format of page numbers for index. **A** Absolute **R** Relative
PARTKEYCOLUMN	SMALLINT	Not used
STATUS	CHAR(1)	Not used
INDEXSTATUS	SMALLINT	Not used
PARTITIONS	VARCHAR(765)	Not used
PQTY	INTEGER	For user managed data sets. Value is primary space allocation
STORTYPE	CHAR(1)	Type of storage allocation **E** Explicit(storage group not used) **I** Implicit (storage group used)
STORNAME	VARCHAR(128)	Name of storage group used for space allocation
VCATNAME	VARCHAR(24)	Name of ICF catalog used for space allocation

Column Name	Data Type	Description
FREEPAGE	SMALLINT	Number of pages loaded before a page is left free
PCTFREE	SMALLINT	Percentage of each page left as free space
GBPCACHE	CHAR(1)	Group bufferpool cache option **Blank** Only changed pages **A** Changed and unchanged pages **N** No data is cached
SECQTY1	INTEGER	Secondary space allocation for user managed data sets
ENFORCED_CONS	CHAR(1)	Whether index enforces a non-unique constraint **Blank** Does not enforce a non-unique constraint **F** Enforces a foreign key for a temporal referential constraint
IMPLICIT	CHAR(1)	Whether index was implicitly created **Blank** n/a **N** Explicitly created **Y** Implicitly created
REGENERATETS	TIMESTAMP(12)	Time when the object was regenerated

SYSIBM.SYSINDEXES_HIST

Contains rows from SYSINDEXES.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of the index
CREATOR	VARCHAR(128)	Schema of the index
TBNAME	VARCHAR(128)	Name of the table on which the index is defined
TBCREATOR	VARCHAR(128)	Schema of the table
CLUSTERING	CHAR(1)	CLUSTER was specified when the index was created: **N** No **Y** Yes
NLEAF	INTEGER	Number of active leaf pages in the index
NLEVELS	SMALLINT	Number of levels in the index tree
STATSTIME	TIMESTAMP	Date and time when the last invocation of RUNSTATS
FIRSTKEYCARDF	FLOAT(8)	Number of distinct values of the first key column
FULLKEYCARDF	FLOAT(8)	Number of distinct values of the key
CLUSTERRATIOF	FLOAT(8)	Percentage of rows that are in clustering order
SPACEF	FLOAT(8)	Number of kilobytes of DASD storage allocated
IBMREQD	CHAR(1)	Y indicates row came MRM tape
AVGKEYLEN	INTEGER	Average key length within the index
DATAREPEAT FACTORF	FLOAT	Anticipated number of data pages touched for an index key order

SYSIBM.SYSINDEXES_RTSECT

An auxiliary table for the RTSECTION column of the SYSIBM.SYSINDEXES table.

Column Name	Data Type	Description
	BLOB(1G)	Internal use only

SYSIBM.SYSINDEXES_TREE

An auxiliary table for the PARSETREE column of the SYSIBM.SYSINDEXES table.

Column Name	Data Type	Description
	BLOB(1G)	Internal use only

SYSIBM.SYSINDEXPART

One row for each non-partitioning index and one for each partition of a partitioned index.

Column Name	Data Type	Description
PARTITION	SMALLINT	Partition number; 0 if index is not partitioned
IXNAME	VARCHAR(128)	Name of the index
IXCREATOR	VARCHAR(128)	Schema of the index
PQTY	INTEGER	For user-managed data sets, the value is the primary space allocation in units of 4KB storage blocks or -1
SQTY	SMALLINT	For user-managed data sets, value is the secondary space allocation in units of 4KB storage blocks or -1
STORTYPE	CHAR(1)	Type of storage allocation: **E** Explicit, and STORNAME names an ICF catalog **I** Implicit, and STORNAME names a storage group
STORNAME	VARCHAR(128)	Name of storage group or integrated catalog facility catalog used for space allocation
VCATNAME	VARCHAR(24)	Name of ICF catalog used for space allocation
LEAFDIST	INTEGER	Average number of leaf pages between successive active leaf pages of the index. (x100)
IBMREQD	CHAR(1)	Y indicates row came MRM tape
LIMITKEY	VARCHAR(512)	High value of limit key of the partition in an internal format
FREEPAGE	SMALLINT	Number of pages loaded before a page is left free
PCTFREE	SMALLINT	Percentage of each leaf or non-leaf page left as free
SPACE	INTEGER	KBs of storage allocated to index space partition
STATSTIME	TIMESTAMP	Date and time of the last invocation of RUNSTATS
GBPCACHE	CHAR(1)	Group buffer pool cache option for index or index partition **blank** Only changed pages are cached **A** Changed and unchanged pages are cached **N** No data is cached
FAROFFPOSF	FLOAT	Number of referred to rows far from optimal position because of an insert into a full page
NEAROFFPOSF	FLOAT	Number of referred to rows near, but not at optimal position, due to insert into full page
CARDF	FLOAT	Number of RIDs in index that refer to data rows or LOBs
SECQTYI	INTEGER	Secondary space allocation in units of 4KB storage
IPREFIX	CHAR(1)	First character of instance qualifier for index's data set name. 'I' or 'J' are the only valid values. Default is 'I'
ALTEREDTS	TIMESTAMP	Time when the most recent ALTER INDEX statement
SPACEF	FLOAT(8)	Kilobytes of DASD storage
DSNUM	INTEGER	Number of data sets
EXTENTS	INTEGER	Number of data set extents
PSEUDO_DEL_ENTRIES	INTEGER	Number of pseudo deleted entries
LEAFNEAR	INTEGER	Number of leaf pages physically near previous leaf page for successive active leaf pages
LEAFFAR	INTEGER	Number of leaf pages located physically far away from previous leaf pages for successive (active leaf) pages accessed in an index scan
OLDEST_VERSION	SMALLINT	Version numbers describing oldest formt of data in the index part and any image copies of the index part
CREATEDTS	TIMESTAMP	Time when the partition was created
AVGKEYLEN	INTEGER	Average length of keys in the index

Column Name	Data Type	Description
RBA_FORMAT	CHAR(1)	Indicates the format of the RBA/LRSN **B** Basic, 6-byte RBA/LRSN format **E** Extended, 10-byte RBA/LRSN format **U** Undefined **blank** For migrated objects
DSSIZE	INTEGER	Maximum size in KB of partitioned index data set
PAGENUM	CHAR(1)	Format of page numbers for index **A** Absolute **R** Relative
LIMITKEY_EXTERNAL	VARCHAR(765)	Not used

SYSIBM.SYSINDEXPART_HIST

Contains rows from SYSINDEXPART.

Column Name	Data Type	Description
PARTITION	SMALLINT	Partition number; zero if index is not partitioned
IXNAME	VARCHAR(128)	Name of the index
IXCREATOR	VARCHAR(128)	Schema of the index
PQTY	INTEGER	For user-managed data sets, value is primary space allocation in units of 4KB storage blocks or -1
SECQTYI	INTEGER	For user-managed data sets, value is the secondary space allocation in units of 4KB storage blocks or -1
LEAFDIST	INTEGER	Average number of leaf pages between successive active leaf pages of the index (x100)
SPACEF	INTEGER	KBs of DASD storage allocated to index space partition
STATSTIME	TIMESTAMP	Date and time of last invocation of RUNSTATS
FAROFFPOSF	FLOAT(8)	Number of referred to rows far from optimal position because of an insert into a full page
NEAROFFPOSF	FLOAT(8)	Number of referred to rows near, but not at optimal position, because of an insert into a full page
CARDF	FLOAT(8)	Number of RIDs in index referring to data rows or LOBs
EXTENTS	INTEGER	Number of data set extents
PSEUDO_DEL_ENTRIES	INTEGER	Number of pseudo deleted entries
DSNUM	INTEGER	Data set number within the tablespace
IBMREQD	CHAR(1)	Y indicates row came MRM tape
LEAFNEAR	INTEGER	Number of leaf pages physically near previous leaf page for successive active leaf pages
LEAFFAR	INTEGER	Number of leaf pages located physically far away from previous leaf pages for successive (active leaf) pages accessed in an index scan
AVGKEYLEN	INTEGER	Average length of keys within the index

SYSIBM.SYSINDEXSPACESTATS

Contains real time statistics for index spaces.

Column name	Data type	Description
UPDATESTATSTIME	TIMESTAMP	Timestamp when row was inserted or last updated
NLEVELS	SMALLINT	Number of levels in the index tree
NPAGES	INTEGER	Number of pages in the index tree that contain only pseudo-deleted index entries
NLEAF	INTEGER	Number of leaf pages in the index
NACTIVE	INTEGER	Number of active pages in the index space or partition
SPACE	BIGINT	Space, in KB, allocated to the index space or partition

EXTENTS	INTEGER	Number of extents in index space or partition
LOADRLASTTIME	TIMESTAMP	Timestamp of last LOAD REPLACE on index or partition
REBUILDLASTTIME	TIMESTAMP	Timestamp of last REBUILD INDEX on index or partition
REORGLASTTIME	TIMESTAMP	Timestamp when REORG INDEX utility was last run on index or partition, or if REORG INDEX utility has not been run, the time of creation
REORGINSERTS	BIGINT	Number of index entries inserted into the index space or partition since the last time REORG, REBUILD INDEX, or LOAD REPLACE utilities were run, or since creation
REORGDELETES	BIGINT	Number of index entries deleted from the index space or partition since the last time REORG, REBUILD INDEX, or LOAD REPLACE utilities were run, or since creation
REORGAPPENDINSERT	BIGINT	Number of index entries that have a key value that is greater than the maximum key value in the index or partition inserted into the index space or partition since the last REORG, REBUILD INDEX, or LOAD REPLACE, or since the object was created
REORG PSEUDODELETES	BIGINT	Number of index entries pseudo-deleted since last REORG, REBUILD INDEX, or LOAD REPLACE on the index space or partition, or since the object was created
REORGMASSDELETE	INTEGER	Number of mass deletes from a segmented or LOB table space, or number of dropped tables from a segmented table space since last time REORG or LOAD REPLACE utilities were run, or since object was created
REORGLEAFNEAR	INTEGER	Net number of leaf pages located physically near previous pages for successive active leaf pages that occurred since last REORG, REBUILD INDEX, or LOAD REPLACE, or since object was created
REORGLEAFFAR	INTEGER	Net number of leaf pages located physically far away from previous leaf pages for successive active leaf pages that occurred since the last REORG, REBUILD INDEX, or LOAD REPLACE, or since the object was created
REORGNUMLEVELS	INTEGER	Number of levels in the index tree that were added or removed since last REORG, REBUILD INDEX, or LOAD REPLACE, or object was created
STATSLASTTIME	TIMESTAMP	Timestamp of last RUNSTATS on index or partition
STATSINSERTS	INTEGER	Number of records or LOBs inserted into table space or partition since last time RUNSTATS utility was run, or since object was created
STATSDELETES	INTEGER	Number of index entries deleted since last RUNSTATS on ndex space or partition, or since object was created
STATSMASSDELETE	INTEGER	Number of times index or index space partition was mass deleted since last RUNSTATS, or object was created
COPYLASTTIME	TIMESTAMP	Timestamp of last full copy on index or partition
COPYUPDATEDPAGES	INTEGER	Number of distinct types that have been updated since last time COPY utility was run, or since object created
COPYCHANGES	BIGINT	Number of insert, update, and delete operations since last time COPY utility was run, or since object was created
COPYUPDATELRSN	CHAR(10)	LRSN or RBA of first update after last COPY
COPYUPDATETIME	TIMESTAMP	Timestamp of first update after last COPY
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
DBID	SMALLINT	Internal identifier of database
ISOBID	SMALLINT	Internal identifier of index space page set descriptor

PSID	SMALLINT	Internal identifier of table space page set descriptor for table space associated with index
PARTITION	SMALLINT	Data set number within index
INSTANCE	SMALLINT	Indicates if the object is associated with data set 1 or 2
TOTALENTRIES	BIGINT	Number of entries, including duplicate entries, in the index space or partition
DBNAME	VARCHAR(24)	Name of database
NAME	VARCHAR(128)	Name of index
CREATOR	VARCHAR(128)	Schema of index
INDEXSPACE	VARCHAR(24)	Name of index space
LASTUSED	DATE	Date when index is used for SELECT, FETCH, searched UPDATE/DELETE, or used to enforce RI constraints
REORGINDEXACCESS	BIGINT	Number of times index was used for SELECT, FETCH, searched UPDATE/DELETE, or used to enforce RI constraints, or since the object was created
DRIVETYPE	CHAR(3)	Drive type on which index or partition data set is defined **HDD** Hard Disk Drive **SSD** Solid State Drive
	BIGINT	Reserved for future IBM use
GETPAGES	BIGINT	Number of getpages since last reorg or creation
SYS_START	TIMESTAMP(12)	Start time of most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null
REORGTOTALSPLITS	INTEGER	Number of index splits since last reorg or rebuild
REORGSPLITTIME	BIGINT	Aggregated elapsed time for all index splits since last reorg or rebuild
REORGEXCSPLITS	INTEGER	Number of abnormal index splits since last reorg or rebuild

SYSIBM.SYSINDEXSTATS

Contains one row for each partition of a partitioning index or a data partitioned secondary index.

Column Name	Data Type	Description
FIRSTKEYCARD	INTEGER	For index partition, number of distinct values of first key column For a sparse index, statistic is based on actual contents of index
FULLKEYCARD	INTEGER	For index partition, number of distinct values of key For a sparse index, statistic is based on actual contents of index
NLEAF	INTEGER	Number of active leaf pages in index partition
NLEVELS	SMALLINT	Number of levels in partition index tree
CLUSTERRATIO	SMALLINT	For index partition, percentage of rows in clustering order
STATSTIME	TIMESTAMP	Date/time of last invocation of RUNSTATS
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
PARTITION	SMALLINT	Partition number of index
OWNER	VARCHAR(128)	Schema of the owner of index
NAME	VARCHAR(128)	Name of index
KEYCOUNT	INTEGER	Total number of RIDs in index partition
FIRSTKEYCARDF	FLOAT	For index partition, number of distinct values of first key column
FULLKEYCARDF	FLOAT	For index partition, number of distinct values of the key
KEYCOUNTF	FLOAT	Total number of RIDs in the index partition
CLUSTERRATIOF	FLOAT	For index partition, percentage of rows in clustering order (x100)
DATAREPEAT FACTORF	FLOAT	Anticipated number of data pages touched following an index key order

SYSIBM.SYSINDEXSTATS_HIST

Contains rows from SYSINDEXSTATS.

Column Name	Data Type	Description
NLEAF	INTEGER	Number of active leaf pages in index partition
NLEVELS	SMALLINT	Number of levels in partition index tree
STATSTIME	TIMESTAMP	If RUNSTATS updated statistics, date/time when last invocation of RUNSTATS updated statistics
PARTITION	SMALLINT	Partition number of index
OWNER	VARCHAR(128)	Schema of index
NAME	VARCHAR(128)	Name of index
FIRSTKEYCARDF	FLOAT	For index partition, number of distinct values of first key column
FULLKEYCARDF	FLOAT	For index partition, number of distinct values of key
KEYCOUNTF	FLOAT	Total number of rows in partition
CLUSTERRATIOF	FLOAT	For index partition, percentage of rows in clustering order
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
DATAREPEAT FACTORF	FLOAT	Anticipated number of data pages touched following an index key order

SYSIBM.SYSJARCLASS_SOURCE

Auxiliary table for SYSIBM.SYSCONTENTS.

Column Name	Data Type	Description
CLASS_SOURCE	CLOB(10M)	Contents of the class in the jar file

SYSIBM.SYSJARCONTENTS

Contains Java class source for installed jar.

Column Name	Data Type	Description
JARSCHEMA	VARCHAR(128)	Schema of the jar file
JAR_ID	VARCHAR(128)	Name of the jar file
CLASS	VARCHAR(384)	Class name contained in the jar file
CLASS_SOURCE _ROWID	ROWID	ID used to support CLOB data type
CLASS_SOURCE	CLOB(10M)	Contents of the class in the jar file
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSJARDATA

Auxiliary table for SYSIBM.SYSJAROBJECTS.

Column Name	Data Type	Description
JAR_DATA	BLOB(100M)	Contents of the jar file

SYSIBM.SYSJAROBJECTS

Contains binary large object representing the installed jar.

Column Name	Data Type	Description
JARSCHEMA	VARCHAR(128)	Schema of the jar file
JAR_ID	VARCHAR(128)	Name of the jar file
OWNER	VARCHAR(128)	Authorization ID of the owner of the jar object
JAR_DATA_ROWID	ROWID	ID used to support BLOB data type
JAR_DATA	BLOB(100M)	Contents of the jar file. This is an updatable column
PATH	VARCHAR(2048)	URL path of the source jar file. This is an updatable column
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
CREATEDTS	TIMESTAMP	Time when the JAR object was created

Column Name	Data Type	Description
ALTEREDTS	TIMESTAMP	Time when the JAR object was altered
OWNERTYPE	CHAR(1)	Indicates the type of owner: **blank** Authorization ID **L** Role

SYSIBM.SYSJAVAOPTS

Contains build options used during INSTALL_JAR.

Column Name	Data Type	Description
JARSCHEMA	VARCHAR(128)	Schema of the jar file
JAR_ID	VARCHAR(128)	Name of the jar file
BUILDSCHEMA	VARCHAR(128)	Schema name for BUILDNAME
BUILDNAME	VARCHAR(128)	Procedure used to create the routine
BUILDOWNER	VARCHAR(128)	Authorization ID used to create the routine
DBMLIB	VARCHAR(256)	PDS name where DBRM is located
HPJCOMPILE_OPTS	VARCHAR(512)	HPJ compile options used to install the routine
BIND_OPTS	VARCHAR(2048)	Bind options used to install the routine
POBJECT_LIB	VARCHAR(256)	PDSE name where program object is located
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSJAVAPATHS

Contains the complete JAR class resolution path,

Column Name	Data Type	Description
JARSCHEMA	VARCHAR(128)	Schema of the JAR file
JAR_ID	VARCHAR(128)	Name of the JAR file
OWNER	VARCHAR(128)	Authorization ID of the owner of the JAR object
ORDINAL	SMALLINT	Ordinal number of path element within the JAR's Java path
PE_CLASS_PATTERN	VARCHAR(2048)	Pattern for names of classes that are to be searched for in this path element's JAR file
PE_JARSCHEMA	VARCHAR(128)	Schema of this path element's JAR file
PE_JAR_ID	VARCHAR(128)	Name of this path element's JAR file
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSKEYCOLUSE

Row for every column in a unique constraint (primary key or unique key).

Column Name	Data Type	Description
CONSTNAME	VARCHAR(128)	Name of the constraint
TBCREATOR	VARCHAR(128)	Schema or qualifier of table on which constraint is defined
TBNAME	VARCHAR(128)	Name of the table on which the constraint is defined
COLNAME	VARCHAR(128)	Name of the column
COLSEQ	SMALLINT	Position of the column in the key
COLNO	SMALLINT	Position of column in table which constraint is defined
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
PERIOD	CHAR(1)	Column is start or end column for BUSINESS_TIME period: **B** Start of the period BUSINESS_TIME **C** End of the period BUSINESS_TIME **I** End of period BUSINESS_TIME w/inclusive end **blank** Not used as either start or end of BUSINESS_TIME

SYSIBM.SYSKEYS

Contains one row for each column of an index key.

Column Name	Data Type	Description
IXNAME	VARCHAR(128)	Name of the index
IXCREATOR	VARCHAR(128)	Schema or qualifier of the index
COLNAME	VARCHAR(128)	Name of the column of the key
COLNO	SMALLINT	Numeric position of the column in the table
COLSEQ	SMALLINT	Numeric position of the column in the key (not for extended index)
ORDERING	CHAR(1)	Order of the column in the key: **Blank** Index is based on an expression or column is specified for the index using the INCLUDE clause **A** Ascending **D** Descending **R** Random
IBMREQD	CHAR(1)	Y indicates row came MRM tape
PERIOD	CHAR(1)	Column is start or end column for BUSINESS_TIME period: **B** Start of the period BUSINESS_TIME **C** End of the period BUSINESS_TIME **I** End of period BUSINESS_TIME w/inclusive end **blank** Not used as start or end of a BUSINESS_TIME period

SYSIBM.SYSKEYTARGETS

Contains one row for each key-target that is participating in an extended index definition.

Column Name	Data Type	Description
IXNAME	VARCHAR(128)	Qualifier of the index
IXSCHEMA	VARCHAR(128)	Position of the key-target in the index
KEYSEQ	SMALLINT	Position of the key-target in the index
COLNO	SMALLINT	Position of column in table if expression is single column
ORDERING	CHAR(1)	Order of the key: **A** Ascending
TYPESCHEMA	VARCHAR(128)	Schema of the data type
TYPENAME	VARCHAR(128)	Name of the data type
DATATYPEID	INTEGER	Internal ID of the data type
SOURCETYPEID	INTEGER	Built-in data type= 0 Distinct type=internal ID of built-in type that distinct type based
LENGTH	SMALLINT	Length attribute of key-target or its precision for a decimal key-target
LENGTH2	INTEGER	Maximum length of data retrieved from the column **0** Not a ROWID column **40** For a ROWID
SCALE	SMALLINT	Scale of decimal data or number of fractional second digits of timestamp or timestamp with time zone data
NULLS	CHAR(1)	Whether the key can contain null values: **N** No **Y** Yes. Also indicates index is an XML index
CCSID	INTEGER	CCSID of the key. 0 if key is a non-character type key
SUBTYPE	CHAR(1)	Applies to character keys only and indicates subtype of data: **B** BIT data **M** MIXED data **S** SBCS data **blank** non-character data
CREATEDTS	TIMESTAMP	Timestamp for when the key-target is created
RELCREATED	CHAR(1)	Release of Db2 in which the key-target is created
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
DERIVED_FROM	VARCHAR(4000)	For an index on a scalar expression, DERIVED_FROM contains

		the text of the scalar expression that is used to generated the key-target value. For XML index, is XML pattern that is used to generate the key-target value. Else, blank
STATSTIME	TIMESTAMP	Timestamp of the most recent RUNSTATS
CARDF	FLOAT	The number of distinct values for the key-target
HIGH2KEY	VARCHAR(2000)	Second highest key-value
LOW2KEY	VARCHAR(2000)	Second lowest key-value
STATS_FORMAT	CHAR(1)	The type of statistics that are gathered: **N** VARCHAR column statistical values are not padded **blank** Statistics have not been collects or VARCHAR column statistical values are padded

SYSIBM.SYSKEYTARGETSTATS

Contains partition statistics for selected key-targets.

Column Name	Data Type	Description
IXSCHEMA	VARCHAR(128)	Qualifier of the index
IXNAME	VARCHAR(128)	Name of the index
KEYSEQ	SMALLINT	Numeric position of the key-target in the index
HIGHKEY	VARCHAR(2000)	Highest key value
HIGH2KEY	VARCHAR(2000)	Second highest key-value
LOWKEY	VARCHAR(2000)	Lowest key value
LOW2KEY	VARCHAR(2000)	Second lowest key-value
PARTITION	SMALLINT	Partition number of the table space
STATSTIME	TIMESTAMP	Timestamp of the most recent RUNSTATS
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
STATS_FORMAT	FLOAT	The type of statistics that are gathered: **N** VARCHAR column statistical values are not padded **blank** Statistics have not been collected or VARCHAR column statistical values are padded
CARDF	FLOAT	Number of distinct values for the key target

SYSIBM.SYSKEYTARGETS_HIST

Contains rows from the SYSKEYTARGETS table.

Column Name	Data Type	Description
IXNAME	VARCHAR(128)	Name of the index
IXSCHEMA	VARCHAR(128)	Qualifier of the index
KEYSEQ	SMALLINT	Numeric position of the key-target in the index
TYPESCHEMA	VARCHAR(128)	Schema of the data type
TYPENAME	VARCHAR(128)	Name of the data type
DATATYPEID	INTEGER	The internal ID of the data type
SOURCETYPEID	INTEGER	Built-in data type= 0 Distinct type=internal ID of built-in type that distinct type based
LENGTH	SMALLINT	Length attribute of column or, if decimal column, its precision
LENGTH2	INTEGER	Maximum length of data that is retrieved from the column **0** Not a ROWID column **40** For a ROWID
SCALE	SMALLINT	Scale of decimal data or number of fractional second digits of timestamp or timestamp with time zone data. Else, 0
NULLS	CHAR(1)	Whether key can contain null values: **N** No **Y** Yes
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

STATSTIME	TIMESTAMP	Timestamp of the most recent RUNSTATS
CARDF	FLOAT	Number of distinct values for the key-target
HIGH2KEY	VARCHAR(2000)	Second highest key-value
LOW2KEY	VARCHAR(2000)	Second lowest key-value
STATS_FORMAT	CHAR(1)	Type of statistics that are gathered: **N** VARCHAR column statistical values are not padded **blank** Statistics have not been collected or VARCHAR column statistical values are padded

SYSIBM.SYSKEYTGTDIST

Contains one or more rows for the first key-target of an extended index key.

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	Date and time of the last invocation of RUNSTATS
IBMREQD	CHAR(1)	Qualifier of the index
IXSCHEMA	VARCHAR(128)	Name of the index
IXNAME	VARCHAR(128)	Numeric position of the key-target in the index
KEYSEQ	SMALLINT	Numeric position of the key-target in the index
KEYVALUE	VARCHAR(2000)	KEYVALUE contains data of a frequently occurring value
TYPE	CHAR(1)	Type of statistics that are gathered: **C** Cardinality **F** Frequent value **N** Non-padded frequent value **H** Histogram statistics
CARDF	FLOAT	TYPE=C - number of distinct values for key group. TYPE=H - number of distinct values for key group in a quantile indicated by QUANTILENO
KEYGROUPKEYNO	VARCHAR(254)	Set of keys associated with statistics. 0 if statistics are only associated with a single key
NUMKEYS	SMALLINT	Number of keys associated with statistics
FREQUENCYF	FLOAT	TYPE=F or N - percentage of entries in index that have the value that is contained in KEYVALUE TYPE=H - percentage of entries in index that have a value that is in the range of the quantile in QUALTILENO column
QUANTILENO	SMALLINT	QUANTILENO contains an ordinary sequence number of a quantile in whole consecutive value range, from low to high
LOWVALUE	VARCHAR(2000)	TYPE=H - lower bound for the quantile in QUANTILENO
HIGHVALUE	VARCHAR(2000)	TYPE=H - upper bound for the quantile in QUANTILENO

SYSIBM.SYSKEYTGTDISTSTATS

Contains rows per partition for first key-target of a data-partitioned secondary index.

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	Timestamp of the most recent RUNSTATS
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
PARTITION	SMALLINT	Part number of that contains index in which key is defined
IXSCHEMA	VARCHAR(128)	Qualifier of the index
IXNAME	VARCHAR(128)	Name of the index
KEYSEQ	SMALLINT	Numeric position of the key-target in the index
KEYVALUE	VARCHAR(2000)	Data of a frequently occurring value
TYPE	CHAR(1)	Type of statistics that are gathered: **C** Cardinality **F** Frequent value **N** Non-padded frequent value

		H Histogram statistics
CARDF	FLOAT	TYPE=C - number of distinct values for key group TYPE=H - number of distinct values for key group in quantile in QUANTILENO
KEYGROUPKEYNO	VARCHAR(254)	Identifies set of keys associated with statistics
NUMKEYS	SMALLINT	Identifies the number of keys associated with the statistics
FREQUENCYF	FLOAT	TYPE=F or N - percentage of entries in index that have value that is specified in KEYVALUE when number of entries is multiplied by 100 TYPE=H - percentage of entries in the index that have a value that is in the range of the quantile in QUALTILENO
QUANTILENO	SMALLINT	QUANTILENO contains an ordinary sequence number of a quantile in consecutive value range, from low to high
LOWVALUE	VARCHAR(2000)	TYPE=H- lower bound for quantile in QUANTILENO
HIGHVALUE	VARCHAR(2000)	TYPE=H- upper bound for the quantile in QUANTILENO
	VARCHAR(1000)	Internal use only

SYSIBM.SYSKEYTGTDIST_HIST

Contains rows from the SYSKEYTGTDIST table.

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	Date and time of last invocation of RUNSTATS
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
IXSCHEMA	VARCHAR(128)	Qualifier of the index
IXNAME	VARCHAR(128)	Name of the index
KEYSEQ	SMALLINT	Numeric position of the key-target in the index
KEYVALUE	VARCHAR(2000)	Contains data of a frequently occurring value
TYPE	CHAR(1)	Type of statistics that are gathered: **C** Cardinality **F** Frequent value **N** Non-padded frequent value **H** Histogram statistics
CARDF	FLOAT	TYPE=C- distinct values for key group TYPE=H- distinct values for key group in QUANTILENO
KEYGROUPKEYNO	VARCHAR(254)	Value identifies set of keys associated with the statistics
NUMKEYS	SMALLINT	Number of keys that are associated with the statistics
FREQUENCYF	FLOAT	TYPE=F or N - percentage of entries in index that havevalue that is specified in KEYVALUE when number of entries x100 TYPE=H- percentage of entries in index that have a value in range of quantile in QUALTILENO
QUANTILENO	SMALLINT	QUANTILENO contains an ordinary sequence number of a quantile in whole consecutive value range, from low to high
LOWVALUE	VARCHAR(2000)	TYPE=H- lower bound for the quantile in QUANTILENO
HIGHVALUE	VARCHAR(2000)	TYPE=H - upper bound for the quantile in QUANTILENO

SYSIBM.SYSLEVELUPDATES

Contains information about function levels, catalog levels and code levels of Db2 subsystem.

Column Name	Data Type	Description
FUNCTION_LVL	VARCHAR(10)	Function level
PREV_FUNCTION_LVL	VARCHAR(10)	Previous function level
HIGH_FUNCTION_LVL	VARCHAR(10)	Highest activated function level
CATALOG_LVL	VARCHAR(10)	Type of operation **C** Catalog level change

Column Name	Data Type	Description
		F Fnction level change **M** Code level change
EFFECTIVE_TIME	TIMESTAMP(12)	Time when operation completed
EFFECTIVE_LRSN	VARCHAR(12)	RBA or LRSN when operation completed
OPERATION_TEXT	VARCHAR(256)	Text of operation
GROUP_MEMBER	VARCHAR(24)	Name of group member on which operation was run

SYSIBM.SYSLOBSTATS

Contains one row for each LOB tablespace.

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	Timestamp of RUNSTATS statistics update
AVGSIZE	INTEGER	Average size of a LOB, measured in bytes, in the LOB tablespace
FREESPACE	INTEGER	Number of kilobytes of available space in the LOB tablespace
ORGRATIO	DECIMAL(5,2)	Percentage of organization in LOB table space. 100 = perfect organization. 1 = disorganized. 0 = totally disorganized
DBNAME	VARCHAR(24)	Name of database that contains LOB tablespace
NAME	VARCHAR(24)	Name of the LOB tablespace
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSLOBSTATS_HIST

Contains rows from SYSLOBSTATS. Can be inserted, updated, and deleted.

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	Timestamp of RUNSTATS statistics update
FREESPACE	INTEGER	Number of kilobytes of available space in the LOB tablespace
ORGRATIO	DECIMAL(5,2)	Percentage of organization in LOB table space. 100 = perfect organization. 1 = disorganized. 0 = totally disorganized
DBNAME	VARCHAR(24)	Name of the database that contains the LOB tablespace
NAME	VARCHAR(24)	Name of the LOB tablespace
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSOBJEVENTS

Contains object-level event information for utility executions.

Column Name	Data Type	Description
EVENTID	BIGINT	Unique identifier for utility execution
DBID	SMALLINT	Database which contains table space or index space
PSID	SMALLINT	Page set descriptor for table space or index space
PARTITION	SMALLINT	Physical partition number
INSTANCE	SMALLINT	If object is associated with data set
DBNAME	VARCHAR(24)	Name of database that contains table space or index space
SPACENAME	VARCHAR(24)	Table space or index space name
OBJTYPR	CHAR(3)	**T** - Table space, **I** - Index space
EVENTTS	TIMESTAMP	Starting timestamp of utility processing for object
COUNT	BIGINT	**NULL**- processing of object has not started or is in progress ***N*** - count of pages, rows, keys, or LOBs processed
ELAPSEDTIME	BIGINT	Elapsed time in microseconds for COPY and RECOVER.
INSERTEDBY	CHAR(9)	**DB2** - rows inserted by IBM® Db2 Utilities

SYSIBM.SYSOBJROLEDEP

Contains the dependent objects for each role.

Column Name	Data Type	Description
DEFINER	VARCHAR(128)	Authorization ID or role that created the object
DEFINERTYPE	CHAR(1)	Type of definer: **L** Role **blank** Authorization ID
ROLENAME	VARCHAR(128)	Name of the role on which there is a dependency
DSCHEMA	VARCHAR(128)	Name of the schema of the dependent object
DNAME	VARCHAR(762)	Name of the dependent object
DTYPE	CHAR(1)	The type of the dependent object in DNAME: **A** Alias **B** Trigger **D** Database **E** Distinct type **F** User-defined function **I** Index **J** Jar **L** Role **M** Materialized query table **N** Trusted context **O** Stored procedure **Q** Sequence **R** Table space **S** Storage group **T** Table **V** View **X** Row permission **Y** Column mask **0** Alias
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSPACKAGE

Contains a row for every package.

Column Name	Data Type	Description
LOCATION	VARCHAR(128)	Always contains blanks
COLLID	VARCHAR(128)	Name of package collection
NAME	VARCHAR(128)	Name of the package
CONTOKEN	CHAR(8)	Consistency token for package
OWNER	VARCHAR(128)	Authorization ID of the package owner
CREATOR	VARCHAR(128)	Auth ID of owner of creator of package version
TIMESTAMP	TIMESTAMP	Timestamp indicating when the package was created
BINDTIME	TIMESTAMP	Timestamp indicating when the package was last bound
QUALIFIER	VARCHAR(128)	Implicit qualifier for the unqualified table, view, index, and alias names in the static SQL statements of the package
PKSIZE	INTEGER	Size of the base section of the package, in bytes
AVGSIZE	INTEGER	Average size, in bytes, of those sections of the plan that contain SQL statements processed at bind time
SYSENTRIES	SMALLINT	Number of enabled or disabled entries for this package in SYSPKSYSTEM. 0 if all types of connections are enabled
VALID	CHAR(1)	Whether the package is valid: **A** ALTER statement changed the description of the table of

Column Name	Data Type	Description
		base table of a view referred to by the package. For a CREATE INDEX involving data sharing, VALID is also marked as “A”. Changes do not invalidate the package **H** ALTER TABLE statement changed description of the table or base table of a view referred to by the package **N** No **Y** Yes **S** One or more statements are invalid
OPERATIVE	CHAR(1)	Whether the package can be allocated: **N** No **Y** Yes
VALIDATE	CHAR(1)	Whether validity checking can be deferred until run time: **B** All checking must be performed at bind time **R** Validation is done at run time for tables, views, and privileges that do not exist at bind time
ISOLATION	CHAR(1)	Isolation level when package was last bound or rebound **I** Local package is inheriting the value from the plan **R** RR (repeatable read) **S** CS (cursor stability) **T** RS (read stability) **U** UR (uncommitted read) **blank** Not specified, and therefore at the level specified for the plan executing the package
RELEASE	CHAR(1)	Value for RELEASE when package was last bound/rebound: **C** Value used was COMMIT **D** Value used was DEALLOCATE **I** Local package is inheriting value from plan **blank** Not specified, and therefore the value specified for the plan executing the package
EXPLAIN	CHAR(1)	EXPLAIN option specified for package **N** No **Y** Yes
QUOTE	CHAR(1)	SQL string delimiter for SQL statements in the package **N** Apostrophe **Y** Quotation mark
COMMA	CHAR(1)	Decimal point representation for SQL statements in package **N** Period **Y** Comma
HOSTLANG	CHAR(1)	Host language for the package's DBRM **B** Assembler language **C** OS/VS COBOL **D** C **F** Fortran **P** PL/I **2** VS COBOL II or IBM COBOL Release 1 **3** IBM COBOL (Release 2 or subsequent releases) **4** C++ **blank** For remotely bound packages, trigger packages (TYPE=T), SQL procedure packages (TYPE=N), or non-inline SQL scalar function packages (TYPE=F)
CHARSET	CHAR(1)	CCSID for SBCS data was 290 (Katakana) when program was precompiled **K** Yes

Column Name	Data Type	Description
		A No
MIXED	CHAR(1)	Mixed data was in effect when program was precompiled **N** No **Y** Yes
DEC31	CHAR(1)	DEC31 was in effect when program was precompiled **N** No **Y** Yes
DEFERPREP	CHAR(1)	CURRENTDATA option when package was bound or rebound: **A** Data currency is required for all cursors. Inhibit blocking for all cursors **B** Data currency is not required for ambiguous cursors **C** Data currency is required for ambiguous cursors **blank** Package was created before CURRENTDATA option was available
SQLERROR	CHAR(1)	SQLERROR option on most recent subcommand that bound or rebound the package: **C** CONTINUE **N** NOPACKAGE
REMOTE	CHAR(1)	Source of the package: **C** Created by BIND COPY **D** Created by BIND COPY with OPTIONS(COMMAND) **K** Copied from a package originally bound on behalf of remote requester **L** Copied with OPTIONS(COMMAND) from a package that was originally bound on behelf of a remote requester **N** Locally bound from a DBRM **Y** Bound on behalf of a remote requester
PCTIMESTAMP	TIMESTAMP	Date and time the application program was precompiled
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
VERSION	VARCHAR(122)	Version identifier for package Empty for SQL procedure package (TYPE=N), SQL scalar function package(TYPE=F), or trigger package(TYPE=T or 1)
PDSNAME	VARCHAR(132)	Name of PDS (library) in which package's DBRM is a member
DEGREE	CHAR(3)	DEGREE option used when the package was last bound: **ANY** DEGREE(ANY) **1 or blank** DEGREE(1) **Blank** if the package was migrated
GROUP_MEMBER	VARCHAR(24)	Member name of subsystem that performed most recent bind
DYNAMICRULES	CHAR(1)	DYNAMICRULES option used when package was last bound: **B** BIND **D** DEFINEBIND **E** DEFINERUN **H** INVOKEBIND **I** INVOKERUN **R** RUN **blank** DYNAMICRULES not specified for package
REOPTVAR	CHAR(1)	If access path is determined again at execution time: **A** REOPT(AUTO) **N** REOPT(NONE) **Y** REOPT(ALWAYS) **1** REOPT(ONCE)
DEFERPREPARE	CHAR(1)	If PREPARE processing is deferred until OPEN is executed:

Column Name	Data Type	Description
		N NODEFER(PREPARE) **Y** DEFER(PREPARE) **I** Local package is inheriting the value from the plan **blank** Bind option not specified. Inherited from plan
KEEPDYNAMIC	CHAR(1)	Whether prepared dynamic statements are purged at commit: **N** KEEPDYNAMIC(NO) **Y** KEEPDYNAMIC(YES)
PATHSCHEMAS	VARCHAR(2048	SQL path on BIND or REBIND that bound the package
TYPE	CHAR(1)	Type of package. Identifies how the package was created: **F** CREATE FUNCTION or ALTER FUNCTION statement, or a BIND PACKAGE DEPLOY command created package, and this package is a non-inline SQL scalar function package **N** CREATE PROCEDURE or ALTER PROCEDURE statement, or BIND PACKAGE DEPLOY command created the package, and this package is a native SQL routine package **R** Reserved for IBM use **T** CREATE TRIGGER statement created the package, and the package is a trigger package **blank** BIND PACKAGE command created the package
DBPROTOCOL	CHAR(1)	Whether remote access for SQL is implemented with DRDA access or DRDA access with capability for package-based continuous block fetch: **D** DRDA **C** DRDA access with package-based continuous block fetch
FUNCTIONTS	TIMESTAMP	Timestamp when function was resolved
OPTHINT	VARCHAR(128)	Identifies rows in authid.PLAN_TABLE to be used as input to the optimizer
ENCODING_CCSID	INTEGER	Encoding scheme specified on the bind command: **CCSID** Specified or derived CCSID **0** EBCDIC default CCSID as specified on panel DSNTIPF
IMMEDWRITE	CHAR(1)	When writes of updated group bufferpool dependent pages are to be done. Only applicable for data-sharing. **I** Local package is inheriting the value from the plan **N** IMMEDWRITE(NO) - normal write activity **Y** IMMEDWRITE(YES) - immediate writes **1** IMMEDWRITE(PH1) - written at or before phase 1 commit **Blank** if the package was migrated
RELBOUND	CHAR(1)	Release when the package was bound or rebound **blank** Bound prior to V7
REMARKS	VARCHAR(762)	Character string provided by user with COMMENT statement
OWNERTYPE	CHAR(1)	Type of owner **blank** Authorization ID **L** Role
ROUNDING	CHAR(1)	ROUNDING option used when the package was last bound: **C** ROUND_CEILING **D** ROUND_DOWN **F** ROUND_FLOOR **G** ROUND_HALF_DOWN **E** ROUND_HALF_EVEN **H** ROUND_HALF_UP

Column Name	Data Type	Description
		U ROUND_UP blank **Blank** The package created in a Db2 release prior to V9
DISTRIBUTE	CHAR(1)	Determines if Db2 should gather location names fror SQL statements, and create remote packages for the user **A** Db2 will collect remote location names from SQL statements during local bind, and automatically create remote packages at those sites **L** Db2 will automatically create remote packages at sites specified in the list of location-names
LASTUSED	DATE	Last date that the corresponding objects are used
CONCUR_ACC_RES	CHAR(1)	CONCURRENTACCESSRESOLUTION option when package was bound or rebound: **blank** Not specified **N** WAITFOROUTCOME **Y** USECURRENTLYCOMMITTED
EXTENDED INDICATOR	CHAR(1)	Value of the EXTENDEDINDICATOR bind option: **N** EXTENDEDINDICATOR NO **Y** EXTENDEDINDICATOR YES
PLANMGMT	CHAR(1)	Value of the PLANMGMT bind option: **B** PLANMGMT BASIC **E** PLANMGMT EXTENDED **blank** PLANMGMT OFF
PLANMGMTSCOPE	CHAR(1)	Value of the PLANMGMTSCOPE bind option: **S** PLANMGMTSCOPE STATIC
APREUSE	CHAR(1)	Value of the APREUSE bind option: **N** NO or NONE: Access paths are not reused **W** WARN: Db2 tries to reuse access paths. Processing continues when an access path cannot be reused **E** ERROR: Db2 tries to reuse access paths. Processing ends when an access path cannot be reused
APRETAINDUP	CHAR(1)	Value of APRETAINDUP bind option: **Y** YES specified. All copies were retained **0** NO specified; however, previous or original package copy is still retained due to access path differences **1** NO specified, and previous package copy is not retained as access paths are identical to current copy **2** NO specified, and previous and original package copies are not retained as access paths are identical to current
SYSTIMESENSITIVE	CHAR(1)	Value of the SYSTIMESENSITIVE bind option: **Y** References to system-period temporal tables are affected by value of CURRENT TEMPORAL SYSTEM_TIME **N** References to system-period temporal tables are not affected by CURRENT TEMPORAL SYSTEM_TIME
BUSTIMESENSITIVE	CHAR(1)	Value of the BUSTIMESENSITIVE bind option: **Y** References to application-period temporal tables are affected by CURRENT TEMPORAL BUSINESS_TIME **N** References to application-period temporal tables are not affected by CURRENT TEMPORAL BUSINESS_TIME
APPLCOMPAT	VARCHAR(10)	Value of the APPLCOMPAT bind option: **V10R1** SQL statements in the package have V10R1 compatibility behavior **V11R1** SQL statements in the package have V11R1 compatibility behavior

Column Name	Data Type	Description
		Function-level - SQL statements in package have compatibility behavior with the specified function level
ARCHIVESENSITIVE	CHAR(1)	Value of the ARCHIVESENSITIVE bind option **Y** **(default)** references to archive-enabled tables are affected SYSIBMADM.GET_ARCHIVE built-in global variable **N** References to archive-enabled tables are not affected by SYSIBMADM.GET_ARCHIVE built-in global variable
EXTSEQNO	INTEGER	For internal use
DESCSTAT	CHAR(1)	Value of the DESCSTAT bind option **Y** Db2 database manager generates a DESCRIBE SQLDA at bind time so DESCRIBE requests for static SQL can be satisfied during execution **N** Db2 database manager does not generate a DESCRIBE SQLDA at bind time for static SQL statements
ORIGIN	CHAR(1)	Origin of EXPLAIN records **A** Automatic bind **B** BIND command **G** Explicit ALTER REGENERATE **I** Implicit automatic regeneration **R** REBIND command **Blank** existed before 12
APREUSE_NO_FL	VARCHAR(10)	Function level when package bound APREUSE(NO)
APREUSE_NO_TS	TIMESTAMP	Bind time when package bound APREUSE(NO)
CONC_STMT	CHAR(1)	Whether statement concentration is enabled **N** No **Y** Yes
FUNCTION_LVL	VARCHAR(10)	Function level of package when row was inserted
DEPLEVEL	CHAR(1)	Indicates if the package contains statement-level dependencies in addition to package-level dependency **S -** package has both statement-level and package-level dependencies **P -** package has package-level dependencies only

SYSIBM.SYSPACKCOPY

Contains a row for every previous and oringinal package.

Column Name	Data Type	Description
LOCATION	VARCHAR(128)	Always contains blanks
COLLID	VARCHAR(128)	Name of package collection
NAME	VARCHAR(128)	Name of the package
CONTOKEN	CHAR(8)	Consistency token for package
OWNER	VARCHAR(128)	Authorization ID of package owner
CREATOR	VARCHAR(128)	Authorization ID of owner or creator of package version
TIMESTAMP	TIMESTAMP	Timestamp indicating when the package was created
BINDTIME	TIMESTAMP	Timestamp indicating when the package was last bound
QUALIFIER	VARCHAR(128)	Implicit qualifier for unqualified table, view, index, and alias names in the static SQL statements of the package
PKSIZE	INTEGER	Size of the base section of the package, in bytes
AVGSIZE	INTEGER	Average size(bytes) of sections of plan containing SQL
SYSENTRIES	SMALLINT	Number of enabled or disabled entries for package in SYSPKSYSTEM. 0 if all types of connections are enabled
VALID	CHAR(1)	Whether the package is valid:

Column Name	Data Type	Description
		A ALTER statement changed description of table or base table of a view referred to by the package **H** ALTER TABLE statement changed description of table or base table of a view referred to by package **N** No **Y** Yes
OPERATIVE	CHAR(1)	Whether the package can be allocated: **N** An explicit BIND or REBIND is required before package can be allocated **Y** Yes
VALIDATE	CHAR(1)	Whether validity checking can be deferred until run time: **B** All checking must be performed at bind time **R** Validation is done at run time for tables, views, and privileges that do not exist at bind time
ISOLATION	CHAR(1)	Isolation level when package was last bound or rebound **R** RR (repeatable read) **S** CS (cursor stability) **T** RS (read stability) **U** UR (uncommitted read) **blank** Not specified, level specified for plan
RELEASE	CHAR(1)	Value for RELEASE when package was last bound/rebound: **C** Value used was COMMIT **D** Value used was DEALLOCATE **I** Local package is inheriting the value from the plan **blank** Not specified, value for plan executing the package
EXPLAIN	CHAR(1)	EXPLAIN option specified for the package **N** No **Y** Yes
QUOTE	CHAR(1)	SQL string delimiter for SQL statements in the package: **N** Apostrophe **Y** Quotation mark
COMMA	CHAR(1)	Decimal point representation for SQL statements in package: **N** Period **Y** Comma
HOSTLANG	CHAR(1)	Host language for the package's DBRM: **B** Assembler language **C** OS/VS COBOL **D** C **F** Fortran **P** PL/I **2** VS COBOL II or IBM COBOL Release 1 **3** IBM COBOL (Release 2 or subsequent releases) **4** C++ **blank** For remotely bound packages, trigger packages (TYPE=T), SQL procedure packages (TYPE=N), or non-inline SQL scalar function packages (TYPE=F)
CHARSET	CHAR(1)	CCSID for SBCS data was 290 (Katakana) when program was precompiled: **K** Yes **A** No
MIXED	CHAR(1)	Mixed data in effect when program was precompiled **N** No **Y** Yes

Column Name	Data Type	Description
DEC31	CHAR(1)	DEC31 in effect when program was precompiled **N** No **Y** Yes
DEFERPREP	CHAR(1)	CURRENTDATA option when package bound/rebound: **A** Data currency is required for all cursors. Inhibit blocking for all cursors **B** Data currency is not required for ambiguous cursors **C** Data currency is required for ambiguous cursors **blank** Package created before CURRENTDATA available
SQLERROR	CHAR(1)	SQLERROR option on most recent subcommand that bound or rebound the package: **C** CONTINUE **N** NOPACKAGE
REMOTE	CHAR(1)	Source of the package: **C** Created by BIND COPY **D** Created with OPTIONS(COMMAND) **K** Copied from a package that was originally bound on behalf of a remote requester **L** Copied with OPTIONS(COMMAND) from a package originally bound on behalf of remote requester **N** Locally bound from a DBRM **Y** Bound on behalf of a remote requester
PCTIMESTAMP	TIMESTAMP	Date and time program was precompiled, or 0001-01-01-00.00.00.000000 if the LEVEL precompiler option was used, or if the package came from a non-Db2 location
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
VERSION	VARCHAR(122)	Version identifier for the package. Blank (TYPE=T)
PDSNAME	VARCHAR(132)	PDS (library) in which package's DBRM is a member
DEGREE	CHAR(3)	DEGREE option used when the package was last bound: **ANY** DEGREE(ANY) **1 or blank** DEGREE(1) **Blank** if the package was migrated
GROUP_MEMBER	VARCHAR(24)	Member name of subsystem that performed most recent bind
DYNAMICRULES	CHAR(1)	DYNAMICRULES option used when package was last bound: **B** BIND. Dynamic SQL statements are executed with DYNAMICRULES bind behavior **D** DEFINEBIND **E** DEFINERUN **H** INVOKEBIND **I** INVOKERUN **R** RUN **blank** DYNAMICRULES not specified for package
REOPTVAR	CHAR(1)	If access path is determined again at execution time using input variable values: **A** REOPT(AUTO) **N** REOPT(NONE) **Y** REOPT(ALWAYS) **1** REOPT(ONCE)
DEFERPREPARE	CHAR(1)	If PREPARE processing is deferred until OPEN is executed: **N** NODEFER(PREPARE) **Y** DEFER(PREPARE) **I** Local package is inheriting the value from the plan

Column Name	Data Type	Description
		blank Bind option not specified. Inherited from plan
KEEPDYNAMIC	CHAR(1)	Whether prepared dynamic statements are purged at commit: **N** KEEPDYNAMIC(NO) **Y** KEEPDYNAMIC(YES)
PATHSCHEMAS	VARCHAR(2048)	SQL path specified on BIND or REBIND that bound package
TYPE	CHAR(1)	Type of package. Identifies how the package was created: **F** CREATE FUNCTION or ALTER FUNCTIONstatement, or a BIND PACKAGE DEPLOY command created the package, and this package is a non-inline SQL scalar function package **N** CREATE PROCEDURE or ALTER PROCEDURE statement, or BIND PACKAGE DEPLOY command created the package, and this package is a native SQL routine package **R** Reserved for IBM use **T** CREATE TRIGGER statement created the package, and the package is a trigger package blank BIND PACKAGE command created the package
DBPROTOCOL	CHAR(1)	Whether remote access for SQL is implemented with DRDA access or DRDA access with the capability for package-based continuous block fetch: **D** DRDA **C** DRDA access with the capability for package-based continuous block fetch
FUNCTIONTS	TIMESTAMP	Timestamp when function was resolved. Set by BIND and REBIND commands, but not by AUTOBIND
OPTHINT	VARCHAR(128)	Value of OPTHINT bind option. Identifies rows in the authid.PLAN_TABLE to be used as input to optimizer
ENCODING_CCSID	INTEGER	CCSID corresponding to encoding scheme or CCSID as specified for bind option ENCODING **CCSID** Specified or derived CCSID **0** EBCDIC default CCSID as specified on panel DSNTIPF at installation time
IMMEDWRITE	CHAR(1)	Indicates when writes of updated group bufferpool dependent pages are to be done. Only applicable for data-sharing **N** IMMEDWRITE(NO) - normal write activity is done **Y** IMMEDWRITE(YES) - immediate writes are done **1** IMMEDWRITE(PH1) - written at or before phase 1 commit **Blank** if package was migrated
RELBOUND	CHAR(1)	Release when the package was bound or rebound **blank** Bound prior to V7
REMARKS	VARCHAR(762)	Character string provided by user with COMMENT statement
OWNERTYPE	CHAR(1)	Type of owner **blank** Authorization ID **L** Role
ROUNDING	CHAR(1)	ROUNDING option used when the package was last bound: **C** ROUND_CEILING **D** ROUND_DOWN **F** ROUND_FLOOR **G** ROUND_HALF_DOWN **E** ROUND_HALF_EVEN **H** ROUND_HALF_UP

Column Name	Data Type	Description
		U ROUND_UP blank **Blank** Package created prior to V9
DISTRIBUTE	CHAR(1)	Determines if Db2 should gather location names from SQL statements, and create remote packages for the user (Only has effect during local bind): **A** Db2 will collect remote location names from SQL statements during local bind, and automatically create remote packages at those sites **L** Db2 will automatically create remote packages at sites specified in the list of location-names
LASTUSED	DATE	Last date that the corresponding objects are used
CONCUR_ACC_RES	CHAR(1)	CONCURRENTACCESSRESOLUTION option when package was bound or rebound: **blank** Not specified **N** WAITFOROUTCOME **Y** USECURRENTLYCOMMITTED
EXTENDED INDICATOR	CHAR(1)	EXTENDEDINDICATOR bind option: **N** EXTENDEDINDICATOR NO **Y** EXTENDEDINDICATOR YES
COPYID	INTEGER	Copy of package that this row explains: **1** Previous copy of package **2** Original copy of package
PLANMGMT	CHAR(1)	Value of the PLANMGMT bind option: **B** PLANMGMT BASIC **E** PLANMGMT EXTENDED **F** PLANMGMT OFF **O** PLANMGMT ON
PLANMGMTSCOPE	CHAR(1)	Value of the PLANMGMTSCOPE bind option: **S** PLANMGMTSCOPE STATIC
APREUSE	CHAR(1)	Value of the APREUSE bind option: **N** NO or NONE: Access paths are not reused **E** ERROR: Db2 tries to reuse access paths Ends when an access path cannot be reused
APRETAINDUP	CHAR(1)	Value of the APRETAINDUP bind option: **Y** APRETAINDUP YES - All copies were retained **0** APRETAINDUP NO - however, previous or original package copy is still retained due to access path differences **1** APRETAINDUP NO - previous package copy is not retained as access paths are identical to current copy **2** APRETAINDUP NO - previous and original package copies are not retained as access paths are identical to current copy
SYSTIMESENSITIVE	CHAR(1)	Value of SYSTIMESENSITIVE bind option: **Y** References to system-period temporal tables are affected by value of CURRENT TEMPORAL SYSTEM_TIME **N** References to system-period temporal tables are not affected by CURRENT TEMPORAL SYSTEM_TIME
BUSTIMESENSITIVE	CHAR(1)	Value of BUSTIMESENSITIVE bind option: **Y** References to application-period temporal tables are affected by CURRENT TEMPORAL BUSINESS_TIME **N** References to application-period temporal tables are not affected by CURRENT TEMPORAL BUSINESS_TIME

Column Name	Data Type	Description
APPLCOMPAT	VARCHAR(10)	Value of APPLCOMPAT bind option: **V10R1** SQL in package have V10R1 compatibility behavior **V11R1** SQL in package have V11R1 compatibility behavior
ARCHIVESENSITIVE	CHAR(1)	Value of ARCHIVESENSITIVE bind option. **Y** (default) references to archive-enabled tables are affected SYSIBMADM.GET_ARCHIVE built-in global variable **N** References to archive-enabled tables are not affected by SYSIBMADM.GET_ARCHIVE built-in global variable
EXTSEQNO	INTEGER	For internal use
DESCSTAT	CHAR(1)	Value of the DESCSTAT bind option **Y** Db2 database manager generates a DESCRIBE SQLDA at bind time so DESCRIBE requests for static SQL can be satisfied during execution **N** Db2 database manager does not generate a DESCRIBE SQLDA at bind time for static SQL statements
ORIGIN	CHAR(1)	Origin of EXPLAIN records **A** Automatic bind **B** BIND command **G** Explicit ALTER REGENERATE **I** Implicit automatic regeneration **R** REBIND command **Blank** existed before 12
APREUSE_NO_FL	VARCHAR(10)	Function level when package bound APREUSE(NO)
APREUSE_NO_TS	TIMESTAMP	Bind time when package bound APREUSE(NO)
CONC_STMT	CHAR(1)	Whether statement concentration is enabled **N** No **Y** Yes
FUNCTION_LVL	VARCHAR(10)	Function level of package when row was inserted
DEPLEVEL	CHAR(1)	Indicates if the package contains statement-level dependencies in addition to package-level dependency **S -** package has both statement-level and package-level dependencies **P -** package has package-level dependencies only

SYSIBM.SYSPACKAUTH

Records the privileges that are held by users over packages.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Auth ID of user who granted privilege. Could be PUBLIC
GRANTEE	VARCHAR(128)	Auth ID of user who holds the privileges, name of a plan that uses privileges or PUBLIC for a grant to PUBLIC
LOCATION	VARCHAR(128)	Always contains blanks
COLLID	VARCHAR(128)	Collection name for package(s) which privilege was granted
NAME	VARCHAR(128)	Name of package on which privileges are held
TIMESTAMP	TIMESTAMP	Timestamp indicating when the privilege was granted
GRANTEETYPE	CHAR(1)	Type of grantee: **blank** Authorization ID **L** Role **P** Application plan
AUTHHOWGOT	CHAR(1)	Authorization level of user from whom privileges were received. Not necessarily highest authorization level of grantor **blank** Not applicable **A** PACKADM (on collection *)

Column Name	Data Type	Description
		C DBCTL **D** DBADM **E** SECADM **G** ACCESSCTRL **L** SYSCTRL **M** DBMAINT **P** PACKADM (on a specific collection) **S** SYSADM **T** DATAACCESS
BINDAUTH	CHAR(1)	GRANTEE can use BIND and REBIND against package: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
COPYAUTH	CHAR(1)	GRANTEE can COPY the package: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
EXECUTEAUTH	CHAR(1)	GRANTEE can execute the package: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
GRANTORTYPE	CHAR(1)	Indicates the type of grantor: **blank** Authorization ID **L** Role
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSPACKDEP

Dependencies of packages on tables, views, synonyms, tablespaces, indexes, aliases, functions, and stored procedures.

Column Name	Data Type	Description
BNAME	VARCHAR(128)	Name of an object a package depends on
BQUALIFIER	VARCHAR(128)	Qualifer of object
BTYPE	CHAR(1)	Type of object identified by BNAME and BQUALIFIER: **A** Alias **B** BUSINESS_TIME **C** SYSTEM_TIME **E** INSTEAD OF trigger **F** User-defined function or cast function **G** Global temporary table **I** Index **M** Materialized query table **O** Stored procedure **P** Partitioned tablespace if defined as LARGE or DSSIZE **Q** Sequence object **R** Tablespace **S** Synonym **T** Table **V** View **0** Alias

Column Name	Data Type	Description
DLOCATION	VARCHAR(128)	Always contains blanks
DCOLLID	VARCHAR(128)	Name of the package collection
DNAME	VARCHAR(128)	Name of the package
DCONTOKEN	CHAR(8)	Consistency token for the package
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
DOWNER	VARCHAR(128)	Owner of the package
DTYPE	CHAR(1)	Type of package: **F** Non-inline SQL scalar function **N** Native SQL routine package **O** Original copy of a package **P** Previous copy of a package **R** Reserved for IBM use **T** Trigger package for basic trigger **blank** Not a trigger package or a native SQL routine package **1** Trigger package for an advanced trigger
DOWNERTYPE	CHAR(1)	Indicates the type of owner of the package: **blank** Authorization ID **L** Role

SYSIBM.SYSPACKLIST

Contains one or more rows for every local application plan bound with a package list.

Column Name	Data Type	Description
PLANNAME	VARCHAR(24)	Name of the application plan
SEQNO	SMALLINT	Sequence number of the entry in the package list
LOCATION	VARCHAR(128)	Location of package. Blank if local. (*) - determined at run time
COLLID	VARCHAR(128)	Collection name for package. (*) - determined at run time
NAME	VARCHAR(128)	Name of the package. (*) - an entire collection
TIMESTAMP	TIMESTAMP	Timestamp indicating when the row was created
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSPACKSTMT

Contains one or more rows for each statement in a package.

Column Name	Data Type	Description
LOCATION	VARCHAR(128)	Always contains blanks
COLLID	VARCHAR(128)	Name of the package collection
NAME	VARCHAR(128)	Name of the package
CONTOKEN	CHAR(8)	Consistency token for the package
SEQNO	INTEGER	Not used
STMTNO	SMALLINT	Statement number of statement in source program
SECTNO	SMALLINT	The section number of the statement
BINDERROR	CHAR(1)	Whether an SQL error was detected at bind time: **N** No **Y** Yes
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
VERSION	VARCHAR(122)	Version identifier for the package
	VARCHAR(3500)	Internal use only
ISOLATION	CHAR(1)	Isolation level for the SQL statement: **R** RR (repeatable read) **T** RS (read stability) **S** CS (cursor stability) **U** UR (uncommitted read)

Column Name	Data Type	Description
		L KEEP UPDATE LOCKS for an RS isolation **X** KEEP UPDATE LOCKS for an RR isolation **blank** WITH clause was not specified on statement. Isolation level is recorded in SYSPACKAGE.ISOLATION and SYSPLAN.ISOLATION
STATUS	CHAR(1)	Status of binding the statement: **A** Distributed - statement uses Db2 private protocol access **B** Distributed - statement uses Db2 private protocol access **C** Compiled - statement was bound successfully using defaults for input variables during access path selection **E** Explain - statement is an SQL EXPLAIN statement **F** Parsed - statement did not bind successfully and VALIDATE(RUN) was used **G** Compiled - statement bound successfully, but used REOPT **H** Parsed - statement is either a data definition statement that did not bind successfully and VALIDATE(RUN) used **I** Indefinite - statement is dynamic **J** Indefinite - statement is dynamic **K** Control - CALL statement **L** Bad - statement has some allowable error **M** Parsed - statement references a table qualified with SESSION and was not bound because table reference could be for a declared temporary table that will not be defined until package or plan is run **blank** Statement is non-executable, or was bound prior to V5
ACCESSPATH	CHAR(1)	For static statements, indicates if access path for statement is based on user-specified optimization hints. 'H' indicates that optimization hints were used
STMTNOI	INTEGER	If value of STMTNO is zero, column contains the statement number of the statement in the source program
SECTNOI	INTEGER	The section number of the statement
EXPLAINABLE	CHAR(1)	Contains one of the following values: **Y** Indicates that the SQL statement can be used with EXPLAIN function and may have rows describing its access path in the userid.PLAN_TABLE **N** Indicates that the SQL statement does not have any rows describing its access path in the userid.PLAN_TABLE **Blank** Indicates that the SQL statement was bound prior to V7
QUERYNO	INTEGER	Query number of SQL statement in source program
ROWID	ROWID	ROWID column, created for the lob columns in this table
STATEMENT	CLOB(2M)	The complete text for the SQL statement that the row represents
	BLOB(2M)	Internal use only
STMT_ID	BIGINT	A unique statement identifier
EXPANSION_ REASON	CHAR(2)	Applies to only static statements that reference archive tables or temporal tables **A** Statement was bound with implicit query transformation as a result of SYSIBMADM.GET_ARCHIVE built-in global variable **B** Statement was bound with implicit query transformation as a result of the CURRENT TEMPORAL BUSINESS_TIME **S** Statement was bound with implicit query transformation as a result of the CURRENT TEMPORAL SYSTEM_TIME **SB** Statement was bound with implicit query transformation as a

Column Name	Data Type	Description
		result of CURRENT TEMPORAL SYSTEM_TIME register and CURRENT TEMPORAL BUSINESS_TIME **blank**
QUERYID	BIGINT	Identifier for record in SYSQUERY
QUERY_HASH	CHAR(6)	Hash key for records in SYSQUERY
QUERY_HASH_ VERSION	INTEGER	Hash version for records in SYSQUERY
COPYID	INTEGER	Copy ID of package
VALID	CHAR(1)	Whether the statement is valid: **A -** An ALTER statement changed the description of the table or base table of a view referred to by the statement. The changes do not invalidate the statement **N -** No **Y -** Yes **NULL -** VALID status unknown at the statement level

SYSIBM.SYSPACKSTMTCOPY

Records statement-level information for non-current package copies (previous, original, and phased-out).

Column Name	Data Type	Description
LOCATION	VARCHAR(128)	Always contains blanks
COLLID	VARCHAR(128)	Name of the package collection
NAME	VARCHAR(128)	Name of the package
CONTOKEN	CHAR(8)	Consistency token for the package
SEQNO	INTEGER	Not used
BINDERROR	CHAR(1)	Whether an SQL error was detected at bind time: **N** No **Y** Yes
STATUS	CHAR(1)	Status of binding the statement: **A** Distributed - statement uses Db2 private protocol access **B** Distributed - statement uses Db2 private protocol access **C** Compiled - statement was bound successfully using defaults for input variables during access path selection **E** Explain - statement is an SQL EXPLAIN statement **F** Parsed - statement did not bind successfully and VALIDATE(RUN) was used **G** Compiled - statement bound successfully, but REOPT is specified **H** Parsed - statement is either a data definition statement or a statement that did not bind successfully and VALIDATE(RUN) was used **I** Indefinite - statement is dynamic **J** Indefinite - statement is dynamic **K** Control - CALL statement **L** Bad - statement has some allowable error **M** Parsed - statement references a table qualified with SESSION and was not bound because table reference could be for a declared temporary table that will not be defined until package or plan is run **O** Compiled for acceleration **Blank** Statement is non-executable, or was bound prior to V5
ACCESSPATH	CHAR(1)	For static statements, indicates if the access path for the statement is based on user-specified optimization hints

Column Name	Data Type	Description
		H - optimization hints were used **A** – Access path was reused due to APREUSE
SECTNOI	INTEGER	Section number of the statement
EXPLAINABLE	CHAR(1)	Contains one of the following values: **Y** SQL statement can be used with EXPLAIN and may have rows describing its access path in the PLAN_TABLE **N** SQL statement does not have any rows describing its access path in the PLAN_TABLE **Blank** Indicates that the SQL statement was bound prior to V7
STMT_ID	BIGINT	A unique statement identifier
EXPANSION_ REASON	CHAR(2)	Applies to only static statements that reference archive tables or temporal tables **A** Statement was bound with implicit query transformation as a result of SYSIBMADM.GET_ARCHIVE built-in global variable **B** Statement was bound with implicit query transformation as a result of the CURRENT TEMPORAL BUSINESS_TIME **S** Statement was bound with implicit query transformation as a result of the CURRENT TEMPORAL SYSTEM_TIME **SB** Statement was bound with implicit query transformation as a result of CURRENT TEMPORAL SYSTEM_TIME register and CURRENT TEMPORAL BUSINESS_TIME **blank**
QUERY_HASH	CHAR(6)	Hash key for records in SYSQUERY
QUERY_HASH_ VERSION	INTEGER	Hash version for records in SYSQUERY
COPYID	INTEGER	Copy ID of package
VALID	CHAR(1)	Whether the statement is valid: **A -** An ALTER statement changed the description of the table or base table of a view referred to by the statement. The changes do not invalidate the statement **N -** No **Y -** Yes **NULL -** VALID status unknown at the statement level

SYSIBM.SYSPACKSTMTDEP

Records dependencies between application statements and objects.

Column Name	Data Type	Description
BSCHEMA	VARCHAR(128)	Value is schema of object identified in BNAME column, except in following cases: - If BNAME identifies a table space (BTYPE is R), the value is the name of the database for the table space - If BNAME identifies a table on which a period is defined (BTYPE is W or Z), the value is the qualifier of that table - If BNAME identifies a user-defined function, a cast function, a stored procedure, or a sequence (BTYPE is F, O, or Q), the value is the schema name - If BNAME identifies a role, the value is blank
BNAME	VARCHAR(128)	Name of an object the statement depends on. If BTYPE is W or Z, the value is the name of the table on which the period is defined
BTYPE	CHAR(1)	Type of object identified by BNAME and BQUALIFIER: **A** Alias **E** INSTEAD OF trigger

Column Name	Data Type	Description
		F User-defined function or cast function **H** Global variable **G** Global temporary table **I** Index **M** Materialized query table **O** Stored procedure **P** Partitioned table space defined as LARGE or with DSSIZE **Q** Sequence object **R** Table space **S** Synonym **T** Table **V** View **W** SYSTEM_TIME period **Z** BUSINESS_TIME period **0 (zero)** Sequence alias
DLOCATION	VARCHAR(128)	Always contains blanks
DCOLLID	VARCHAR (128)	Name of the package collection
DNAME	VARCHAR (128)	Name of the package
DCONTOKEN	CHAR(8)	Consistency token for the package. This is either: - "Level" as specified by LEVEL option when program for package was precompiled - Timestamp indicating when program for package was precompiled, in an internal format
DTYPE	CHAR(1)	Type of package: **R -** Reserved for IBM use **Blank -** Not a trigger package or a native SQL routine package
DSTMT_ID	BIGINT	A unique statement identifier
DSEQNO	INTEGER	Sequence number of the statement
DCOPYID	INTEGER	Copy ID of the package that contains the statement
DOWNER	VARCHAR (128)	Owner of the package that contains the statement
DOWNER_ TYPE	CHAR(1)	Type of the owner of the package that contains the statement: **L -** Role **Blank -** Authorization ID

SYSIBM.SYSPACKSTMT_STMB

An auxiliary table for the STMTBLOB column of SYSIBM.SYSPACKSTMT.

Column Name	Data Type	Description
	BLOB(2M)	Internal use only

SYSIBM.SYSPACKSTMT_STMT

An auxiliary table for the STMTBLOB column of SYSIBM.SYSPACKSTMT.

Column Name	Data Type	Description
STATEMENT	CLOB(2M)	Complete text for SQL statement that the row represents

SYSIBM.SYSPARMS

Contains a row for each parameter of a routine or multiple rows for table parameters.

Column Name	Data Type	Description
SCHEMA	VARCHAR(128)	Schema
OWNER	VARCHAR(128)	Owner
NAME	VARCHAR(128)	Name

Column Name	Data Type	Description
SPECIFICNAME	VARCHAR(128)	Specific
ROUTINETYPE	CHAR(1)	Type of routine: **F** User-defined function or cast function **P** Stored procedure
CAST_FUNCTION	CHAR(1)	Whether the routine is a cast function: **N** Not a cast function **Y** A cast function
PARMNAME	VARCHAR(128)	Name of parameter
ROUTINEID	INTEGER	Internal identifier of the routine
ROWTYPE	CHAR(1)	Values indicate type of parameter described by this row: **P** Input parameter **O** Output parameter; not applicable for functions **B** Both an input and and output; N/A for functions **R** Result before casting; N/A for stored procedures **C** Result after casting; not applicable for stored procedures **S** Input parameter of the underlying built-in source function
ORDINAL	SMALLINT	If ROWTYPE is B, O, P, or S, value is ordinal number of parameter within routine signature If ROWTYPE is C or R, value depends on type of function - Scalar function = 0 - Table function = ordinal number of column of output table If ROWTYPE is X, value is 0
TYPESCHEMA	CHAR(8)	Schema of data type of parameter
TYPENAME	CHAR(18)	Name of data type of parameter
DATATYPEID	INTEGER	Built-in data type = ID of built-in type Distinct type = ID of distinct type
SOURCETYPEID	INTEGER	Built-in data type = 0 Distinct type = ID built-in ID of sourced distinct type
LOCATOR	CHAR(1)	Indicates whether a locator to a value, instead of actual value, is to be passed as input value when routine is called: **N** Actual value is to be passed **Y** A locator to a value is to be passed
TABLE	CHAR(1)	Data type of a column for a table parameter: **N** Not a table parameter **Y** Is a table parameter
TABLE_COLNO	SMALLINT	For table parameters, column number of the table. Else,0
LENGTH	INTEGER	Length attribute of parameter or result
SCALE	SMALLINT	Scale of data type of parameter or number of fractional second digits of timestamp or timestamp with time zone parameter
SUBTYPE	CHAR(1)	If data type is a distinct type, subtype of the distinct type, which is based on the subtype of its source type: **B** FOR BIT DATA **S** FOR SBCS DATA **M** FOR MIXED DATA **blank** Source type is not a character type, or if parameter is an array type
CCSID	INTEGER	CCSID of data type for a character, date, time, timestamp or graphic data type
CAST_FUNCTION_ID	INTEGER	Internal function ID of function used to cast argument, if this function is sourced on another function, or result. Else, 0
ENCODING_SCHEME	CHAR(1)	Encoding scheme of the parameter:

Column Name	Data Type	Description
		A ASCII **E** EBCDIC **U** UNICODE **blank** Not a character type or parameter is an array type
IBMREQD	CHAR(1)	Y - row came from basic MRM tape
VERSION	VARCHAR(122)	Version identifier for routine
OWNERTYPE	CHAR(1)	Type of owner: **blank** Authorization ID **L** Role

SYSIBM.SYSPENDINGDDL

Contains information about which objects have pending definition changes.

Column Name	Data Type	Description
DBNAME	VARCHAR(24)	Name of database for the pending option
TSNAME	VARCHAR(24)	Name of table space for the pending option
DBID	SMALLINT	Internal identifier of the database
PSID	SMALLINT	Internal identifier of the table space page set descriptor
OBJSCHEMA	VARCHAR(128)	Qualifier of object that contains pending option
OBJNAME	VARCHAR(128)	Name of object that contains pending option
OBJOBID	SMALLINT	Internal identifier of object
OBJTYPE	CHAR(1)	Type of object identified by OBJSCHEMA and OBJNAME **I** Index **S** Table space **T** Table
STATEMENT_TYPE	CHAR(1)	Type of statement for pending option **A** ALTER statement **R** RECOVER statement
OPTION_ENVID	INTEGER	Internal identifier of the environment for the pending option
OPTION_KEYWORD	VARCHAR(128)	If row is inserted into this table during execution of a data definition statement, this value is name of pending option
OPTION_VALUE	VARCHAR(4000)	If row is inserted into this table during execution of a data definition statement, this value is value of pending option
OPTION_SEQNO	SMALLINT	Sequence of pending option within the statement
CREATEDTS	TIMESTAMP(12)	Timestamp when pending option was created
RELCREATED	CHAR(1)	Release of Db2 that is used to create object
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
ROWID	ROWID	ID to support LOB columns for source text
STATEMENT_TEXT	CLOB(2M)	Source text of the original statement for pending option
COLNAME	VARCHAR(128)	Name of the column with a pending definition change
PARTITION	SMALLINT	Partition number for partition with pending definition change 0 if pending change is for entire table space or index space
PARTITION_ KEYWORD	VARCHAR(18)	Column is populated if PARTITION column has a non-zero value. The keyword that is associated with the PARTITION clause of the ALTER TABLE statement
COLUMN_ KEYWORD	VARCHAR(18)	Contains the keyword that corresponds to the column that is listed in COLNAME
REORG_SCOPE_ LOWPART	SMALLINT	Logical partition number for lowest partition in range for REORG to materialize change
REORG_SCOPE_ HIGHPART	SMALLNT	Logical partition number for highest partition in range for REORG to materialize change

SYSIBM.SYSPENDINGOBJECT

Name of and OBID information about objects that are the pending creation.

Column Name	Data Type	Description
DBNAME	VARCHAR(24)	Database name
TSNAME	VARCHAR(24)	Table space name
DBID	SMALLINT	ID of database
PSID	SMALLINT	Internal identifier of the base table space page set descriptor
PARTITION	SMALLINT	Partition number with which the object is associated
COLNAME	VARCHAR(128)	Column in base table
OBJSCHEMA	VARCHAR(128)	Qualifier of object
OBJNAME	VARCHAR(128)	Name of object
OBJTYPE	CHAR(1)	Type of object identified by OBJSCHEMA and OBJNAME **I** Index **S** Table space **T** Table
INDEXSPACE	VARCHAR(24)	Name of index space
OBJOBID	SMALLINT	Internal identifier of the object
OBJPSID	SMALLINT	Internal identifier of the object page set descriptor, or 0 if the object does not have a page set descriptor

SYSIBM.SYSPKSYSTEM

Zero or more rows for every package.

Column Name	Data Type	Description
LOCATION	VARCHAR(128)	Always contains blanks
COLLID	VARCHAR(128)	Name of the package collection
NAME	VARCHAR(128)	Name of the package
CONTOKEN	CHAR(8)	Consistency token for the package
SYSTEM	VARCHAR(24)	Environment: **BATCH** TSO batch **CICS** Customer Information Control System **DB2CALL** Db2 call attachment facility **DLIBATCH** DLI batch support facility **IMSBMP** IMS BMP region **IMSMPP** IMS MPP and IFP region **REMOTE** Remote application server
ENABLE	CHAR(1)	Connections represented by the row are enabled or disabled: **N** Disabled **Y** Enabled
CNAME	VARCHAR(60)	Identifies connection or connections to which row applies
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSPLAN

One row for each application plan.

Column Name	Data Type	Description
NAME	VARCHAR(24)	Name of the application plan
CREATOR	VARCHAR(128)	Authorization ID of the owner of the application plan
	CHAR(6)	Not used
VALIDATE	CHAR(1)	Whether validity checking can be deferred until run time: **B** All checking must be performed during BIND **R** Validation is done at run time for tables, views, and privileges that do not exist at bind time

Column Name	Data Type	Description
ISOLATION	CHAR(1)	Isolation level for the plan: **R** RR (repeatable read) **T** RS (read stability) **S** CS (cursor stability) **U** UR (uncommitted read)
VALID	CHAR(1)	Whether the application plan is valid: **A** ALTER TABLE changed description of table or base table of a view that is referred to by the plan **H** ALTER TABLE changed description of table or base table of a view that is referred to by the plan **N** No **Y** Yes
OPERATIVE	CHAR(1)	Whether the application plan can be allocated: **N** No; an explicit BIND or REBIND is required before the plan can be allocated **Y** Yes
	CHAR(8)	Not used
PLSIZE	INTEGER	Size of the base section of the plan, in bytes
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
AVGSIZE	INTEGER	Average size, in bytes, of those sections of the plan that contain SQL statements processed at bind time
ACQUIRE	CHAR(1)	When resources are acquired: **A** At allocation **U** At first use
RELEASE	CHAR(1)	When resources are released: **C** At commit **D** At deallocation
EXPLAIN	CHAR(1)	EXPLAIN option specified for the plan: **N** No **Y** Yes
EXPREDICATE	CHAR(1)	CURRENTDATA option when the plan was bound or rebound: **B** Data currency is not required for ambiguous cursors. Allow blocking for ambiguous cursors **C** Data currency is required for ambiguous cursors. Inhibit blocking for ambiguous cursors **N** Blocking is inhibited for ambiguous cursors, but plan was created before the CURRENTDATA option was available
BOUNDBY	VARCHAR(128)	Primary authorization ID of the binder of the plan
QUALIFIER	VARCHAR(128)	Implicit qualifier for the unqualified table, view, index, and alias names in the static SQL statements of the plan
CACHESIZE	SMALLINT	Size, in bytes, of cache to be acquired for the plan. 0 indicates that no cache is used
PLENTRIES	SMALLINT	Number of package list entries for the plan
DEFERPREP	CHAR(1)	Package was last bound with the DEFER(PREPARE) option: **N** No **Y** Yes
CURRENTSERVER	VARCHAR(128)	Location name specified with the CURRENTSERVER option when the plan was last bound
SYSENTRIES	SMALLINT	Number of rows associated with the plan in SYSPLSYSTEM
DEGREE	CHAR(3)	DEGREE option used when the plan was last bound: **ANY** DEGREE(ANY) **1 or blank** DEGREE(1). Blank if plan was migrated

Column Name	Data Type	Description
SQLRULES	CHAR(1)	SQLRULES option used when the plan was last bound: **D or blank** SQLRULES(DB2) **S** SQLRULES(STD) **blank** A migrated plan
DISCONNECT	CHAR(1)	DISCONNECT option used when the plan was last bound: **E or blank** DISCONNECT (EXPLICIT) **A** DISCONNECT (AUTOMATIC) **C** DISCONNECT (CONDITIONAL) **blank** A migrated plan
GROUP_MEMBER	VARCHAR(24)	Member name of subsystem that performed most recent bind
DYNAMICRULES	CHAR(1)	DYNAMICRULES option used when the plan was last bound: **B** BIND **blank** RUN
BOUNDTS	TIMESTAMP	Time when the plan was bound
REOPTVAR	CHAR(1)	If access path is determined again at execution time **A** REOPT(AUTO) **N** REOPT(NONE) **Y** REOPT(ALWAYS) **1** REOPT(ONCE)
KEEPDYNAMIC	CHAR(1)	Prepared dynamic statements are to be purged at each commit **N** KEEPDYNAMIC(NO) **Y** KEEPDYNAMIC(YES)
PATHSCHEMAS	VARCHAR(254)	SQL path specified on BIND/REBIND that bound the plan
DBPROTOCOL	CHAR(1)	Whether remote access for SQL with three-part names is implemented with DRDA or Db2 private protocol access: **D** DRDA **P** Db2 private protocol
FUNCTIONTS	TIMESTAMP	Timestamp when function was resolved. Set by BIND and REBIND commands, but not by AUTOBIND
OPTHINT	CHAR(8)	Value of the OPTHINT bind option. Identifies rows in the authid.PLAN_TABLE to be used as input to the optimizer. Blank if no rows in the authid.PLAN_TABLE are to be used as input
ENCODING_CCSID	INTEGER	CCSID corresponding to encoding scheme or CCSID as specified for bind option ENCODING **CCSID** Specified or derived CCSID **0** EBCDIC default CCSID as specified on panel DSNTIPF at installation time
IMMEDWRITE	CHAR(1)	When writes of updated group bufferpool dependent pages are to be done. Applicable only for data-sharing environments **N** IMMEDWRITE(NO) - normal write activity is done **Y** IMMEDWRITE(YES) - immediate writes are done **1** IMMEDWRITE(PH1) - written at or before phase 1 commit **Blank** A migrated package
RELBOUND	CHAR(1)	Release when the package was bound or rebound **blank** Bound prior to V7 **K** Bound on V7 **L** Bound on V8
REMARKS	VARCHAR(128)	A character string provided by the user with COMMENT
CREATORTYPE	CHAR(1)	Type of creator: **blank** Authorization ID **L** Role

Column Name	Data Type	Description
ROUNDING	CHAR(1)	ROUNDING option used when the plan was last bound: **C** ROUND_CEILING **D** ROUND_DOWN **F** ROUND_FLOOR **G** ROUND_HALF_DOWN **E** ROUND_HALF_EVEN **H** ROUND_HALF_UP **U** ROUND_UP **blank** Plan was created prior to V9
	DATE	Not used
CONCUR_ACC_ RES	CHAR(1)	CONCURRENTACCESSRESOLUTION option when package was bound or rebound: **blank** Not specified **N** WAITFOROUTCOME **Y** USECURRENTLYCOMMITTED
PROGAUTH	CHAR(1)	Db2 checks if a program is authorized to run a plan: **D** DISABLE **E** ENABLE

SYSIBM.SYSPLANAUTH

Records the privileges that are held by users over application plans.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Authorization ID of user who granted privileges
GRANTEE	VARCHAR(128)	Authorization ID of user who holds privileges. Could be PUBLIC
NAME	VARCHAR(24)	Name of the application plan on which the privileges are held
AUTHHOWGOT	CHAR(1)	Authorization level of user from whom privileges received blank Not applicable **C** DBCTL **D** DBADM **E** SECADM **G** ACCESSCTRL **L** SYSCTRL **M** DBMAINT **S** SYSADM
BINDAUTH	CHAR(1)	GRANTEE can use BIND, REBIND, or FREE subcommands **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
EXECUTEAUTH	CHAR(1)	GRANTEE can run application programs that use the plan: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
IBMREQD	CHAR(1)	Y row came from basic MRM tape
GRANTEDTS	TIMESTAMP	Time when the GRANT statement was executed
GRANTEETYPE	CHAR(1)	Type of grantee: **blank** Authorization ID **L** Role
GRANTORTYPE	CHAR(1)	Type of grantor: **blank** Authorizaytion ID **L** Role
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table

Column Name	Data Type	Description
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSPLANDEP

Dependencies of plans on tables, views, tablespaces, indexes, functions, and procedures.

Column Name	Data Type	Description
BNAME	VARCHAR(128)	Name of an object the plan depends on
BCREATOR	VARCHAR(128)	If BNAME is a table space, its database
BTYPE	CHAR(1)	Type of object identified by BNAME: **A** Alias **E** INSTEAD OF trigger **F** User-defined function or cast function **I** Index **L** Role **M** Materialized query table **O** Stored procedure **P** Partitioned table space is defined as LARGE or DSSIZE **Q** Sequence object **R** Tablespace **S** Synonym **T** Table **V** View
DNAME	VARCHAR(24)	Name of plan
IBMREQD	CHAR(1)	Y indicates row came MRM tape

SYSIBM.SYSPLSYSTEM

Each row represents one or more connections to an environment in which plan could be used.

Column Name	Data Type	Description
NAME	VARCHAR(24)	Name of the plan
SYSTEM	VARCHAR(24)	Environment **BATCH** TSO batch **DB2CALL** Db2 call attachment facility **CICS** Customer Information Control System **DLIBATCH** DLI batch support facility **IMSBMP** IMS BMP region **IMSMPP** IMS MPP or IFP region
ENABLE	CHAR(1)	Connections represented by the row are enabled or disabled: **N** Disabled **Y** Enabled
CNAME	VARCHAR(60)	Connection or connections to which the row applies
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSQUERY

Contains one row for each query in a set of queries.

Column Name	Data Type	Description
QUERYID	BIGINT	Unique identifier for the query
QUERY_HASH	CHAR(16)	Hash key generated by statement text
SCHEMA	VARCHAR(128)	Default schema name for unqualified objects in query or blank
QUERY_SEC_ HASH	CHAR(16)	Hash key generated by the modified statement text
QUERY_HASH_ VERSION	INTEGER	Version of the query hash

Column Name	Data Type	Description
SOURCE	SMALLINT	Source of query: **0** Instance-level plan hint **1** Plan stability static **2** Plan stability dynamic
USERFILTER	CHAR(8)	Filter name that is used to group a set of queries or blank
	CHAR(128)	Internal use only
PLAN_VALID	CHAR(1)	Whether plan hints are valid: **blank** No plan hint exists for statement, but optimization parameters exist in SYSQUERYOPTS **Y** Plan hint exists in SYSQUERYPLAN for the statement **N** Plan hint exists in SYSQUERYPLAN, but is invalid and not used
INVALID_REASON	INTEGER	When PLAN_VALID is N, contains reason code. -1, if PLAN_VALID is Y or blank
	VARCHAR(128)	Not used
COLLECTION	VARCHAR(128)	Name of the collection of the originating query or blank
PACKAGE	VARCHAR(128)	Name of the package of the originating query or blank
VERSION	VARCHAR(128)	Version of the package or blank
AUTHID	VARCHAR(128)	Authorization ID in effect when the query was captured or blank
BINDTIME	TIMESTAMP	Timestamp when package was bound or BIND QUERY was run
STMTNO	INTEGER	When SOURCE is 1, the statement number in the package. When SOURCE is 0 or 2, is -1
SECTNO	INTEGER	When SOURCE is 1, section number in the package. When SOURCE is 0 or 2, is -1
STMTTEXT	CLOB(2M)	Text of SQL statement optimization hint or parameter applies to
QUERYNO	INTEGER	Query number
CLIENT_USERID	VARCHAR(255)	User ID of the client
CLIENT_ WRKSTNNAME	VARCHAR(255)	Name of the client workstation
CLIENT_ APPLNAME	VARCHAR(255)	Name of the client application
SELECTVTY_ OVERRIDE	CHAR(1)	Selectivity overrides are in effect for the query: **Y** In effect **N** Not in effect
ACCESSPATH_ HINT	CHAR(1)	Access paths are specified for matching statements: **Y** Is specified and in effect **N** Is not specified and in effect **blank** Might be specified. Must query SYSQUERYPLAN to determine whether an access path is specified
OPTION_ OVERRIDE	CHAR(1)	Optimization parameters are in effect for matching statements: **Y** Are in effect **N** Not in effect **blank** Might be in effect. Must query SYSQUERYOPTS catalog table to determine whether option overrides are in effect
SELECTIVITY_ VALID	CHAR(1)	Selectivity overrides are valid: **blank** None exist for the statement **Y** Overrides exist for query. Are valid if statement has already been executed and overrides were used **N** Overrides exist but are invalid and not used
FUNCTION_LVL	VARCHAR(10)	Function level of the query when row was inserted

SYSIBM.SYSQUERYPREDICATE

Information about predicates for queries in SYSQUERY identified for extended optimization.

Column Name	Data Type	Description
QUERYID	BIGINT	Unique identifier for the query
QUERYNO	INTEGER	A number identifying statement being explained
QBLOCKNO	SMALLINT	A number that identifies each query block within a query. Not in any particular order,nor are they necessarily consecutive
APPLNAME	VARCHAR(24)	Name of plan
POGNAME	VARCHAR(128)	Name of program or package containing the statement being explained
PREDNO	INTEGER	Predicate number - used to identify a predicate within a query
TYPE	CHAR(8)	Predicate type. The possible values are: AND, OR, EQUAL, RANGE, BETWEEN, IN, LIKE, NOT LIKE, EXISTS, NOTEXIST, SUBQUERY, HAVING, OTHERS
LEFT_HAND_SIDE	VARCHAR(128)	If LHS of predicate is a table column (LHS_TABNO > 0),indicates the column name. Other possible values are: VALUE, COLEXP, NONCOLEXP, CORSUB, NONCORSUB, SUBQUERY, EXPRESSION, Blank
LEFT_HAND_PHO	INTEGER	If LHS of predicate is a table column (LHS_TABNO > 0),indicates the column name. Other possible values are: VALUE, COLEXP, NONCOLEXP, CORSUB, NONCORSUB, SUBQUERY, EXPRESSION, Blank
LHS_TABNO	SMALLINT	If LHS of predicate is a table column, indicates a number which uniquely identifies corresponding table reference within a query
LHS_QBNO	SMALLINT	If LHS of predicate is a table column, indicates a number which uniquely identifies corresponding table reference within a query
RIGHT_HAND_ SIDE	VARCHAR(128)	If RHS of predicate is a table column (RHS_TABNO > 0), then indicates column name. Other values are: VALUE, COLEXP, NONCOLEXP, CORSUB, NONCORSUB, SUBQUERY, blank
RIGHT_HAND_ PNO	INTEGER	If predicate is a compound predicate (AND/OR), then indicates the second child predicate
PHS_TABNO	SMALLINT	If RHS of predicate is a table column, indicates a number which uniquely identifies corresponding table reference within a query
RHS_QBNO	SMALLINT	If RHS of predicate is a subquery, indicates a number which uniquely identifies the corresponding query block within a query
FILTER_FACTOR	FLOAT	Estimated filter factor
BOOLEAN_TERM	CHAR(1)	Whether predicate can be used to determine truth value of the whole WHERE clause
SEARCHARG	CHAR(1)	Whether this predicate can be processed by data manager (DM)
JOIN	CHAR(1)	If predicate can be used as join predicate between two tables
AFTER_JOIN	CHAR(1)	Indicates the predicate evaluation phase: **A** After join **D** During join **blank** Not applicable
ADDED_PRED	CHAR(1)	Whether it is generated by transitive closure
REDUNDANT_ PRED	CHAR(1)	Whether it is a redundant predicate
DIRECT_ACCESS	CHAR(1)	Whether the predicate is direct access, which means one can navigate directly to the row through ROWID
KEYFIELD	CHAR(1)	Whether the predicate includes the index key column of the involved table for all applicable indexes considered by Db2
EXPLAIN_TIME	TIMESTAMP	Time when EXPLAIN information was captured:

Column Name	Data Type	Description
		All cached statements - When statement entered the cache **Non-cached static statements -** When statement was bound **Non-cached dynamic statements-** When EXPLAIN executed
CATEGORY	SMALLINT	Internal use
CATEGORY_B	SMALLINT	Internal use
TEXT	VARCHAR(2000	Transformed predicate text; truncated if exceeds 2000 characters
PRED_ENCODE	CHAR(1)	Internal use
PRED_CCSID	SMALLINT	Internal use
PRED_MCCSID	SMALLINT	Internal use
MARKER	CHAR(1)	Whether predicate includes host variables, parameter markers, or special registers
PARENT_PNO	INTEGER	Parent predicate number. If predicate is a root predicate within a query block, then this column is 0
NEGATION	CHAR(1)	Whether this predicate is negated via NOT
LITERALS	VARCHAR(128)	Indicates literal value or literal values separated by colon symbols
CLAUSE	CHAR(8)	The clause where the predicate exists: **HAVING** HAVING clause **ON** ON clause **WHERE** WHERE clause **SELECT** SELECT clause
GROUP_MEMBER	VARCHAR(24)	Member name of Db2 that executed EXPLAIN
ORIGIN	CHAR(1)	Indicates the origin of the predicate **Blank** Generated by Db2 **C** Column mask **R** Row permission **U** Specified by the user
UNCERTAINTY	FLOAT(4)	Describes uncertainty factor of a predicate's estimated filter factor
SECTNOI	INTEGER	Section number of statement
COLLID	VARCHAR(128)	Collection ID
VERSION	VARCHAR(122)	Version identifier for package

SYSIBM.SYSQUERYSEL

Selectivity of predicates for queries in SYSQUERY table identified for extended optimization.

Column Name	Data Type	Description
QUERYID	BIGINT	Unique identifier for the query
QUERYNO	INTEGER	A number that identifies the statement that is being explained
QBLOCKNO	SMALLINT	A number that identifies each query block within a query
APPLNAME	VARCHAR(24)	Name of plan for row
PrOGNAME	VARCHAR(128)	Program or package containing statement being explained
PREDNO	INTEGER	Identifies predicate
INSTANCE	SMALLINT	Selectivity instance, which is used to group related selectivities
SELECTIVTY	FLOAT	Selectivity of the predicate
WEIGTH	FLOAT	Weight of selectivity instance
ASSUMPTION	VARCHAR(128)	Indicates how the selectivity was estimated, or will be used **NORMAL -** Estimated using the normal selectivity assumptions **OVERRIDE -** To be used as input to Optimizer and override it's selectivity estimation
INSERT_TIME	TIMESTAMP	Time when the row was inserted
EXPLAIN_TIME	TIMESTAMP	Time when the EXPLAIN information was captured **All cached statements -** When statement entered cache **Non-cached static statements -** When the statement was bound

Column Name	Data Type	Description
		Non-cached dynamic statements - When EXPLAIN executed

SYSIBM.SYSQUERY_AUX

An auxiliary table for the STMTTEXT column of the SYSIBM.SYSQUERY table.

Column Name	Data Type	Description
STMTTEXT	CLOB(2M)	Full text of the query

SYSIBM.SYSQUERYOPTS

Contains optimization parameters for the queries that are in SYSIBM.SYSQUERY.

Column Name	Data Type	Description
QUERYID	BIGINT	Unique identifier for the query. Corresponds to QUERYID column in SYSQUERY table
COPYID	SMALLINT	Version of the plan hints for the query in this row **0** Current version of plan hints **1** Previous version of plan hints used by PLAN STABILITY **2** Original version of plan hints used by PLAN STABILITY
REOPT	CHAR(1)	Value of the REOPT bind option that is in effect for the plan: **1** REOPT(ONCE) **A** REOPT(AUTO) **N** REOPT(NONE) **Y** REOPT(ALWAYS) **blank** REOPT is not specified
STARJOIN	CHAR(1)	Whether star join is enabled: **Y** Star join is enabled **N** Star join is disabled **blank** Star join is not specified
MAX_PAR_ DEGREE	INTEGER	Maximum parallel degree. Value between 0 and 254. If value of column is -1, maximum parallel degree is not specified
DEF_CURR_ DEGREE	CHAR(3)	Whether query parallelism is enabled: **ONE** Disabled **ANY** Enabled **blank** Disabled
SJTABLES	INTEGER	Number of tables specified to qualify for star join processing
	VARCHAR(128)	Internal use only
GROUP_MEMBER	VARCHAR(24)	Group member name to which parameters are to be applied
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSQUERYPLAN

Plan hint information for queries in SYSIBM.SYSQUERY table.

Column Name	Data Type	Description
QUERYID	BIGINT	Unique identifier for query. Corresponds to the QUERYID column in SYSQUERY table
COPYID	SMALLINT	Version of the plan hints for the query in this row **0** Current version of plan hints **1** Previous version of plan hints used by PLAN STABILITY **2** Original version of plan hints used by PLAN STABILITY
PLAN_VALID	CHAR(1)	Whether the plan hints are valid: **N** Invalid **Y** Valid
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
QBLOCKNO	SMALLINT	A number that identifies each query block within a query. Value

Column Name	Data Type	Description
		of numbers are not in any particular order, or consecutive
PLANNO	SMALLINT	Number of step in which query that is indicated in QBLOCKNO was processed. Indicates order in which steps were executed
METHOD	SMALLINT	Indicates the join method used for the step: **0** First table accessed, continuation of previous table accessed, or not used **1** Nested loop join **2** Merge scan join **3** Sorts needed by ORDER BY, GROUP BY, SELECT DISTINCT, UNION, a quantified predicate, or an IN predicate **4** Hybrid join
CREATOR	VARCHAR(128)	Creator of new table accessed in this step;blank if METHOD is 3
TNAME	VARCHAR(128)	Name of table, MQT, created or declared temporary table, materialized view, or materialized table expression
	SMALLINT	IBM use only
ACCESSTYPE	CHAR(2)	Method of accessing new table: **DI** Intersection of multiple DOCID lists to return final DOCID list **DU** Union of multiple DOCID lists to return the final DOCID list **DX** XML index scan of index in ACCESSNAME to return a DOCID list **E** Direct row using a row change timestamp column **H** Hash access **HN** Hash access using an IN predicate **IN** Index scan when matching predicate contains an IN and IN-list is accessed through an in-memory table **I** Index (in ACCESSCREATOR and ACCESSNAME) **I1** One-fetch index scan **M** Multiple index scan (followed by MX, MI, MH, or MU) **MH** Hash overflow index named in ACCESSNAME **MX** Index scan on index in ACCESSNAME **MI** Intersection of multiple indexes **MU** Union of multiple indexes **N** Index scan when matching predicate contains IN keyword or by index scan when Db2 rewrites query **NR** Range list access **O** Work file scan, as a result of a subquery **P** Dynamic pair-wise index scan **R** Table space scan **RW** Work file scan of a materialized user-defined table function **V** Buffers for an INSERT statement within a SELECT Blank = Not applicable to current row
MATCHCOLS	SMALLINT	For ACCESSTYPE I, I1, N, NR, MX, or DX, number of index keys used in an index scan; otherwise, 0
ACCESSCREATOR	VARCHAR(128)	For ACCESSTYPE I, I1, N, NR, MX, or DX, the creator of the index; otherwise, blank
ACCESSNAME	VARCHAR(128)	For ACCESSTYPE I, I1, H, MH, N, NR, MX, or DX, the name of the index; for ACCESSTYPE P, DSNPJW(*mixopseqno*) is the starting pair-wise join leg in MIXOPSEQNO; otherwise, blank
INDEXONLY	CHAR(1)	Whether access to an index alone is enough to carry out the step, or whether data, too, must be accessed **Y/N**
SORTN_UNIQ	CHAR(1)	If new table is sorted to remove duplicate rows **Y/N**
SORTN_JOIN	CHAR(1)	If new table is sorted for join method 2 or 4 **Y/N**

Column Name	Data Type	Description
SORTN_ORDERBY	CHAR(1)	If new table is sorted for ORDER BY **Y/N**
SORTN_GROUPBY	CHAR(1)	If new table is sorted for GROUP BY **Y/N**
SORTC_UNIQ	CHAR(1)	If composite table is sorted to remove duplicate **Y/N**
SORTC_JOIN	CHAR(1)	If composite table is sorted for join method 1, 2, or 4 **Y/N**
SORTC_ORDERBY	CHAR(1)	If composite table is sorted for an ORDER BY or a quantified predicate **Y/N**
SORTC_GROUPBY	CHAR(1)	If composite table is sorted for a GROUP BY **Y/N**
TSLOCKMODE	CHAR(3)	An indication of the mode of lock to be acquired on the new table or its table space or table space partitions. If the isolation can be determined at bind time, the values are: **IS** Intent share lock **IX** Intent exclusive lock **S** Share lock **U** Update lock **X** Exclusive lock **SIX** Share with intent exclusive lock **N** UR isolation; no lock If isolation cannot be determined at bind time, lock mode determined by isolation at runtime is shown by following values: **NS** For UR isolation, no lock; for CS, RS, or RR, an S lock **NIS** For UR isolation, no lock; for CS, RS, or RR, an IS lock **NSS** For UR isolation, no lock; for CS or RS, an IS lock; for RR, an S lock **SS** For UR, CS, or RS isolation, an IS lock; for RR, an S lock
PREFETCH	CHAR(1)	Whether data pages are to be read in advance by prefetch: **D** Optimizer expects dynamic prefetch **S** Pure sequential prefetch **L** Prefetch through a page list **U** List prefetch with an unsorted RID list **Blank** Unknown at bind time or no prefetch
COLUMN_FN_ EVAL	CHAR(1)	When a SQL aggregate function is evaluated: **R** While the data is being read from the table or index **S** While performing a sort to satisfy a GROUP BY clause **Blank** After data retrieval after any sorts
MIXOPSEQ	SMALLINT	Qequence number of a step in a multiple index operation: 1, 2, . . . *n* = steps of multiple index procedure (ACCESSTYPE is MX, MI, MU, DX, DI, or DU), sequence number of OR predicate in SQL statement (ACCESSTYPE is NR) 0 = For any other rows
ACCESS_DEGREE	SMALLINT	Number of parallel tasks or operations activated by a query
ACCESS_PGROUP _ID	SMALLINT	Identifier of the parallel group for accessing the new table
JOIN_DEGREE	SMALLINT	Number of parallel operations or tasks used in joining the composite table with new table
JOIN_PGROUP_ID	SMALLINT	ID of parallel group for joining composite table with new table
SORTC_PGROUP_ ID	SMALLINT	Parallel group identifier for parallel sort of the composite table
SORTN_PGROUP_ ID	SMALLINT	Parallel group identifier for parallel sort of the new table
PARALLELISM_ MODE	CHAR(1)	The kind of parallelism, if any, that is used at bind time: C = Query CP parallelism
MERGE_JOIN_	SMALLINT	Number of columns joined during merge scan join (Method = 2)

Column Name	Data Type	Description
COLS		
CORRELATION_ NAME	VARCHAR(128)	Correlation name of a table or view specified in the statement
PAGE_RANGE	CHAR(1)	If table qualifies for page range screening, so that plans scan only the partitions that are needed. Y = Yes; blank = No
JOIN_TYPE	CHAR(1)	Type of outer join: **F** Full outer join **L** Left outer join **P** Pair-wise join **S** Star join **Blank** = Inner join or no join RIGHT OUTER JOIN converts to a LEFT OUTER JOIN when you use it, so that JOIN_TYPE contains L
QBLOCK_TYPE	CHAR(6)	For each query block, type of SQL operation performed. For the outermost query, identifies the statement type **SELECT** SELECT **INSERT** INSERT **UPDATE** UPDATE **MERGE** MERGE **DELETE** DELETE **SELUPD** SELECT with FOR UPDATE OF **DELCUR** DELETE WHERE CURRENT OF CURSOR **UPDCUR** UPDATE WHERE CURRENT OF CURSOR **CORSUB** Correlated subquery **TRUNCA** TRUNCATE **NCOSUB** Noncorrelated subquery **TABLEX** Table expression **TRIGGR** WHEN clause on CREATE TRIGGER **UNION** UNION **UNIONA** UNION ALL **INTERS** INTERSECT **INTERA** INTERSECT ALL **EXCEPT** EXCEPT **EXCEPTA** EXCEPT ALL
PRIMARY_ ACCESSTYPE	CHAR(1)	Indicates whether direct row access will be attempted first: **D** Db2 will try to use direct row access **T** Base table or result file is materialized into a work file, and work file is accessed via sparse index access
PARENT_QBLOCK	SMALLINT	Number that indicates QBLOCKNO of the parent query block
TABLE_TYPE	CHAR(1)	Type of new table: **B** Buffers for SELECT from INSERT, SELECT from UPDATE, SELECT from MERGE, or SELECT from DELETE statement **C** Common table expression **F** Table function **I** New table is generated from an IN-LIST predicate **M** Materialized query table **Q** Temporary intermediate result table (not materialized) **R** Recursive common table expression **S** Subquery (correlated or non-correlated) **T** Table **W** Work file Value of column is null if query uses GROUP BY, ORDER BY, or DISTINCT, which requires an implicit sort

Column Name	Data Type	Description
TABLE_ENCODE	CHAR(1)	Encoding scheme of table. If table has a single CCSID set, possible values are: **A** ASCII **E** EBCDIC **U** Unicode **M** Table contains multiple CCSID sets
TABLE_SCCSID	SMALLINT	SBCS CCSID value of table. If TABLE_ENCODE is M, value 0
TABLE_MCCSID	SMALLINT	Mixed CCSID value of table. If TABLE_ENCODE is M, value is 0. If MIXED=NO in application defaults module, value is -2
TABLE_DCCSID	SMALLINT	DBCS CCSID value of table. If TABLE_ENCODE is M, value is 0. If MIXED=NO in application defaults module, value is -2
CTREF	SMALLINT	If referenced table is a common table expression, value is top-level query block number
PARENT_PLANNO	SMALLINT	Corresponds to the plan number in parent query block where a correlated subquery is involved
EXPANSION_ REASON	SMALLINT	Applies to only static statements that reference archive tables or temporal tables For dynamic statements, blank. For static statements: **A** Bound with implicit query transformation as a result of SYSIBMADM.GET_ARCHIVE built-in global variable **B** Bound with implicit query transformation as a result of the CURRENT TEMPORAL BUSINESS_TIME **S** Bound with implicit query transformation as a result of the CURRENT TEMPORAL SYSTEM_TIME **SB** Bound with implicit query transformation as a result of CURRENT TEMPORAL SYSTEM_TIME register and CURRENT TEMPORAL BUSINESS_TIME **blank** Statement does not contain implicit query transformation

SYSIBM.SYSRELS

Contains one row for every referential constraint.

Column Name	Data Type	Description
CREATOR	VARCHAR(128)	Schema of owner of dependent table of the referential constraint
TBNAME	VARCHAR(128)	Name of the dependent table of the referential constraint
RELNAME	VARCHAR(128)	Constraint name
REFTBNAME	VARCHAR(128)	Name of the parent table of the referential constraint
REFTBCREATOR	VARCHAR(128)	Schema of the owner of the parent table
COLCOUNT	SMALLINT	Number of columns in the foreign key
DELETERULE	CHAR(1)	Type of delete rule for the referential constraint: **A** NO ACTION **C** CASCADE **N** SET NULL **R** RESTRICT
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
RELOBID1	SMALLINT	Internal identifier of constraint with respect to database containing parent table
RELOBID2	SMALLINT	Internal identifier of constraint with respect to database that contains dependent table
TIMESTAMP	TIMESTAMP	Date and time constraint was defined
IXOWNER	VARCHAR(128)	Schema of unique non-primary index used for parent key
IXNAME	VARCHAR(128)	Name of unique non-primary index used for a parent key
ENFORCED	CHAR(1)	Enforced by the system or not:

Column Name	Data Type	Description
		Y Enforced by the system **N** Not enforced by the system(trusted)
CHECKEXISTING DATA	CHAR(1)	Option for checking existing data **I** Immediately check existing data **N** Never check existing data **T** Immediately check existing data for a temporal referential constraint
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object

SYSIBM.SYSRESAUTH

Records CREATE IN and PACKADM ON privileges for collections; USAGE privileges for distinct types; and USE privileges for buffer pools, storage groups, and tablespaces.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Authorization ID of the user who granted the privilege
GRANTEE	VARCHAR(128)	Authorization ID of user who holds the privilege. Could be PUBLIC
QUALIFIER	VARCHAR(128)	Qualifier of object
NAME	VARCHAR(128)	Name of buffer pool, collection, Db2 storage group, distinct type, or tablespace. ALL if USE OF ALL BUFFERPOOLS is granted
AUTHHOWGOT	CHAR(1)	Authorization level of user from whom privileges were received **blank** Not applicable **A** PACKADM (on collection *) **C** DBCTL **D** DBADM **E** SECADM **G** ACCESSCTRL **L** SYSCTRL **M** DBMAINT **S** SYSADM **P** PACKADM (on a specific collection) **T** DATAACCESS
OBTYPE	CHAR(1)	Type of object: **B** Buffer pool **C** Collection **D** Distinct type **R** Tablespace **S** Storage group **J** JAR (Java Archive file)
USEAUTH	CHAR(1)	Whether the privilege is held with the GRANT option: **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option Authority held is PACKADM when OBTYPE is C (a collection) and QUALIFIER is PACKADM. Authority held is CREATE IN when the OBTYPE is C and QUALIFIER is blank
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
GRANTEDTS	TIMESTAMP	Time when the GRANT statement was executed
GRANTEETYPE	CHAR(1)	Indicates the type of grantee: **blank** Authorization ID **L** Role
GRANTORTYPE	CHAR(1)	Indicates the type of grantor: **blank** Authorization ID **L** Role
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction

Column Name	Data Type	Description
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSROLES

Contains one row for each role.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of the role
DEFINER	VARCHAR(128)	Auth ID or role that defined this role listed in the NAME column
DEFINERTYPE	CHAR(1)	The type of definer: **L** Role **blank** Authorization ID
CREATEDTS	TIMESTAMP	Time when the role is created
RELCREATED	CHAR(1)	Release of Db2 that is used to create the role
REMARKS	VARCHAR(762)	A character string that is provided using COMMENT statement
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSROUTINEAUTH

Privileges held by users on routines. (UDF, cast function, or stored procedure)

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Authorization ID of the user who granted the privilege
GRANTEE	VARCHAR(128)	Authorization ID of the user who holds the privilege or the name of a plan or package that uses the privilege. Can also be PUBLIC
SCHEMA	VARCHAR(128)	Schema of the routine
SPECIFICNAME	VARCHAR(128)	Specific name of routine. * if privilege held on all routines in schema.
GRANTEDTS	TIMESTAMP	Time when the GRANT statement was executed
ROUTINETYPE	CHAR(1)	Type of routine: **F** User-defined function or cast function **P** Stored procedure
GRANTEETYPE	CHAR(1)	Type of grantee: **blank** An authorization ID **L** Role **P** Plan or package. Package if COLLID is not blank **R** Internal use only
AUTHHOWGOT	CHAR(1)	Authorization level of user from whom privileges were received. Not necessarily highest authorization level of grantor. Also used to indicate that the privilege was held on all schemas by grantor **blank** Not applicable **1** Grantor had privilege on schema.* at time of grant **E** SECADM **G** ACCESSCTRL **L** SYSCTRL **S** SYSADM **T** DATAACCESS
EXECUTEAUTH	CHAR(1)	GRANTEE can execute the routine: **Y** Privilege is held without GRANT option **G** Privilege is held with GRANT option
COLLID	VARCHAR(128)	If GRANTEE is a package, its collection name. Else, blank
CONTOKEN	CHAR(8)	If GRANTEE is a package, consistency token of DBRM from which package was derived. Else, blank
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

Column Name	Data Type	Description
GRANTORTYPE	CHAR(1)	Indicates the type of grantor: **blank** Authorization ID **L** Role
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSROUTINES

Contains a row for every routine. (User-defined function, cast function, or stored procedure)

Column Name	Data Type	Description
SCHEMA	VARCHAR(128)	Schema of the routine
OWNER	VARCHAR(128)	Owner of the routine
NAME	VARCHAR(128)	Name of the routine
ROUTINETYPE	CHAR(1)	Type of routine: **F** User-defined function or cast function **P** Stored procedure
CREATEDBY	VARCHAR(128)	Primary auth ID under which routine was created
SPECIFICNAME	VARCHAR(128)	Specific name of the routine
ROUTINEID	INTEGER	Internal identifier of the routine
RETURN_TYPE	INTEGER	Internal identifier of result data type of function. -2 if function is a table function
ORIGIN	CHAR(1)	Origin of the routine: **E** External user-defined function or stored procedure **N** Native SQL Procedure **Q** SQL Function **U** Sourced on user-defined function or built-in function **S** System-generated function
FUNCTION_TYPE	CHAR(1)	Type of function: **C** Column function **S** Scalar function **T** Table function **blank** a stored procedure (ROUTINETYPE = 'P')
PARM_COUNT	SMALLINT	Number of parameters for the routine
LANGUAGE	VARCHAR(24)	Implementation language of the routine: **ASSEMBLE** **C** **COBOL** **COMPJAVA** **JAVA** **PLI** **REXX** **SQL** Blank if ROUTINETYPE = 'F' and ORIGIN is not 'E' or not 'Q'
COLLID	VARCHAR(128)	Name of package collection to be used when routine is executed
SOURCESCHEMA	VARCHAR(128)	If ORIGIN is 'U' and ROUTINETYPE is 'F', schema of source user-defined function ('SYSIBM' for a source built-in function). Else, blank
SOURCESPECIFIC	VARCHAR(128)	If ORIGIN is 'U' and ROUTINETYPE is 'F', specific name of source user-defined function or source built-in function name. Else, blank

Column Name	Data Type	Description
DETERMINISTIC	CHAR(1)	Option of an external function or a stored procedure: **N** Indeterminate (results may differ with a given set of input values) **Y** Deterministic (results are consistent). **blank** ROUTINETYPE='F' and ORIGIN is not 'E' (routine is a function, but not an external function)
EXTERNAL_ACTION	CHAR(1)	External action option of an external function: **N** Function has no side effects **E** Function has external side effects so that number of invocations is important **blank** ORIGIN not 'E' for function (ROUTINETYPE='F'), or it is a stored procedure (ROUTINETYPE='P')
NULL_CALL	CHAR(1)	CALLED ON INPUT option of an external function or stored procedure: **N** Routine is not called if any parameter has a NULL value **Y** Routine is called if any parameter has a NULL value **blank** ROUTINETYPE='F' and ORIGIN is not 'E' (routine is a function, but not an external function)
CAST_FUNCTION	CHAR(1)	Whether routine is a cast function: **N** Not a cast function **Y** Is a cast function A cast function is generated by Db2 for a CREATE DISTINCT TYPE statement
SCRATCHPAD	CHAR(1)	SCRATCHPAD option of an external function: **N** Does not have a SCRATCHPAD **Y** Has a SCRATCHPAD **blank** ORIGIN is not 'E' for function (ROUTINETYPE='F'), or it is a stored procedure (ROUTINETYPE='P')
SCRATCHPAD_LENGTH	INTEGER	Length of scratchpad if ORIGIN is 'E' for function (ROUTINETYPE='F') and NO SCRATCHPAD is not specified. Else, 0
FINAL_CALL	CHAR(1)	FINAL CALL option of an external function: **N** Final call will not be made to function **Y** Final call will be made to function **blank** ORIGIN is not 'E' for function (ROUTINETYPE='F'), or is a stored procedure (ROUTINETYPE='P')
PARALLEL	CHAR(1)	PARALLEL option of an external function: **A** Function can be invoked by parallel tasks **D** Function cannot be invoked by parallel tasks **blank** ORIGIN is not 'E' for function (ROUTINETYPE='F'), or it is a stored procedure (ROUTINETYPE='P')

Column Name	Data Type	Description
PARAMETER_STYLE	CHAR(1)	PARAMETER STYLE option of an external function or stored procedure: **D** DB2SQL **G** GENERAL **N** GENERAL CALL WITH NULLS **J** JAVA **blank** If ORIGIN is not 'E' or if LANGUAGE is SQL
FENCED	CHAR(1)	**Y** Routine runs separately from Db2 address space in a WLM managed Db2 address space **blank** ORIGIN is 'Q' or ORIGIN is 'N'
SQL_DATA_ACCESS	CHAR(1)	SQL statements are allowed in an external function or stored procedure: **C** CONTAINS SQL: Only SQL that does not read or modify data is allowed. **M** MODIFIES SQL DATA: All SQL is allowed, including SQL that reads or modifies data **N** NO SQL: SQL is not allowed **R** READS SQL DATA: Only SQL that reads data is allowed **blank** Not applicable
DBINFO	CHAR(1)	Option of an external function or stored procedure: **N** Parameter will not be passed to external function or stored procedure **Y** Parameter will be passed to external function or stored procedure **blank** ORIGIN is not 'E'
STAYRESIDENT	CHAR(1)	Determines whether routine is deleted from memory when routine ends **N** Load module is to be deleted from memory after routine terminates **Y** Load module is to remain resident in memory after routine terminates **blank** ORIGIN is not 'E'
ASUTIME	INTEGER	Number of CPU service units permitted for any single invocation of this routine
WLM_ENVIRONMENT	VARCHAR(54)	Name of WLM environment tused to run this routine
WLM_ENV_FOR_NESTED	CHAR(1)	For nested routine calls, indicates whether address space of calling store procedure or user-defined function is used to run nested stored procedure or UDF: **N** Nested stored procedure or UDF runs in an address space other than specified WLM environment if calling stored procedure or UDF is not running in specified WLM environment. 'WLM ENVIRONMENT name' was specified **Y** Nested stored procedure or UDF runs in the environment used by calling stored procedure or UDF. 'WLM ENVIRONMENT(name,*)' was specified **blank** WLM_ENVIRONMENT is blank

Column Name	Data Type	Description
PROGRAM_TYPE	CHAR(1)	Routine runs as a Language Environment main routine or a subroutine: **M** Main routine **S** Subroutine **blank** ORIGIN is not 'E'
EXTERNAL_SECURITY	CHAR(1)	Specifies auth ID to be used if routine accesses resources protected by an external security product: **D** Db2 - Auth ID associated with WLM stored procedure address space **U** SESSSION_USER - Auth ID of SQL user that invoked routine **C** DEFINER - Aut ID of owner of routine **blank** ORIGIN is not 'E'
COMMIT_ON_RETURN	CHAR(1)	If ROUTINETYPE = 'P', whether transaction is always to be committed immediately on successful return (non-negative SQLCODE) from stored procedure: **N** Unit of work is to continue **Y** Unit of work is to be committed immediately If ROUTINETYPE = 'F', value is blank
RESULT_SETS	SMALLINT	If ROUTINETYPE = 'P', maximum number of ad hoc result sets that this stored procedure can return. If no ad hoc result exists or ROUTINETYPE = 'F', 0
LOBCOLUMNS	SMALLINT	If ORIGIN = 'E', number of LOB columns found in parameter list for this UDF. If no LOB columns are found in parameter list or ORIGIN is not 'E', 0
CREATEDTS	TIMESTAMP	Time CREATE statement was executed for routine
ALTEREDTS	TIMESTAMP	Time last ALTER statement was executed for routine
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
PARM1 - 30	SMALLINT	Internal use only
IOS_PER_INVOC	FLOAT	Estimated number of I/Os required to execute routine
INSTS_PER_INVOC	FLOAT	Estimated number of machine instructions required to execute routine
INITIAL_IOS	FLOAT	Estimated number of I/Os performed first time or last time routine is invoked
INITIAL_INSTS	FLOAT	Estimated number of machine instructions performed first time or last time routine is invoked
CARDINALITY	FLOAT	Predicted cardinality of routine
RESULT_COLS	SMALLINT	For a table function, number of columns in result table
EXTERNAL_NAME	VARCHAR(762)	Path/module/function loaded to execute routine. Blank if ROUTINETYPE = 'F' and ORIGIN is not 'E'
PARM_SIGNATURE	VARCHAR(150)	Internal use only
RUNOPTS	VARCHAR(762)	Language Environment run-time options for routine. Blank - installation default Language Environment run-time options are to be used, if ROUTINETYPE = 'F' and ORIGIN is not 'E'
REMARKS	VARCHAR(762)	String provided by user with COMMENT ON
JAVA_SIGNATURE	VARCHAR(3072)	Signature of the jar file: **Blank** When PARAMETER STYLE is not JAVA, or if ROUTINETYPE = 'F' and ORIGIN not 'E'
CLASS	VARCHAR(384)	Class name contained in the jar file: **Blank** When PARAMETER STYLE is not JAVA or if ROUTINETYPE = 'F' and ORIGIN not 'E'

Column Name	Data Type	Description
JARSCHEMA	VARCHAR(128)	Schema of the jar file: **Blank** When PARAMETER STYLE is not JAVA or if ROUTINETYPE = 'F' and ORIGIN not 'E'
JAR_ID	VARCHAR(128)	Name of the jar file: **Blank** When PARAMETER STYLE is not JAVA or if ROUTINETYPE = 'F' and ORIGIN not 'E'
SPECIAL_REGS	CHAR(1)	SPECIAL REGISTER option for a routine: **I** INHERIT SPECIAL REGISTER **D** DEFAULT SPECIAL REGISTER **blank** ROUTINETYPE = 'F' and ORIGIN is not 'E' or not 'Q'
NUM_DEP_MQTS	SMALLINT	Number of dependent MQTs
MAX_FAILURES	SMALLINT	Allowable failures for this routine (0-32767)
PARAMETER_CCSID	INTEGER	A CCSID that specifies how character, graphic, date, time, and timestamp data types for system generated parameters to the routine such as message tokens and DBINFO should be passed. **ASCII** **EBCDIC** **UNICODE**
VERSION	VARCHAR(122)	Version identifier for a native SQL procedure
CONTOKEN	CHAR(8)	Consistency token for routine. X'20' if ORIGIN not = 'N'
ACTIVE	CHAR(1)	Identifies the active version of the routine: **Y** Active version **N** Not the active version **blank** ORIGIN not 'N' or row was created prior to V9
DEBUG_MODE	CHAR(1)	Whether or not routine is enabled for debugging: **1** Enabled for debugging and can be debugged in a client debug session using Unified Debugger **0** Not enabled for debugging **N** Can never be enabled for debugging **blank** LANGUAGE is not specified as JAVA, value of ORIGIN not 'N', or row was created prior to V9
TEXT_ENVID	INTEGER	Internal identifier of environment
TEXT_ROWID	ROWID	ID to support LOB columns for source text
TEXT	CLOB(2M)	Source text of CREATE or ALTER with body for routine
OWNERTYPE	CHAR(1)	Indicates the type of owner: **blank** Authorization ID **L** Role
PARAMETER_ VARCHARFORM	INTEGER	Non-zero value indicates actual representation, to a LANGUAGE C routine, of any varying length string parameter that appears in parameter list or RETURNS
RELCREATED	CHAR(1)	Release used to create object. Blank if prior to V9
PACKAGEPATH	VARCHAR(4096)	Value of PACKAGE PATH option of CREATE FUNCTION, CREATE PROCEDURE, ALTER FUNCTION, or ALTER PROCEDURE statement that created or last changed the routine
SECURE	CHAR(1)	Indicates if the routine is secured: **N** Routine is not secured **Y** Routine is secured

Column Name	Data Type	Description
INLINE	CHAR(1)	Specifies if the SQL function is inline: **Y** Is inline when referenced. No package is associated with this type of routine **N** Has an associated package **blank** Not an SQL function (ORIGIN not 'Q')
	BLOB(1G)	
SYSTEM_DEFINED	CHAR(1)	Identifies whether this routine is system defined: **blank** Not system defined **S** System defined
WRAPPED	CHAR(1)	**Y** Routine text is obfuscated **Blank** Routine text is not obfuscated
REGENERATETS	TIMESTAMP(12)	Timestamp when object was regenerated

SYSIBM.SYSROUTINESTEXT

An auxiliary table for the TEXT column of SYSIBM.SYSROUTINES.

Column Name	Data Type	Description
TEXT	CLOB(2M)	Source text of CREATE PROCEDURE for routine

SYSIBM.SYSROUTINES_OPTS

Contains a row for each generated routine. Can be inserted, updated, and deleted.

Column Name	Data Type	Description
SCHEMA	VARCHAR(128)	Schema of the routine
ROUTINENAME	VARCHAR(128)	Name of the routine
BUILDDATE	DATE	Date the routine was built
BUILDTIME	TIME	Time the routine was built
BUILDSTATUS	CHAR(1)	Whether version of the routine's source is current version
BUILDSCHEMA	VARCHAR(128)	Schema name for BUILDNAME
BUILDNAME	VARCHAR(128)	Procedure used to create the routine
BUILDOWNER	VARCHAR(128)	Authorization ID used to create the routine
IBMREQD	CHAR(1)	Y indicates row came from the (MRM) tape
PRECOMPILE_OPTS	VARCHAR(765)	Precompiler options used to build the routine
COMPILE_OPTS	VARCHAR(765)	Compiler options used to build the routine
PRELINK_OPTS	VARCHAR(765)	Prelink-edit options used to build the routine
LINK_OPTS	VARCHAR(765)	Link-edit options used to build the routine
BIND_OPTS	VARCHAR(3072)	Bind options used to build the routine
SOURCEDSN	VARCHAR(765)	Name of the source data set
DEBUG_MODE	CHAR(1)	Debugging is on or off for this objects 0 Debugging is off 1 Debugging is on

SYSIBM.SYSROUTINES_PTREE

An auxiliary table for the PTREE column of the SYSIBM.SYSROUTINES table.

Column Name	Data Type	Description
PTREE	CLOB(2M)	Internal use only

SYSIBM.SYSROUTINES_SRC

Contains source for generated routines. Can be inserted, updated, and deleted.

Column Name	Data Type	Description
SCHEMA	VARCHAR(128)	Schema of the routine
ROUTINENAME	VARCHAR(128)	Name of the routine

Column Name	Data Type	Description
BUILDDATE	DATE	Date the routine was built
BUILDTIME	TIME	Time the routine was built
BUILDSTATUS	CHAR(1)	Whether this version of routine's source is current version
SEQNO	INTEGER	Number of the source statement piece in CREATESTMT
IBMREQD	CHAR(1)	Y indicates row came from the (MRM) tape
CREATESTMT	VARCHAR(7500)	Routine source statement

SYSIBM.SYSSCHEMAAUTH

One or more rows for each user granted a privilege on a particular schema in a database.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Auth ID of user who granted privileges or SYSADM
GRANTEE	VARCHAR(128)	Auth ID of user or group that holds privileges. Can be PUBLIC
SCHEMANAME	VARCHAR(128)	Name of the schema or '*' for all schemas
AUTHHOWGOT	CHAR(1)	Auth level of user from whom privileges were received. **1** Grantor had privilege on all schemas at time of grant **E** SECADM **G** ACCESSCTRL **L** SYSCTRL **S** SYSADM
CREATEINAUTH	CHAR(1)	Grantee holds CREATEIN privilege on schema: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
ALTERINAUTH	CHAR(1)	Grantee holds ALTERIN privilege on schema: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
DROPINAUTH	CHAR(1)	Grantee holds DROPIN privilege on schema: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
GRANTEDTS	TIMESTAMP	Time when the GRANT statement was executed
IBMREQD	CHAR(1)	Y indicates row came from the (MRM) tape
GRANTEETYPE	CHAR(1)	Type of grantee: **blank** Authorization ID **L** Role
GRANTORTYPE	CHAR(1)	Type of grantor: **blank** Authorization ID **L** Role
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSSEQUENCEAUTH

Records the privileges that are held by users over sequences.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Auth ID of user who granted the privileges
GRANTEE	VARCHAR(128)	Auth ID of user or group that holds privileges or the name of an application plan or package that uses privileges
SCHEMA	VARCHAR(128)	Schema of the sequence
NAME	VARCHAR(128)	Name of the sequence

Column Name	Data Type	Description
GRANTEETYPE	CHAR(1)	Type of grantee: blank An authorization ID L Role P An application plan or package R Internal use only
AUTHHOWGOT	CHAR(1)	Auth level of user from whom the privileges were received. Not necessarily highest authorization level of the grantor: **E** SECADM **G** ACCESSCTRL **L** SYSCTRL **S** SYSADM **T** DATAACCESS
ALTERAUTH	CHAR(1)	Grantee holds ALTER privilege on sequence: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
USEAUTH	CHAR(1)	Grantee holds USAGE privilege on sequence: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
COLLID	VARCHAR(128)	If GRANTEE is a package, its collection name. Else, 0
CONTOKEN	CHAR(8)	If GRANTEE is a package, consistency token of the DBRM from which the package was derived. Else, blank
GRANTEDTS	TIMESTAMP	Time when the GRANT statement was executed
IBMREQD	CHAR(1)	Y indicates row came from the (MRM) tape
GRANTORTYPE	CHAR(1)	Type of grantor: **blank** Authorization ID **L** Role
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSSEQUENCES

Contains one row for each identity column or user-defined sequence.

Column Name	Data Type	Description
SCHEMA	VARCHAR(128)	Schema of alias or sequence. For an identity column, value of TBCREATOR from SYSCOLUMNS entry for column
OWNER	VARCHAR(128)	Owner of alias or sequence. For an identity column, value of TBCREATOR from SYSCOLUMNS entry for column
NAME	VARCHAR(128)	Name of the identity column, alias or sequence. (Name for an identity is generated by Db2.)
SEQTYPE	CHAR(1)	Type of sequence object: **A** Alias **I** Identity column **S** User-defined sequence **X** Implicitly created DOCID for a base table with XML
SEQUENCEID	INTEGER	Internal identifier of the identity column, alias or sequence
CREATEDBY	VARCHAR(128)	Primary auth ID of user who created sequence, alais or identity column
INCREMENT	DECIMAL(31,0)	Increment value (positive or negative, within INTEGER scope), 0 if alias
START	DECIMAL(31,0)	Start value, 0 if alias

Column Name	Data Type	Description
MAXVALUE	DECIMAL(31,0)	Maximum value allowed for the data type, 0 if alias
MINVALUE	DECIMAL(31,0)	Minimum value allowed for the data type, 0 if alias
CYCLE	CHAR(1)	Whether cycling will occur when a boundary is reached: **N** No **Y** Yes Blank if alias
CACHE	INTEGER	Number of sequence values to preallocate in memory for faster access
ORDER	CHAR(1)	Whether the values must be generated in order **Y** Yes **N** No Blank if alias
DATATYPEID	INTEGER	For a built-in data type, the internal ID of built-in type For a distinct type, the internal ID of distinct type
SOURCETYPEID	INTEGER	For a built-in data type, 0 For a distinct type, internal ID of built-in data type upon which distinct type is sourced
CREATEDTS	TIMESTAMP	When identity column, alias, or sequence was created
ALTEREDTS	TIMESTAMP	When identity column, alias or sequence was ALTERed
MAXASSIGNEDVAL	DECIMAL(31,0)	Last possible assigned value.Updated each time next chunk of *n* values is cached, where *n* is value for CACHE
IBMREQD	CHAR(1)	Y row came from (MRM) tape
REMARKS	VARCHAR(254)	Character string provided by user with COMMENT statement. Blank for an identity column
PRECISION	SMALLINT	Precision defined for a sequence with a decimal or numeric type. 5 for SMALLINT, 10 for INTEGER, or actual precision specified by user for decimal data type. 0 for rows created prior to V8, or alias
RESTARTWITH	DECIMAL(31,0)	RESTART WITH value specified for a sequence during ALTER or NULL. RESTART WITH value is reset to NULL during first value generation after ALTER. NULL if no ALTER with RESTART WITH has happened or if an alias
OWNERTYPE	CHAR(1)	Type of owner: **blank** Authorization ID **L** Role
RELCREATED	CHAR(1)	Release used to create object. Blank if created prior to V9
SEQSCHEMA	VARCHAR(128)	Schema of target sequence
SEQNAME	VARCHAR(128)	Name of target sequence

SYSIBM.SYSSEQUENCESDEP

Records the dependencies of identity columns on tables.

Column Name	Data Type	Description
BSEQUENCEID	INTEGER	Internal identifier of the identity column or sequence
DCREATOR	VARCHAR(128)	Owner of object dependent on this identity column or sequence
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
DNAME	VARCHAR(128)	Name of object dependent on this identity column or sequence
DCOLNAME	VARCHAR(128)	Name of the identity column. Blank for SQL function rows
DTYPE	CHAR(1)	Type of object that is dependent on this sequence: **F** SQL function **I** Identity column **X** Implicit DOCID column created on base table with XML **blank**

Column Name	Data Type	Description
BSCHEMA	VARCHAR(129)	Schema name of sequence
BNAME	VARCHAR(128)	Sequence name (generated by Db2 for an identity column)
DSCHEMA	VARCHAR(128)	Qualifier of object dependent on sequence
DOWNER	VARCHAR(128)	Owner of object dependent on sequence
DOWNERTYPE	CHAR(1)	The type of owner: **Blank** An authorization ID **L** A role

SYSIBM.SYSSESSION

Stores the session token that was generated by the server and associated session data.

Column Name	Data Type	Description
TOKEN	CHAR(40)	Session token for the session
CORRTKN	VARCHAR(256)	Extended client correlation token in use
GV_FLAGS	CHAR(2)	Flags for internal classification of global variable
TOTAL	CHAR(4)	Number of entries in SYSSESSION_EX that correspond to session token
SPECIAL_ REGISTERS	VARCHAR(16000)	Special register values
GLOBAL_ VARIABLES	BLOB(2G)	Global variable values
ROWID	ROWID	Generated ROWID

SYSIBM.SYSSESSION_EX

Contains global variable data of LOB or array type that corresponds to the locator.

Column Name	Data Type	Description
TOKEN	CHAR(40)	Session token for the session
LOCATOR	CHAR(8)	Locator value corresponding to one of the global variables with DATAYPE as array of lobs
HEADER	CHAR(89)	Array static descriptor header when locator value corresponds to array type
GVID	CHAR(8)	Global variable identifier
DATATYPE	CHAR(2)	Datatype of the global variable
CSSID	CHAR(2)	CCSID of the global variable
GVSCHEMA	VARCHAR(130)	Schema name of the global variable
GVNAME	VARCHAR(130)	Name of the global variable
DATA	BLOB(2G)	Data value stored in the global variable

SYSIBM.SYSSTATFEEDBACK

Contains information about missing or conflicting catalog statistics for SQL statements.

Column Name	Data Type	Description
TBCREATOR	VARCHAR(128)	Creator of table
TBNAME	VARCHAR(128)	Name of table
COLNAME	VARCHAR(128)	Creator of the index
IXNAME	VARCHAR(128)	Name of the index
COLNAME	VARCHAR(128)	Name of the column
NUMCOLUMN	SMALLINT	Number of columns in the column group
COLGROUP COLNO	VARCHAR(254)	Identifies set of columns associated with statistics (HEX)

Column Name	Data Type	Description
TYPE	CHAR(1)	The type of statistic to collect: **C -** Cardinality **F -** Frequency **H -** Histogram **I -** Index **T -** Table
DBNAME	VARCHAR(24)	Name of database
TSNAME	VARCHAR(24)	Name of tablespace
REASON	CHAR(8)	Reason that statistic was recommend: **BASIC -** Basic statistical value for a column table or index is missing **KEYCARD -** Cardinalities of index key columns are missing **LOWCARD -** Cardinality of the column is a low value, which indicates that data skew is likely **NULLABLE -** Distribution statistics are not available for a nullable column **DEFAULT -** Predicate references a value that is probably a default value **RANGEPRD -** Histogram statistics are not available for a range predicate **PARALLEL -** Parallelism could be improved by uniform partitioning of key ranges **CONFLICT -** Another statistic conflicts with this statistic **COMPFFIX -** Multi-column cardinality statistics are needed for an index compound filter factor **STALE -** Out of sync with other statistics based on comparison of time of statistics collection of related objects
BLOCK_ RUNSTATS	CHAR(1)	If row is used when optimization tools collect statistics based on recommendations. Db2 inserts a blank for all new rows
REMARKS	VARCHAR(254)	Free form text for extensibility
LASTDATE	DATE	Last date statistics recommendation was updated by Db2

SYSIBM.SYSSESSION_STATUS

Contains session token/timestamp value when session data last referenced.

Column Name	Data Type	Description
TOKEN	CHAR(40)	Session token for the session
TOKEN_TS	CHAR(16)	Timstamp when row was last referenced
TOKEN_ MEMEBER	CHAR(16)	Flags for internal classification of global variable
STATUS	CHAR(2)	Status of session corresponding to the token

SYSIBM.SYSSTMT

Contains one or more rows for each SQL statement of each DBRM.

Column Name	Data Type	Description
NAME	VARCHAR(24)	Name of the DBRM
PLNAME	VARCHAR(24)	Name of the application plan
PLCREATOR	VARCHAR(128)	Authorization ID of owner of application plan
SEQNO	SMALLINT	Sequence number of row with respect to a statement of plan
STMTNO	SMALLINT	Statement number of statement in source program
SECTNO	SMALLINT	Section number of statement
IBMREQD	CHAR(1)	Y indicates row came from (MRM) tape

Column Name	Data Type	Description
TEXT	VARCHAR(3800)	Text or portion of the text of the SQL statement
ISOLATION	CHAR(1)	Isolation level for the SQL statement: **R** RR (repeatable read) **T** RS (read stability) **S** CS (cursor stability) **U** UR (uncommitted read) **L** KEEP UPDATE LOCKS for an RS isolation **X** KEEP UPDATE LOCKS for an RR isolation **blank** WITH clause was not specified
STATUS	CHAR(1)	Status of binding the statement
ACCESSPATH	CHAR(1)	For static statements, access path for statement is based on user-specified optimization hints. A value of 'H' indicates that optimization hints were used.
STMTNOI	INTEGER	If value of STMTNOI is not zero, contains statement number of statement in source program
SECTNOI	INTEGER	The section number of the statement
EXPLAINABLE	CHAR(1)	Contains one of the following values: **Y** Statement can be used with EXPLAIN and may have rows describing its access path the PLAN_TABLE **N** Statement does not have any rows describing its access path in PLAN_TABLE **Blank** Statement was bound prior to V7
QUERYNO	INTEGER	Query number of statement in source program
PLCREATOR	CHAR(1)	Indicates the type of creator: **blank** Authorization ID **L** Role

SYSIBM.SYSSTOGROUP

Contains one row for each storage group.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of the storage group
CREATOR	VARCHAR(128)	Authorization ID of the owner of the storage group
VCATNAME	VARCHAR(128)	Name of the integrated catalog facility catalog
SPACE	INTEGER	Number of kilobytes of DASD storage allocated to torage group as determined by the last execution of the STOSPACE utility
IBMREQD	CHAR(1)	Y indicates row came from (MRM) tape
CREATEDBY	VARCHAR(128)	Primary authorization ID of user who created storage group
STATSTIME	TIMESTAMP	If STOSPACE utility was executed for storage group, date and time when STOSPACE was last executed
CREATEDTS	TIMESTAMP	Time when CREATE was executed for the storage group
ALTEREDTS	TIMESTAMP	Time when most recent ALTER STOGROUP statement was executed for storage group. If no ALTER STOGROUP statement has been applied, ALTEREDTS has value of CREATEDTS
SPACEF	FLOAT	Kilobytes of DASD storage for storage group
DATACLAS	VARCHAR(24)	Name of SMS data class. Blank if not used
MGMTCLAS	VARCHAR(24)	Name of SMS management class. Blank if not used
STORCLAS	VARCHAR(24)	Name of the SMS storage class. Blank if not used
CREATOR TYPE	CHAR(1)	Indicates the type of creator: **Blank** Authorization ID **L** Role
RELCREATED	CHAR(1)	Release of Db2 used to create object. Blank if created prior to V9

SYSIBM.SYSSTRINGS

Contains information about character conversion.

Column Name	Data Type	Description
INCCSID	INTEGER	Source CCSID for character conversion represented by this row
OUTCCSID	INTEGER	Target CCSID for character conversion represented by this row
TRANSTYPE	CHAR(2)	Indicates the nature of the conversion. Values can be: **GG** GRAPHIC to GRAPHIC **MM** EBCDIC MIXED to EBCDIC MIXED **MS** EBCDIC MIXED to SBCS **PM** ASCII MIXED to EBCDIC MIXED **PS** ASCII MIXED to SBCS **SM** SBCS to EBCDIC MIXED **SS** SBCS to SBCS **MP** EBCDIC MIXED to ASCII MIXED **PP** ASCII MIXED to ASCII MIXED **SP** SBCS to ASCII MIXED
ERRORBYTE	CHAR(1)	Byte used in conversion table as an error byte
SUBBYTE	CHAR(1)	Byte used in the conversion table as a substitution character
TRANSPROC	VARCHAR(24)	Name of a module or blanks
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
TRANSTAB	VARCHAR(256)	Either a conversion table or an empty string

SYSIBM.SYSSYNONYMS

Contains one row for each synonym of a table or view.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Synonym for the table or view
CREATOR	VARCHAR(128)	Authorization ID of the owner of the synonym
TBNAME	VARCHAR(128)	Name of the table or view
TBCREATOR	VARCHAR(128)	Schema of the owner of the table or view
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
CREATEDBY	VARCHAR(128)	Primary authorization ID of the user who created the synonym
CREATEDTS	TIMESTAMP	Time when CREATE was executed for synonym
CREATORTYPE	CHAR(1)	Type of creator: **blank** Authorization ID **L** Role
RELCREATED	CHAR(1)	Release of Db2 used to create the object. Blank if prior to V9

SYSIBM.SYSTABAUTH

Records the privileges that users hold on tables and views.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Auth ID of user who granted privileges. Could be PUBLIC
GRANTEE	VARCHAR(128)	Auth ID of user who holds privileges or name of an plan or package that uses the privileges
GRANTEETYPE	CHAR(1)	Type of grantee: **blank** An authorization ID **L** Role **P** Plan or a package. Package if COLLID is not blank
DBNAME	VARCHAR(24)	If privileges were received from a user with DBADM, DBCTRL, or DBMAINT authority, DBNAME is the name of the database on which the GRANTOR has that authority. Else, blank
SCREATOR	VARCHAR(128)	If row of SYSTABAUTH was created as a result of a CREATE VIEW statement, SCREATOR is schema of owner of a table or

Column Name	Data Type	Description
		view referred to in CREATE VIEW. Else, same as TCREATOR.
STNAME	VARCHAR(128)	If row of SYSIBM.SYSTABAUTH was created as a result of a CREATE TABLE or a MQT, STNAME is name of a table or view referred to in the fullselect of CREATE TABLE
TCREATOR	VARCHAR(128)	Schema of owner of table or view
TTNAME	VARCHAR(128)	Name of table or view
AUTHHOWGOT	CHAR(1)	Authorization level of user from whom privileges were received **blank** Not applicable **C** DBCTL **D** DBADM **E** SECADM **G** ACCESSCTRL **L** SYSCTRL **M** DBMAINT **S** SYSADM **T** DATAACCESS
UPDATECOLS	CHAR(1)	Blank if value of UPDATEAUTH applies uniformly to all columns of table or view. (*) if value of UPDATEAUTH applies to some columns but not to others
ALTERAUTH	CHAR(1)	GRANTEE can alter the table: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
DELETEAUTH	CHAR(1)	GRANTEE can delete rows from the table or view: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
INDEXAUTH	CHAR(1)	GRANTEE can create indexes on the table: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
INSERTAUTH	CHAR(1)	GRANTEE can insert rows into the table or view: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
SELECTAUTH	CHAR(1)	GRANTEE can select rows from the table or view: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
UPDATEAUTH	CHAR(1)	GRANTEE can update rows of the table or view: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
IBMREQD	CHAR(1)	Y indicates row came from (MRM) tape
COLLID	VARCHAR(128)	If GRANTEE is a package, its collection name. Else, blank
CONTOKEN	CHAR(8)	If GRANTEE is a package, consistency token of the DBRM from which the package was derived. Else, blank
REFERENCESAUTH	CHAR(1)	GRANTEE can create or drop referential constraints in which table is a parent **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option

Column Name	Data Type	Description
REFCOLS	CHAR(1)	Blank if value of REFERENCESAUTH applies uniformly to all columns of table. (*) if value of REFERENCESAUTH applies to some columns but not others
GRANTEDTS	TIMESTAMP	Time when the GRANT statement was executed
TRIGGERAUTH	CHAR(1)	GRANTEE can create triggers in which table is named as the triggering table: **blank** Privilege is not held **G** Privilege is held with the GRANT option **Y** Privilege is held without the GRANT option
GRANTORTYPE	CHAR(1)	Type of grantor: **blank** Authorization ID **L** Role
UNLOADAUTH	CHAR(1)	Whether GRANTEE can use the UNLOAD utility to unload data Blank Privilege not held G Privilege held with the GRANT option Y Privilege held without GRANT option
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSTABCONST

Contains one row for each unique constraint (primary or unique key).

Column Name	Data Type	Description
CONSTNAME	VARCHAR(128)	Name of the constraint
TBCREATOR	VARCHAR(128)	Schema of the table on which the constraint is defined
TBNAME	VARCHAR(128)	Name of the table on which the constraint is defined
CREATOR	CHAR(8)	Authorization ID under which the constraint was created
TYPE	CHAR(1)	Type of constraint: **F** Foreign key **P** Primary key **U** Unique key
IXOWNER	VARCHAR(128)	Schema of index enforcing constraint
IXNAME	VARCHAR(128)	Name of index enforcing constraint
CREATEDTS	TIMESTAMP	Time when statement to create the constraint was executed
IBMREQD	CHAR(1)	Y indicates row came from (MRM) tape
COLCOUNT	SMALLINT	Number of columns in the constraint
RELCREATED	CHAR(1)	Release of Db2 used to create object. Blank if prior to V9

SYSIBM.SYSTABLEPART

One row for each non-partitioned tablespace and each partition of a partitioned table space.

Column Name	Data Type	Description
PARTITION	SMALLINT	Partition number; 0 if tablespace is not partitioned
TSNAME	VARCHAR(24)	Name of the tablespace
DBNAME	VARCHAR(24)	Name of the database that contains the tablespace
IXNAME	VARCHAR(128)	Name of the partitioning index. Blank if not partitioned
IXCREATOR	VARCHAR(128)	Schema of partitioning index. Blank if not partitioned
PQTY	INTEGER	For user-managed data sets, primary space allocation in units of 4 KB storage blocks or -1
SQTY	SMALLINT	For user-managed data sets, value is the secondary space allocation in units of 4 KB storage blocks or -1

Column Name	Data Type	Description
STORTYPE	CHAR(1)	Storage allocation: **E** Explicit (storage group not used) **I** Implicit (storage group used)
STORNAME	VARCHAR(128)	Name of storage group used for space allocation. Blank if storage group not used or for the catalog table spaces
VCATNAME	VARCHAR(24)	Name of ICF catalog used for space allocation
CARD	INTEGER	Number of rows in tablespace or partition or, if tablespace is a LOB tablespace, number of LOBs in tablespace
FARINDREF	INTEGER	Number of rows relocated far from their original page
NEARINDREF	INTEGER	Number of rows relocated near their original page
PERCACTIVE	SMALLINT	Percentage of space occupied by rows of in active tables
PERCDROP	SMALLINT	Percentage of space occupied by rows of dropped tables
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
LIMITKEY	VARCHAR(765)	High value of partition in external format
FREEPAGE	SMALLINT	Number of pages loaded before a page is left as free space
PCTFREE	SMALLINT	Percentage of each page left as free space
CHECKFLAG	CHAR(1)	**C** Tablespace partition is in a check pending status and there are rows in table that can violate referential constraints, table check constraints, or both **D** Inline length of LOB column associated with LOB table space was decremented when inline length was altered **I** Inline length of LOB column that is associated with this LOB table space was incremented when inline length was altered **blank** Tablespace is not a partition, or does not contain rows that may violate referential constraints, table check constraints, or both
SPACE	INTEGER	Number of kilobytes of DASD storage allocated to the table space partition, as determined by the last execution of the STOSPACE utility or RUNSTATS utility **0** STOSPACE or RUNSTATS utility has not been run **-1** Table space defined with DEFINE NO, which defers physical creation of data sets until data is inserted into one partition, and data has yet to be inserted **non-zero or non-negative value** An auxiliary table in the LOB table space
COMPRESS	CHAR(1)	For a tablespace partition, whether the COMPRESS attribute for the partition is YES. For a non-partitioned tablespace, whether COMPRESS attribute is YES for tablespace **Y** Compression is defined **blank** No compression
PAGESAVE	SMALLINT	Percentage of pages saved in tablespace or partition defined with COMPRESS YES or other compression routines
STATSTIME	TIMESTAMP	Date and time when RUNSTATS was executed
GBPCACHE	CHAR(1)	Group buffer pool cache option for tablespace or partition **A** Changed and unchanged pages are cached **N** No data is cached in the group buffer pool **S** Only changed system pages **blank** Only changed pages are cached
CHECKRID5B	CHAR(5)	Blank if table or partition is not in a check pending status (CHECKFLAG blank), or if tablespace not partitioned. Else,

Column Name	Data Type	Description
		RID of first row of partition that can violate referential constraints, table check constraints, or both; or value is X'0000000000', indicating any row can violate referential constraints
TRACKMOD	CHAR(1)	Track page modifications in space map pages: **N** No **blank** Yes
EPOCH	INTEGER	A number that is incremented whenever an operation that changes the location of rows in a table occurs
SECQTYI	INTEGER	Secondary space allocation in units of 4KB storage
CARDF	FLOAT	Number of rows in tablespace or partition, or if tablespace is a LOB tablespace, number of LOBS in tablespace
IPREFIX	CHAR(1)	First character of instance qualifier for data set name for table space or partition. Only 'I' or 'J' are valid. Default = 'I'
ALTEREDTS	TIMESTAMP	Time most recent ALTER INDEX was executed for index
SPACEF	FLOAT(8)	Kilobytes of DASD storage
DSNUM	FLOAT(8)	Number of data sets
EXTENTS	INTEGER	Number of data set extents
LOGICAL_PART	SMALLINT	Logical partition (logical ascending or descending order) for table spaces created with either table-controlled partitioning or index-controlled partitioning
LIMITKEY_INTERNAL	VARCHAR(512)	Highest value of limit key of partition in an internal format
OLDEST_VERSION	SMALLINT	Version number of oldest format of data in table past and any image copies at the part level
CREATDTS	TIMESTAMP	Time when the partition was created
AVGROWLEN	INTEGER	Average length of rows for tables in table space or part. If table space or part is compressed, value is compressed row length. If not compressed, value is uncompressed row length
FORMAT	CHAR(1)	Format of the rows in the table space or partition: **R** Reordered row format **blank** Basic row format or a LOB tablespace
RELCREATED	CHAR(1)	Release of Db2 used to create object. Blank if prior to V9
REORG_LR_TS	TIMESTAMP	Time when REORG or LOAD REPLACE utility last occurred
HASHSPACE	BIGINT	0 for PBG table spaces. For PBR, amount of space, in KB, specified at partition level to override space specification at the table level. If no override is provided it will be same as value of HASHSPACE in SYSTABLEPSACE
HASHDATAPAGES	BIGINT	0 for PBG table spaces. For PBR, number of hash data pages that correspond to value of HASHSPACE column for each partition. 0 for table spaces which have been changed to use hash access but have not been reorganized
RBA_FORMAT	CHAR(1)	Format of the RBA/LRSN **B** Basic, 6-byte RBA/LRSN format **E** Extended, 10-byte RBA/LRSN format **U** Undefined. DEFINE NO was specified when creating table space, and the table space is not an XML table space with XML versions **blank** For migrated objects
PCTFREE_UPD	SMALLINT	Percentage of free space reserved for updates to variable length records, as defined when object as created or altered
PCTFREE_UPD_CALC	SMALLINT	Percentage of free space reserved for updates to variable length records, calculated by Db2 or utilities

Column Name	Data Type	Description
TYPE	CHAR(1)	Type of partition Blank Without LOB or MEMBER CLUSTER **G** Defined with MAXPARTITIONS **L** Can be greater that 64 gigabytes **O** Defined with LOB **P** Implicit table space for XML **R** Range partitioned UTS
PAGENUM	CHAR(1)	Format of table space or index page numbering **A** Absolute **R** Relative
BPOOL	CHAR(8)	Bufferpool used for the partition
PGSIZE	SMALLINT	Size of pges in the table space in KB
DSSIZE	INTEGER	Maximum size on partition
MEMBER_CLUSTER	CHAR(1)	Whether or not MEMBER CLUSTER is specified **Y** MEMBER CLUSTER is specified Blank MEMBER CLUSTER is not specified
COMPRESSRATIO	SMALLINT	Average percentage of bytes saved by compression **-1** Value not been collected **0** No compression exists or average compressed record length is same or longer that uncompressed record
COMPRESS_USED	CHAR(1)	Compression alogorithm used **F** Fixed Length **H** Huffman **Blank** If LOB and COMPRESS=Y zEDC hardware compression used. Else, not compressed **NULL** Object created prior to catalog level V12R1M509

SYSIBM.SYSTABLEPART_HIST

Contains rows from SYSTABLEPART. Can be inserted, updated, and deleted.

Column Name	Data Type	Description
PARTITION	SMALLINT	Partition number; 0 if tablespace is not partitioned
TSNAME	VARCHAR(24)	Name of the tablespace
DBNAME	VARCHAR(24)	Name of the database that contains the tablespace
PQTY	INTEGER	For user-managed data sets, value is primary space allocation in units of 4 KB storage blocks or -1
SECQTYI	SMALLINT	Secondary space allocation in units of 4KB blocks. For user-managed data sets, the value is the secondary space allocation in units of 4 KB storage blocks or -1
FARINDREF	INTEGER	Number of rows relocated far from their original page
NEARINDREF	INTEGER	Number of rows relocated near their original page
PERCACTIVE	SMALLINT	Percentage of space occupied by rows of data from active tables
PERCDROP	SMALLINT	Percentage of space occupied by rows of dropped tables
SPACEF	FLOAT(8)	Number of kilobytes of DASD storage allocated to tablespace partition
PAGESAVE	SMALLINT	Percentage of pages saved in tablespace or partition as a result of using COMPRESS YES or other compression routines
STATSTIME	TIMESTAMP	If RUNSTATS updated statistics, date and time when last invocation of RUNSTATS updated statistics
CARDF	FLOAT(8)	Number of rows in tablespace or partition ,or if tablespace is a LOB tablespace, number of LOBS in tablespace
EXTENTS	INTEGER	Number of data set extents. Value is only for last DSNUM for object.
DSNUM	INTEGER	Data set number within the tablespace
IBMREQD	CHAR(1)	Y indicates row came from (MRM) tape

Column Name	Data Type	Description
AVGROWLEN	INTEGER	Average length of rows for tables in table space or part. If table space or part is compressed, value is compressed row length. If table space or part is not compressed, value is uncompressed row length

SYSIBM.SYSTABLES

Contains one row for each table, view, or alias.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of the table, view, or alias
CREATOR	VARCHAR(128)	Schema of the table, view, or alias
TYPE	CHAR(1)	Type of object: **A** Alias **C** Clone table **H** History table **G** Created global temporary table **M** Materialized query table **P** Implicit table created for XML columns **R** Archive table **T** Table **V** View **X** Auxiliary table
DBNAME	VARCHAR(24)	For a table, or a view of tables, name of database that contains tablespace named in TSNAME
TSNAME	VARCHAR(24)	For a table, or a view of one table, name of table space that contains the table
DBID	SMALLINT	Internal identifier of database
OBID	SMALLINT	Internal identifier of table
COLCOUNT	SMALLINT	Number of columns in table or view
EDPROC	VARCHAR(24)	Name of the edit procedure; blank if the row describes a view or alias or a table without an edit procedure
VALPROC	VARCHAR(24)	Name of the validation procedure; blank if the row describes a view or alias or a table without a validation procedure
CLUSTERTYPE	CHAR(1)	Whether RESTRICT ON DROP applies: **blank** No **Y** Yes. Neither table nor any tablespace or database that contains table can be dropped
NPAGES	INTEGER	Total number of pages on which rows of table appear
PCTPAGES	SMALLINT	Percentage of active tablespace pages that contain rows of table
IBMREQD	CHAR(1)	A value of Y indicates row came from (MRM) tape
REMARKS	VARCHAR(254)	A character string provided by user with COMMENT ON
PARENTS	SMALLINT	Number of relationships in which table is a dependent. 0 if row describes a view, alias, created temporary table or MQT
CHILDREN	SMALLINT	Number of relationships in which table is a parent. 0 if row describes a view, an alias, created temporary table or MQT
KEYCOLUMNS	SMALLINT	Number of columns in table's primary key. 0 if row describes a view, an alias, or a created temporary table
RECLENGTH	SMALLINT	For user tables, maximum length of any record in table
STATUS	CHAR(1)	Status of table definition: **I** Definition of table is incomplete.TABLESTATUS column indicates reason **R** An error occurred when an attempt was made to regenerate the internal representation of view

Column Name	Data Type	Description
		X Table has a parent index and definition complete **blank** Table has no parent index, or is a catalog table, or row describes a view or alias. Definition of table, view, or alias is complete
KEYOBID	SMALLINT	Internal Db2 identifier of index that enforces uniqueness of table's primary key; 0 if not applicable
LABEL	VARCHAR(90)	Label as given by a LABEL ON; otherwise an empty string
CHECKFLAG	CHAR(1)	**C** Tablespace that contains table is in a check pending status and there are rows in the table that can violate referential constraints, table check constraints, or both. Table is an MQT that may contain in consistent data **blank** Table contains no rows that violate referential constraints, table check constraints, or both; or the row describes a view, alias, or created temporary table
CHECKRID	CHAR(4)	'FFFFFF00' indicates edit procedure on this table is defined without row attribute sensitivity. Any other value indicates edit procedure is defined with row attribute sensitivity
AUDITING	CHAR(1)	Audit option: **A** AUDIT ALL **C** AUDIT CHANGE **blank** AUDIT NONE, or is a view, alias, or created temp
CREATEDBY	VARCHAR(128)	Primary auth ID of user who created the table, view, or alias
LOCATION	VARCHAR(128)	Location name of object of an alias. Blank for a table, a view, or for an alias not defined with a three-part name
TBCREATOR	VARCHAR(128)	• For an alias,schema of the referred to table or view • For a base table involved in a clone relationship, name of creator of clone table • For a clone table involved in a clone relationship, name of creator of base table • Otherwise, TBCREATOR is blank
TBNAME	VARCHAR(128)	• For an alias, name for referred to table or view • For a base table involved in a clone relationship, name of clone table • For a clone table involved in a clone relationship, name of the base table • Otherwise, blank
CREATEDTS	TIMESTAMP	Time when CREATE was executed for table, view, or alias
ALTEREDTS	TIMESTAMP	For a table, time when latest ALTER TABLE was applied. If no ALTER TABLE statement has been applied, or if row is for an alias, ALTEREDTS has value of CREATEDTS. For a view, time when last ALTER VIEW REGENERATE applied
DATACAPTURE	CHAR(1)	Records the value of the DATACAPTURE option for a table: **blank** No **Y** Yes For a created temporary table, is blank
RBA1	CHAR(10)	Log RBA(LRSN) when table was created
RBA2	CHAR(10)	Log RBA(LRSN) when able was last altered
PCTROWCOMP	SMALLINT	Percentage of rows compressed within total number of active rows in table. Includes any row in a table space that is defined with COMPRESS YES

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	If RUNSTATS updated statistics, date and time when last invocation of RUNSTATS updated the statistics
CHECKS	SMALLINT	Number of check constraints defined on the table
CARDF	FLOAT	Total number of rows in the table or total number of LOBs in an auxiliary table
CHECKRID5B	CHAR(5)	Blank if table or partition is not in a check pending status (CHECKFLAG is blank), if not partitioned, or if table is a created temporary table. Otherwise, RID of first row of partition that can violate referential constraints, table check constraints, or both; or value is X'0000000000', indicating that any row can violate referential constraints
ENCODING_SCHEME	CHAR(1)	Default encoding scheme for tables, views, and aliases: **E** EBCDIC **A** ASCII **M** Multiple CCSID set or multiple encoding schemes **U** UNICODE **blank** For remote aliases 'E' for tables in non-work-file databases and blank for tables in work-file databases created prior to V5 or DSNDB04
TABLESTATUS	VARCHAR(30)	Reason for an incomplete table definition: **F** Lacks required BUSINESS_TIME WITOUT OVERLAPS index on foreign key **L** Auxiliary table or index not defined for LOB column **P** Lacks a parent index **R** Lacks a required index on a row ID **U** Lacks a required index on a unique key **V** An error occurred during a regeneration of the view **blank** Definition is complete
NPAGESF	FLOAT(8)	Number of pages used by table
SPACEF	FLOAT(8)	Kilobytes of DASD storage
AVGROWLEN	INTEGER	Average length of rows for tables. If compressed, value is compressed row length. If not compressed, value is uncompressed row
RELCREATED	CHAR(1)	Release of Db2 used to create the object
NUM_DEPT_MQTS	SMALLINT	Number of dependent materialized query tables. 0 if is an alias or a created temporary table, or if no materialized query tables are defined on the table
VERSION	SMALLINT	Version of data row format for this table **0** A version-creating alter operation has never occurred against this table **-1** View has been regenerated because a column of base table has been altered **800** Successful CREATE VIEW or ALTER VIEW occurred against table in V8 or later **900** Successful ALTER TABLE with DROP COLUMN clause occurred against view
PARTKEYCOLNUM	SMALLINT	Number of columns in partitioning key, zero if tables do not have partitioning or use index-controlled partitioning
SPLIT_ROWS	CHAR(16)	Blank except for VOLATILE tables, else Y to indicate to Db2 to use index access on table whenever possible
SECURITY_LABEL	CHAR(1)	If TYPE column is T or M. Table has multi-level security: **Blank** No multi-level security

Column Name	Data Type	Description
		R Table has multi-level security with row granularity
OWNER	VARCHAR(128)	Auth ID of owner of table, view, or alias, blank for tables, views or aliases created prior to V9
APPEND	CHAR(1)	APPEND option is specified for the table **Y** Yes **N** No
OWNERTYPE	CHAR(1)	Type of owner: **blank** Authorization ID **L** Role
CONTROL	CHAR(1)	Access tenforced using row or column access control: **blank** No access control enforcement **B** Row and column access control **C** Column access control **R** Row access control
VERSIONING _SCHEMA	VARCHAR(128)	Schema name of history table if table is a system-maintained temporal table with versioning or schema name of system-maintained temporal table if table is a history table
VERSIONING_TABLE	VARCHAR(128)	Either table name of history table if table is a system-maintained temporal table with versioning or table name of system-maintained temporal table if table is a history table
HASHKEYCOLUMNS	SMALLINT	Number of columns in hash key of table. 0 if row describes a view, an alias, or a created temporary table
ARCHIVING_SCHEMA	VARCHAR(128)	Contains a schema name as follows: • If table is an archive-enabled table, contains schema name of the archive table • If table is an archive table, this column contains the schema name of the archive-enabled table • If table is not an archive-enabled table or an archive table, value is blank
ARCHIVING_TABLE	VARCHAR(128)	Contains a table name as follows: • If table is an archive-enabled table, contains table name of the archive table • If table is an archive table, contains the table name of the archive-enabled table • If table is not an archive-enabled table or an archive table, value is blank
STATS_FEEDBACK	CHAR(1)	Based on DSNZPARM STATFDBK_SCOPE, controls whether statistics recommendations for this table are placed in SYSSTATFEEDBACK. Can update 'Y' or 'N' to enable or disable collection for the table
REGENERATETS	TIMESTAMP(12)	Time when object was regenerated

SYSIBM.SYSTABLESPACE

Contains one row for each tablespace.

Column Name	Data Type	Description
NAME	VARCHAR(24)	Name of tablespace
CREATOR	VARCHAR(128)	Authorization ID of the owner of the tablespace
DBNAME	VARCHAR(24)	Name of the database that contains the tablespace
DBID	SMALLINT	Internal identifier of database that contains the tablespace
OBID	SMALLINT	Internal identifier of the tablespace file descriptor
PSID	SMALLINT	Internal identifier of the tablespace page set descriptor

Column Name	Data Type	Description
BPOOL	CHAR(8)	Name of the buffer pool used for the tablespace
PARTITIONS	SMALLINT	Number of partitions of tablespace; 0 if not partitioned
LOCKRULE	CHAR(1)	Lock size of the tablespace: **A** Any **L** Large object (LOB) **P** Page **R** Row **S** Tablespace **T** Table **X** Implicitly created XML table space
PGSIZE	SMALLINT	Size of pages in the tablespace in kilobytes
ERASERULE	CHAR(1)	Data sets are to be erased when dropped **N** No erase **Y** Erase
STATUS	CHAR(1)	Availability status of the tablespace: **A** Available **C** Definition is incomplete because a partitioning index has not been created **P** Tablespace is in a check pending status **S** Tablespace is in a check pending status with scope less than the entire tablespace **T** Definition is incomplete because table not created
IMPLICIT	CHAR(1)	Tablespace was created implicitly: **N** No **Y** Yes
NTABLES	SMALLINT	Number of tables defined in the tablespace
NACTIVE	INTEGER	Number of active pages in tablespace. A page is termed active if it is formatted for rows, even if it currently contains none. 0 if statistics not gathered
CLOSERULE	CHAR(1)	Data sets are candidates for closure when limit on number of open data sets is reached **N** No **Y** Yes
SPACE	INTEGER	Number of kilobytes of storage allocated to tablespace, as determined by last execution of STOSPACE utility
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
SEGSIZE	SMALLINT	Number of pages in each segment. 0 if not segmented
CREATEDBY	VARCHAR(128)	Primary authorization ID of user who created tablespace
STATSTIME	TIMESTAMP	If RUNSTATS updated statistics, date and time when last invocation of RUNSTATS updated statistics
LOCKMAX	INTEGER	Maximum number of locks per user to acquire for table or tablespace before escalating to next locking level **0** Lock escalation does not occur **n** n, where n > 0, is maximum number of locks (row, page, or LOB locks for the table or tablespace) an application process can acquire before lock escalation **-1** Represents LOCKMAX SYSTEM. Value of field LOCKS PER TABLE(SPACE) on installation panel DSNTIPJ determines lock escalation. If 0, lock escalation does not occur. If value is n, where n > 0, lock escalation occurs as it does for LOCKMAX n
TYPE	CHAR(1)	Type of tablespace:

Column Name	Data Type	Description
		blank Tablespace was created without: DSSIZE, LARGE, LOB, and MEMBER CLUSTER **I** Defined with MEMBER CLUSTER and is not greater than 64 GB **G** Defined with MAXPARTITIONS option (a PBG table space) **K** Defined with MEMBER CLUSTER and can be greater than 64 GB **L** Table space can be greater than 64 gigabytes **O** Table space was defined with the LOB option **P** Implicit table space created for XML columns **R** Range-partitioned universal table space
CREATEDTS	TIMESTAMP	Time CREATE was executed for tablespace. If tablespace created prior to V5, value is '0001-01 01.00.00.00.000000'
ALTEREDTS	TIMESTAMP	Time when most recent ALTER TABLESPACE was executed. If no ALTER TABLESPACE has been applied, ALTEREDTS has value of CREATEDTS. If index was created prior to V5, value is '0001-01-01.00.00.00.000000'.
ENCODING_SCHEME	CHAR(1)	Default encoding scheme for tablespace: **E** EBCDIC **A** ASCII **U** UNICODE **blank** For tablespaces in a work file database or a TEMP database 'E' for tables in non-workfile databases and blank for tables in work-file databases created prior to V5 or DSNDB04
SBCS_CCSID	INTEGER	Default SBCS CCSID for tablespace
DBCS_CCSID	INTEGER	Default DBCS CCSID for tablespace
MIXED_CCSID	INTEGER	Default mixed CCSID for the tablespace
MAXROWS	SMALLINT	Maximum number of rows on a data page. Default is 255
LOCKPART	CHAR(1)	**Y** LOCKPART YES is specified for the tablespace **blank** LOCKPART NO is specified, or LOCKPART is not specified or not a partitioned tablespace
LOG	CHAR(1)	Changes to a tablespace are to be logged. **N** Table space has NOT LOGGED attribute **Y** Table space has LOGGED attribute **X** LOB or XML table space has NOT LOGGED attribute
NACTIVEF	FLOAT	Number of active pages in tablespace
DSSIZE	INTEGER	Maximum size of a data set in kilobyte. 0 if table space was created prior to V10, but will contain actual value after table space is converted to a PBG
OLDEST_VERSION	SMALLINT	Version number of oldest format of data in table space and any image copies
CURRENT_VERSION	SMALLINT	Version number describing newest format of data in table space. 0 indicates table space has never had versioning
AVGROWLEN	INTEGER	Average length of rows for tables in table space or part. If table space or part is compressed, value is compressed row length. If table space or part is not compressed, value is the uncompressed row length
SPACEF	FLOAT	Kilobytes of DASD storage for the storage group
CREATORTYPE	CHAR(1)	Type of creator:

Column Name	Data Type	Description
		blank Authorization ID **L** Role
RELCREATED	CHAR(1)	Release of used to create object. Blank if prior to V9
INSTANCE	SMALLINT	Column value of data set instance number of current base object (table and index)
CLONE	CHAR(1)	Tablespace contains objects involved in a clone relationship **Y** Yes **N** No
MAXPARTITIONS	SMALLINT	Maximum number of partitions table space can grow to. 0 if table space is not partitioned or is range partitioned but not a UTS
MEMBER_CLUSTER	CHAR(1)	If MEMBER CLUSTER is specified for the table space: **Y** Yes **blank** No
ORGANIZATIONTYPE	CHAR(1)	Table space organization: **blank** Not known. Blank is the default **H** Hash organization
HASHSPACE	BIGINT	Amount of space, in KB, allocated to table space or partition as hash space. For PBG table spaces, space applies to the whole table space. For PBR table spaces, space is applicable for each partition.
HASHDATAPAGES	BIGINT	Total number of hash data pages to preallocate for hash space. For PGB table spaces, includes all pages in fixed part of the table space. For PBR table spaces, number of pages in fixed hash space in each partition unless it is overridden by providing hash space at the partition level. Calculated by Db2 from value specified with HASH SPACE option or when REORG utility is run with automatic estimation of space. Calculated value is used in hash algorithm. 0 for non-hash table spaces. 0 for table spaces which have been changed to use hash access but have not been reorganized.
PAGENUM	CHAR(1)	Format of page numbers for index **A** Absolute **R** Relative
PQTY	INTEGER	For user managed data sets. Primary space allocation
STORTYPE	CHAR(1)	Type of storage allocation **E** Explicit(storage group not used) **I** Implicit (storage group used)
STORNAME	VARCHAR(128)	Name of storage group used for space allocation
VCATNAME	VARCHAR(24)	Name of ICF catalog used for space allocation
FREEPAGE	SMALLINT	Number of pages loaded before a page is left free
PCTFREE	SMALLINT	Percentage of each page left as free space
COMPRESS	CHAR(1)	Whether or not the table space partition was defined with COMPRESS YES **Y** Compression is defined **Blank** No compression
GBPCACHE	CHAR(1)	Group bufferpool cache option **Blank** Only changed pages **A** Changed and unchanged pages **N** No data is cached **S** Only system pages are cached

Column Name	Data Type	Description
TRACKMOD	CHAR(1)	Whether to track the page modification in the space map **N** No **Blank** Yes
SECQTY1	INTEGER	Secondary space allocation for user managed data sets
PCTFREE_UPD	SMALLINT	Percentage of free space reserved for updates to variable length records defined on object
PCTFREE_UPD_CALC	SMALLINT	Percentage of free space reserved for updates to variable length records calculated by Db2 or utilities
COMPRESSRATIO	SMALLINT	Average percentage of bytes saved by compression **-1** Value not been collected **0** No compression exists or average compressed record length is same or longer that uncompressed record
INSERTALG	SMALLINT	Insert algorithm level for tables in table space **0** Determined by DEFAULT_INSERT_ALGORITHM **1** Basic **2** Fast (if MEMBER_CLUSTER used)

SYSIBM.SYSTABLESPACESTATS

Contains real time statistics for table spaces. Can be inserted, updated, and deleted.

Column name	Data type	Description
UPDATESTATSTIME	TIMESTAMP	Timestamp when the row was inserted or last updated
NACTIVE	INTEGER	Number of active pages in the table space or partition
NPAGES	INTEGER	Number of distinct pages with active rows in partition of the table space
EXTENTS	INTEGER	Number of extents in table space or partition. For multi-piece table spaces, number of extents for last data set
LOADRLASTTIME	TIMESTAMP	Timestamp of last LOAD REPLACE on table space or partition
REORGLASTTIME	TIMESTAMP	Timestamp REORG utility was last run on table space or partition, or if REORG utility has not been run, time when table space or partition was created
REORGINSERTS	BIGINT	Number of records or LOBs inserted into table space or partition or loaded into table space or partition using LOAD utility specified without REPLACE option since last time REORG or LOAD REPLACE utilities were run, or since object was created
REORGDELETES	BIGINT	Number of records or LOBs that have been deleted from table space or partition since last time the REORG or LOAD REPLACE utilities were run, or since object was created
REORGUPDATES	BIGINT	Number of rows updated in table space or partition since the last REORG or LOAD REPLACE, or since the object was created
REORGUNCLUSTINS	INTEGER	Number of records inserted that are not well-clustered with respect to clustering index since last REORG or LOAD REPLACE , or since object was created. A record is well-clustered if record is inserted into a page that is within 16 pages of ideal candidate page. Clustering index determines ideal candidate page
REORGDISORGLOB	INTEGER	Number of LOBs inserted that are not perfectly chunked since last REORG or LOAD REPLACE, or since object was created. A LOB is perfectly chunked if allocated pages are in minimum number of chunks

REORGMASSDELETE	INTEGER	Number of mass deletes from a segmented or LOB table space, or number of dropped tables from a segmented table space since last REORG or LOAD REPLACE, or since object was created
REORGNEARINDREF	INTEGER	Number of overflow records created and relocated near pointer record since last time REORG and LOAD REPLACE utilities were run, or since the object was created
REORGFARINDEF	INTEGER	Number of overflow records created and relocated far from pointer record since last time REORG and LOAD REPLACE utilities were run, or since object was created
STATSLASTTIME	TIMESTAMP	Timestamp of last RUNSTATS on table space or partition
STATSINSERTS	BIGINT	Number of records or LOBs inserted into table space or partition or loaded into table space or partition using LOAD utility without REPLACE option since last time RUNSTATS was run, or since object was created
STATSDELETES	BIGINT	Number of records or LOBs deleted from table space or partition since last time RUNSTATS was run, or since object was created
STATSUPDATES	BIGINT	Number of rows updated in the table space or partition since the last time that the RUNSTATS utility was run, or since the object was created
STATSMASSDELETE	INTEGER	Number of mass deletes from a segmented or LOB table space, or number of tables dropped from a segmented table space, since last time RUNSTATS utility was run, or since object was created
COPYLASTTIME	TIMESTAMP	Timestamp of last full or incremental image copy of table space or partition, or since object was created. A null indicates COPY utility has never been run or unknown
COPYUPDATED PAGES	INTEGER	Number of distinct types updated since last time COPY utility was run, or since object was created
COPYCHANGES	BIGINT	Number of insert, update, and delete operations, or number of records loaded, since last time COPY utility was run, or since object was created
COPYUPDATELRSN	CHAR(10)	LRSN or RBA of first update after last COPY
COPYUPDATETIME	TIMESTAMP	Timestamp of first update after last COPY
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
DBID	SMALLINT	Internal identifier of database. Used to map DBID to its statistics
PSID	SMALLINT	Internal identifier of the table space page set descriptor. Used to map a PSID to its statistics
PARTITION	SMALLINT	Data set number within table space. Used to map a data set number in a table space to its statistics. For partitioned table spaces, value corresponds to the partition number for a single partition. For non-partitioned table spaces, value is 0
INSTANCE	SMALLINT	Indicates if object is associated with data set instance 1 or 2
SPACE	INTEGER	Amount of space, in KB, allocated to table space or partition. For multi-piece linear page sets, value is amount of space in all data sets
TOTALROWS	BIGINT	Number of rows or LOBs in the table space or partition
DATASIZE	BIGINT	Total number of bytes of data occupying data or LOB rows
UNCOMPRESSED-DATASIZE	BIGINT	Not used - value is always set to 0
DBNAME	CHAR(8)	Name of database. Used to map database to its statistics

NAME	CHAR(8)	Name of tablespace. Used to map tablespace to its statistics
REORGSCANACCESS	BIGINT	Number of times data is accessed for SELECT, FETCH, searched UPDATE, or searched DELETE since last CREATE, LOAD REPLACE or REORG, or since object was created.
REORGHASHACCESS	BIGINT	Number of times data is accessed using hash access for SELECT, FETCH, searched UPDATE, searched DELETE, or used to enforce referential integrity constraints since the last CREATE, LOAD REPLACE or REORG, or since the object was created
HASHLASTUSED	TIMESTAMP	Date when hash access was last used for SELECT, FETCH, searched UPDATE/DELETE, or used to enforce RI
REORG CLUSTERSENS	BIGINT	Number of times data has been read by SQL statements that are sensitive to clustering sequence of data since last REORG or LOAD REPLACE, or since object was created
DRIVETYPE	CHAR(3)	Drive type on which table space or partition data set is defined **HDD** Hard Disk Drive **SSD** Solid State Drive
LPFACILITY	CHAR(1)	Whether disk control unit has high performance list prefetch **N** No **Y** Yes **NULL** Indicates unknown
UPDATESIZE	BIGINT	Number of bytes added or removed by UPDATE since object was created, or last REORG or LOAD REPLACE
LASTDATACHANGE	TIMESTAMP	Last time row was updated because data was modified in the table space or partition. Reflects the time at which real-time statistics table was updated, and not time at which data in table space or partition was modified
GETPAGES	BIGINT	Number of getpages since last REORG or creation
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSTABLES_HIST

Contains rows from SYSTABLES. Can be inserted, updated, and deleted.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of the table, view, or alias
CREATOR	VARCHAR(128)	Schema of the owner of the table, view, or alias
DBNAME	VARCHAR(24)	For a table, or a view of tables, name of database that contains the tablespace named in TSNAME
TSNAME	VARCHAR(24)	For a table, or a view of one table, name of table space that contains the table. For a view of more than one table, the name of a tablespace that contains one of the tables
COLCOUNT	SMALLINT	Number of columns in the table or view. 0 if is an alias
PCTPAGES	SMALLINT	Percentage of active tablespace pages that contain rows of table. A page is termed active if it is formatted for rows, regardless of whether it contains any. If tablespace is segmented, percentage is based on the number of active pages in the set of segments assigned to the table
PCTROWCOMP	SMALLINT	Percentage of rows compressed within the total number of active rows in the table. Includes any row in a tablespace defined with COMPRESS YES

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	Date and time of last invocation of RUNSTATS
CARDF	FLOAT(8)	Total number of rows in table or total number of LOBs in an auxiliary table
NPAGESF	FLOAT(8)	Total number of pages on which rows of the partition appear
AVGROWLEN	INTEGER	Average row length of the table specified in the tablespace
SPACEF	FLOAT(8)	Kilobytes of DASD storage
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSTABLES_PROFILES

Contains one row for each profile that is associated with a table in SYSIBM.SYSTABLES.

Column Name	Data Type	Description
SCHEMA	VARCHAR(128)	Schema (qualifier) for the table
TBNAME	VARCHAR(128)	Table name
PROFILE_TYPE	VARCHAR(32)	Type of profile. Allowed values are 'RUNSTATS'
	VARCHAR(32)	Internal use only
PROFILE_TEXT	CLOB(1M)	Text of the profile
ROWID	ROWID	ROWID value for the LOB column of this table
PROFILE_UPDATE	TIMESTAMP	Last time the profile was updated, or timestamp when profile was inserted into the table
PROFILE_USED	TIMESTAMP	Last time the profile was used

SYSIBM.SYSTABLES_PROFILE_TEXT

Auxiliary table for the PROFILE_TEXT column of the SYSIBM.SYSTABLE_PROFILE table.

Column Name	Data Type	Description
PROFILE_TEXT	CLOB(2M)	Complete text for the profile that the row represents

SYSIBM.SYSTABSTATS

Contains one row for each partition of a tablespace. Can be inserted, updated, and deleted.

Column Name	Data Type	Description
CARD	INTEGER	Total number of rows in the partition
NPAGES	INTEGER	Total number of pages on which rows of the partition appear
PCTPAGES	SMALLINT	Percentage of total active pages in partition containing rows
NACTIVE	INTEGER	Number of active pages in the partition
PCTROWCOMP	SMALLINT	Percentage of rows compressed within the total number of active rows in the partition. Includes any row in a table space that is defined with COMPRESS YES
STATSTIME	TIMESTAMP	If RUNSTATS updated the statistics, the date and time when the last invocation of RUNSTATS updated the statistics
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
DBNAME	VARCHAR(24)	Database that contains the tablespace named in TSNAME
TSNAME	VARCHAR(24)	Tablespace that contains the table
PARTITION	SMALLINT	Partition number of the tablespace that contains the table
OWNER	VARCHAR(128)	Schema of the table
NAME	VARCHAR(128)	Name of the table
CARDF	FLOAT	Total number of rows in the partition

SYSIBM.SYSTABSTATS_HIST

Contains rows from SYSTABLES. Can be inserted, updated, and deleted.

Column Name	Data Type	Description
NPAGES	INTEGER	Total number of pages on which rows of the partitions appear

Column Name	Data Type	Description
STATSTIME	TIMESTAMP	If RUNSTATS updated statistics, date and time of last invoation
DBNAME	VARCHAR(24)	Database that contains the table space in TSNAME
TSNAME	VARCHAR(24)	Table space that contains the table
PARTITION	SMALLINT	Partition number of the table space that contains the table
OWNER	VARCHAR(128)	Schema of the table
NAME	VARCHAR(128)	Name of the table
CARDF	FLOAT(8)	Total number of rows in the partition
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSTRIGGERS

Contains one row for each trigger.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of the trigger and trigger package
SCHEMA	VARCHAR(128)	Schema of the trigger
DBID	SMALLINT	Internal identifier of the database for the trigger
OBID	SMALLINT	Internal identifier of the trigger
OWNER	VARCHAR(128)	Owner of the trigger
CREATEDBY	VARCHAR(128)	Primary authorization ID of the creator of the trigger
TBNAME	VARCHAR(128)	Name of the table or view
TBOWNER	VARCHAR(128)	Qualifier of the name of the table to which this trigger applies
TRIGTIME	CHAR(1)	Time when triggered actions are applied to the base table, relative to the event that activated the trigger: **B** Trigger is applied before the event **A** Trigger is applied after the event **I** Trigger is applied instead of the event
TRIGEVENT	CHAR(1)	Operation that activates the trigger: **I** Insert **D** Delete **U** Update
GRANULARITY	CHAR(1)	Trigger is executed once per: **S** Statement **R** Row
CREATEDTS	TIMESTAMP	Time when the CREATE statement was executed for this trigger
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
	VARCHAR(6000)	Not used
REMARKS	VARCHAR(762)	A character string provided by user with COMMENT ON
TRIGNAME	VARCHAR(18)	Unused
OWNERTYPE	CHAR(1)	Indicates the type of creator: **blank** Authorization ID **L** Role
ENVID	INTEGER	Internal environment identifier
RELCREATED	CHAR(1)	Release of Db2 used to create object. Blank if prior to V9
	CHAR(1)	Reserved for IBM use
	CHAR(1)	Reserved for IBM use
	INTEGER	Reserved for IBM use
	VARCHAR(96)	Reserved for IBM use
SECURE	CHAR(1)	Trigger is secured: **N** No **Y** Yes
ALTEREDTS	TIMESTAMP	Time when trigger was last changed
ROWID	ROWID	ROWID column, created for the lob columns in this table

Column Name	Data Type	Description
SQLPL	CHAR(1)	Indicates whether trigger supports SQL PL **Y** Advanced trigger that supports SQL PL **Blank** Basic trigger does not support SQL PL
ALTEREDTS	TIMESTAMP	Time when trigger was last changed
DEBUG_MODE	CHAR(1)	Whether trigger is enabled for debugging **1** Enabled for debudding **0** Not enabled for debugging **N** Can never be enabled for debugging **Blank** Basic trigger that cannot be debugged
ASUTIME	INTEGER	Number of service units allowed for a single invocation of this trigger
WLM_ ENVIRONMENT	VARCHAR(96)	Name of WLM environment used when a trigger is debugged
STATEMENT	CLOB(2M)	Text of entire CREATE TRIGGER used to create the object
REGENERATES	TIMESTAMP	Time when this version of trigger was last regenerated
VERSION	VARCHAR(122)	Version identifier of the trigger. Zero if basic trigger
ORIGINAL_ CONTOK	CHAR(8)	Consistency token for trigger
ACTIVE	CHAR(1)	Active version of trigger **Y** Active version **N** Not the active version **Blank** value of VERSION is zero length
WRAPPED	CHAR(1)	**Y** Trigger text is obfuscated **Blank** Trigger text is not obfuscated

SYSIBM.SYSTRIGGERS_STMT

An auxiliary table for the STATEMENT column of the SYSIBM.SYSTRIGGERS.

Column Name	Data Type	Description
STATEMENT	CLOB(2M)	Text of CREATE TRIGGER statement used to create the object

SYSIBM.SYSUSERAUTH

Records the system privileges that are held by users.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Authorization ID of user who granted the privileges
GRANTEE	VARCHAR(128)	Auth ID of user that holds privilege. Could also be PUBLIC
AUTHHOWGOT	CHAR(1)	Authorization level of user from whom privileges were received **blank** Not applicable **C** DBCTL **D** DBADM **E** SECADM **G** ACCESSCTRL **L** SYSCTRL **M** DBMAINT **O** SYSOPR **S** SYSADM
BINDADDAUTH	CHAR(1)	GRANTEE can use BIND with ADD option: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
BSDSAUTH	CHAR(1)	GRANTEE can issue RECOVER BSDS command: **blank** Privilege is not held

Column Name	Data Type	Description
		G Privilege is held with GRANT option **Y** Privilege is held without GRANT option
CREATEDBAAUTH	CHAR(1)	GRANTEE can create databases and automatically receive DBADM authority over the new databases: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
CREATEDBCAUTH	CHAR(1)	GRANTEE can execute the CREATE DATABASE statement to create new databases and automatically receive DBCTRL authority over the new databases: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
CREATESGAUTH	CHAR(1)	GRANTEE can execute CREATE STOGROUP statement to create new storage groups: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
DISPLAYAUTH	CHAR(1)	GRANTEE can use DISPLAY commands: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
RECOVERAUTH	CHAR(1)	GRANTEE can use RECOVER INDOUBT command: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
STOPALLAUTH	CHAR(1)	GRANTEE can use STOP command: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
STOSPACEAUTH	CHAR(1)	GRANTEE can use STOSPACE utility: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
SYSADMAUTH	CHAR(1)	GRANTEE has system administration authority: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
SYSOPRAUTH	CHAR(1)	GRANTEE has system operator authority: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
TRACEAUTH	CHAR(1)	GRANTEE can issue START TRACE and STOP TRACE commands: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
IBMREQD	CHAR(1)	Y indicates row came from (MRM) tape
MON1AUTH	CHAR(1)	GRANTEE can obtain IFC serviceability data: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option

Column Name	Data Type	Description
MON2AUTH	CHAR(1)	GRANTEE can obtain IFC data: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
CREATEALIASAUTH	CHAR(1)	GRANTEE can execute CREATE ALIAS statement **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
SYSCTRLAUTH	CHAR(1)	GRANTEE has SYSCTRL authority: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
BINDAGENTAUTH	CHAR(1)	GRANTEE has BINDAGENT privilege: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
ARCHIVEAUTH	CHAR(1)	GRANTEE can use ARCHIVE LOG command: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
GRANTEDTS	TIMESTAMP	Time when GRANT statement was executed. The value is '1985-04-01.00.00.00.000000' for the one installation row
CREATETMTABAUTH	CHAR(1)	GRANTEE has CREATETMTABAUTH privilege: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
GRANTEETYPE	CHAR(1)	Type of grantee: **blank** Authorization ID **L** Role
GRANTORTYPE	CHAR(1)	Indicates the type of grantor: **blank** Authorization ID **L** Role
DEBUGSESSIONAUTH	CHAR(1)	GRANTEE has DEBUGSESSION privilege: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
EXPLAINAUTH	CHAR(1)	GRANTEE can explain and prepare statements: **blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
SQLADMAUTH	CHAR(1)	GRANTEE has SQLADM authority: **Blank** Privilege is not held **G** Privilege is held with GRANT option **Y** Privilege is held without GRANT option
SDBADMAUTH	CHAR(1)	GRANTEE has system DBADM authority: **blank** Privilege is not held **Y** Privilege is held without GRANT option
DATAACCESSAUTH	CHAR(1)	GRANTEE has DATAACCESS authority: **blank** Privilege is not held **Y** Privilege is held without GRANT option
ACCESSCTRLAUTH	CHAR(1)	GRANTEE has ACCESSCTRL authority: **blank** Privilege is not held

Column Name	Data Type	Description
		Y Privilege is held without GRANT option
CREATESECURE AUTH	CHAR(1)	GRANTEE can create secured objects (triggers and user-defined functions): **blank** Privilege is not held **Y** Privilege is held without GRANT option
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSUTILITIES

Contains one row for each utility executed if collection of utility history information is active.

Column Name	Data Type	Description
EVENTID	BIGINT	Unique identifier for the utility execution
NAME	VARCHAR(60)	Utility name
INSERTEDBY	VARCHAR(9)	Identifies how the row was added: **Db2 -** Row was inserted by IBM Db2 Utilities **blank or identifiable value -** row was inserted by a user or utility other than IBM Db2 Utilities
JOBNAME	VARCHAR(24)	Job name of the utility
UTLID	VARCHAR(48)	Utility ID
USERID	VARCHAR(24)	User ID of the utility invoker
STARTTS	TIMESTAMP	A local timestamp that indicates the start of utility execution
ENDTS	TIMESTAMP	A local timestamp that indicates the end of utility execution
ELAPSEDTIME	BIGINT	Elapsed time in microseconds
CPUTIME	BIGINT	Total CPU time in microseconds. Does not include zIIP time
ZIIPTIME	BIGINT	Total zIIP time in microseconds. When applicable and accounting class 1 trace is active
RETURNCODE	INTEGER	Final return code from utility execution
CONDITION	CHAR(1)	Condition of the utility execution: **Blank -** Default value. Indicates an active or stopped utility **E -** Indicates utility execution ended **F -** Indicates utility execution was terminated by the **-START DATABASE SPACENAM ACCESS(FORCE)** command **T -** Indicates utility execution was terminated by the **-TERM UTILITY** command
RESTART	CHAR(1)	Indicates whether utility execution was restarted: **N -** Default value. Utility execution was not restarted **Y -** Utility execution was restarted
NUMOBJECTS	INTEGER	The number of objects processed during utility execution (utility specific). For partitioned objects, each partition is counted For the following utilities, each data set is counted when the utility is run at the data set level on non-partitioned table spaces: - COPY - COPYTOCOPY - MERGECOPY - MODIFY - RECOVERY REPORT RECOVERY
LISTNAME	VARCHAR(18)	Name of the LISTDEF list, if applicable
STARTLOGPOINT	CHAR(10)	Current log point at the start of the utility execution

Column Name	Data Type	Description
GROUP_MEMBER	VARCHAR(24)	Name of data sharing subsystem where utility started
SORTNAME	VARCHAR(24)	DFSORT or DB2SORT, if applicable
SORTCPUTIME	BIGINT	Sort CPU time in microseconds
SORTZIIPTIME	BIGINT	Sort zIIP time in microseconds

SYSIBM.SYSVARIABLES

Contains one row for each global variable that is created.

Column Name	Data Type	Description
VARID	BIGINT	Identifier of the global variable
SCHEMA	VARCHAR(128)	Schema name of the global variable
NAME	VARCHAR(128)	Unqualified name of the global variable
OWNER	VARCHAR(128)	Authorization ID of the owner of the global variable
OWNERTYPE	CHAR(1)	Type of owner of the global variable: **L** The owner is a role **blank** The owner is an authorization ID
RELCREATED	CHAR(1)	Release of Db2 used to create the object
CREATEDTS	TIMESTAMP	Time at which the global variable was created
TYPESCHEMA	VARCHAR(128)	Schema name of data type. For built-in data types, is SYSIBM
TYPENAME	VARCHAR(128)	Unqualified name of the data type
DATATYPEID	INTEGER	For a built-in data type, the internal ID of the built-in type For a distinct type, the internal ID of the distinct type
SOURCETYPEID	INTEGER	For a built-in data type, 0. For a distinct type, the internal ID of the built-in data type on which the distinct type is based.
LENGTH	INTEGER	Maximum length of the global variable. Zero if array data type
SCALE	SMALLINT	The scale of the global variable
CCSID	INTEGER	The CCSID of the global variable. 0 if array type
DEFAULT	CHAR(3)	The default value of the global variable. Can contain one of the following values: **N** - no default value **S** - SQL authorization ID of the process **1** - String constant **2** - Floating-point constant **3** - Decimal constant **4** - Integer constant **5** - Hexadecimal character string **6** - UX string **7** - Graphic data type with default character string constant **8** - Character data type with default value a character string constant **9** - DECFLOAT constant If this column is on of the following values, the default value of the global variable is the value of the indicated special register at the time that a default value is used: **AES** CURRENT APPLICATION ENCODING SCHEME **ACT** CURRENT CLIENT_ACCTNG **APN** CURRENT CLIENT_APPLNAME **CID** CURRENT CLIENT_USERID **WSN** CURRENT CLIENT_WRKSTNNAME **DAT** CURRENT DATE **DBG** CURRENT DEBUG MODE **DEC** CURRENT DECFLOAT ROUNDING MODE **DEG** CURRENT DEGREE

		EXP CURRENT EXPLAIN MODE **LCT** CURRENT LOCALE LC_CTYPE **MTT** CURRENT MAINTAINED TABLE TYPES FOR OPTIMIZATION **MEM** CURRENT MEMBER **HNT** CURRENT OPTIMIZATION HINT **CPP** CURRENT PACKAGE PATH **CPS** CURRENT PACKAGESET **PTH** CURRENT PATH **PRC** CURRENT PRECISION **RFA** CURRENT REFRESH AGE **RVS** CURRENT ROUTINE VERSION **RUL** CURRENT RULES **SCH** CURRENT SCHEMA **SVR** CURRENT SERVER **TIM** CURRENT TIME **TST** CURRENT TIMESTAMP **STZ** SESSION TIME ZONE **U** SESSION_USER
ROWID	ROWID	ROWID value for the lob columns in this table
DEFAULTTEXT	CLOB(2M)	Text of the default value of the global variable
	BLOB(2M)	Reserved for IBM use
ENVID	INTEGER	Internal environment identifier
REMARKS	VARCHAR(762)	A character string about global variable provided by COMMENT
IBMREQD	CHAR(1)	Y indicates that the row came from (MRM) tape

SYSIBM.SYSVARIABLEAUTH

One row for each privilege of each authorization ID that has privileges on a global variable.

Column Name	Data Type	Description
GRANTOR	VARCHAR(128)	Grantor of the privilege
GRANTORTYPE	CHAR(1)	Type of grantor: **blank** Grantor is an authorization ID **L** Grantor is a role
GRANTEE	VARCHAR(128)	Holder of the privilege
GRANTEETYPE	CHAR(1)	Type of grantee: **blank** Grantee is an authorization ID **L** Grantee is a role **P** Grantee is a package
SCHEMA	VARCHAR(128)	Schema name of the global variable
NAME	VARCHAR(128)	Unqualified name of the global variable
COLLID	VARCHAR(128)	If grantee is a package, value is the COLLID of package
CONTOKEN	CHAR(8)	If grantee is a package, value is consistency token of DBRM from which package is derived. Else, blank.
READAUTH	CHAR(1)	Privilege to read the global variable: **blank** READ privilege is not held **G** READ privilege is held with GRANT option **Y** READ privilege is held without GRANT option
WRITEAUTH	CHAR(1)	Privilege to write to the global variable: **blank** not held **G** held with GRANT option **Y** held without GRANT option
AUTHHOWGOT	CHAR(1)	The authorization level of the user who granted the privileges: **blank** Not applicable

Column Name	Data Type	Description
		E SECADM **G** ACCESSCTRL **S** SYSADM **T** DATAACCESS
GRANTEDTS	TIMESTAMP	The time when the GRANT statement was executed
IBMREQD	CHAR(1)	Indicates that the row came from the (MRM) tape
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSVARIABLES_DESC

Table is an auxiliary table for the SYSIBM.SYSVARIABLES table.

Column Name	Data Type	Description
	BLOB(2M)	IBM-internal use only

SYSIBM.SYSVARIABLES_TEXT

Table is an auxiliary table for the DEFAULTTEXT column SYSIBM.SYSVARIABLES table.

Column Name	Data Type	Description
DEFAULTTEXT	CLOB(2M)	Text of the default value of the global variable

SYSIBM.SYSVIEWDEP

Records the dependencies of views on tables, functions, and other views.

Column Name	Data Type	Description
BNAME	VARCHAR(128)	Name of object on which view is dependent. If object type is a function (BTYPE='F'), name is the specific name of the function
BCREATOR	VARCHAR(128)	Authorization ID of owner of BNAME. For functions, schema name of BNAME
BTYPE	CHAR(1)	Type of object: **F** Function **M** Materialized query table **T** Table **V** View
DNAME	VARCHAR(128)	Name of the view
DCREATOR	VARCHAR(128)	Schema of the view
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
BSCHEMA	VARCHAR(128)	Schema of BNAME
DTYPE	CHAR(1)	Type of table **F** SQL Function **M** Materialized **V** View
DOWNER	VARCHAR(128)	Auth ID of owner of view, blank for views created prior to V9
OWNERTYPE	CHAR(1)	Indicates the type of owner: **blank** Authorization ID **L** Role
SYS_START	TIMESTAMP(12)	Start time associated with most recent transaction
SYS_END	TIMESTAMP(12)	Time row is deleted from system-period temporal table
TRANS_START	TIMESTAMP(12)	Timestamp value per transaction or null

SYSIBM.SYSVIEWS

Contains one or more rows for each view.

Column Name	Data Type	Description
NAME	VARCHAR(128)	Name of the view
CREATOR	VARCHAR(128)	Schema of the view
	SMALLINT	Not used
CHECK	CHAR(1)	Whether WITH CHECK OPTION clause was specified in the CREATE VIEW statement: **N** No **C** Yes with the *cascaded* semantic **Y** Yes with the *local* semantic The value is N if the view has no WHERE clause
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
	VARCHAR(1500)	Not used
PATHSCHEMAS	VARCHAR(2048)	SQL path at time view was defined. Path is used to resolve unqualified data type and function names used in view definition
RELCREATED	CHAR(1)	Release of Db2 used to create the object. Blank if prior to V9
TYPE	CHAR(1)	Type of table **F** SQL Function **M** Materialized Query Table **V** View
REFRESH	CHAR(1)	Refresh mode **D** An MQT with a deferred refresh mode **Blank** Not an MQT
ENABLE	CHAR(1)	MQT is enabled or disabled for query optimization: **Y** Enabled **N** Disabled **Blank** Row describes a view
MAINTENANCE	CHAR(1)	Maintenance Mode **S** Maintained by system **U** Maintained by user **Blank** Row describes a view
REFRESH_TIME	TIMESTAMP	For REFRESH = 'D' and MAINTENANCE = 'S', timestamp of REFRESH TABLE statement that last refreshed data
ISOLATION	CHAR(1)	Isolation level when MQT is created or altered from base table: **R** RR (repeatable read) **S** CS (cursor stability) **T** RS (read stability) **U** UR (uncommitted read) **blank** Not a materialized query table
SIGNATURE	VARCHAR(1024)	Contains the internal description. Used for MQT tables
APP_ENCODING_ CCSID	INTEGER	CCSID of the current application encoding scheme at the time object was created. For objects created prior to V8, value is 0
OWNER	VARCHAR(128)	Authorization ID of the owner of the view
OWNERTYPE	CHAR(1)	Type of owner: **blank** Authorization ID **L** Role
ENVID	INTEGER	Internal environment identifier
ROWID	ROWID	ROWID column, created for the lob columns in this table
STATEMENT	CLOB(2M)	Text of entire CREATE VIEW statement used to create object
	BLOB(1G)	Internal use only

SYSIBM.SYSVIEWS_STMT

Auxiliary table for the STATEMENT column of the SYSIBM.SYSVIEWS table.

Column Name	Data Type	Description

STATEMENT	CLOB(2M)	The text of the statement that was used to create the object

SYSIBM.SYSVIEWS_TREE

An auxiliary table for the PARSETREE column of the SYSIBM.SYSVIEWS table.

Column Name	Data Type	Description
	BLOB(2M)	Internal use only

SYSIBM.SYSVOLUMES

Contains one row for each volume of each storage group.

Column Name	Data Type	Description
SGNAME	VARCHAR(128)	Name of the storage group
SGCREATOR	VARCHAR(128)	Authorization ID of the owner of the storage group
VOLID	VARCHAR(18)	Serial number of the volume or * if SMS-managed
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
RELCREATED	CHAR(1)	Release of Db2 used to create object. Blank if created prior to V9

SYSIBM.SYSXMLRELS

Contains one row for each XML table that is created for an XML column.

Column Name	Data Type	Description
TBOWNER	VARCHAR(128)	Schema or qualifier of the base table
TBNAME	VARCHAR(128)	Name of the base table
COLNAME	VARCHAR(128)	Name of the XML column in the base table
XMLTBOWNER	VARCHAR(128)	Schema or qualifier of the XML table
XMLTBNAME	VARCHAR(128)	Name of the XML table
XMLRELOBID	INTEGER	Internal identifier of relationship between base table and XML table
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
CREATEDTS	TIMESTAMP	Time when the XML table was created
RELCREATED	CHAR(1)	The release of Db2 that is used to create the object

SYSIBM.SYSXMLSTRINGS

Each row contains a single string and its unique ID that are used to condense XML data. The string can be an element name, attribute name, name space prefix, or a namespace URI.

Column Name	Data Type	Description
STRINGID	INTEGER	Unique ID for the string
STRING	VARCHAR(1000)	The string data
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.USERNAMES

Each row is used to carry out one of the following operations: Outbound ID translation or Inbound ID translation and "come from" checking.

Column Name	Data Type	Description
TYPE	CHAR(1)	How the row is to be used: **O** For outbound translation **I** For inbound translation and "come from" checking **S** For outbound system AUTHID to establish a trusted connection
AUTHID	VARCHAR(128)	Authorization ID to be translated. Applies to any auth ID if blank
LINKNAME	VARCHAR(24)	Identifies VTAM or TCP/IP network locations associated with this row
NEWAUTHID	VARCHAR(128)	Translated value of AUTHID. Blank specifies no translation
PASSWORD	VARCHAR(24)	Password to accompany an outbound request, if passwords are not encrypted by RACF
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

SYSIBM.SYSXMLTYPMOD

Contains rows for XML type modifiers of XML columns. Can be inserted, updated and deleted

Column Name	Data Type	Description
XML_ TYPEMOD_ID	INTEGER	ID generated for XML type modifier, it is an identity column and primary key
TYPE_ ANNOTATION	CHAR(1)	Indicate whether there is type annotation. **Y** WITH type annotation **N** with no type annotation
CREATEDTS	TIMESTAMP	Timestamp when this type modifier is created
ALTEREDTS	TIMESTAMP	Timestamp when this type modifier is altered
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape
CREATEDBY	VARCHAR(128)	Primary authorization ID of the user who created the database

SYSIBM.SYSXMLTYPMSCHEMA

Contains the XML schema information for an XML type modifier.

Column Name	Data Type	Description
XML_ TYPEMOD_ID	INTEGER	ID for the XML type modifier
XSROBJECTID	INTEGER	ID for an XML schema registered in XSR
ELEMENT_ NAMESPACE	INTEGER	String id for namespace name of root element node. By default, it is TARGETNAMESPACE of XML schema. 0 if it is NO NAMESPACE
ELEMENT_ NAME	INTEGER	String id for local name of the root element node. 0 if not specified
CREATEDTS	TIMESTAMP	Timestamp when this type modifier is created
ALTEREDTS	TIMESTAMP	Timestamp when this type modifier is altered
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object
IBMREQD	CHAR(1)	Y indicates row came from basic MRM tape

XML Schema Repository Tables

SYSIBM.XSRCOMPONENT

Auxilary table for BLOB column COMPONENT in SYSIBM.SYSXSROBJECTCOMPONENTS.

Column Name	Data Type	Description
COMPONENT	BLOB(30M)	Contents of the XML schema document

SYSIBM.XSROBJECTS

Contains one row for each registered XML schema.

Column Name	Data Type	Description
XSROBJECTID	INTEGER	Internal identifier of the XML schema. XSROBJECTID is generated as an identity column
XSROBJECT SCHEMA	VARCHAR(128)	Qualifier of XML schema name. Always set to 'SYSXSR'
XSROBJECT NAME	VARCHAR(128)	Name of the XML schema
TARGET NAMESPACE	INTEGER	Value of STRINGID column inSYSXMLSTRINGS when target namespace URI of primary XML schema document is stored in SYSXMLSTRINGS
SCHEMA LOCATION	INTEGER	Value of STRINGID column in SYSXMLSTRINGS when schema location URI of primary XML schema document is stored in SYSXMLSTRINGS
ROWID	ROWID	ID that is used to support BLOB data type values
GRAMMAR	BLOB(250M)	The internal binary representation of the XML schema
PROPERTIES	BLOB(5M)	Additional property information of the entire XML schema
CREATEDBY	VARCHAR(128)	Authorization ID under which the XML schema was created
CREATEDTS	TIMESTAMP	Time that Db2-supplied stored procedure XSR_REGISTER was executed for XML schema
STATUS	CHAR(1)	Registration status of the XML schema: **C** Complete **I** Incomplete **T** Temporary
RELCREATED	CHAR(1)	The release of Db2 that is used to create the object
	CHAR(1)	Not used
	VARCHAR(128)	Not used
REMARKS	VARCHAR(762)	Character string that contains comments about XML schema

SYSIBM.XSROBJECTCOMPONENTS

Contains one row for each component (document) in an XML schema.

Column Name	Data Type	Description
XSRCOMPONENTID	INTEGER	Identifier of XML schema document. XSRCOMPONENTID is generated as an identity column
TARGETNAMESPACE	INTEGER	Value of STRINGID column in SYSXMLSTRINGS when target namespace URI of primary XML schema document is stored in SYSXMLSTRINGS
SCHEMALOCATION	INTEGER	Value of STRINGID column in SYSXMLSTRINGS when schema location URI of the primary XML schema document is stored in SYSXMLSTRINGS
ROWID	ROWID	ID that is used to support BLOB data type values
COMPONENT	BLOB(30M)	Contents of the XML schema document

PROPERTIES	BLOB(5M)	Additional property information of the XML schema document
CREATEDTS	TIMESTAMP	Time XML schema document was registered
STATUS	CHAR(1)	Registration status of the XML schema: **C** Complete **I** Incomplete
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object

SYSIBM.XSROBJECTGRAMMER

An auxiliary table for the BLOB column GRAMMAR in SYSIBM.SYSXSROBJECTS.

Column Name	Data Type	Description
GRAMMAR	BLOB(250M)	Internal binary representation of the XML schema

SYSIBM.XSROBJECTHIERARCHIES

SYSIBM.XSROBJECTHIERARCHIES contains one row for each component (document) in an XML schema to record the XML schema document hierarchy relationship.

Column Name	Data Type	Description
XSROBJECTID	INTEGER	Internal identifier of the XML schema
XSRCOMPONENTID	INTEGER	Internal identifier of the XML schema document
HTYPE	CHAR(1)	Hierarchy type: **D** Document **P** Primary document
TARGETNAMESPACE	INTEGER	Value of STRINGID column in SYSXMLSTRINGS when target namespace URI of primary XML schema document is stored in SYSXMLSTRINGS
SCHEMALOCATION	INTEGER	Value of STRINGID column in SYSXMLSTRINGS when schema location URI of primary XML schema document is stored in SYSXMLSTRINGS
RELCREATED	CHAR(1)	Release of Db2 that is used to create the object

SYSIBM.XSROBJECTPROPERTY

An auxiliary table for the BLOB column PROPERTIES in SYSIBM.SYSXSROBJECTS.

Column Name	Data Type	Description
PROPERTIES	BLOB(5M)	Contents of the additional property information of the entire XML schema

SYSIBM.XSRPROPERTY

Auxiliary table for BLOB column PROPERTIES in SYSIBM.SYSXSROBJECTCOMPONENTS.

Column Name	Data Type	Description
PROPERTIES	BLOB(5M)	Contents of additional property information of the XML schema document

Updateable Catalog Statistics

Catalog statistics that are updateable and used for access path selection.

SYSCOLDIST

Column	Accesspath Selection	Updateable
CARDF	Yes	Yes
COLGROUPCOLNO	Yes	Yes
COLVALUE	Yes	Yes
FREQUENCYF	Yes	Yes
HIGHVALUE	Yes	No
LOWVALUE	Yes	No
NUMCOLUMNS	Yes	Yes
QUANTILENO	Yes	No
TYPE	Yes	Yes

SYSCOLDISTSTATS

Column	Accesspath Selection	Updateable
CARDF	No	Yes
COLGROUPCOLNO	No	Yes
COLVALUE	No	Yes
FREQUENCYF	No	Yes
HIGHVALUE	No	No
KEYCARDDATA	No	Yes
LOWVALUE	No	No
NUMCOLUMNS	No	Yes
QUANTILENO	No	No
TYPE	No	Yes

SYSCOLSTATS

Column	Accesspath Selection	Updateable
COLCARD	Yes	Yes
COLCARDDATA	No	Yes
HIGHKEY	Yes	Yes
HIGH2KEY	Yes	Yes
LOWKEY	Yes	Yes
LOW2KEY	Yes	Yes
PARTITION	Yes	Yes

SYSCOLUMNS

Column	Accesspath Selection	Updateable
COLCARDF	Yes	Yes
HIGH2KEY	Yes	Yes
LOW2KEY	Yes	Yes

SYSINDEXES

Column	Accesspath Selection	Updateable
AVGKEYLEN	No	No
CLUSTERED	No	Yes
CLUSTERING	Yes	No
CLUSTERRATIOF	Yes	Yes
FIRSTKEYCARDF	Yes	Yes
FULLKEYCARDF	Yes	Yes
NLEAF	Yes	Yes
NLEVELS	Yes	Yes
SPACEF	No	Yes
DATAREPEATFACTOR	Yes	Yes

SYSINDEXPART

Column	Accesspath Selection	Updateable
AVGKEYLEN	No	No
CARDF	No	No
DSNUM	No	Yes
EXTENTS	No	Yes
FAROFFPOS	No	No
LEAFDIST	No	No
LEAFFAR	No	Yes
LEAFNEAR	No	Yes
LIMITKEY	Yes	No
NEAROFFPOS	No	No
PQTY	No	No
PSEUDO_DEL_ENTRIES	No	Yes
SECQTYI	No	No
SPACE	No	No
SQTY	No	No
SPACEF	No	Yes

SYSINDEXSPACESTATS

Column	Accesspath Selection	Updateable
NLEVELS	Yes	Yes
NLEAF	Yes	Yes

SYSINDEXESTATS

Column	Accesspath Selection	Updateable
CLUSTERRATIOF	No	Yes
FIRSTKEYCARDF	No	Yes
FULLKEYCARDDATA	No	Yes
FULLKEYCARDF	No	Yes
KEYCOUNTF	No	Yes
NLEAF	No	Yes
NLEVELS	No	Yes

DATAREPEATFACTOFF	No	Yes

SYSKEYTARGETS

Column	Accesspath Selection	Updateable
CARDF	Yes	No
HIGH2KEY	Yes	Yes
LOW2KEY	Yes	Yes
STATS_FORMAT	Yes	Yes

SYSKEYTARGETSTATS

Column	Accesspath Selection	Updateable
HIGHKEY	No	Yes
HIGH2KEY	No	Yes
LOWKEY	No	Yes
LOW2KEY	No	Yes
STATS_FORMAT	No	Yes

SYSKEYTGTDIST

Column	Accesspath Selection	Updateable
CARDF	Yes	Yes
KEYGROUPKEYNO	Yes	Yes
KEYVALUE	Yes	Yes
FREQUENCYF	Yes	Yes
HIGHVALUE	Yes	Yes
LOWVALUE	Yes	Yes
NUMKEYS	Yes	Yes
TYPE	Yes	Yes
QUANTILENO	Yes	Yes

SYSKEYTGTDISTSTATS

Column	Accesspath Selection	Updateable
CARDF	No	Yes
KEYVALUE	No	Yes
KEYGROUPKEYNO	No	Yes
FREQUENCYF	No	Yes
HIGHVALUE	No	Yes
LOWVALUE	No	Yes
QUANTILENO	No	Yes

SYSLOBSTATS

Column	Accesspath Selection	Updateable
AVGSIZE	No	Yes
FREESPACE	No	Yes
ORGRATIO	No	Yes

SYSROUTINES

Column	Accesspath Selection	Updateable
CARDINALITY	Yes	Yes
INITIAL_INSTS	Yes	Yes
INITIAL_IOS	Yes	Yes
INSTAT_PER_INVOC	Yes	Yes
IOS_PER_INVOC	Yes	Yes

SYSTABLEPART

Column	Accesspath Selection	Updateable
AVGROWLEN	No	No
CARDF	No	No
DSNUM	No	Yes
EXTENTS	No	Yes
FARINDREF	No	No
NEARINDREF	No	No
PAGESAVE	No	No
PERACTIVE	No	No
PERCDROP	No	No
PQTY	No	No
SECQTYI	No	No
SPACE	No	No
SPACEF	No	Yes
SQTY	No	No

SYSTABLES

Column	Accesspath Selection	Updateable
AVGROWLEN	No	Yes
CARDF	Yes	Yes
EDPROC	Yes	No
NPAGES	Yes	Yes
NpAGESF	Yes	Yes
PCTPAGES	No	Yes
PCTROWCOMP	Yes	Yes
SPACEF	No	Yes

SYSTABLESPACE

Column	Accesspath Selection	Updateable
AVGROWLEN	No	No
NACTIVEF	Yes	Yes
SPACE	No	No
SPACEF	No	Yes

SYSTABLESPACESTATS

Column	Accesspath Selection	Updateable
TOTALROWS	Yes	Yes
NPAGES	Yes	Yes

SYSTABSTATS

Column	Accesspath Selection	Updateable
CARDF	Yes	Yes
NACTIVE	No	Yes
NPAGES	Yes	Yes
PCTPAGES	No	Yes
PCTROWCOMP	No	Yes

IBM Utilities

BACKUP SYSTEM

```
                   .-FULL-----.
>>-BACKUP SYSTEM--+-----------+--+------------------------+---------------->
                  '-DATA ONLY-'  +-ESTABLISH FCINCREMENTAL-+
                                 '-END FCINCREMENTAL-------'

>--+-------------------------------------------------------------------+-->
   +--ALTERNATE_CP (copy-pool)--+-----------------+--+----------------+--+
                               '-DBBSG(stogroup)-'  '-LGBSG(stogroup-'
>--+-----------------------------------------------------------+----------><
   +--FORCE-----------------------------------------------------+
   +--DUMP--+-------------------+--+-------+------------------+
   |        '- dumpclass-spec---'  '-FORCE-'                  |
   '-DUMPONLY--+-------------------------+-+-----------------+'
               '- TOKEN- (X'byte-string')' '- dumpclass-spec -'

dumpclass-spec:

>--DUMPCLASS-(--dc1---)-------------------------------------------------><
              |-dc2-|
              |-dc3-|
              |-dc4-|
              |-dc5-|
```

CATMAINT

```
>>-CATMAINT--UPDATE--+-------------------------------------------------->
                     |                              |
                     `--LEVEL--(--catalog-level--)--`
>--+-------------------------------------------------+--------------------->
   |         .-------------------------------------. |
   |         V                                     | |
   +-SCHEMA----SWITCH(schema_name,new_schema_name)-+-+
   |                 .-,----------.                  |
   |                 V            |                  |
   '-OWNER--FROM--(----owner_name-+--)--TO ROLE------'
>--+---------------------------------------------+-+----------------------+-><
   |      .--------------------------------.  | |_UTILX__BASIC__________|
   |      V                                |  |        |_EXTENDED_|
   '-VCAT---SWITCH(vcat_name,new_vcat_name)-+-'         |_RESET____|
```

CHECK DATA

```
               .-------------------------------------.
               V                                     |
>>-CHECK--DATA----table-space-spec--+---------------+-+--------------------->
                                    '-PART--integer-' .
                                                      .--SHRLEVEL-REFERENCE-.
```

```
>-+-------------------------+----------+-+-------+--+---------------------+->
  |-INCLUDE-XML-TABLESPACES-+---ALL----| '-CLONE-'  '--SHRLEVEL--CHANGE---'
                            |-xml-spec-|
               .-SCOPE--PENDING-----.
>--drain-spec--+--------------------+-------------------------------------->
               '-SCOPE--+-AUXONLY-+-'
                        +-ALL-----+
                        '-REFONLY-'
   .-AUXERROR--REPORT--------.
>--+-------------------------+--------------------------------------------->
   '-AUXERROR--INVALIDATE----'
   .-LOBERROR--REPORT-----.  .-XMLERROR--REPORT-----.
>--+----------------------+--+----------------------+----------------------->
   '-LOBERROR--INVALIDATE-'  '-XMLERROR--INVALIDATE-'
>--+-------------------------------------------------------+---------------->
   |                 .-----------------------------------. |
   |                 V                                   | |
   '-FOR--EXCEPTION----IN--table-name1--USE--table-name2-+-'
    .-DELETE--NO---------------.  .-EXCEPTIONS--0-------.
>--+----------------------------+--+----------------------+------------------>
   |              .-LOG--YES-  |  '-EXCEPTIONS--integer-'
   '-DELETE--YES--+----------+-'
                  '-LOG--NO--'
   .-ERRDDN--SYSERR-.
>--+----------------+-------------------------------------------------------->
   '-ERRDDN--ddname-'
   .-WORKDDN--SYSUT1--,--SYSUT2----------.
>--+-------------------------------------+--------------------------------->
   '-WORKDDN--+-ddname1--,--ddname2----+-'
              |          .-,--SYSUT2-. |
              +-ddname1--+-----------+-+
              | .-SYSUT1-.            |
              '-+--------+--,--ddname2-'
>--+-------------------------+--+----------------------+-------------------->
   |           .-SYSPUNCH-. |  '-SORTDEVT--device-type-'
   '-PUNCHDDN--+-ddname---+-'
>--+------------------+------------------------------------------------------><
   '-SORTNUM--integer-'
```

CHECK INDEX

```
>>-CHECK--INDEX-------------------------------------------------------------->
>-+-LIST--listdef-name-----------------------------------------------------+-->
  +-(-index-name-+--------------+-)-------------------------------------+
  |              '-PART-integer-'                                        |
  '-(ALL)-TABLESPACE-+----------------+-table-space-name-+-------------+-'
                     '-database-name.-'                  '-PART-integer'
              .-SHRLEVEL--REFERENCE-.
>--+-------+--+--------------------+-------------------------->
   '-CLONE-'  '-SHRLEVEL--CHANGE----'
   .-DRAIN_WAIT--IRLMRWT value-. .-RETRY--UTIMOUT value-.
>--+---------------------------+--+----------------------+------>
   '-DRAIN_WAIT--integer-------' '-RETRY--integer-------'
                              .-WORKDDN--SYSUT1-.
>--+----------------------+--+-----------------+---------------------------->
```

```
   '-RETRY_DELAY--integer-'  '-WORKDDN--ddname-'
>--+-----------------------+--+------------------+-------------------------->
   '-SORTDEVT--device-type-'  '-SORTNUM--integer-'
>--+-----------------------+-----------------------------------------------><
   '-PARALLEL—num-subtasks-'
```

CHECK LOB

```
                                      .-SHRLEVEL--REFERENCE-.
>>-CHECK--LOB--lob-table-space-spec--+---------------------+---------------->
                                     '-SHRLEVEL--CHANGE----'
               .-EXCEPTIONS--0-------.
>--drain-spec--+---------------------+-------------------------------------->
               '-EXCEPTIONS--integer-'
>--+-------------------------+--+-----------------------+-------------------->
   |           .-SYSPUNCH-. |  '-SORTDEVT--device-type-'
   '-PUNCHDDN--+-ddname---+-'
>--+------------------+------------------------------------------------------>
   '-SORTNUM--integer-'

lob-table-space-spec:
>-TABLESPACE-+---------------+-lob-table-space-name--+-------+--------------->
             '-database-name-'                        '-CLONE-'

drain-spec:
   .-DRAIN_WAIT--IRLMRWT value-. .-RETRY--UTIMOUT value-.
>--+---------------------------+--+----------------------+-+-----------------+>
   '-DRAIN_WAIT--integer-------' '-RETRY--integer-------' '-RETRY_DELAY-int-'
```

COPY

```
                                       .-FULL--YES------------.
>>-+-LIST--listdef-name--| data-set-spec |--+----------------------+---------------------------+----->
   |                                      +-FULL--NO-------------+                           |
   |                                      '-| changelimit-spec |-'                           |
   | .-------------------------------------------------------------------------------------+|
   | V                    .-FULL--YES------------.  .-DSNUM--ALL---------.                  |
   '---+-table-space-spec-+--+----------------------+--+-------------------+--data-set-spec-+-'
       '-index-name-spec-'   +-FULL--NO-------------+  |                   |
                             '-| changelimit-spec |-'  '-DSNUM--integer-----'

>--+-------------------------------------------------------------------------+------->
   '-PARALLEL-+----------------+-+-----------------------------------+-'
              '-(num-objects)-' '-TAPEUNITS--(--num-tape-units--)-'

                 (2)  .-SYSTEMPAGES--YES-.
>--+-----------+------+------------------+----------------------------------->
   '-CHECKPAGE-'      '-SYSTEMPAGES--NO--'

>--+-------------------------------------------------+--------------------><
   |            .-NO---------.                      |
   '-FLASHCOPY--+-YES--------+--+--------------------+-'
                '-CONSISTENT-'  '-FCCOPYDDN(ddname)-'

 Concurrent-spec:

>>-+-LIST--listdef-name--data-set-spec--------------------------------+---->
```

```
   | .-------------------------------------------------------------. |
   | V                        .-DSNUM--ALL----------.                | |
   '---+-table-space-spec-+--+----------------------+--data-set-spec-+-'
       '-index-name-spec--'  '-DSNUM--integer------'

>--CONCURRENT-----------------------------------------------------><

Filterddn-spec:

>>-+-LIST--listdef-name--------------------------------+--------------------->
   | .-----------------------------------------------. |
   | V                        .-DSNUM--ALL----------. | |
   '---+-table-space-spec-+--+----------------------+-+-'
       '-index-name-spec--'  '-DSNUM--integer------'

>--data-set spec--FILTERDDN--(ddname)--CONCURRENT--------------------------><

data-set spec:

>>-+-COPYDDN(-+-ddname1------+----------+-+-)-+---------------------------------------+-+------><
   |          |              '-,ddname2-' |   '-RECOVERYDDN(-+-ddname3--+----------+-+-)-' |
   |          '-,ddname2-------------------'                 |          '-,ddname4-' |     |
   |                                                          '-,ddname4--------------'     |
   '-RECOVERYDDN(-+-ddname3--+----------+-+-)---------------------------------------------'
                  |          '-,ddname4-' |
                  '-,ddname4--------------'
Change-limit spec:
>>-CHANGELIMIT-+---------------------------------------+-+------------+----><
               '-(percent_value1-+------------------+-)-' '-REPORTONLY-'
                                 '-,percent_value2-'
Tablespace spec:
>>-TABLESPACE--+----------------+--table-space-name------------------------><
               '-database-name.-'

Indexpspace spec:
>>-+-INDEXSPACE--+----------------+--index-space-name-+--------------------><
   |             '-database-name.-'                   |
   '-INDEX--+-------------+--index-name---------------'
            '-creator-id.-'
```

COPYTOCOPY

```
>>-COPYTOCOPY-----------------------------------------------------------------><
>--+-LIST--listdef-name--from-copy-spec--data-set-spec------+---+-------+--->
   | .-----------------------------------------------------. |   '-CLONE-'
   | V                                                     | |
   '---+-ts-num-spec-----+--from-copy-spec--data-set-spec-+-'
       '-index-name-spec-'
ts-num-spec:

                                                     .-DSNUM--ALL-----.
>>-TABLESPACE--+----------------+-table-space-name--+----------------+------>
               '-database-name.-'                    '-DSNUM--integer-'

index-name-spec:                                          .-DSNUM—ALL----.
>>-+-INDEXSPACE-------+----------------+--index-space-name-++--------------+>
   |                  '-database-name.-'                   |'-DSNUM-integer'
```

```
   '-INDEX--+-------------+--index-name--------------------'
            '-creator-id.-'

from-copy-spec:
   .-FROMLASTCOPY-------------------------------------------------------.
>>-+-------------------------------------------------------------------+----><
   +-FROMLASTFULLCOPY-------------------------------------------------+
   +-FROMLASTINCRCOPY-------------------------------------------------+
   +-FROMLASTFLASHCOPY------------------------------------------------+
   '-FROMCOPY-------dsn--+-------------------------------------------+-'
                         '-FROMVOLUME--+-CATALOG------------------+-'
                                       '-volser--+--------------+-'
                                                 '-FROMSEQNO--n-'

data-set-spec:
>>-+-COPYDDN(-+-ddname1---+---------+-+-)-+---------------------------------------+-+------><
   |         |          '-,ddname2-' |   '-RECOVERYDDN(-+-ddname3--+---------+-+-)-' |
   |         '-,ddname2---------------'                 |         '-,ddname4-' |     |
   |                                                     '-,ddname4-------------'    |
   '-RECOVERYDDN(-+-ddname3--+---------+-+-)-----------------------------------------'
                  |         '-,ddname4-' |
                  '-,ddname4-------------'
```

DIAGNOSE

```
>>-DIAGNOSE--+-diagnose statement-+-----------------------------------------><
             '-END----------------'

diagnose-statement:
>>-+---------------------+------------------------------------------------------>
   | .-,-------.         |
   | V         |         |
   '-TYPE(---integer-+-)-'
>--+-------------------------------------+------------------------------------>
   '-ALLDUMPS-+-----------------------+-'
              | .-,-------------.     |
              | V               |     |
              '-(---X'abend-code'-+-)-'
>--+-----------------------------------+------------------------------------>
   '-NODUMPS-+-----------------------+-'
             | .-,-------------.     |
             | V               |     |
             '-(---X'abend-code'-+-)-'
>--+-------------------+--+----------------+--+-----------------+----------><
   '-display statement-'  '-wait statement-'  '-abend statement-'

display-statement:
>>-DISPLAY------------------------------------------------------------------>
>--+-OBD-+-----------------+-table-space-name-+---------+-+-------+---+---><
   |     '-database-name--.-'                 +-ALL-----+ '-CLONE-'   |
   |                                          +-TABLES--+             |
   |                                          '-INDEXES-'             |
   +-SYSUTIL-----------------------------------------------------------+
   +-MEPL--------------------------------------------------------------+
   +-AVAILABLE---------------------------------------------------------+
   '-DBET-+-DATABASE--database-name-----------------------+-+-------+-'
```

```
          +-TABLESPACE-+----------------+-table-space-name-+ '-CLONE-'
          |            '-database-name.-'                  |
          '-INDEX--index-name-----------------------------'

wait-statement:
  .--------------------------------------------------.
  V                                                  |
>>-WAIT----+-MESSAGE--message-id--+-------------------+------+-+-----------><
           |                      '-INSTANCE--integer-'      |
           '-TRACEID--+-X'trace-id'-+--+-------------------+-'
                      '-integer-----'  '-INSTANCE--integer-'

abend-statement:
>>-ABEND--+-MESSAGE--message-id--+-------------------+------+--+--------+-->
          |                      '-INSTANCE--integer-'      |  '-NODUMP-'
          '-TRACEID--+-X'trace-id'-+--+-------------------+-'
                     '-integer-----'  '-INSTANCE--integer-'
```

EXEC SQL

```
>>-EXEC--SQL--+-declare-cursor-spec--------------+--ENDEXEC-----------------><
              '-non-select dynamic SQL statement-'

declare-cursor-spec:
>>-DECLARE--cursor-name--CURSOR--FOR--select-statement---------------------><
```

LISTDEF

```
                        .---------------.
                        V               |
>>-LISTDEF--list-name------list-options--------------------------------------->

list-options:
>-+INCLUDE+-+-----------+-+-LIST-ref-list-+-+---------------++----+-+-----+-+->
  'EXCLUDE' |           | '-init-obj-spec-' 'CLONED-+-YES-+-''-RI-' +-ALL-+
            '-type-spec-'                           '-NO--'         +-BASE+
                                                                    +-LOB-+
                                                                    '-XML-'

   .-DEFINED YES-.
>--+-------------+--+---------+------------------------------------------------>
   +-DEFINED NO--+  +-HISTORY-+
   '-DEFINED ALL-'  '-ARCHIVE-'

>--+----------------+--+-------------------+--------------------------------><
   '-BASIC--+-NO--+-'  '-EXTENDED--+-NO--+-'
            '-YES-'                '-YES-'

type-spec:
>>-+-TABLESPACES--------------------+---------------------------------------><
   '-INDEXSPACES--+---------------+-'
                  '-COPY--+-NO--+-'
                          '-YES-'
```

```
init-obj-spec:
>>-+-DATABASE--database-name-+--+--------------------+--------------------><
   +-table-space-spec--------+  '-PARTLEVEL--+-----+-'
   +-index-space-spec--------+               '-(n)-'
   +-table-spec--------------+
   '-index-spec--------------'

table-space-spec:
TABLESPACE--+----------------+--table-space-name--------------------------><
            '-database-name.-'

index-space-spec
>>-INDEXSPACE--+----------------+--index-space-name-----------------------><
               '-database-name.-'

table-spec
>>-TABLE--+-------------+--table-name-------------------------------------><
          '-creator-id.-'

index-spec
>>-INDEX--+-------------+--index-name--------------------------------------><
          '-creator-id.-'
```

LOAD

```
         .-DATA-.  .-INDDN--SYSREC---------.
>>-LOAD--+------+--+-----------------------+--+-----------+----->
                   +-INDDN--ddname---------+  '-PREFORMAT-'
                   '-INCURSOR--cursor-name-'

    .-KEEP_EMPTY_PAGES YES--.
>--+-----------------------+----------------------------------->
   '-KEEP_EMPTY_PAGES NO----'

                                     .-PRESORTED--NO--.
>--+-----------------------------+--+----------------+---------->
   |                 .-1-------. |  '-PRESORTED--YES-'
   '-COPYDICTIONARY--+-integer-+-'

>--+-----------------------------+--+--------------------+----->
   '-PARALLEL--+----------------+-'  '-ROWFORMAT--+-BRF-+-'
               '-(num-subtasks)-'                 '-RRF-'

>--+-----------------------------------+--| resume-spec |-------->
   '-RBALRSN_CONVERSION--+-NONE-----+-'
                         +-BASIC----+
                         '-EXTENDED-'
>--| flashcopy-spec |--+----------------+--+-------+------------>
                       '-KEEPDICTIONARY-'  '-REUSE-'

   .-LOG--YES----------------.
>--+-------------------------+--| workddn-spec |---------------->
   '-LOG--NO--+------------+-'
              '-NOCOPYPEND-'
```

```
                    (1)
   .-SORTKEYS--0-------.                    .-FLOAT(S390)-.
>--+-------------------+--| format-spec |--+-------------+------>
   +-SORTKEYS--NO------+                    '-FLOAT(IEEE)-'
   '-SORTKEYS--integer-'

   .-EBCDIC--.
>--+---------+--+----------------------+--+--------+------------>
   +-ASCII---+  |        .-,-------.   |  '-NOSUBS-'
   '-UNICODE-'  |        V         |   |
                '-CCSID(---integer-+-)-'

   .-ENFORCE--CONSTRAINTS-.  .-ERRDDN--SYSERR-.
>--+----------------------+--+----------------+----------------->
   '-ENFORCE--NO----------'  '-ERRDDN--ddname-'

   .-MAPDDN--SYSMAP-.  .-DISCARDDN--SYSDISC-.
>--+----------------+--+--------------------+------------------->
   '-MAPDDN--ddname-'  '-DISCARDDN--ddname--'

   .-DISCARDS--0-------.
>--+-------------------+--+----------------------+------------>
   '-DISCARDS--integer-'  '-SORTDEVT--device-type-'

>--+------------------+---------------------------------------->
   '-SORTNUM--integer-'

>--+-------------------------------------------------------+------>
   '-CONTINUEIF(start-+------+-)=-+-X'byte-string'-----+-'
                      '-:end-'    '-'character-string'-'

>--+--------------+--+-------------------+--------------------->
   '-IGNORE(WHEN)-'  '-| decfloat-spec |-'

>--+-------------------+---------------------------------------->
   '-| override-spec |-'

   .-INDEXDEFER--NONE-------------------.
>--+-------------------------------------+----------------------->
   '-INDEXDEFER--+-NPI-+--+-----------+-'
                 '-ALL-'  '-NONUNIQUE-'

>--+--------------------------------+--------------------------->
   '-IMPLICIT_TZ--'timezone-string'-'

   .---------------------.
   V                     |
>----| INTO-TABLE-spec |-+------------------------------------><
```

resume-spec:

```
   .-RESUME--NO--. .-SHRLEVEL-NONE-.
>>-+------------+-+---------------+-+---------+--+---------+-+--------+-+-><
   |                                '-REPLACE-'  'copy-spec' '-stats-' |
   |              .-BACKOUT--NO------.  .-SHRLEVEL--NONE---.           |
```

```
   '-RESUME--YES--+-----------------+--+-----------------+------------'
                  |          .-YES-. |  '-SHRLEVEL--CHANGE-'
                  '-BACKOUT--+-----+-'
```

labeled-duration-expression

```
>>-+-CURRENT_DATE-------------------------+-------------------->
   '-CURRENT_TIMESTAMP--+----------------+-'
                        '-WITH TIME ZONE-'

   .-------------------------------------.
   V                                     |
>----+- + -+--constant--+-YEAR---------+-+--------------------><
     '- - -'            +-YEARS--------+
                        +-MONTH--------+
                        +-MONTHS-------+
                        +-DAY----------+
                        +-DAYS---------+
                        +-HOUR---------+
                        +-HOURS--------+
                        +-MINUTE-------+
                        +-MINUTES------+
                        +-SECOND-------+
                        +-SECONDS------+
                        +-MICROSECOND--+
                        '-MICROSECONDS-'
```

workddn-spec:

```
   .-WORKDDN(SYSUT1,SORTOUT)--------------.
>>-+--------------------------------------+-------------------><
   '-WORKDDN--+-(ddname1,ddname2)-------+-'
              |          .-,SORTOUT-.   |
              +-(ddname1-+----------+-)-+
              |   .-SYSUT1-.            |
              '-(-+--------+-,ddname2)--'
```

copy-spec:

```
>>-+-------------------------------------+---------------------->
   |         .-(SYSCOPY)---------------. |
   '-COPYDDN-+-------------------------+-'
             +-(ddname1-+----------+-)-+
             |          '-,ddname2-'   |
             '-(,ddname2)--------------'

>--+-------------------------------------+---------------------><
   '-RECOVERYDDN(ddname3-+----------+-)-'
                         '-,ddname4-'
```

flashcopy-spec:

```
   .-FLASHCOPY--NO-------------------------------------------------.
```

```
>>-+-------------------------------------------------------------+-><
   '-FLASHCOPY--+-YES--------+--+-------------------------------+-'
                '-CONSISTENT-'  '-FCCOPYDDN--(--template-name--)-'
```

stats-spec:

```
>>-STATISTICS--+---------------------+--+---------------------+-->
               '-| stat-table-spec |-'  '-| stat-index-spec |-'

   .-REPORT--NO--.  .-UPDATE--ALL------------.
>--+-------------+--+------------------------+------------------>
   '-REPORT--YES-'  '-UPDATE--+-ACCESSPATH-+-'
                              +-SPACE------+
                              '-NONE-------'

   .-INVALIDATECACHE NO--.
>--+---------------------+--+------------------------+--------->
   '-INVALIDATECACHE YES-'  '-HISTORY--+-ALL--------+-'
                                       +-ACCESSPATH-+
                                       +-SPACE------+
                                       '-NONE-------'

>--+----------------------+----------------------------------><
   '-FORCEROLLUP--+-YES-+-'
                  '-NO--'
```

stat-table-spec

```
.-TABLE--(--ALL--)-.
>>-+-+-------------------+--+-----------------+--+-------------+-+-><
   |                       '-SAMPLE--integer-'  '-USE PROFILE-' |
   | .-------------------------------------------------.      |
   | V                                                   |      |
   '---TABLE--(--table-name--)--+----------------------+-+------'
                                '-| table-stats-spec |-'
```

sample-spec

```
>>-+----------------------+-----------------------------------------><
   |             '----25---'                        |
   |------SAMPLE-+---------'------------------------|
   |             '-integer-'                        |
   |                        '------AUTO-------'     |
   |-TABLESAMPLE SYSTEM --+ numeric literal-+-------+
                          '------NONE-------'
```

table-stats-spec:

```
.-COLUMN--ALL-------------------.
>>-+-----------------+--+-------------------------------+------->
   '-SAMPLE--integer-'  |            .-,-----------.    |
                        |            V              |    |
                        '-COLUMN--(----column-name-+--)-'
```

```
>--+-------------------------------------------------------------+-><
   | .-,-----------------------------------------------------. |
   | |              .-,-----------.                            | |
   | V              V             |                            | |
   +---COLGROUP--(----column-name-+--)--| colgroup-stats-spec |-+-+
   '-USE PROFILE-----------------------------------------------'

colgroup-stats-spec:
>>-+-------------------------------------------+---------------->
   '-FREQVAL--+-------------------------------+-'
              |                (1)  .-MOST--. |
              '-COUNT--integer------+-------+-'
                                    +-BOTH--+
                                    '-LEAST-'
>--+-------------------------------------+--------------------><
   |            .-NUMQUANTILES--100-----. |
   '-HISTOGRAM--+----------------------+-'
                '-NUMQUANTILES--integer-'
```

stat-index-spec:

```
             .-INDEX--(--ALL--)-.
>>-+-+-------------------+--| correlation-stats-spec |--------+-><
   |           .-,---------------------------------------.    |
   |           V                                         |    |
   '-INDEX--(----index-name--| correlation-stats-spec |-+--)-'

correlation-stats-spec:
   .-KEYCARD-----.
>>-+-------------+---------------------------------------------->

   .-FREQVAL--NUMCOLS--1--COUNT--10----------------------------------.
>--+-------------------------------------------------------------+-->
   | .-----------------------------------------------------------. |
   | V                                                           | |
   '---FREQVAL--NUMCOLS--integer--+-------------------------------+-+-'
                                  |                (2)  .-MOST--. |
                                  '-COUNT--integer------+-------+-'
                                                        +-BOTH--+
                                                        '-LEAST-'
             .-NUMCOLS--1--NUMQUANTILES--100---------------.
>--HISTOGRAM--+---------------------------------------------+--><
             |                  .-NUMQUANTILES--100-----. |
             '-NUMCOLS--integer--+----------------------+-'
                                 '-NUMQUANTILES--integer-'
```

format-spec:

```
>>-+-------------------------------------------------------------------------+-><
   '-FORMAT-+-UNLOAD-----------------------------------------------------------+-'
            +-SQL/DS--------------------------------------------------------+
            +-INTERNAL------------------------------------------------------+
```

```
           |            .-COLDEL--',----.  .-CHARDEL--'"'-----.  .-DECPT--'.'---. |
           +-DELIMITED--+----------------+--+------------------+--+--------------+-+
           |            '-COLDEL--coldel-'  '-CHARDEL--chardel-'  '-DECPT--decpt-' |
           '-SPANNED--+-YES-+-------------------------------------------------------'
                      '-NO--'


decfloat-spec:
>--+-----------------------------------------+------------------------------>
   '-DECFLOAT_ROUNDMODE--+-ROUND_CEILING---+-'
                         +-ROUND_DOWN------+
                         +-ROUND_FLOOR-----+
                         +-ROUND_HALF_DOWN-+
                         +-ROUND_HALF_EVEN-+
                         +-ROUND_HALF_UP---+
                         '-ROUND_UP--------'

override-spec:
                     V-----------------.
>>-OVERRIDE--(----+-SYSTEMPERIOD-----+-+--)--------------------><
                  +-IDENTITY---------+
                  +-TRANSID----------+
                  '-NONDETERMINISTIC-'

INTO-TABLE-spec:
>>-INTO--TABLE--table-name--+-----------------+---+-----------------+------->
                            '-PERIODOVERRRIDE-'   '-TRANSIDOVERRIDE-'
   .-IGNOREFIELDS--NO--.
>--+-------------------+------------------------------------------------------>
   '-IGNOREFIELDS--YES-'

>--+-------------------------------------------------------------------------+->
   |                                          .-INDDN -SYSREC------------------.  |
   '-PART--integer--+----------+--resume-spec--+--------------------------------+-'
                    '-PREFORMAT-'              +-INDDN-ddname-+-------------------+-+
                                               |              '-DISCARDDN--ddname-' |
                                               '-INCURSOR--cursor-name-------------'
>--+------------------+---+-----------------------------------+-------------->
   '-NUMRECS--integer-'   '-WHEN-+-SQL/DS='table-name'-------+-'
                                 '-field selection criterion-'
>--+----------------------------+-----------------------------------------><
   |   .-,-------------------.   |
   |   V                     |   |
   '-(---field specification-+-)-'

>--+------------------------------+-----------------------------><
   |   .-,-------------------.   |
   |   V                     |   |
   '-(---field specification-+-)-'

resume-spec:

     .-RESUME--NO-----.
>>-+-+----------------+-+-----------------------------------+-+-->
   |                   '-REPLACE--+-------+--+-----------+-' |
   |                              '-REUSE-'  '-copy-spec-'   |
   '-RESUME--YES-----------------------------------------------'
```

```
>--+----------------+-------------------------------------------><
   '-KEEPDICTIONARY-'
```

field selection criterion:

```
>>-+-field-name--------+--=--+-X'byte-string'-----+------------><
   '-(start-+------+-)-'     +-'character-string'-+
            '-:end-'         +-G'graphic-string'--+
                             '-N'graphic-string'--'
```

field specification:

```
>>-field-name-spec---------------------------------------------->

>--+--------------------------------------------------------------------------------->
   +-CHAR--+-----------------------------------------------------+-----------------+
   |       +-BIT-(length)-strip-spec-------------------------------+                 |
   |       +-CCSID 1208--strip-spec--------------------------------+                 |
   |       +-MIXED--strip-spec-------------------------------------+                 |
   |       +-BLOBF-+-------------------+-+----------+------------+                 |
   |       |       '-PRESERVE WHITESPACE-' '-BINARYXML-'            |                 |
   |       +-CLOBF-+-------+-+-------------------+-+------------+-+                 |
   |       |       '-MIXED-' '-PRESERVE WHITESPACE-' '-CCSID 1208-' |                 |
   |       '-DBCLOBF-+-------------------+-+------------+---------'                 |
   |                 '-PRESERVE WHITESPACE-' '-CCSID 1200-'                           |
   +-VARCHAR--+------------------------------------------------------+--strip-spec-+
   |          +-BIT--------------------------------------------------+              |
   |          +-CCSID 1208-------------------------------------------+              |
   |          +-MIXED------------------------------------------------+              |
   |          +-BLOBF-+-------------------+-+----------+------------+              |
   |          |       '-PRESERVE WHITESPACE-' '-BINARYXML-'            |              |
   |          +-CLOBF-+---------------------------------------------+-+              |
   |          |       '-+-------+-+-------------------+-+-----------+-'              |
   |          |         '-MIXED-' '-PRESERVE WHITESPACE-' '-CCSID 1208-'             |
   |          '-DBCLOBF-+-------------------+-+----------+---------------'           |
   |                    '-PRESERVE WHITESPACE-' '-CCSID 1200-'                        |
   +-GRAPHIC-+----------+-+----------+-strip-spec-+------------+----------------------+
   |         '-EXTERNAL-' '-(length)-'            '-CCSID 1200-'                      |
   +-VARGRAPHIC--strip-spec--+------------+------------------------------------------+
   |                         '-CCSID 1200-'                                           |
   +-SMALLINT-------------------------------------------------------------------------+
   +-INTEGER-+---------------------+--------------------------------------------------+
   |         '-EXTERNAL-+----------+-'                                                |
   |                    '-(length)-'                                                  |
   +-BIGINT---------------------------------------------------------------------------+
   +-BINARY-+----------+-strip-spec---------------------------------------------------+
   |        '-(length)-'                                                              |
   +-+-VARBINARY------+--strip-spec---------------------------------------------------+
   | '-BINARY VARYING-'                                                               |
   +-decimal-spec---------------------------------------------------------------------+
   +-FLOAT-+----------+-+----------+--------------------------------------------------+
   |       '-EXTERNAL-' '-(length)-'                                                  |
   +-DATE--EXTERNAL--+---------------------+------------------------------------------+
   |                 '-(-+-length------+-)-'                                          |
   |                     '-date-format-'                                              |
   +-TIME--EXTERNAL--+---------------------+------------------------------------------+
   |                 '-(-+-length------+-)-'                                          |
   |                     '-time-format-'                                              |
   +-TIMESTAMP--EXTERNAL--+--------------------------+--------------------------------+
   |                      '-(-+-length-----------+-)-'                                |
   |                          '-timestamp-format-'                                    |
   +-TIMESTAMP-WITH-TIME-ZONE--EXTERNAL--+----------+--------------------------------+
   |                                     '-(length)-'                                 |
```

```
   +-ROWID-----------------------------------------------------------------------------+
   +-BLOB------------------------------------------------------------------------------+
   +-CLOB-+-----------------------+-----------------------------------------------------+
   |      '-MIXED--+------------+-'                                                     |
   |               '-CCSID 1208-'                                                       |
   +-DBCLOB-+------------+-------------------------------------------------------------+
   |        '-CCSID 1200-'                                                              |
   |           .-(34)-------------------.                                               |
   +-DECFLOAT--+-----------------------+---------------------------------------------+
   |           +-(16)-------------------+                                               |
   |           '-EXTERNAL--+----------+-'                                               |
   |                       '-(length)-'                                                 |
   '-XML--+---------------------+--+-----------+-------------------------------------'
          '-PRESERVE WHITESPACE-'  '-BINARYXML-'

>--+-------------------------------------+------------------><
   +-NULLIF--field selection criterion----+
   '-DEFAULTIF--field selection criterion-'
```

field name spec:

```
>>-field-name--+-----------------------------------+-----------><
               +-POSITION(start-+------+-)---------+
               |                '-:end-'           |
               '-CONSTANT(-+-'string'----------+-)-'
                           +-X'hex-string'-----+
                           +-integer-----------+
                           +-CURRENT DATE------+
                           +-CURRENT TIME------+
                           +-CURRENT TIMESTAMP-+
                           '-NULL--------------'
```

strip spec:

```
>>-+--------------------------------------------+----------------->
   |        .-BOTH ----.                        |
   '-STRIP--+----------+--+------------------+-'
            +-TRAILING-+  |              (1) |
            '-LEADING--'  +-'strip-char'-----+
                          '-X'strip-char'----'
>--+----------+-----------------------------------------------><
   '-TRUNCATE-'
```

decimal spec:

```
           .-PACKED----------------------------.
>>-DECIMAL-+-----------------------------------+---------------><
           +-ZONED-----------------------------+
           '-EXTERNAL-+----------------------+-'
                      |         .-,0-----.   |
                      '-(length-+--------+-)-'
                                '-,scale-'
```

MERGECOPY

```
>>-MERGECOPY-------------------------------------------------------------->
>--+-LIST--listdef-name-------------------------------------------------+--->
   |                                                  .-DSNUM--ALL-----. |
   '-TABLESPACE--+----------------+-table-space-name--+----------------+-'
                 '-database-name.-'                   '-DSNUM--integer-'
```

```
              .-WORKDDN--SYSUT1-.
>--+-------+--+-----------------+-------------------------------------------->
   '-CLONE-'  '-WORKDDN--ddname-'
     .-NEWCOPY--NO-.  .-COPYDDN--SYSCOPY-------------------.
>--+-+-------------+--+-------------------------------------+-------------+-><
   |                  +-COPYDDN(ddname1-+----------+-)-----+             |
   |                  |                 '-,ddname2-'       |             |
   |                  +-COPYDDN(,ddname2)------------------+             |
   |                  '-RECOVERYDDN(ddname3-+--------+-)-' |             |
   |                                        ',ddname4'     |             |
   |             .-COPYDDN--SYSCOPY-----------.                           |
   '-NEWCOPY-YES-+----------------------------+--+-+---------------------+'
                 +-COPYDDN(ddname1-+---------+-)-+ '-RECOVERYDDN(ddname3)'
                 |                 ',ddname2-'   |              ',ddname4'
                 '-COPYDDN(,ddname2)-------------'
```

MODIFY RECOVERY

```
>>-MODIFY--RECOVERY-------------------------------------------------------->
>--+-LIST--listdef-name-----------------------------+---------------------->
   '-TABLESPACE--+----------------+-table-space-name-'
                 '-database-name.-'
   .-DSNUM--ALL-----.
>--+----------------+--+-------+-------------------------------------------->
   '-DSNUM--integer-'  '-CLONE-'
>--+----------------+--+-------+-------------------------------------------->
   '-DELEtDS-'  '-NOCOPYPEND-'
>--+-DELETE-+------------------+---------------------+-------------------><
   |        +-AGE-+-integer-+--+                     |
   |        |     '-(*)-----'  |                     |
   |        '-DATE-+-integer-+-'                     |
   |               '-(*)-----'                       |
   '-RETAIN----+-LAST--(--integer--)--------------+---'
               +-LOGLIMIT-------------------------+
               '-GDGLIMIT-+---------------------+-'
                          +-LAST--(--integer--)-+
                          '-LOGLIMIT------------'
```

MODIFY STATISTICS

```
>>-MODIFY--STATISTICS------------------------------------------------------>
>--+-LIST-- listdef-name-----------------------------+---------------------->
   +-TABLESPACE--+----------------+--table-space-name-+
   |             '-database-name.-'                   |
   +-INDEXSPACE--+----------------+--index-space-name-+
   |             '-database-name.-'                   |
   '-INDEX--+-------------+--index-name---------------'
            '-creator-id.-'
>--DELETE-+-ALL--------+--+-AGE-+-(integer)-+--+---------------------------><
          +-ACCESSPATH-+  |     '-(*)-------'  |
          '-SPACE------'  '-DATE-+-(integer)-+-'
                                 '-(*)-------'
```

OPTIONS

```
>>-OPTIONS------------------------------------------------------------------------>
>+-+---------+-+------------------+-+--------------------+-+-------------+-+-><
  | '-PREVIEW-' '-LISTDEFDD-ddname-' '-TEMPLATEDD-ddname-' '-event-spec-' |
  +-OFF-----------------------------------------------------------------------+
  '-KEY--key-value-------------------------------------------------------------'

event-spec
             .-ITEMERROR,HALT-.         .-WARNING,RC4-.
>>-EVENT--(--+----------------+--+---+--+-------------+--)-----------------><
             '-ITEMERROR,SKIP-'  '-,-'  +-WARNING,RC0-+
                                        '-WARNING,RC8-'
```

QUIESCE

```
>>-QUIESCE------------------------------------------------------------------------>
>--+-LIST--listdef-name-------------------------------------------------------+->
   | .-----------------------------------------------------------------  |
   | V                                                                  | |
   |---+-TABLESPACE-+----------------+-table-space-name-+--------------++-'
       |             '-database-name.-'                  '-PART-integer-' ||
       |-TABLESPACESET-+-------------+-+-----------------+-table-space-name-|
                       '-TABLESPACE-' '-database-name.-'
              .-WRITE--YES-.
>--+-------+--+------------+-----------------------------------------------><
   '-CLONE-'  '-WRITE--NO--'
```

REBUILD INDEX

```
>>-REBUILD------------------------------------------------------------------------------->

                .-,-------------------------------------------.
                V                                             |
>--+-INDEX--+-(----creatorid.index-name------+---------------+-+--)-+-----------------+->
   |        |                               '-PART--integer-'      |                 |
   |        +-(ALL)--table-space-spec-----------------------------+                 |
   |        '-LIST--listdef-name-----------------------------------'                 |
   |                 .-,-------------------------------------------------------.     |
   |                 V                                                       |     |
   '-INDEXSPACE--+-(----+----------------+--index-space-name--+---------------+-+--)-+'
                 |      '-database-name.-'                    '-PART--integer-'      |
                 +-(ALL)--table-space-spec-------------------------------------------+
                 '-LIST--listdef-name-----------------------------------------------'

   .-SHRLEVEL--REFERENCE-----------.
>--+-------------------------------+--drain-spec--+-------+---------------------------->
   '-SHRLEVEL--CHANGE--change-spec-'              '-CLONE-'

   .-SCOPE--ALL-----.
>--+----------------+--+-------+--+----------------------+---------------------------->
   '-SCOPE--PENDING-'  '-REUSE-'  '-SORTDEVT--device-type-'

>--+------------------+--+------------+---------------------------------------------->
   '-SORTNUM--integer-'  '-stats-spec-'

   .-FLASHCOPY--NO-----------------------------------------------.
>--+-------------------------------------------------------------+------------------->
```

```
   '-FLASHCOPY--+-YES--------+--+-------------------------------+-'
                '-CONSISTENT-'  '-FCCOPYDDN--(--template-name--)-'

   .-PARALLEL--(0)----------------.
>--+-----------------------------+------------------------------------------------------>
   '-PARALLEL--(--num-subtasks--)-'

>--+----------------------------------+-----------------------------------------------><
   '-RBALRSN_CONVERSION--+-NONE-----+-'
                         +-BASIC----+
                         '-EXTENDED-'

table-space-spec:

>>-TABLESPACE--+----------------+--table-space-name------------->
               '-database-name.-'

>--+---------------+-------------------------------------------><
   '-PART--integer-'

change-spec:

   .-MAXRO--integer-.  .-LONGLOG--CONTINUE-.
>>-+----------------+--+-------------------+-------------------->
   '-MAXRO--DEFER---'  +-LONGLOG--TERM-----+
                       '-LONGLOG--DRAIN----'

   .-DELAY--1200----.
>--+----------------+-------------------------------------------><
   '-DELAY--integer-'

drain-spec:

   .-DRAIN_WAIT--IRLMRWT value-.  .-RETRY--UTIMOUT value-.
>>-+---------------------------+--+----------------------+------>
   '-DRAIN_WAIT--integer-------'  '-RETRY--integer-------'

>--+----------------------+-----------------------------------><
   '-RETRY_DELAY--integer-'

stats-spec:

                .-REPORT--NO--.
>>-STATISTICS--+-------------+--correlation-stats-spec---------->
                '-REPORT--YES-'

   .-UPDATE--ALL------------.  .-INVALIDATECACHE NO--.
>--+------------------------+--+---------------------+---------->
   '-UPDATE--+-ACCESSPATH-+-'  '-INVALIDATECACHE YES-'
             +-SPACE -----+
             '-NONE-------'

>--+-------------------------+--+----------------------+-------><
   '-HISTORY--+-ALL--------+-'  '-FORCEROLLUP--+-YES-+-'
              +-ACCESSPATH-+                   '-NO--'
              +-SPACE -----+
              '-NONE-------'

correlation-stats-spec:
   .-KEYCARD-----.
>>-+-------------+----------------------------------------------->

   .-FREQVAL--NUMCOLS--1--COUNT--10-----------------------------------.
```

```
>--+-------------------------------------------------------------+-->
   | .-----------------------------------------------------------. |
   | V                                                           | |
   '---FREQVAL--NUMCOLS--integer--+-------------------------------+-+-'
                                  |                     .-MOST--. |
                                  '-COUNT--integer------+-------+-'
                                                        +-BOTH--+
                                                        '-LEAST-'

             .-NUMCOLS--1--NUMQUANTILES--100---------------.
>--HISTOGRAM--+-----------------------------------------------+--><
             |                    .-NUMQUANTILES--100-----. |
             '-NUMCOLS--integer--+----------------------+-'
                                  '-NUMQUANTILES--integer-'
```

RECOVER

```
>>-RECOVER------------------------------------------------------------------------>
>--+-+-LIST--listdef-name-----------------+--list-options-spec-+------------>
   | | .--------------------------------. |                    |
   | | V        .-DSNUM--ALL----------. | |                    |
   | '---object-+----------------------+-+-'                    |
   |            '-DSNUM--integer------'                          |
   |         .-DSNUM--ALL----------.                             |
   +-object--+---------------------+--recover-options-spec-----+
   |         '-DSNUM--integer------'                             |
   '-object--PAGE--page-number--+----------+-------------------'
                                '-CONTINUE-'
                                .-LOGRANGES--YES-----.
>--+-------+--+--------------+--+--------------------+--------------------><
   '-CLONE-'  +-LOCALSITE----+  |                    |
              '-RECOVERYSITE-'  '-LOGRANGES--NO------'
```

object:

```
>>-+-TABLESPACE--+----------------+-table-space-name-+--------------------><
   |              '-database-name.-'                  |
   +-INDEXSPACE--+----------------+-index-space-name-+
   |              '-database-name.-'                  |
   '-INDEX--+-------------+-index-name---------------'
            '-creator-id.-'
```

list-options-spec:

```
  .-BACKOUT--NO------.
>>-+------------------+------------------------------------------------------>
   |          .-YES-. |
   '-BACKOUT--+-----+-'
>--+-------------------------------------------------------------------+---->
   |                          .-VERIFYSET--YES-.  .-ENFORCE--YES-.      |
   +-TORBA--X'byte-string'--+----------------+--+--------------+------+
   |                          '-VERIFYSET--NO--'  '-ENFORCE--NO--'      |
   |                              .-VERIFYSET--YES-.  .-ENFORCE--YES-. |
   '-TOLOGPOINT--X'byte-string'--+----------------+--+--------------+-'
                                  '-VERIFYSET--NO--'  '-ENFORCE--NO--'
>--+-non-LOGONLY-options-spec-+-------------------------------------------><
```

```
   '-LOGONLY-----------------'

non-LOGONLY-options-spec:
>>-+-------+--+-----------------+----------------------------------------->
   '-REUSE-'  '-CURRENTCOPYONLY-'
>--+-------------------------------------------------------------------+------>
   '-PARALLEL-+---------------+-+--------------------------------+-'
              '-(num-objects)-' '-TAPEUNITS--(--num-tape-units--)-'
>--+-------------------------------+-------------------------------------->
   '-RESTOREBEFORE--X'byte-string'-'
>--+-----------------------------------+-------------------------------------><
   '-FROMDUMP--+------------------+-'
               '-DUMPCLASS--(dcl)-'
>--+-----------------------------+----------------------------->
   '-FLASHCOPY_PPRCP--+-NO-----+-'
                      +-PMNO---+
                      +-PMPREF-+
                      '-PMREQ -'
>--+-------------------------+--------------------------------><
   '-ALTERNATE_CP(copy-pool)-'

recover-options-spec:
           .-DSNUM--ALL---------.
>>-object--+--------------------+------------------------------>
           |                (1) |
           '-DSNUM--integer-----'

>--+-TOCOPY--data-set--+-----------------+--tocopy-options-spec-+-><
   |                   '-image-copy-spec-'                     |
   +-TOLASTCOPY--tocopy-options-spec---------------------------+
   +-TOLASTFULLCOPY--tocopy-options-spec-----------------------+
   '-ERROR--RANGE----------------------------------------------'

tocopy-options-spec
                                     .-ENFORCE--YES-.
>>-+-------+--+-----------------+--+--------------+-------------->
   '-REUSE-'  '-CURRENTCOPYONLY-'  '-ENFORCE--NO--'

>--+------------------------+----------------------------------->
   '-NOSYSCOPY--+---------+-'
                +-INLCOPY-+
                '-FCCOPY--'

>--+-----------------------------+----------------------------><
   '-FLASHCOPY_PPRCP--+-NO-----+-'
                      +-PMNO---+
                      +-PMPREF-+
                      '-PMREQ -'

image-copy-spec:
>>-TOVOLUME-+-CATALOG---------------------+------------------><
            '-vol-ser-+------------------+-'
                      '-TOSEQNO--integer-'
```

REORG INDEX

```
>>-REORG--+-INDEX--LIST--listdef-name-+--+-------+--+-------+--------------->
          '-index-name-spec-----------'  '-REUSE-'   '-CLONE-'

   .-SHRLEVEL NONE-----------------------------------------------.
>--+-------------------------------------------------------------+---------->
   '-SHRLEVEL-+-REFERENCE--deadline-spec--drain-spec-----------+-'
              '-CHANGE--deadline-spec--drain-spec--change-spec-'

   .-FASTSWITCH YES----.
>--+-------------------|---------------------------------------_---------->
   '-FASTSWITCH NO-----'

                                                     .-FORCE--NONE----.
>--+-----------------------------------------+----+----------------+------->
   '-LEAFDISTLIMIT-+---------+-+------------+-'    +-FORCE--READERS-+
                   '-integer-' '-REPORTONLY-'      '-FORCE--ALL-----'

   .-UNLOAD--CONTINUE-------.
>--+------------------------+--+-----------------+------------------------->
   '-UNLOAD--+-PAUSE------+-'  '-stats-spec------'
             '-ONLY-------'
   .-WORKDDN--(SYSUT1)-.
>--+-------------------+--+-----------+------------------------------------>
   '-WORKDDN--(ddname)-'  '-PREFORMAT-'
>--+-----------------------------------------------------+-------------------><
   |            .-NO---------.                           |
   '-FLASHCOPY--+-YES--------+--+-------------------+-'
                '-CONSISTENT-'  '-FCCOPYDDN(ddname)-'

>--+----------------------------------+-----------------------------------><
   '-RBALRSN_CONVERSION--+-NONE-----+-'
                         +-BASIC----+
                         '-EXTENDED-'

index-name-spec
>>-+-INDEX-+-------------+-index-name---------------+----------------------->
   |       '-creator-id.-'                           |
   '-INDEXSPACE-+----------------+-index-space-name-'
                '-database-name.-'
>--+---------------+-------------------------------------------------------><
   '-PART--integer-'

deadline-spec
   .-DEADLINE--NONE---------------------------.
>>-+------------------------------------------+--------------------------><
   '-DEADLINE--+-timestamp-------------------+-'
               '-labeled-duration-expression-'

drain-spec
>>-+---------------------+-------+----------------+------------------------->
   '-DRAIN_WAIT--integer-'       '-RETRY--integer-'
```

```
                                     _TIMEOUT TERM---
>--+----------------------+--------|---------------{---------------------><
   '-RETRY_DELAY--integer-'        |-TIMEOUT ABEND__|
```

change-spec

```
                              .-DRAIN--ALL-----.
>>-+------------------------+--+----------------+-------------------------->
   |                    (1) |  '-DRAIN--WRITERS-'
   '-MAXRO--+-integer-+-----'
            '-DEFER---'

   .-LONGLOG--CONTINUE--.  .-DELAY--1200----.   .-LASTLOG YES-.
>--+--------------------+--+----------------+---+-------------|------------>
   '-LONGLOG--+-TERM--+-'  '-DELAY--integer-'   '-LASTLOG NO--'
              '-DRAIN-'

   .-LOGRANGES--YES-.
>--+----------------+------------------------------------------------------>
   '-LOGRANGES--NO--'

   .-SWITCHTIME--NONE-------------------------------------------------.
>--+-------------------------------------------------------------------+-><
   |                                                  .-NEWMAXRO--NONE----. |
   '-SWITCHTIME--+-timestamp-------------------+--+--------------------+-'
                 '-labeled-duration-expression-'  '-NEWMAXRO--integer-'
```

labeled-duration-expression

```
>>-+-CURRENT_DATE-------------------------------------------------------------->
   '-CURRENT_TIMESTAMP---+----------------+-----'
                         '-WITH TIME ZONE-'
   .-------------------------------------.
   V                                     |
>----+- + -+--constant--+-YEAR---------+-+--------------------------------><
     '- - -'            +-YEARS--------+
                        +-MONTH--------+
                        +-MONTHS-------+
                        +-DAY----------+
                        +-DAYS---------+
                        +-HOUR---------+
                        +-HOURS--------+
                        +-MINUTE-------+
                        +-MINUTES------+
                        +-SECOND-------+
                        +-SECONDS------+
                        +-MICROSECOND--+
                        '-MICROSECONDS-'
```

stats-spec

```
                 .-REPORT--NO--.
>>-STATISTICS--+-------------+--correlation-stats-spec---------------------->
               '-REPORT--YES-'
   .-UPDATE--ALL------------.
>--+------------------------+--+------------------------+------------------>
   '-UPDATE--+-ACCESSPATH-+-'  '-HISTORY--+-ALL--------+-'
             +-SPACE------+               +-ACCESSPATH-+
```

```
             '-NONE-------'                +-SPACE------+
                                           '-NONE-------'
>--+----------------------+-----------------------------------------------><
   '-FORCEROLLUP--+-YES-+-'
                  '-NO--'

correlation-stat-spec
                  .-FREQVAL--NUMCOLS--1--COUNT--10------------------.
>>-+---------+-----------------------------------------+---------------------><
   '-KEYCARD-'    |   .-------------------------------------------. |
                  |   V                                           |
                  '-----FREQVAL--NUMCOLS--integer--COUNT--integer-+-'

   .-NUMCOLS--1--NUMQUANTILES--100---------------.
>--HISTOGRAM--+-----------------------------------------------+-->
              |                    .-NUMQUANTILES--100-----. |
              '-NUMCOLS--integer--+-----------------------+-'
                                   '-NUMQUANTILES--integer-'
```

REORG TABLESPACE

```
>>-REORG--TABLESPACE-------------------------------------------------------->
                        .-PARALLEL-YES-.
>-+-LIST-listdef-name-+---------------+---------------------------------+--->
  |                   '-PARALLEL-NO--'                                 |
  '-+-----------------+-table-space-name-+-----------------------------+-'
    '-database-name.-'                   |      .-,---------------------.|
                                         |      V                       ||
                                         '-PART---+-integer-----------+-+'
                                                  '-integer1:integer2-'

                         .-SCOPE ALL-----.
>--+-------+--+-------+--+---------------+--------------------------------->
   '-CLONE-'  '-REUSE-'  '-SCOPE PENDING-'

                                            _DROP PART NO__
>--+-----------------------------------+-----|---------------|---------------->
   |            .-SORTCLUSTER--NO--. |     }_DROP PART YES_|
   '-REBALANCE--+------------------+-'
                '-SORTCLUSTER--YES-'

                             .-YES-.
   .-LOG--YES-.  .-SORTDATA--+-NO--+-.
>--+----------+--+-------------------+--+----------+------------------------>
   '-LOG--NO--'                        '-NOSYSREC-'
                  .-AUTOESTSPACE YES-.
>--| copy-spec |--+------------------+------------------------------------>
                  '-AUTOESTSPACE NO--'

  .-SHRLEVEL NONE-------------------------------------------------------.
>------------------------------------------------------------------------>
  '-SHRLEVEL--+-REFERENCE--| deadline-spec |--| drain-spec |--------------+->
              '-CHANGE-|deadline-spec|--|drain-spec|--|table-change-spec|-'
```

```
   .-FASTSWITCH YES-.  .-AUX NO--.     .-FORCE--NONE----.
>--+----------------+--+---------+-----+----------------+------------------->
   '-FASTSWITCH NO--'  '-AUX YES-'     +-FORCE--READERS-+
                                       '-FORCE--ALL-----'

>--+------------------+------------------------------------------------------>
   +-SORTNPSI--AUTO---+
   +-SORTNPSI--YES----+
   '-SORTNPSI--NO-----'

>--+-------------------------------------------------------------------+----->
   |              .-10------.              .-10------.                 |
   '-OFFPOSLIMIT--+---------+-INDREFLIMIT--+---------+-+------------+-'
                  '-integer-'              '-integer-' '-REPORTONLY-'
     .-UNLOAD--CONTINUE--.
>--+-+-------------------+--+----------------+--+---------------------+-+--->
   | |               (1) |  '-KEEPDICTIONARY-'  '-| statistics-spec |-' |
   | '-UNLOAD--PAUSE-----'                                               |
   +-UNLOAD--ONLY-------------------------------------------------------+
   '-UNLOAD--EXTERNAL--+-------+--+-------------------------+-----------'
                       '-NOPAD-'  | .---------------------. |
                                  | V                     | |
                                  '---| FROM-TABLE-spec |-+-'

   .-PUNCHDDN--SYSPUNCH-.  .-DISCARDDN--SYSDISC-.
>--+--------------------+--+--------------------+--------------------------->
   '-PUNCHDDN--ddname---'  '-DISCARDDN--ddname--'
>--+------------------------------+------------------------------------------>
   '-| reorg tablespace options |-'
>--+---------------------------------------------+--------------------------->
   |                     .---------------------. |
   |                     V                     | |
   '-DISCARD--+-------+----| FROM-TABLE-spec |-+-'
              '-NOPAD-'
   .-PARALLEL--0------------------.
>--+------------------------------+----------------------------------------><
   '-PARALLEL--(--num-subtasks--)-'

copy-spec

   .-COPYDDN(SYSCOPY)---------------------.
>>-+-------------------------------------+---------------------------------->
   '-COPYDDN(-+-ddname1--+----------+-+-)-'
              |          '-,ddname2-' |
              '-,ddname2--------------'
>--+-----------------------------------+----------------------------------->
   '-RECOVERYDDN(ddname3-+----------+-)-'
                         '-,ddname4-'
>--+-------------------------------------------------+--------------------><
   |            .-NO---------.                       |
   '-FLASHCOPY--+-YES--------+--+-------------------+-'
                '-CONSISTENT-'  '-FCCOPYDDN(ddname)-'

deadline-spec
```

```
   .-DEADLINE--NONE---------------------------.
>>-+-------------------------------------------+---------------------------><
   '-DEADLINE--+-timestamp-------------------+-'
               '-labeled-duration-expression-'
```

drain-spec

```
>>-+---------------------+------+----------------+------------------------>
   '-DRAIN_WAIT--integer-'      '-RETRY--integer-'

                                 .-TIMEOUT--TERM--.
>--+-----------------------+------+----------------+------------------------>
   '-RETRY_DELAY--integer-'      '-TIMEOUT--ABEND-'

   .-LOGRANGES--YES-.  .-DRAIN_ALLPARTS--NO--.
>--+----------------+--+---------------------+---------------------------->
   '-LOGRANGES--NO--'  '-DRAIN_ALLPARTS--YES-'

   .-SWITCHTIME--NONE-------------------------------------------------.
>--+-------------------------------------------------------------------+-><
   |                                                .-NEWMAXRO--NONE----. |
   '-SWITCHTIME--+-timestamp-------------------+--+-------------------+-'
                 '-labeled-duration-expression-'  '-NEWMAXRO--integer-'
```

change-spec:

```
   .-MAXRO--------------.  .-DRAIN--ALL-----.
>>-+--------------------+--+----------------+---------------------------->
   '-MAXRO--+-integer-+-'  '-DRAIN--WRITERS-'
            '-DEFER---'

   .-LONGLOG--CONTINUE--.  .-DELAY--1200----.   .-LASTLOG YES-.
>--+--------------------+--+----------------+---+-------------+-----------><
   '-LONGLOG--+-TERM--+-'  '-DELAY--integer-'   '-LASTLOG NO--'
              '-DRAIN-'
```

map-spec:

```
>>-+-------------------------------+-----------------------------------><
   +-MAPPINGTABLE--table-name-------+
   '-MAPPINGDATABASE--database-name-'
```

labeled-duration-expression

```
>>-+-CURRENT_DATE------------------------------------------------------------>
   '-CURRENT_TIMESTAMP---+----------------+-----'
                         '-WITH TIME ZONE-'
   .-------------------------------------.
   V                                     |
>----+- + -+--constant--+-YEAR---------+-+--------------------------------><
     '- - -'            +-YEARS--------+
                        +-MONTH--------+
                        +-MONTHS-------+
                        +-DAY----------+
                        +-DAYS---------+
                        +-HOUR---------+
                        +-HOURS--------+
                        +-MINUTE-------+
                        +-MINUTES------+
                        +-SECOND-------+
```

```
                        +-SECONDS------+
                        +-MICROSECOND--+
                        '-MICROSECONDS-'
```

statistics-spec

```
>>-STATISTICS-------------------------------------------------------------->
     .-TABLE--(--ALL--)-.
>--+-+------------------+--+-----------------+---------+------------------->
   |                      '-SAMPLE--integer-'         |
   | .-----------------------------------------------. |
   | V                                               | |
   '---TABLE--(--table-name--)--| table-stats-spec |-+-'

     .-INDEX--(--ALL--)-.
>--+-+------------------+--| correlation-stats-spec |--------+------------->
   |           .-,-------------------------------------.    |
   |           V                                       |    |
   '-INDEX--(----index-name--| correlation-stats-spec |-+--)-'

   .-REPORT--NO--.  .-UPDATE--ALL------------.
>--+-------------+--+-------------------------+---------------------------->
   '-REPORT--YES-'  '-UPDATE--+-ACCESSPATH-+-'
                              +-SPACE------+
                              '-NONE-------'

>--+-------------------------+--+----------------------+------------------><
   '-HISTORY--+-ALL--------+-'  '-FORCEROLLUP--+-YES-+-'
              +-ACCESSPATH-+                   '-NO--'
              +-SPACE------+
              '-NONE-------'
```

stat-table-spec

```
     .-TABLE--(--ALL--)-.
>>-+-+------------------+--+-----------------+--+-------------+-+-><
   |                      '-SAMPLE--integer-'  '-USE PROFILE-' |
   | .---------------------------------------------------.      |
   | V                                                   |      |
   '---TABLE--(--table-name--)--+----------------------+-+------'
                                '-| table-stats-spec |-'
```

sample-spec

```
>>-+----------------------+---------------------------------------><
   |              '----25---'                                      |
   |------SAMPLE-+---------'-------------------------------------|
   |              '-integer-'                                      |
   |                        '------AUTO-------'                   |
   |-TABLESAMPLE SYSTEM --+ numeric literal-+-------+
                          '-------NONE-------'
```

table-stats-spec:

```
                        .-COLUMN--ALL-------------------.
```

```
>>-+-----------------+--+-------------------------------+------->
   '-SAMPLE--integer-'  |            .-,-----------.    |
                        |            V             |    |
                        '-COLUMN--(----column-name-+--)-'

>--+-------------------------------------------------------------+-><
   | .-,-------------------------------------------------------. |
   | |              .-,-----------.                              | |
   | V              V             |                              | |
   +---COLGROUP--(----column-name-+--)--| colgroup-stats-spec |-+-+
   '-USE PROFILE-----------------------------------------------'

colgroup-stats-spec:

>>-+-------------------------------------------+------------->
   '-FREQVAL--+-------------------------------+-'
              |                      .-MOST--. |
              '-COUNT--integer------+-------+-'
                                    +-BOTH--+
                                    '-LEAST-'

>--+-------------------------------------+--------------------><
   |            .-NUMQUANTILES--100-----. |
   '-HISTOGRAM--+-----------------------+-'
                '-NUMQUANTILES--integer-'

stat-index-spec

     .-INDEX--(--ALL--)-.
>>-+-+------------------+--| correlation-stats-spec |--------+-><
     |           .-,-------------------------------------.    |
     |           V                                       |    |
     '-INDEX--(----index-name--| correlation-stats-spec |-+--)-'

correlation-stats-spec:

   .-KEYCARD-----.
>>-+-------------+----------------------------------------------->

   .-FREQVAL--NUMCOLS--1--COUNT--10----------------------------------.
>--+-------------------------------------------------------------------+->
   | .-----------------------------------------------------------. |
   | V                                                             | |
   '---FREQVAL--NUMCOLS--integer--+-------------------------------+-+-'
                                  |                      .-MOST--. |
                                  '-COUNT--integer------+-------+-'
                                                        +-BOTH--+
                                                        '-LEAST-'

              .-NUMCOLS--1--NUMQUANTILES--100---------------.
>--HISTOGRAM--+---------------------------------------------+-->
              |                    .-NUMQUANTILES--100-----. |
              '-NUMCOLS--integer--+-----------------------+-'
                                  '-NUMQUANTILES--integer-'
```

```
FROM-TABLE spec

>>-FROM--TABLE--table-name-------------------------------------------------->
>--+-------------------------------------+-------------------------------><
   '-WHEN--(--selection-condition-spec--)-'

selection-condition spec

>>-+-predicate-----------+-------------------------------------------------->
   '-selection condition-'
    .-------------------------------------.
    V                                     |
>----+----------------------------------+-+-------------------------------><
     '-+-AND-+--+-predicate-----------+-'
       '-OR--' '-selection condition-'

predicate
>>-+-basic predicate---+-------------------------------------------------><
   +-BETWEEN predicate-+
   +-IN predicate------+
   +-LIKE predicate----+
   '-NULL predicate----'

basic predicate
>>-column-name--+- = --+-------------------------------------------------->
                +- <> -+
                +- > --+
                +- < --+
                +- >= -+
                '- <= -'
>--+-constant--------------------+-----------------------------------------><
   '-labeled-duration-expression-'

between predicate
>>-column-name--+-----+--BETWEEN-------------------------------------------->
                '-NOT-'
>--+-constant--------------------+--AND------------------------------------>
   '-labeled-duration-expression-'
>--+-constant--------------------+-----------------------------------------><
   '-labeled-duration-expression-'

IN predicate
                                .-,--------.
                                V          |
>>-column-name--+-----+--IN--(---constant-+-)------------------------------><
                '-NOT-'

LIKE predicate
>>-column-name--+-----+--LIKE--string-constant------------------------------>
                '-NOT-'
>--+-------------------------+-------------------------------------------><
   '-ESCAPE--string-constant-'
```

```
NULL predicate
>>-column-name--IS--+-----+--NULL------------------------------------------><
                    '-NOT-'

Reorg tablespace options
   .-UNLDDN--SYSREC-.
>>-+----------------+--+-----------------------+----------------------------->
   '-UNLDDN--ddname-'  '-SORTDEVT--device-type-'
>--+------------------+--+-----------+-+-----------------+------------------>
   '-SORTNUM--integer-'  '-PREFORMAT-' '-ROWFORMAT-+-BRF-'
                                                   |-RRF-|

>--+----------------------------------+------------------------------------><
   '-RBALRSN_CONVERSION--+-NONE-----+-'
                         +-BASIC----+
                         '-EXTENDED-'
```

REPAIR

```
>>-REPAIR-------------------------------------------------------------------->
>--+-----------------------------------------------------+--------------------->
   |                              .-------------------. |
   | .-OBJECT-. .-LOG--YES-.     V                   | |
   +-+--------+-+----------+-+---+-set statement-+-+-+-+
   |            '-LOG--NO--' |   '-locate block--'   | |
   |                         |   '-dbd-statement-----' |
   +-level-id statement--------------------------------+
   +-versions statement--------------------------------+
   '-catalog statement---------------------------------'
>--+-------+-------------------------------------------------------------------><
   '-CLONE-'

level-id statement
>>-LEVELID------------------------------------------------------------------->
>--+-TABLESPACE--+----------------+-table-space-name-+----------------------->
   |             '-database-name.-'                  |
   '-index-name-spec---------------------------------'
>--+---------------+-------------------------------------------------------><
   '-PART--integer-'

versions statement
>>-VERSIONS------------------------------------------------------------------>
>--+-TABLESPACE--+----------------+-table-space-name-+----------------------><
   |             '-database-name.-'                  |
   '-index-name-spec---------------------------------'

catalog statement
>>-CATALOG--TABLESPACE--+----------------+-table-space-name------------------>
                        '-database-name.-'
>--+------+------------------------------------------------------------------->
   '-TEST-'

index-name spec
>>-+-INDEX-+-------------+-index-name---------------+----------------------><
   |       '-creator-id.-'                          |
   '-INDEXSPACE-+----------------+-index-space-name-'
```

```
                '-database-name.-'
```

set statement

```
>>-SET------------------------------------------------------------------------------------------>

>+-|table-space-spec|-+---------------+-+-NOCOPYPEND------+----------------------+----><
   |                 '-PART--integer-' +-NORCVRPEND------+                       |
   |                                   +-NOCHECKPEND-----+                       |
   |                                   +-NOAUXWARN-------+                       |
   |                                   +-NOAUXCHKP-------+                       |
   |                                   +-NOAREORPENDSTAR-+                       |
   |                                   '-NOAREORPEND-----'                       |
   |                                   +-PRO-------------+                       |
   |                                   +-NOPRO-----------+                       |
   '-+-INDEX-+-(index-name-+---------------+-)-+------------+-+-NOCOPYPEND------+-'
     |       |             '-PART--integer-'   |            | +-NORCVRPEND------+
     |       '-(--ALL--)--| table-space-spec |-'            | +-NORBDPEND-------+
     '-INDEXSPACE-+-(-+-----------+-index-space+-----------+)-+-NOCHECKPEND-----+
                  |   '-database.-'            '-PART-int' |  +-NOAREORPENDSTAR-+
                  '-(--ALL--)--table-space-spec------------'  +-NOAREORPEND-----+
                                                              +-RBDPEND---------+
                                                              '-PSRBDPEND-------'
```

Table-space-spec:

```
>>-TABLESPACE--+----------------+-table-space-name------------------------><
               '-database-name.-'
```

REPORT

```
>>-REPORT--------------------------------------------------------------------------------->
                                                          .-INDEX NONE-.
>-+-RECOVERY-+-TABLESPACE+-LIST-listdef-name---+-+-----------+-+-+----+-+--><
  |          |           '-tablespace-name-spec' '-INDEX ALL-' | 'info' |
  |          '-index-list-spec--------------------------------'       |
  '-TABLESPACESET--+------------+--table-space-name-spec--+----------+--'
                   '-TABLESPACE-'                          '-SHOWDSNS-'

Index-list-spec
>>-+-INDEXSPACE--+-+----------------+-index-space-name-+-+-----------------><
   |             | '-database-name.-'                  | |
   |             '-LIST--listdef-name------------------' |
   '-INDEX--+-+-------------+-index-name-+---------------'
            | '-creator-id.-'            |
            '-LIST--listdef-name---------'

info-options
   .-DSNUM--ALL-----.
>>-+----------------+--+---------+--+---------+----------------------------->
   '-DSNUM--integer-'  '-CURRENT-'  '-SUMMARY-'
                                    .-ARCHLOG--1-------.
>--+-----------+--+--------------+--+------------------+------------------><
   '-LOCALSITE-'  '-RECOVERYSITE-'  '-ARCHLOG--+-2---+-'
                                               '-ALL-'
table-space-name-spec
>>-+----------------+--table-space-name-----------------------------------><
   '-database-name.-'
```

RESTORE SYSTEM

```
>>-RESTORE SYSTEM------------------------------------------------------>
>--+-| non-LOGONLY spec |-----------------------------+-----------><
   '-LOGONLY--+-------------------------------------+-'
   '-SWITCH VCAT--+---------------------+-'
   '-SYSVALUEDDN(ddname)-'

non-LOGONLY spec
>>-+-------------------------+------------------------------------->
   '-ALTERNATE_CP(copy-pool)-'
>--+-------------------------------+----------------------------------->
   '-RESTOREBEFORE-- X'byte-string'-'
>-+-------------------------------------------------------------------+->
  +-FROMDUMP-+------------------++------------------++------------------+-+
  |          '-DUMPCLASS-(dcl)-''-RSA-(key-label)-''-TAPEUNITS-+------+-'
  |                                                            'units'  |
  '-FLASHCOPY_PPRCP--+-NO-----+-------------------------------------'
                     +-PMNO---+
                     +-PMPREF-+
                      '-PMREQ -'
```

RUNSTATS

```
>>-RUNSTATS--TABLESPACE--+-| listdef-spec |-----+--------------->
                         '-| table-space-spec |-'

   .-| statistics-spec |-.
>--+---------------------+-------------------------------------><
   '-| reset-spec |------'

listdef-spec
                        .-INVALIDATECACHE NO--.
>>-LIST--listdef-name--+---------------------+----------------><
                        '-INVALIDATECACHE YES-'

table-space-spec
>>-+----------------+-table-space-name------------------------->
   '-database-name.-'

>--+-------------------------------------+---------------------->
   |                .-FORCEROLLUP--NO--. |
   '-PART--integer--+------------------+-'
                    '-FORCEROLLUP--YES-'

   .-INVALIDATECACHE NO--.
>--+---------------------+------------------------------------><
   '-INVALIDATECACHE YES-'

statistics-spec
>>-+-------------------------------------------------+--------->
   |            .-(ALL)-.                            |
   +-TABLE------+-------+--| all-tables-spec |--------+
   | .-,-------------------------------------------. |
```

```
   | V                                                | |
   '---TABLE------table-name--| named-tables-spec |-+-'

>--+-------------------------------------------------------------+-->
   '-+-INDEX------(--ALL--)--| correlation-stats-spec |--------+-'
     +-INDEX--(--*------)--| correlation-stats-spec |----------+
     |           .-,-------------------------------------.    |
     |           V                                       |    |
     '-INDEX--(----index-name--| correlation-stats-spec |-+--)-'

                        .-REGISTER--YES-.
   .-SHRLEVEL--CHANGE -+---------------+-.
   |                   '-REGISTER--NO--' |  .-REPORT--NO--.
>--+-------------------------------------+--+-------------+----->
   '-SHRLEVEL--REFERENCE-----------------'  '-REPORT--YES-'

   .-UPDATE--ALL----------------.
>--+----------------------------+----| history-spec |----------->
   '---UPDATE--+-ACCESSPATH-+---'
               +-SPACE------+
               '-NONE-------'

>--+-----------------------+-----------------------------------><
   '-SORTDEVT--device-type-'

all-tables-spec
>>---+-| sample-spec |--+----------------------+-+-------------><
     |                  '-| use-profile-spec |-' |
     '-DELETE PROFILE----------------------------'

named-tables-spec

>>-+-| sample-spec |----------+-| column-spec |--+-------------------+---+-+-><
   |                           |                '-| colgroup-spec |-'   | |
   |                           |                                        | |
   |                           '---| use-profile-spec |-----------------' |
   +-| column-spec |--+-------------------+--+--------------------------+--+
   |                  '-| colgroup-spec |-'  |                          |  |
   |                                          '-| set-profile-spec |-----'  |
   |                                                                       |
   '-DELETE PROFILE-------------------------------------------------------'
sample-spec
>>-+-------------------------------------------------------------------+-><
   |         .-25------.                                               |
   +-SAMPLE--+---------+---------------------------------------------+
   |         '-integer-'                                               |
   |                      .-AUTO------------.                         |
   '-TABLESAMPLE SYSTEM--+-numeric-literal-+--+---------------------+-'
                                              '-REPEATABLE-integer-'

use-profile-spec

>>-USE PROFILE----------+--------------------+-----------------><
                        '-INCLUDE--+-(NPI)-+-'
                                   '-NPI---'
```

```
column-spec:
   .-COLUMN--(--ALL--)-----------------.
>>-+-----------------------------------+------------------------>
   |            .-,---------------.    |
   |            V                 |    |
   '-COLUMN--(----column-name-----+--)-'

>--+------------------+---------------------------------------><
   '-SORTNUM--integer-'

colgroup-spec:
   .-------------------------------------------------------.
   |              .-,-----------.                           |
   V              V             |                           |
>>---COLGROUP--(----column-name-+--)--| colgroup-stats-spec |-+-><

colgroup-stats-spec:
>>-+-----------------------------------------+---------------->
   '-FREQVAL -+-------------------------------+-'
              |                     .-MOST--. |
              '-COUNT--integer------+-------+-'
                                    +-BOTH--+
                                    '-LEAST-'

>--+-------------------------------------+--------------------><
   |            .-NUMQUANTILES--100-----. |
   '-HISTOGRAM--+-----------------------+-'
                '-NUMQUANTILES--integer-'

correlation-stats-spec:
>>-+-------------+---------------------------------------------->
   '-KEYCARD-----'

   .-----------------------------------------------------------------.
   V .-FREQVAL -NUMCOLS--1--COUNT--10--MOST------------------------. |
>----+-----------------------------------------------------------------+-+-->
     '-FREQVAL -NUMCOLS--integer--+-------------------------------+-'
                                  |                     .-MOST--. |
                                  '-COUNT--integer------+-------+-'
                                                        +-BOTH--+
                                                        '-LEAST-'

   .-----------------------------------------------------------------.
   V                                                                 |
>----+-----------------------------------------------------------------+-+-><
     |            .-NUMCOLS--1--NUMQUANTILES--100-------------------. |
     '-HISTOGRAM--+-----------------------------------------------+-'
                  |                       .-NUMQUANTILES--100-----. |
                  '-NUMCOLS--integer------+-----------------------+-'
                                          '-NUMQUANTILES--integer-'

set-profile-spec
>>-+-SET--PROFILE--+-------------------------+-+---------------><
   |               |                     (1) | |
```

```
   |                '-FROM EXISTING STATS-----' |
   '-UPDATE--PROFILE---------------------------'

history-spec
       .-HISTORY--NONE-----------.
>>-----+-------------------------+----------------------------><
       '-HISTORY--+-ALL--------+-'
                  +-ACCESSPATH-+
                  '-SPACE------'
reset-spec
>>-+-----------------------------------------+----------------><
   '-RESET ACCESSPATH--+--------------------+-'
                       '-HISTORY ACCESSPATH-'
```

STOSPACE

```
                         .-,-------------.
                         V               |
>>-STOSPACE--STOGROUP(-+---stogroup-name-+-+-)-----------------------------><
                       '-*-----------------'
```

TEMPLATE

```
>>-TEMPLATE--template-name--DSN--name-expression---------------------------->
>--+----------------+--+--------------+------------------------------------>
   '-common-options-'  +-disk-options-+
                       '-tape-options-'
>--+-----------------------------------------+----------------------------->
   '-SUBSYS--name--LRECL--int--RECFM--+----+-'
                                      +-F--+
                                      +-FB-+
                                      +-V--+
                                      '-VB-'
>--path-expression-------------------------------------------------------><

name-expression

   .-.--------------------.
   V                      |
>>---qualifier-expression-+---------------------------------------------->
>--+---------------------------+----------------------------------------><
   '-(parenthetical-expression)-'

qualifier expression
   .-----------------------------------------------------.
   V                                                     |
>>---+-character-expression--------------------------+-+------------------><
     '-&variable-+---------------------------+-.------'
                 '-(start-+---------+-)------'
                          '-,length-'

Common-options

   .-UNIT--SYSALLDA-.
>>-+----------------+--+------------------+------------------------------>
   '-UNIT--name-----'  '-MODELDCB--dsname-'
   .-BUFNO--30------.
>--+----------------+--+----------------+--+----------------+--------------->
```

```
   '-BUFNO--integer-'  '-DATACLAS--name-'  '-MGMTCLAS--name-'
>--+----------------+--+---------------+------------------------------------>
   '-STORCLAS--name-'  +-RETPD integer-+
                       '-EXPDL' date'--'
>--+-------------------------+--+-----------------+------------------------>
   |            .-,------.   |  '-VOLCNT--integer-'
   |           V        |   |
   '-VOLUMES--(---volser-+-)-'
                       .-GDGLIMIT--99------.
>--+----------------+--+-------------------+------------------------------->
   '-UNCNT--integer-'  '-GDGLIMIT--integer-'
>--+-------------------------------------------------------+----------------->
   '-DISP--(--+-NEW-+--,--+-DELETE--+--,--+-DELETE--+--)-'
             +-OLD-+     +-KEEP----+     +-KEEP----+
             +-SHR-+     +-CATLG---+     +-CATLG---+
             '-MOD-'     '-UNCATLG-'     '-UNCATLG-'
>--+--------------------------------+--+----------------+----------------><
   '-LIMIT(n-+-CYL-+-,new_template)-'  '-TIME--+-LOCAL-+-'
            +-GB--+                            '-UTC---'
            '-MB--'

disk-options
   .-SPACE--CYL-----------------------------.
>>-+----------------------------------------+----------------------------->
   '-SPACE--+---------------------+--+-CYL-+-'
            '-(primary,secondary)-'  +-TRK-+
                                     '-MB--'
   .-PCTPRIME--100-----.
>--+-------------------+--+------------------+---------------------------->
   '-PCTPRIME--integer-'  '-MAXPRIME--integer-'
   .-NBRSECND--10------.
>--+-------------------+--+--------------+--------------------------------->
   '-NBRSECND--integer-'  '-DIR--integer-'
>--+----------------------+------------------------------------------------><
   '-DSNTYPE--+-LIBRARY-+-'
             +-PDS-----+
             +-HFS-----+
             +-NULL----+
             +-BASIC---+
             +-LARGE---+
             +-EXTREQ--+
             '-EXTPREF-'
tape-options
   .-STACK--NO--.                     .-TRTCH--NONE-------.
>>-+------------+--+-----------------+--+-------------------+---------------><
   '-STACK--YES-'  '-JES3DD--ddname-'  '-TRTCH--+-COMP---+-'
                                                '-NOCOMP-'

path-expression

>>-PATH--pathname------------------------------------------------>

.-FILEDATA--RECORD--RECFM--VB--LRECL--32756-------.
>--+-------------------------------------------------+---------->
   '-FILEDATA--+-TEXT---+--RECFM--+-VB-+--LRECL--int-'
```

```
               '-BINARY-'         +-V--+
                                  +-FB-+
                                  '-F--'

   .-PATHOPTS--(--+-ORDONLY------------+--)-.
   |              '-OCREAT,OWRONLY-----'    |
>--+----------------------------------------+------------------->
   |              .-,-------------.         |
   |              V .-ORDONLY---. |         |
   '-PATHOPTS--(----+-OCREAT----+-+--)------'
                    +-OWRONLY---+
                    '-ONONBLOCK-'

   .-PATHMODE--(SIRUSR)-------------.
>--+-------------------------------+--------------------------->
   |              .-,----------.    |
   |              V            |    |
   '-PATHMODE--(----+-SIRUSR-+-+--)-'
                    +-SIWUSR-+
                    +-SIXUSR-+
                    +-SIRWXU-+
                    +-SIRGRP-+
                    +-SIWGRP-+
                    +-SIXGRP +
                    +-SIRWXG-+
                    +-SIROTH-+
                    +-SIWOTH-+
                    +-SIXOTH-+
                    '-SIRWXO-'

   .-PATHDISP--(KEEP,KEEP)---------------------.
>--+-------------------------------------------+---------------><
   '-PATHDISP--(--+-KEEP---+--,--+-KEEP---+--)-'
   '-DELETE-'     '-DELETE-'
```

UNLOAD

```
                                     .---------------------.
                                     V                     |
>>-UNLOAD--+-DATA--from-table-spec----+-----------------+-+-+---------------->
           |                          '-from-table-spec-'   |
           |              .---------------------.           |
           |              V                     |           |
           +-source-spec----+-----------------+-+-----------+
           |                '-from-table-spec-'             |
           '-LIST--listdef-name----------------------------'

>--unload-spec--+-------+-------------------------------------------------><
                '-CLONE-'

source-spec

>>-TABLESPACE--+----------------+-tablespace-name--------------------------->
               '-database-name.-'
>--+------------------------+--------------------------------------------->
   '-PART-+-integer-------+-'
```

```
          '-int1--:--int2-'

>-+-----------------------------------------------------------------+-><
  +-FROMCOPY--data-set-name-+-------------------------------------+-+
  |                         '-FROMVOLUME-+-CATALOG-------------------+-' |
  |                                      '-vol-ser--+--------------+-'   |
  |                                                 '-FROMSEQNO--n-'     |
  '-FROMCOPYDDN--ddname-----------------------------------------------'
```

Unload-spec

```
   .-PUNCHDDN--SYSPUNCH----------.
>>-+-----------------------------+------------------------------------------>
   '-PUNCHDDN--+-ddname--------+-'
               '-template-name-'
   .-UNLDDN--SYSREC------------.
>--+---------------------------+--+---------+------------------------------>
   '-UNLDDN--+-ddname--------+-'  +-EBCDIC--+
             '-template-name-'    +-ASCII---+
                                  '-UNICODE-'
                                                  '-SPANNED NO--'
>--+----------------------+--+--------+--+-------+----+-------------+------->
   |        .-,-------.   |  '-NOSUBS-'  '-NOPAD-'    '-SPANNED YES-'
   |        V         |   |
   '-CCSID(---integer-+-)-'
>+-------------------------------------------------------------------------+-->
 |            .-COLDEL--','----.  .-CHARDEL--'"'-----.  .-DECPT--'.'---. |
 '-DELIMITED--+----------------+--+------------------+--+--------------+-'
              '-COLDEL--coldel-'  '-CHARDEL--chardel-'  '-DECPT--decpt-'
   .-FLOAT--S390-.  .-MAXERR--1-------.
>--+-------------+--+-----------------+------------------------------------>
   '-FLOAT--IEEE-'  '-MAXERR--integer-'
   .-SHRLEVEL--CHANGE--ISOLATION--CS--+------------------+-.
   |                                  '-SKIP LOCKED DATA-' |
>--+-------------------------------------------------------+---------------->
   '-SHRLEVEL-+-CHANGE--ISOLATION--UR-+--------------------'
              '-REFERENCE-------------'
>-+---------------------------------------+-+-----------------------------+-->
  '-DECFLOAT_ROUNDMODE-+-ROUND_CEILING---' '-IMPLICIT_TZ-timezone-string-'
                       +-ROUND_DOWN------+
                       +-ROUND_FLOOR-----+
                       +-ROUND_HALF_DOWN-+
                       +-ROUND_HALF_EVEN-+
                       +-ROUND_HALF_UP---+
                       '-ROUND_UP--------'
>--+--------------------------------+-------------------------------------->
   '-IMPLICIT_TZ--'timezone-string'-'
   .-PARALLEL--0------------.
>--+------------------------+-------------------------------------------><
  '-PARALLEL--num-subtasks-'
```

from-table spec

```
>>-FROM--TABLE--table-name-------------------------------------------------->
   .-HEADER--OBID-------------------------.
>--+--------------------------------------+------------------------------->
   '-HEADER--+-NONE--------------------+-'
```

```
             '-CONST--+-'string'------+-'
                      '-X'hex-string'-'
>--+-----------------+--+----------------+--------------------------------->
   '-SAMPLE--decimal-'  '-LIMIT--integer-'
>--+-------------------------------+---------------------------------------->
   |   .-,-------------------.   |
   |   V                     |   |
   '-(---field-specification-+-)-'
>--+-----------------------------+---------------------------------------><
   '-WHEN--(selection-condition)-'
```

field spec

```
               .-POSITION(*)-----.
>>-field-name--+-----------------+---------------------------------------->
               '-POSITION(start)-'
>--+-------------------------------------------------------------------+---><
   +-CHAR-+----------+-+-----------------------------------------+-+
   |      '-(length)-' +-TRUNCATE-----------------------------------+ |
   |                   '-+-BLOBF---+--template-name---+-----------+  |
   |                     +-CLOBF---+                  '-BINARYXML-'  |
   |                     '-DBCLOBF-'                                 |
   +-VARCHAR-+----------+-+-----------------------------------------+-+
   |         '-(length)-' +-strip-spec----------------------------+ |
   |                      '-+-BLOBF---+-template-name-+-----------+  |
   |                        +-CLOBF---+               '-BINARYXML-'  |
   |                        '-DBCLOBF-'                              |
   +-GRAPHIC-+----------+-+----------+-+----------+------------------+
   |         '-EXTERNAL-' '-(length)-' '-TRUNCATE-'                   |
   +-VARGRAPHIC-+----------+-strip-spec-----------------------------+
   |            '-(length)-'                                          |
   +-SMALLINT-------------------------------------------------------+
   +-INTEGER--+----------------------+-----------------------------+
   |          '-EXTERNAL-+----------+-'                             |
   |                     '-(length)-'                               |
   +-BIGINT---------------------------------------------------------+
   +-BINARY-+----------+-+----------+-------------------------------+
   |        '-(length)-' '-TRUNCATE-'                                |
   +-+-VARBINARY------+-----------------------------------------+
   | '-BINARY VARYING-'                                             |
   +-strip-spec-----------------------------------------------------+
   |          .-PACKED---.                                          |
   +-DECIMAL--+----------+--+----------------------+-----------------+
   |          +-ZONED----+  |         .-,0-----.   |                 |
   |          '-EXTERNAL-'  '-(length-+--------+-)-'                 |
   |                                  '-,scale-'                    |
   +-FLOAT-+----------+-+----------+--------------------------------+
   |       '-EXTERNAL-' '-(length)-'                                |
   +-DOUBLE---------------------------------------------------------+
   +-REAL-----------------------------------------------------------+
   +-DATE--EXTERNAL--+----------+-----------------------------------+
   |                 '-(length)-'                                   |
   +-TIME--EXTERNAL--+----------+-----------------------------------+
   |                 '-(length)-'                                   |
   +-TIMESTAMP--EXTERNAL--+----------+-----------------------------+
   |                      '-(length)-'                              |
```

```
   +-TIMESTAMP WITH THE ZONE EXTERNAL----+----------+----------------+
   |                                     '-(length)-'                |
   +-CONSTANT--+-'string'------+-------------------------------------+
   |           '-X'hex-string'-'                                     |
   +-ROWID-----------------------------------------------------------+
   +-BLOB-+----------+-+----------+-----------------------------------+
   |      '-(length)-' '-TRUNCATE-'                                  |
   +-CLOB-+----------+-+----------+-----------------------------------+
   |      '-(length)-' '-TRUNCATE-'                                  |
   +-DBCLOB-+----------+-+----------+-------------------------------+
   |        '-(length)-' '-TRUNCATE-'                                |
   |           .-(34)-------------------.                            |
   +-DECFLOAT--+-----------------------+---------------------------+
   |           +-(16)-------------------+                            |
   |           '-EXTERNAL--+----------+-'                            |
   |                       '-(length)-'                              |
   '-XML--+-----------+-----------------------------------------------'
          '-BINARYXML-'
```

strip spec

```
>>-+---------------------------------------------+---------------------------->
   |        .-BOTH----.                          |
   '-STRIP--+----------+--+-------------------+-'
            +-TRAILING-+  |                   |
            '-LEADING--'  +-'strip-char'------+
                          '-X'strip-char'-----'
```

selection-codition spec

```
>>-+-predicate-----------+-------------------------------------------------->
   '-selection condition-'
    .-------------------------------------.
    V                                     |
>----+-----------------------------------+-+--------------------------------><
     '-+-AND-+--+-predicate-----------+-'
       '-OR--' '-selection condition-'
```

predicate

```
>>-+-basic predicate---+-------------------------------------------------><
   +-BETWEEN predicate-+
   +-IN predicate------+
   +-LIKE predicate----+
   '-NULL predicate----'
```

basic predicate

```
>>-column-name--+- = --+------------------------------------------------------>
                +- <> -+
                +- > --+
                +- < --+
                +- >= -+
                '- <= -'
>--+-constant--------------------+----------------------------------------><
   '-labeled-duration-expression-'
```

between predicate

```
>>-column-name--+-----+--BETWEEN------------------------------------------>
                '-NOT-'
>--+-constant--------------------+--AND------------------------------------>
   '-labeled-duration-expression-'
>--+-constant--------------------+---------------------------------------->
   '-labeled-duration-expression-'
```

IN predicate

```
                                .-,--------.
                                V          |
>>-column-name--+-----+--IN--(---constant-+-)------------------------------><
                '-NOT-'
```

LIKE predicate

```
>>-column-name--+-----+--LIKE--string-constant----------------------------->
                '-NOT-'
>--+------------------------+--------------------------------------------><
   '-ESCAPE--string-constant-'
```

NULL predicate

```
>>-column-name--IS--+-----+--NULL----------------------------------------><
                    '-NOT-'
```

Labeled-duration-expression

```
>>-+-CURRENT_DATE---------------------------+------------------------------>
   '-CURRENT_TIMESTAMP----+----------------+-'
                          '-WITH TIME ZONE-'
   .-------------------------------------.
   V                                     |
>----+- + -+--constant--+-YEAR---------+-+--------------------------------><
     '- - -'            +-YEARS--------+
                        +-MONTH--------+
                        +-MONTHS-------+
                        +-DAY----------+
                        +-DAYS---------+
                        +-HOUR---------+
                        +-HOURS--------+
                        +-MINUTE-------+
                        +-MINUTES------+
                        +-SECOND-------+
                        +-SECONDS------+
                        +-MICROSECOND--+
                        '-MICROSECONDS-'
```

SQL Positive Return Codes

000	SUCCESSFUL EXECUTION
+012	THE UNQUALIFIED COLUMN NAME *column-name* WAS INTERPRETED AS A CORRELATED REFERENCE
+098	A DYNAMIC SQL STATEMENT ENDS WITH A SEMICOLON
+100	ROW NOT FOUND FOR FETCH, UPDATE OR DELETE, OR THE RESULT OF A QUERY IS AN EMPTY TABLE
+110	SQL UPDATE TO A DATA CAPTURE TABLE NOT SIGNALED TO ORIGINATING SUBSYSTEM
+111	THE SUBPAGES OPTION IS NOT SUPPORTED FOR TYPE 2 INDEXES
+117	THE NUMBER OF INSERT VALUES IS NOT THE SAME AS THE NUMBER OF OBJECT COLUMNS
+162	TABLESPACE *database-name.tablespace-name* HAS BEEN PLACED IN CHECK PENDING
+203	THE QUALIFIED COLUMN NAME *column-name* WAS RESOLVED USING A NON-UNIQUE OR UNEXPOSED NAME
+204	*name* IS AN UNDEFINED NAME
+205	*column-name* IS NOT A COLUMN OF TABLE *table-name*
+206	*column-name* IS NOT A COLUMN OF AN INSERTED TABLE, UPDATED TABLE, OR ANY TABLE IDENTIFIED IN A FROM CLAUSE
+217	THE STATEMENT WAS NOT EXECUTED AS ONLY EXPLAIN INFORMATION REQUESTS ARE BEING PROCESSED
+218	THE SQL STATEMENT REFERENCING A REMOTE OBJECT CANNOT BE EXPLAINED
+219	THE REQUIRED EXPLANATION TABLE *table-name* DOES NOT EXIST
+220	THE COLUMN *column-name* IN EXPLANATION TABLE *table-name* IS NOT DEFINED PROPERLY
+222	HOLE DETECTED USING CURSOR *cursor-name*
+231	CURRENT POSITION OF CURSOR *cursor-name* IS NOT VALID FOR THE SPECIFIED FETCH ORIENTATION OF THE CURRENT ROW OR ROWSET
+236	SQLDA INCLUDES *integer1* SQLVAR ENTRIES, BUT *integer2* ARE REQUIRED FOR *integer3* COLUMNS
+236	SQLDA INCLUDES *integer1* SQLVAR ENTRIES, BUT *integer2* ARE REQUIRED FOR *integer3* COLUMNS
+237	SQLDA INCLUDES *integer1* SQLVAR ENTRIES, BUT *integer2* ARE REQUIRED BECAUSE AT LEAST ONE OF THE COLUMNS BEING DESCRIBED IS A DISTINCT TYPE
+238	SQLDA INCLUDES *integer1* SQLVAR ENTRIES, BUT *integer2* SQLVAR ENTRIES ARE NEEDED FOR *integer3* COLUMNS BECAUSE AT LEAST ONE OF THE COLUMNS BEING DESCRIBED IS A LOB
+239	SQLDA INCLUDES *integer1* SQLVAR ENTRIES, BUT *integer2* ARE REQUIRED FOR *integer3* COLUMNS BECAUSE AT LEAST ONE OF THE COLUMNS BEING DESCRIBED IS A DISTINCT TYPE
+252	A NON-ATOMIC *statement* STATEMENT SUCCESSFULLY PROCESSED ALL REQUESTED ROWS, WITH ONE OR MORE WARNING CONDITION
+304	A VALUE WITH DATA TYPE *data-type1* CANNOT BE ASSIGNED TO A HOST VARIABLE BECAUSE THE VALUE IS NOT WITHIN THE RANGE OF THE HOST VARIABLE IN POSITION *position-number* WITH DATA TYPE *data-type2*
+331	THE NULL VALUE HAS BEEN ASSIGNED TO A HOST VARIABLE OR PARAMETER BECAUSE THE STRING CANNOT BE CONVERTED FROM *source-ccsid* TO *target-ccsid*. REASON *reason-code*, POSITION *position-number*

+335	DB2 CONVERTED A HOST VARIABLE, PARAMETER, OR COLUMN NUMBER *var-num var-name-or-num* TO COLUMN NAME, HOST VARIABLE, OR EXPRESSION NUMBER *col-name-or-num* FROM *from ccsid* TO *to-ccsid*, AND RESULTING IN SUBSTITUTION CHARACTERS.
+339	THE SQL STATEMENT HAS BEEN SUCCESSFULLY EXECUTED, BUT THERE MAY BE SOME CHARACTER CONVERSION INCONSISTENCIES
+347	THE RECURSIVE COMMON TABLE EXPRESSION name MAY CONTAIN AN INFINITE LOOP
+354	A ROWSET FETCH STATEMENT MAY HAVE RETURNED ONE OR MORE ROWS OF DATA. HOWEVER, ONE OR MORE WARNING CONDITIONS WERE ALSO ENCOUNTERED. USE THEGET DIAGNOISTICS STATEMENT FOR MORE INFROMATION REGARDING THE CONDITIONS THAT WERE ENCOUNTERED.
+361	COMMAND WAS SUCCESSFUL BUT RESULTED IN THE FOLLOWING: *msg-token*
+364	DECFLOAT EXCEPTION *exception-type* HAS OCCURRED DURING *operation-type* OPERATION, POSITION *position-type*
+385	ASSIGNMENT TO AN SQLSTATE OR SQLCODE VARIABLE IN AN SQL ROUTINE *routine-name* MAY BE OVERWRITTEN AND DOES NOT ACTIVATE ANY HANDLER.
+394	ALL USER SPECIFIED OPTIMIZATION HINTS USED DURING ACCESS PATH SELECTION
+395	USER SPECIFIED OPTIMIZATION HINTS ARE INVALID (REASON CODE = 'reason-code'). THE OPTIMIZATION HINTS ARE IGNORED.
+402	LOCATION *location* IS UNKNOWN
+403	THE LOCAL OBJECT REFERENCED BY CREATE ALIAS STATEMENT DOES NOT EXISTS
+434	*clause* IS A DEPRECATED FEATURE
+438	APPLICATION RAISED WARNING WITH DIAGNOSTIC TEXT: *text*
+440	NO *routine-type* BY THE NAME *routine-name* HAVING COMPATIBLE ARGUMENTS WAS FOUND
+445	VALUE *value* HAS BEEN TRUNCATED
+462	EXTERNAL FUNCTION OR PROCEDURE *name* (SPECIFIC NAME *specific-name*) HAS RETURNED A WARNING SQLSTATE, WITH DIAGNOSTIC TEXT *text*
+464	PROCEDURE *proc* RETURNED *num* QUERY RESULT SETS, WHICH EXCEEDS THE DEFINED LIMIT *integer*
+466	CREATE PROCEDURE *proc* RETURNED *num* QUERY RESULTS SETS
+494	NUMBER OF RESULT SETS IS GREATER THAN NUMBER OF LOCATORS
+495	ESTIMATED PROCESSOR COST OF *estimate-amount1* PROCESSOR SECONDS (*estimate-amount2* SERVICE UNITS) IN COST CATEGORY *cost-category* EXCEEDS A RESOURCE LIMIT WARNING THRESHOLD OF *limit- amount* SERVICE UNITS
+535	THE RESULT OF THE POSITIONED UPDATE OR DELETE MAY DEPEND ON THE ORDER OF THE ROWS
+541	THE REFERENTIAL OR UNIQUE CONSTRAINT *name* HAS BEEN IGNORED BECAUSE IT IS A DUPLICATE
+551	*auth-id* DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION *operation* ON OBJECT *object-name*
+552	*auth-id* DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION *operation*
+558	THE WITH GRANT OPTION IS IGNORED
+561	THE ALTER, INDEX, REFERENCES, AND TRIGGER PRIVILEGES CANNOT BE GRANTED PUBLIC AT ALL LOCATIONS
+562	A GRANT OF A PRIVILEGE WAS IGNORED BECAUSE THE GRANTEE ALREADY HAS THE PRIVILEGE FROM THE GRANTOR
+585	THE COLLECTION *collection-id* APPEARS MORE THAN ONCE WHEN SETTING THE *special-register* SPECIAL REGISTER

+599	COMPARISON FUNCTIONS ARE NOT CREATED FOR A DISTINCT TYPE BASED ON A LONG STRING DATA TYPE
+610	A CREATE/ALTER ON OBJECT *object-name* HAS PLACED OBJECT IN *utility* PENDING
+650	THE TABLE BEING CREATED OR ALTERED CANNOT BECOME A DEPENDENT TABLE
+653	TABLE *table-name* IN PARTITIONED TABLESPACE *tspace-name* IS NOT AVAILABLE BECAUSE ITS PARTITIONED INDEX HAS NOT BEEN CREATED
+655	STOGROUP stogroup_name HAS BOTH SPECIFIC AND NON-SPECIFIC VOLUME IDS. IT WILL NOT BE ALLOWED IN FUTURE RELEASES
+658	THE SUBPAGES VALUE IS IGNORED FOR THE CATALOG INDEX *index-name*
+664	THE INTERNAL LENGTH OF THE LIMIT-KEY FIELDS SPECIFIED IN THE PARTITION CLAUSE OF THE *statement-name* STATEMENT EXCEEDS THE EXISTING INTERNAL LIMIT KEY LENGTH STORED IN CATALOG TABLE *table-name*
+738	DEFINITION CHANGE OF *object object_name* MAY REQUIRE SIMILAR CHANGE ON READ-ONLY SYSTEMS
+799	A SET STATEMENT REFERENCES A SPECIAL REGISTER THAT DOES NOT EXIST AT THE SERVER SITE
+802	EXCEPTION ERROR *exception-type* HAS OCCURRED DURING *operation-type* OPERATION ON *data-type* DATA, POSITION *position-number*
+806	BIND ISOLATION LEVEL RR CONFLICTS WITH TABLESPACE LOCKSIZE PAGE OR LOCKSIZE ROW AND LOCKMAX 0
+807	THE RESULT OF DECIMAL MULTIPLICATION MAY CAUSE OVERFLOW
+863	THE CONNECTION WAS SUCCESSFUL BUT ONLY SBCS WILL BE SUPPORTED
+883	ROLLBACK TO SAVEPOINT OCCURRED WHEN THERE WERE OPERATIONS THAT CANNOT BE UNDONE, OR AN OPERATION THAT CANNOT BE UNDONE WAS PERFORMED WHEN THERE WAS A SAVEPOINT OUTSTANDING
+4726	THE STATEMENT WAS SUCCESSFULLY PREPARED, BUT IT CANNOT BE EXECUTED.
+4745	A SECTION WAS BOUND SUCCESSFULLY, BUT AN ERROR OCCURRED WHEN A STATEMENT IN A RELATED EXTENDED SECTION WAS BOUND. INFORMATION RETURNED: SECTION NUMBER *section-number*, SQLCODE *sqlcode*, SQLSTATE *sqlstate*, AND MESSAGE TOKENS *token-list*
+4751	*bind-type* WARNING FOR PACKAGE = *package-name*, THE USE OF *keyword* RESULTED IN UNSUCCESSFUL COMPLETION FOR ONE OR MORE STATEMENTS
+20002	THE *clause* SPECIFICATION IS IGNORED FOR THE OBJECT *object-name*
+20007	USE OF OPTIMIZATION HINTS IS DISALLOWED BY A DB2 SUBSYSTEM THE SPECIAL REGISTER 'OPTIMIZATION HINT' IS SET TO THE DEFAULT VALUE OF BLANKS.
+20122	DEFINE NO OPTION IS NOT APPLICABLE IN THE CONTEXT SPECIFIED
+20141	TRUNCATION OF VALUE WITH LENGTH length OCCURRED FOR hv-or-parm-number
+20187	ROLLBACK TO SAVEPOINT CAUSED A NOT LOGGED TABLE SPACE TO BE PLACED IN THE LPL
+20237	FETCH PRIOR ROWSET FOR CURSOR *cursor-name* RETURNED A PARTIAL ROWSET
+20245	NOT PADDED CLAUSE IS IGNORED FOR INDEXES CREATED ON AUXILIARY TABLES
+20270	OPTION NOT SPECIFIED FOLLOWING ALTER PARTITION CLAUSE
+20271	THE NAME AT ORDINAL POSITION*position-number* IN THE STATEMENT, WITH NAME *object-name*, WAS TRUNCATED.
+20272	TABLE SPACE *table-space-name* HAS BEEN CONVERTED TO USE TABLE-CONTROLLED PARTITIONING INSTEAD OF INDE CONTROLLED PARTITIONING, ADDITIONAL INFORMATION *old-limit-key-value*
+20341	OWNERSHIP TRANSFER WAS IGNORED BECAUSE auth-id IS ALREADY THE OWNER OF THE OBJECT
+20348	THE PATH VALUE HAD BEEN TRUNCATED
+20360	TRUSTED CONNECTION CAN NOT BE ESTABLISHED FOR SYSTEM AUTHID *authorization-name*

+20365	A SIGNALING NAN WAS ENCOUNTERED, OR AN EXCEPTION OCCURRED IN AN ARTHIMETIC OPERATION OR FUNCTION INVOLVING A DECFLOAT
+20367	OPTION *clause* IS NOT SUPPORTED IN THE CONTEXT IN WHICH IT WAS SPECIFIED
+20371	THE ABILITY TO USE TRUSTED CONTEXT context-name WAS REMOVED FROM SOME, BUT NOT ALL AUTHORIZATION IDS SPECIFIED IN THE STATEMENT
+20378	A NON-ATOMIC statement STATEMENT SUCCESSFULLY COMPLETED FOR SOME OF THE REQUESTED ROWS, POSSIBLY WITH WARNING, AND ONE OR MORE ERRORS, AND THE CURSOR CAN BE USED
+20458	THE PROCEDURE *procedure-name* HAS ENCOUNTERED AN INTERNAL PARAMETER PROCESSING ERROR IN PARAMETER *number1*. THE VALUE FOR PARAMETER *number2* CONTAINS FURTHER INFORMATION ABOUT THE ERROR.
+20459	THE PROCEDURE *procedure-name* HAD ENCOUNTERED AN INTERNAL PROCESSING ERROR. THE VALUE FOR PARAMETER *number* CONTAINS FURTHER INFORMATION ABOUT THE ERROR.
+20460	THE PROCEDURE *procedure-name* SUPPORTS A HIGHER VERSION, *version1*. THAN THE SPECIFIEDVERSION, *version2*, FOR PARAMETER *number*.
+20461	THE PROCEDURE *procedure-name* RETURNED OUTPUT IN THE ALTERNATE LOCALE, *locale1*, INSTEAD OF THE LOCALE *locale2*, SPECIFIED IN PARAMETER *number*.
+20468	THE COMBINATION OF TARGET NAMESPACE *target-namespace* AND SCHEMA LOCATION HINT *location-hint* IS NOT UNIQUE IN THE DB2 XML SCHEMA REPOSITORY.
+20520	ATTEMPT TO USE A DEPRECATED FEATURE ON OBJECT *object-name*. REASON CODE *reason-code*
+20543	A SYSTEM PARAMETER WAS OVERRIDDEN FOR *object-name* WHEN PROCESSING THE *statement-name* STATEMENT.REASON *reason-code*
+30100	OPERATION COMPLETED SUCCESSFULLY BUT A DISTRIBUTION PROTOCOL VIOLATION HAS BEEN DETECTED. ORIGINAL SQLCODE=*original-sqlcode* AND ORIGINAL SQLSTATE=*original-sqlstate*

SQL Error Return Codes

-007	STATEMENT CONTAINS THE ILLEGAL CHARACTER character
-010	THE STRING CONSTANT BEGINNING string IS NOT TERMINATED
-011	COMMENT NOT CLOSED
-029	INTO CLAUSE REQUIRED
-051	Identifier-Name (sqltype) WAS PREVIOUSLY DECLARED OR REFERENCED
-056	AN SQLSTATE OR SQLCODE VARIABLE DECLARATION IS IN A NESTED COMPOUND STATEMENT
-057	THE RETURN STATEMENT IN AN SQL FUNCTION MUST RETURN A VALUE.
-058	VALUE SPECIFIED ON RETURN STATEMENT MUST BE AN INTEGER
-060	INVALID type SPECIFICATION : spec
-078	PARAMETER NAMES MUST BE SPECIFIED FOR ROUTINE *routine-name*
-079	QUALIFIER FOR OBJECT *name* WAS SPECIFIED AS *qualifier1* but *qualifier2* IS REQUIRED
-084	UNACCEPTABLE SQL STATEMENT
-087	A NULL VALUE WAS SPECIFIED IN A CONTEXT WHERE A NULL IS NOT ALLOWED
-096	VARIABLE *variable-name* DOES NOT EXIST OR IS NOT SUPPORTED BY THE SERVER AND A DEFAULT VALUE WAS NOT PROVIDED
-097	THE USE OF LONG VARCHAR OR LONG VARGRAPHIC IS NOT ALLOWED IN THIS CONTEXT
-101	THE STATEMENT IS TOO LONG OR TOO COMPLEX
-102	LITERAL STRING IS TOO LONG. STRING BEGINS string
-103	constant IS AN INVALID NUMERIC CONSTANT
-104	ILLEGAL SYMBOL " token". SOME SYMBOLS THAT MIGHT BE LEGAL ARE: token-list
-105	INVALID STRING
-107	THE NAME name IS TOO LONG. MAXIMUM ALLOWABLE SIZE IS
-108	THE NAME name IS QUALIFIED INCORRECTLY
-109	clause CLAUSE IS NOT PERMITTED
-110	INVALID HEXADECIMAL LITERAL BEGINNING string
-111	AN AGGREGATE FUNCTION DOES NOT INCLUDE A COLUMN NAME
-112	THE OPERAND OF AN AGGREGATE FUNCTION INCLUDES AN AGGREGATE FUNCTION, AND OLAP SPECIFICATION, OR SCALAR FULLSELECT
-113	INVALID CHARACTER FOUND IN string, REASON CODE nnn
-114	THE LOCATION NAME location DOES NOT MATCH THE CURRENT SERVER
-115	A PREDICATE IS INVALID BECAUSE THE COMPARISON OPERATOR operator IS FOLLOWED BY A PARENTHESIZED LIST OR BY ANY OR ALL WITHOUT A SUBQUERY
-117	THE NUMBER OF VALUES ASSIGNED IS NOT THE SAME AS THE NUMBER OF SPECIFIED OR IMPLIED COLUMNS
-118	THE OBJECT TABLE OR VIEW OF THE DELETE OR UPDATE STATEMENT IS ALSO IDENTIFIED IN A FROM CLAUSE
-119	A COLUMN OR EXPRESSION IN A HAVING CLAUSE IS NOT VALID
-120	AN AGGREGATE FUNCTION OR OLAP SPECIFICATION IS NOT VALID IN THE CONTEXT IN WHICH IS WAS INVOKED
-121	THE COLUMN name IS IDENTIFIED MORE THAN ONCE IN THE INSERT OR UPDATE OR SET TRANSITION VARIABLE STATEMENT
-122	COLUMN OR EXPRESSION IN THE SELECT LIST IS NOT VALID
-123	THE PARAMETER IN POSITION n IN THE FUNCTION name MUST BE A CONSTANT OR KEYWORD
-125	AN INTEGER IN THE ORDER BY CLAUSE DOES NOT IDENTIFY A COLUMN OF THE

	RESULT
-126	THE SELECT STATEMENT CONTAINS BOTH AN UPDATE CLAUSE AND AN ORDER BY CLAUSE
-127	DISTINCT IS SPECIFIED MORE THAN ONCE IN A SUBSELECT
-128	IN VALID USE OF NULL IN A PREDICATE
-129	THE STATEMENT CONTAINS TOO MANY TABLE NAMES
-130	THE ESCAPE CLAUSE CONSISTS OF MORE THAN ONE CHARACTER, OR THE STRING PATTERN CONTAINS AN INVALID OCCURRENCE OF THE ESCAPE CHARACTER
-131	STATEMENT WITH LIKE PREDICATE HAS INCOMPATIBLE DATA TYPES
-132	AN OPERAND OF value IS NOT VALID
-133	AN AGGREGATE FUNCTION IN A SUBQUERY OF A HAVING CLAUSE IS INVALID BECAUSE ALL COLUMN REFERENCES IN ITS ARGUMENT ARE NOT CORRELATED TO THE GROUP BY RESULT THAT THE HAVING CLAUSE IS APPLIED TO
-134	IMPROPER USE OF A STRING, LOB, XML OR ARRAY VALUE
-136	SORT CANNOT BE EXECUTED BECAUSE THE SORT KEY LENGTH IS TOO LONG
-137	THE LENGTH RESULTING FROM operation IS GREATER THAN maximum-length
-138	THE SECOND OR THIRD ARGUMENT OF THE SUBSTR OR SUBSTRING FUNCTION IS OUT OF RANGE
-142	THE SQL STATEMENT IS NOT SUPPORTED
-144	INVALID SECTION NUMBER number
-147	ALTER FUNCTION *function-name* FAILED BECAUSE SOURCE FUNCTIONS OR NOT FENCED EXTERNAL FUNCTION CANNOT BE ALTERED
-148	THE SOURCE TABLE source-name CANNOT BE RENAMED OR ALTERED, REASON reason-code
-150	THE OBJECT OF THE INSERT, DELETE, UPDATE, MERGE, OR TRUNCATE STATEMENT IS A VIEW, SYSTEM-MAINTAINED MATERIALIZED QUERY TABLE, OR TRANSITION TABLE FOR WHICH THE REQUESTED OPERATION IS NOT PERMITTED
-151	THE UPDATE OPERATION IS INVALID BECAUSE THE CATALOG DESCRIPTION OF COLUMN column-name INDICATES THAT IT CANNOT BE UPDATED
-152	THE DROP clause CLAUSE IN THE ALTER STATEMENT IS INVALID BECAUSE constraint-name IS A *constraint-type*
-153	THE STATEMENT IS INVALID BECAUSE THE VIEW OR TABLE DEFINITION DOES NOT INCLUDE A UNIQUE NAME FOR EACH COLUMN
-154	THE STATEMENT FAILED BECAUSE VIEW OR TABLE DEFINITION IS NOT VALID
-156	THE STATEMENT DOES NOT IDENTIFY A TABLE
-157	ONLY A TABLE NAME CAN BE SPECIFIED IN A FOREIGN KEY CLAUSE. *object-name* IS NOT THE NAME OF A TABLE.
-158	THE NUMBER OF COLUMNS SPECIFIED FOR *name* IS NOT THE SAME AS THE NUMBER OF COLUMNS IN THE RESULT TABLE.
-159	THE STATEMENT REFERENCES *object-name* WHICH IDENTIFIES AN *object-type* RATHER THAN AN *expected-object-type*
-160	THE WITH CHECK OPTION CANNOT BE USED FOR THE SPECIFIED VIEW
-161	THE INSERT OR UPDATE IS NOT ALLOWED BECAUSE A RESULTING ROW DOES NOT SATISFY THE VIEW DEFINITION
-164	auth-id1 DOES NOT HAVE THE PRIVILEGE TO CREATE A VIEW WITH QUALIFICATION authorization ID
-170	THE NUMBER OF ARGUMENTS SPECIFIED FOR function-name IS INVALID
-171	THE DATA TYPE, LENGTH, OR VALUE OF ARGUMENT nn OF ARGUMENT nn OR function-name IS INVALID
-173	UR IS SPECIFIED ON THE WITH CLAUSE BUT THE CURSOR IS NOT READ-ONLY
-180	THE DATE, TIME, OR TIMESTAMP VALUE value IS INVALID

-181	THE STRING REPRESENTATION OF A DATETIME VALUE IS NOT A VALID DATETIME VALUE
-182	AN ARITHMETIC EXPRESSION WITH A DATETIME VALUE IS INVALID
-183	AN ARITHMETIC OPERATION ON A DATE OR TIMESTAMP HAS A RESULT THAT IS NOT WITHIN THE VALID RANGE OF DATES
-184	AN ARITHMETIC EXPRESSION WITH A DATETIME VALUE CONTAINS A PARAMETER MARKER
-185	THE LOCAL FORMAT OPTION HAS BEEN USED WITH A DATE OR TIME AND NO LOCAL EXIT HAS BEEN INSTALLED
-186	THE LOCAL DATE LENGTH OR LOCAL TIME LENGTH HAS BEEN INCREASED AND EXECUTING PROGRAM RELIES ON THE OLD LENGTH
-187	A REFERENCE TO A CURRENT DATE/TIME SPECIAL REGISTER IS INVALID BECAUSE THE MVS TOD CLOCK IS BAD OR THE MVS PARMTZ IS OUT OF RANGE
-188	THE STRING REPRESENTATION OF A NAME IS INVALID
-189	CCSID ccsid IS INVALID
-190	THE ATTRIBUTES SPECIFIED FOR THE COLUMN *table-name.column-name* ARE NOT COMPATIBLE WITH THE EXISTING COLUMN DEFINITION
-191	A STRING CANNOT BE USED BECAUSE IT IS INVALID MIXED DATA
-195	LAST COLUMN OF *table-name* CANNOT BE DROPPED
-197	QUALIFIED COLUMN NAMES IN ORDER BY CLAUSE NOT PERMITTED WHEN UNION OR UNION ALL SPECIFIED
-198	THE OPERAND OF THE PREPARE OR EXECUTE IMMEDIATE STATEMENT IS BLANK OR EMPTY
-199	ILLEGAL USE OF KEYWORD keyword TOKEN token-list WAS EXPECTED
-203	A REFERENCE TO COLUMN column-name IS AMBIGUOUS
-204	name IS AN UNDEFINED NAME
-205	column-name IS NOT A COLUMN OF TABLE table-name
-206	*name* IS NOT VALID IN THE CONTEXT WHERE IT IS USED
-208	THE ORDER BY CLAUSE IS INVALID BECAUSE COLUMN name IS NOT, PART OF THE RESULT TABLE
-212	name IS SPECIFIED MORE THAN ONCE IN THE REFERENCING CLAUSE OF A TRIGGER DEFINITION
-214	AN EXPRESSION IN THE FOLLOWING POSITION, OR STARTING WITH *position-or-expression-start* IN THE *clause-type* CLAUSE IS NOT VALID. REASON CODE = *reason-code*
-216	THE NUMBER OF ELEMENTS ON EACH SIDE OF A PREDICATE OPERATOR DOES NOT MATCH. PREDICATE OPERATOR IS *operator*.
-219	THE REQUIRED EXPLANATION TABLE table-name DOES NOT EXIST
-220	THE COLUMN column-name IN EXPLANATION TABLE table-name IS NOT DEFINED PROPERLY
-221	“SET OF OPTIONAL COLUMNS” IN EXPLANATION TABLE table-name IS INCOMPLETE OPTIONAL COLUMN column-name IS MISSING
-222	AN UPDATE OR DELETE OPERATION WAS ATTEMPTED AGAINST A HOLE USING CURSOR *cursor-name*
-224	THE RESULT TABLE DOES NOT AGREE WITH THE BASE TABLE USING *cursor-name*
-225	FETCH STATEMENT FOR *cursor-name* IS NOT VALID FOR THE DECLARATION OF THE CURSOR
-227	FETCH fetch-orientation IS NOT ALLOWED, BECAUSE CURSOR cursor-name HAS AN UNKNOWN POSITION (sqlcode,sqlstate)
-228	FOR UPDATE CLAUSE SPECIFIED FOR READ-ONLY CURSOR *cursor-name*
-229	THE LOCALE locale SPECIFIED IN A SET LOCALE OR OTHER STATEMENT THAT IS LOCALE SENSITIVE WAS NOT FOUND
-240	THE PARTITION CLAUSE OF A LOCK TABLE STATEMENT IS INVALID

-242	THE OBJECT NAMED *object-name* OF TYPE *object-type* WAS SPECIFIED MORE THAN ONCE IN THE LIST OF OBJECTS, OR THE NAME IS THE SAME AS AN EXISTING OBJECT
-243	SENSITIVE CURSOR *cursor-name* CANNOT BE DEFINED FOR THE SPECIFIED SELECT STATEMENT
-244	SENSITIVITY *sensitivity* SPECIFIED ON THE FETCH IS NOT VALID FOR CURSOR *cursor-name*
-245	THE INVOCATION OF FUNCTION *routine-name* IS AMBIGUOUS
-246	STATEMENT USING CURSOR cursor-name SPECIFIED NUMBER OF ROWS num-rows WHICH IS NOT VALID WITH dimension
-247	A HOLE WAS DETECTED ON A MULTIPLE ROW FETCH STATEMENT USING CURSOR *cursor-name*, BUT INDICATOR VARIABLES WERE NOT PROVIDED TO DETECT THE CONDITION
-248	A POSITIONED DELETE OR UPDATE STATEMENT FOR CURSOR *cursor-name* SPECIFIED ROW *n* OF A ROWSET, BUT THE ROW IS NOT CONTAINED WITHIN THE CURRENT ROWSET
-249	DEFINITION OF ROWSET ACCESS FOR CURSOR *cursor-name* IS INCONSISTENT WITH THE FETCH ORIENTATION CLAUSE *clause* SPECIFIED
-250	THE LOCAL LOCATION NAME IS NOT DEFINED WHEN PROCESSING A THREE-PART OBJECT NAME
-251	TOKEN name IS NOT VALID
-253	A NON-ATOMIC *statement* STATEMENT SUCCESSFULLY COMPLETED FOR SOME OF THE REQUESTED ROWS, POSSIBLY WITH WARNINGS, AND ONE OR MORE ERRORS
-254	A NON-ATOMIC *statement* STATEMENT ATTEMPTED TO PROCESS MULTIPLE ROWS OF DATA, BUT ERRORS OCCURRED
-270	FUNCTION NOT SUPPORTED
-300	THE STRING CONTAINED IN HOST VARIABLE OR PARAMETER *position-number* IS NOT NUL-TERMINATED
-301	THE VALUE OF INPUT HOST VARIABLE OR PARAMETER NUMBER *position-number* CANNOT BE USED AS SPECIFIED BECAUSE OF ITS DATA TYPE
-302	THE VALUE OF INPUT VARIABLE OR PARAMETER NUMBER position-number IS INVALID OR TOO LARGE FOR THE TARGET COLUMN OR THE TARGET VALUE
-303	A VALUE CANNOT BE ASSIGNED TO OUTPUT HOST VARIABLE NUMBER *position-number* BECAUSE THE DATA TYPES ARE NOT COMPARABLE
-304	A VALUE WITH DATA TYPE data-type1 CANNOT BE ASSIGNED TO A HOST VARIABLE BECAUSE THE VALUE IS NOT WITHIN THE RANGE OF THE HOST VARIABLE IN POSITION position-number WITH DATA TYPE data-type2
-305	THE NULL VALUE CANNOT BE ASSIGNED TO OUTPUT HOST VARIABLE NUMBER *position-number* BECAUSE NO INDICATOR VARIABLE IS SPECIFIED
-309	A PREDICATE IS INVALID BECAUSE A REFERENCED HOST VARIABLE HAS THE NULL VALUE
-310	DECIMAL HOST VARIABLE OR PARAMETER number CONTAINS NON-DECIMAL DATA
-311	THE LENGTH OF INPUT HOST VARIABLE NUMBER position-number IS NEGATIVE OR GREATER THAN THE MAXIMUM
-312	VARIABLE *variable-name* IS NOT DEFINED OR NOT USABLE
-313	THE NUMBER OF HOST VARIABLES SPECIFIED IS NOT EQUAL TO THE NUMBER OF PARAMETER MARKERS
-314	THE STATEMENT CONTAINS AN AMBIGUOUS HOST VARIABLE REFERENCE
-327	THE ROW CANNOT BE INSERTED BECAUSE IT IS OUTSIDE THE BOUND OF THE PARTITION RANGE FOR THE LAST PARTITION
-330	A STRING CANNOT BE USED BECAUSE IT CANNOT BE PROCESSED. REASON *reason-code*, CHARACTER *code-point*, HOST VARIABLE *position-number*

-331	CHARACTER CONVERSION CANNOT BE PERFORMED BECAUSE A STRING, POSITION *position-number*, CANNOT BE CONVERTED FROM *source-ccsid* TO *target-ccsid*, REASON *reason-code*
-332	CHARACTER CONVERSION BETWEEN CCSID *from-ccsid* TO *to-ccsid* REQUESTED BY *reason-code* IS NOT SUPPORTED
-333	THE SUBTYPE OF A STRING VARIABLE IS NOT THE SAME AS THE SUBTYPE KNOWN AT BIND TIME AND THE DIFFERENCE CANNOT BE RESOLVED BY CHARACTER CONVERSION
-336	THE SCALE OF THE DECIMAL NUMBER MUST BE ZERO
-338	AN ON CLAUSE IS INVALID
-340	THE COMMON TABLE EXPRESSION *name* HAS THE SAME IDENTIFIER AS ANOTHER OCCURRENCE OF A COMMON TABLE EXPRESSION DEFINITION WITHIN THE SAME STATEMENT
-341	A CYCLIC REFERENCE EXISTS BETWEEN THE COMMON TABLE EXPRESSIONS *name1* AND *name2*
-342	THE COMMON TABLE EXPRESSION *name* MUST NOT USE SELECT DISTINCT AND MUST USE UNION ALL BECAUSE IT IS RECURSIVE
-343	THE COLUMN NAMES ARE REQUIRED FOR THE RECURSIVE COMMON TABLE EXPRESSION *name*
-344	THE RECURSIVE COMMON TABLE EXPRESSION *name* HAS MISMATCHED DATA TYPES OR LENGTHS OR CODE PAGE FOR COLUMN *column-name*
-345	THE FULLSELECT OF THE RECURSIVE COMMON TABLE EXPRESSION *name* MUST BE A UNION ALL AND MUST NOT INCLUDE AGGREGATE FUNCTIONS, GROUP BY, HAVING, ORDER BY, OFFSET, FETCH FIRST, OR AN EXPLICIT JOIN INCLUDING AN ON CLAUSE
-346	AN INVALID REFERENCE TO COMMON TABLE EXPRESSION *name* OCCURS IN THE FIRST FULLSELECT, AS A SECOND OCCURRENCE IN THE SAME FROM CLAUSE, OR IN THE FROM CLAUSE OF A SUBQUERY
-348	*sequence-expression* CANNOT BE SPECIFIED IN THIS CONTEXT
-350	*column-name* WAS IMPLICITLY OR EXPLICITLY REFERENCED IN A CONTEXT IN WHICH IT CANNOT BE USED
-351	AN UNSUPPORTED SQLTYPE WAS ENCOUNTERED IN POSITION *position-number* OF THE SELECT-LIST
-352	AN UNSUPPORTED SQLTYPE WAS ENCOUNTERED IN POSITION *position-number* OF THE INPUT-LIST
-353	FETCH IS NOT ALLOWED, BECAUSE CURSOR *cursor-name* HAS AN UNKNOWN POSITION
-354	A ROWSET FETCH STATEMENT MAY HAVE RETURNED ONE OR MORE ROWS OF DATA. HOWEVER, ONE OR MORE NON-TERMINATING ERROR CONDITIONS WERE ENCOUNTERED. USE THE GET DIAGNOSTICS STATEMENT FOR MORE INFORMATION REGARDING THE CONDITIONS THAT WERE ENCOUNTERED
-355	A LOB COLUMN IS TOO LARGE TO BE LOGGED
-356	COLUMN OR KEY EXPRESSION *expression-number* IS NOT VALID, REASON CODE = *reason-code*
-359	THE RANGE OF VALUES FOR THE IDENTITY COLUMN IS EXHAUSTED
-363	THE EXTENDED INDICATOR VARIABLE VALUE FOR PARAMETER *position-number* IS OUT OF RANGE
-365	USE OF THE VALUE OF EXTENDED INDICATOR VARIABLE IN POSITION *value-position* IS NOT VALID
-372	ONLY ONE ROWID, IDENTITY, ROW CHANGE TIMESTAMP, ROW BEGIN, ROW END, TRANSACTION START ID, OR SECURITY LABEL COLUMN IS ALLOWED IN A TABLE
-373	DEFAULT CANNOT BE SPECIFIED FOR COLUMN OR SQL VARIABLE *name*
-374	THE CLAUSE *clause* HAS NOT BEEN SPECIFIED IN THE CREATE OR ALTER FUNCTION STATEMENT FOR LANGUAGE SQL FUNCTION *function-name* BUT AN EXAMINATION OF

	THE FUNCTION BODY REVEALS THAT IT SHOULD BE SPECIFIED
-390	THE FUNCTION *function-name*, SPECIFIC NAME *specific-name*, IS NOT VALID IN THE CONTEXT WHERE IT IS USED
-392	SQLDA PROVIDED FOR CURSOR cursor HAS BEEN CHANGED FROM THE PREVIOUS FETCH
-393	THE CONDITION OR CONNECTION NUMBER IS INVALID
-396	object-type object-name ATTEMPTED TO EXECUTE AN SQL STATEMENT DURING FINAL CALL PROCESSING
-397	GENERATED IS SPECIFIED AS PART OF A COLUMN DEFINITION, BUT IT IS NOT VALID FOR THE DEFINITION OF THE COLUMN
-398	A LOCATOR WAS REQUESTED FOR HOST VARIABLE NUMBER position-number BUT THE VARIABLE IS NOT A LOB
-399	INVALID VALUE ROWID WAS SPECIFIED
-400	THE CATALOG HAS THE MAXIMUM NUMBER OF USER DEFINED INDEXES
-401	THE OPERANDS OF AN ARITHMETIC OR COMPARISON OPERATION ARE NOT COMPARABLE
-402	AN ARITHMETIC FUNCTION OR OPERATOR arith-fop IS APPLIED TO CHARACTER OR DATETIME DATA
-404	THE SQL STATEMENT SPECIFIES A STRING THAT IS TOO LONG
-405	THE NUMERIC LITERAL literal CANNOT BE USED AS SPECIFIED BECAUSE IT IS OUT OF RANGE
-406	A CALCULATED OR DERIVED NUMERIC VALUE IS NOT WITHIN THE RANGE OF ITS OBJECT COLUMN
-407	AN UPDATE, INSERT, OR SET VALUE IS NULL, BUT THE OBJECT COLUMN column-name CANNOT CONTAIN NULL VALUES
-408	THE VALUE IS NOT COMPATIBLE WITH THE DATA TYPE OF ITS TARGET.TARGET NAME IS *name*
-409	INVALID OPERAND OF A COUNT FUNCTION
-410	A NUMERIC VALUE *value* IS TOO LONG, OR IT HAS A VALUE THAT IS NOT WITHIN THE RANGE OF ITS DATA TYPE
-411	CURRENT SQLID CANNOT BE USED IN A STATEMENT THAT REFERENCES REMOTE OBJECTS
-412	THE SELECT CLAUSE OF A SUBQUERY SPECIFIES MULTIPLE COLUMNS
-413	OVERFLOW OR UNDERFLOW OCCURRED DURING NUMERIC DATA TYPE CONVERSION
-414	A LIKE PREDICATE IS INVALID BECAUSE THE FIRST OPERAND IS NOT A STRING
-415	THE CORRESPONDING COLUMNS, *column-number*, OF THE OPERANDS |OF A SET OPERATOR ARE NOT COMPATIBLE
-416	AN OPERAND OF A UNION CONTAINS A LONG STRING COLUMN
-417	A STATEMENT STRING TO BE PREPARED INCLUDES PARAMETER MARKERS AS THE OPERANDS OF THE SAME OPERATOR
-418	A STATEMENT STRING TO BE PREPARED CONTAINS AN INVALID USE OF PARAMETER MARKERS
-419	THE DECIMAL DIVIDE OPERATION IS INVALID BECAUSE THE RESULT WOULD HAVE A NEGATIVE SCALE
-420	THE VALUE OF A CHARACTER STRING ARGUMENT WAS NOT ACCEPTABLE TO THE function-name FUNCTION
-421	THE OPERANDS OF A UNION OR UNION ALL DO NOT HAVE THE SAME NUMBER OF COLUMNS
-423	INVALID VALUE FOR LOCATOR IN POSITION position-#
-426	DYNAMIC COMMIT NOT VALID AT AN APPLICATION SERVER WHERE UPDATES ARE NOT ALLOWED

-427	DYNAMIC ROLLBACK NOT VALID AT AN APPLICATION SERVER WHERE UPDATES ARE NOT ALLOWED
-430	routine-type routine-name (SPECIFIC NAME specific-name) HAS ABNORMALLY TERMINATED
-431	ROUTINE *routine-name* (SPECIFIC NAME *specific-name*) OF TYPE *routine-type* HAS BEEN INTERRUPTED BY THE USER
-433	VALUE value IS TOO LONG
-435	AN INVALID SQLSTATE *sqlstate* IS SPECIFIED IN A RAISE_ERROR FUNCTION, RESIGNAL STATEMENT, OR SIGNAL STATEMENT
-438	APPLICATION RAISED ERROR WITH DIAGNOSTIC TEXT: text
-440	NO *routine-type* BY THE NAME *routine-name* HAVING COMPATIBLE ARGUMENTS WAS FOUND IN THE CURRENT PATH
-441	INVALID USE OF 'DISTINCT' OR 'ALL' WITH FUNCTION function-name
-443	ROUTINE routine-name (SPECIFIC NAME specific-name) HAS RETURNED AN ERROR SQLSTATE WITH DIAGNOSTIC TEXT msg-txt
-444	USER PROGRAM name COULD NOT BE FOUND
-449	CREATE OR ALTER STATEMENT FOR FUNCTION OR PROCEDURE routine-name CONTAINS AN INVALID FORMAT OF THE EXTERNAL NAME CLAUSE OR IS MISSING THE EXTERNAL NAME CLAUSE
-450	USER-DEFINED FUNCTION OR STORED PROCEDURE name, PARAMETER NUMBER paramnum, OVERLAYED STORAGE BEYOND ITS DECLARED LENGTH
-451	THE *data-item* DEFINITION IN THE CREATE OR ALTER STATEMENT FOR *routine-name* CONTAINS DATA TYPE *type* WHICH IS NOT SUPPORTED FOR THE TYPE AND LANGUAGE OF THE ROUTINE
-452	UNABLE TO ACCESS THE FILE REFERENCED BY HOST VARIABLE *variable-position*. REASON CODE: *reason-code*
-453	THERE IS A PROBLEM WITH THE RETURNS CLAUSE IN THE CREATE FUNCTION STATEMENT FOR function-name
-454	THE SIGNATURE PROVIDED IN THE CREATE FUNCTION STATEMENT FOR function-name MATHCES THE SIGNATURE OF SOME OTHER FUNCTION ALREADY EXISTING IN THE SCHEMA
-455	IN CREATE FUNCTION FOR function-name, THE SCHEMA NAME schema-name PROVIDED FOR THE SPECIFIC NAME DOES NOT MATCH THE SCHEMA NAME schema-name2 OF THE FUNCTION
-456	IN CREATE FUNCTION FOR function-name, THE SPECIFIC NAME specific-name ALREADY EXISTS IN THE SCHEMA
-457	A FUNCTION OR DISTINCT TYPE CANNOT BE CALLED name SINCE IT IS RESERVED FOR SYSTEM USE
-458	IN A REFERENCE TO FUNCTION function-name BY SIGNATURE, A MATCHING FUNCTION COULD NOT BE FOUND
-461	A VALUE WITH DATA TYPE source-data-type CANNOT BE CAST TO TYPE target-data-type
-469	SQL CALL STATEMENT MUST SPECIFY AN OUTPUT HOST VARIABLE FOR PARAMETER number
-470	SQL CALL STATEMENT SPECIFIED A NULL VALUE FOR INPUT PARAMETER *number*, BUT THE STORED PROCEDURE DOES NOT SUPPORT NULL VALUES
-471	INVOCATION OF FUNCTION OR PROCEDURE name FAILED DUE TO REASON rc
-472	CURSOR cursor-name WAS LEFT OPEN BY EXTERNAL FUNCTION function-name (SPECIFIC NAME specific-name)
-473	A USER DEFINED DATA TYPE CANNOT BE CALLED THE SAME NAME AS A SYSTEM PREDEFINED TYPE (BUILT-IN TYPE)
-475	THE RESULT TYPE type-1 OF THE SOURCE FUNCTION CANNOT BE CAST TO THE RETURNS TYPE type-2 OF THE USER-DEFINED FUNCTION

-476	REFERENCE TO FUNCTION function-name WAS NAMED WITHOUT A SIGNATURE, BUT THE FUNCTION IS NOT UNIQUE WITHIN ITS SCHEMA
-478	ALTER, DROP OR REVOKE AFFECTING OBJECT TYPE *object-type* CANNOT BE PROCESSED BECAUSE OBJECT *dependent-object* OF TYPE *dependent-type* IS DEPENDENT ON IT
-480	THE PROCEDURE procedure-name HAS NOT YET BEEN CALLED
-481	THE GROUP BY CLAUSE CONTAINS *element-1* NESTED WITHIN *element-2*
-482	THE PROCEDURE procedure-name RETURNED NO LOCATORS
-483	IN CREATE FUNCTION FOR function-name STATEMENT, THE NUMBER OF PARAMETERS DOES NOT MATCH THE NUMBER OF PARAMETERS OF THE SOURCE FUNCTION
-487	object-type object-name ATTEMPTED TO EXECUTE AN SQL STATEMENT WHEN THE DEFINITION OF THE FUNCTION OR PROCEDURE DID NOT SPECIFY THIS ACTION
-490	NUMBER *number* DIRECTLY SPECIFIED IN AN SQL STATEMENT IS OUTSIDE THE RANGE OF ALLOWABLE VALUES IN THIS CONTEXT (*minval*, *maxval*)
-491	CREATE STATEMENT FOR USER-DEFINED FUNCTION *function-name* MUST HAVE A RETURNS CLAUSE AND: THE EXTERNAL CLAUSE WITH OTHER REQUIRED KEYWORDS; THE RETURN STATEMENT AND PARAMETER NAMES; OR THE SOURCE CLAUSE
-492	THE CREATE FUNCTION FOR function-name HAS A PROBLEM WITH PARAMETER NUMBER number. IT MAY INVOLVE A MISMATCH WITH A SOURCE FUNCTION
-495	ESTIMATED PROCESSOR COST OF estimate-amount1 PROCESSOR SECONDS (estimate-amount2 SERVICE UNITS) IN COST CATEGORY cost-category EXCEEDS A RESOURCE LIMIT ERROR THRESHOLD OF limit- amount SERVICE UNITS
-496	THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE IT REFERENCES A RESULT SET THAT WAS NOT CREATED BY THE CURRENT SERVER
-497	THE MAXIMUM LIMIT OF INTERNAL IDENTIFIERS HAS BEEN EXCEEDED FOR DATABASE
-499	CURSOR cursor-name HAS ALREADY BEEN ASSIGNED TO THIS OR ANOTHER RESULT SET FROM PROCEDURE procedure-name.
-500	THE IDENTIFIED CURSOR WAS CLOSED WHEN THE CONNECTION WAS DESTROYED
-501	THE CURSOR IDENTIFIED IN A FETCH OR CLOSE STATEMENT IS NOT OPEN
-502	THE CURSOR IDENTIFIED IN AN OPEN STATEMENT IS ALREADY OPEN
-503	A COLUMN CANNOT BE UPDATED BECAUSE IT IS NOT IDENTIFIED IN THE UPDATE CLAUSE OF THE SELECT STATEMENT OF THE CURSOR
-504	THE CURSOR NAME cursor-name IS NOT DECLARED
-507	THE CURSOR IDENTIFIED IN THE UPDATE OR DELETE STATEMENT IS NOT OPEN
-508	THE CURSOR IDENTIFIED IN THE UPDATE OR DELETE STATEMENT IS NOT POSITIONED ON A ROW OR ROWSET THAT CAN BE UPDATED OR DELETED
-509	THE TABLE IDENTIFIED IN THE UPDATE OR DELETE STATEMENT IS NOT THE SAME TABLE DESIGNATED BY THE CURSOR
-510	THE TABLE DESIGNATED BY THE CURSOR OF THE UPDATE OR DELETE STATEMENT CANNOT BE MODIFIED
-511	THE FOR UPDATE CLAUSE CANNOT BE SPECIFIED BECAUSE THE TABLE DESIGNATED BY THE CURSOR CANNOT BE MODIFIED
-512	STATEMENT REFERENCE TO REMOTE OBJECT IS INVALID
-513	THE ALIAS alias-name MUST NOT BE DEFINED ON ANOTHER LOCAL OR REMOTE ALIAS
-514	THE CURSOR cursor-name IS NOT IN A PREPARED STATE
-516	THE DESCRIBE FOR STATIC STATEMENT DOES NOT IDENTIFY A PREPARED STATEMENT
-517	CURSOR cursor-name CANNOT BE USED BECAUSE ITS STATEMENT NAME DOES NOT IDENTIFY A PREPARED SELECT STATEMENT
-518	THE EXECUTE STATEMENT DOES NOT IDENTIFY A VALID PREPARED STATEMENT

-519	THE PREPARE STATEMENT IDENTIFIES THE SELECT STATEMENT OF THE OPENED CURSOR cursor-name
-525	THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE IT WAS IN ERROR AT BIND TIME FOR SECTION = sectno PACKAGE = pkgname CONSISTENCY TOKEN = X'contoken'
-526	THE REQUESTED OPERATION OR USAGE DOES NOT APPLY TO *table-type* TEMPORARY TABLE *table-name*
-530	THE INSERT OR UPDATE VALUE OF FOREIGN KEY constraint-name IS INVALID
-531	PARENT KEY IN A PARENT ROW CANNOT BE UPDATED BECAUSE IT HAS ONE OR MORE DEPENDENT ROWS IN RELATIONSHIP constraint-name
-532	THE RELATIONSHIP constraint-name RESTRICTS THE DELETION OF ROW WITH RID X rid-number
-533	INVALID MULTIPLE-ROW INSERT
-534	THE PRIMARY KEY CANNOT BE UPDATED BECAUSE OF MULTIPLE-ROW UPDATE
-536	THE DELETE STATEMENT IS INVALID BECAUSE TABLE table-name CAN BE AFFECTED BY THE OPERATION
-537	THE PRIMARY KEY CLAUSE, A FOREIGN KEY CLAUSE, OR A UNIQUE CLAUSE IDENTIFIES COLUMN column-name MORE THAN ONCE
-538	FOREIGN KEY name DOES NOT CONFORM TO THE DESCRIPTION OF A PARENT KEY OF TABLE table-name
-539	TABLE table-name DOES NOT HAVE A PRIMARY KEY
-540	THE DEFINITION OF TABLE table-name IS INCOMPLETE BECAUSE IT LACKS A PRIMARY INDEX OR A REQUIRED UNIQUE INDEX
-542	*column-name* CANNOT BE A COLUMN OF A HASH KEY, PRIMARY KEY, A UNIQUE CONSTRAINT, OR A PARENT KEY BECAUSE IT CAN CONTAIN NULL VALUES
-543	A ROW IN A PARENT TABLE CANNOT BE DELETED BECAUSE THE CHECK CONSTRAINT check-constraint RESTRICTS THE DELETION
-544	THE CHECK CONSTRAINT SPECIFIED IN THE ALTER TABLE STATEMENT CANNOT BE ADDED BECAUSE AN EXISTING ROW VIOLATES THE CHECK CONSTRAINT
-545	THE REQUESTED OPERATION IS NOT ALLOWED BECAUSE A ROW DOES NOT SATISFY THE CHECK CONSTRAINT check-constraint
-546	THE CHECK CONSTRAINT constraint-name IS INVALID
-548	A CHECK CONSTRAINT THAT IS DEFINED WITH column-name IS INVALID
-549	THE statement STATEMENT IS NOT ALLOWED FOR object_type1 object_name BECAUSE THE BIND OPTION DYNAMICRULES(RUN) IS NOT IN EFFECT FOR object_type2
-551	auth-id DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION *operation* ON OBJECT *object-name*
-552	auth-id DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION *operation*
-553	auth-id SPECIFIED IS NOT ONE OF THE VALID AUTHORIZATION IDS FOR REQUESTED OPERATION
-554	AN AUTHORIZATION ID CANNOT GRANT A PRIVILEGE TO ITSELF
-555	AN AUTHORIZATION ID CANNOT REVOKE A PRIVILEGE FROM ITSELF
-556	*authid2* CANNOT HAVE THE *privilege* PRIVILEGE *on_object* REVOKED BY *authid1* BECAUSE THE REVOKEE DOES NOT POSSESS THE PRIVILEGE OR THE REVOKER DID NOT MAKE THE GRANT
-557	INCONSISTENT GRANT/REVOKE KEYWORD keyword. PERMITTED KEYWORDS ARE keyword-list
-558	INVALID CLAUSE OR COMBINATION OF CLAUSES ON A GRANT OR REVOKE
-559	ALL AUTHORIZATION FUNCTIONS HAVE BEEN DISABLED
-562	THE SPECIFIED PRIVILEGES CANNOT BE GRANTED TO PUBLIC
-567	bind-type AUTHORIZATION ERROR USING auth-id AUTHORITY PACKAGE = package-name PRIVILEGE = privilege

-571	THE STATEMENT WOULD RESULT IN A MULTIPLE SITE UPDATE
-573	TABLE table-name DOES NOT HAVE A UNIQUE KEY WITH THE SPECIFIED COLUMN NAMES
-574	THE SPECIFIED DEFAULT VALUE OR IDENTITY ATTRIBUTE VALUE CONFLICTS WITH THE DEFINITION OF COLUMN column-name
-575	OBJECT *object-name* (OBJECT TYPE *object-type*) CANNOT BE REFERENCED EXPLICITLY OR IMPLICITLY
-577	object-type object-name ATTEMPTED TO MODIFY DATA WHEN THE DEFINITION OF THE FUNCTION OR PROCEDURE DID NOT SPECIFY THIS ACTION
-578	THE RETURN STATEMENT WAS NOT EXECUTED FOR SQL FUNCTION *function-name*
-579	object-type object-name ATTEMPTED TO READ OR MODIFY DATA WHEN THE DEFINITION OF THE FUNCTION OR PROCEDURE DID NOT SPECIFY THIS ACTION
-580	THE RESULT-EXPRESSIONS OF A CASE EXPRESSION CANNOT ALL BE NULL
-581	THE DATA TYPES OF THE RESULT-EXPRESSIONS OF A CASE EXPRESSION ARE NOT COMPATIBLE
-582	THE SEARCH-CONDITION IN A SEARCHED-WHEN-CLAUSE OF A CASE IS NOT VALID IN THE CONTEXT IN WHICH IT WAS SPECIFIED. THE SEARCH CONDITION CONTAINS A QUANTIFIED PREDICATE OR AN IN PREDICATE THAT INCLUDES A FULLSELECT, AND THESE ARE NOT ALLOWED IN THE SPECIFIED CONTEXT
-583	THE USE OF FUNCTION OR EXPRESSION *name* IS INVALID BECAUSE IT IS NOT DETERMINISTIC OR HAS AN EXTERNAL ACTION
-584	INVALID USE OF NULL OR DEFAULT
-585	THE COLLECTION *collection-id* APPEARS MORE THAN ONCE IN THE SET *special-register* STATEMENT
-586	THE TOTAL LENGTH OF THE CURRENT PATH SPECIAL REGISTER CANNOT EXCEED 2048 CHARACTERS
-589	A POSITIONED DELETE OR UPDATE STATEMENT FOR CURSOR *cursor-name* SPECIFIED A ROW OF A ROWSET, BUT THE CURSOR IS NOT POSITIONED ON A ROWSET
-590	NAME *name* IS NOT UNIQUE IN THE CREATE OR ALTER FOR ROUTINE OR TRIGGER *object-name*
-592	NOT AUTHORIZED TO CREATE FUNCTIONS OR PROCEDURES IN WLM ENVIRONMENT
-593	NOT NULL MUST BE SPECIFIED FOR *column-name* BECAUSE IT IS DEFINED AS A ROWID (OR DISTINCT TYPE FOR ROWID), ROW CHANGE TIMESTAMP COLUMN, ROW BEGIN COLUMN, ROW END COLUMN, OR COLUMN OF A PERIOD *column-name*
-594	ATTEMPT TO CREATE A NULLABLE ROWID OR DISTINCT TYPE COLUMN *column-name*
-601	THE NAME (VERSION OR VOLUME SERIAL NUMBER) OF THE OBJECT TO BE DEFINED OR THE TARGET OF A RENAME STATEMENT IS IDENTICAL TO THE EXISTING NAME (VERSION OR VOLUME SERIAL NUMBER) *name* OF THE OBJECT TYPE *obj-type*
-602	TOO MANY COLUMNS, PERIODS, OR KEY-EXPRESSIONS SPECIFIED IN A CREATE INDEX OR ALTER INDEX STATEMENT
-603	A UNIQUE INDEX CANNOT BE CREATED BECAUSE THE TABLE CONTAINS ROWS WHICH ARE DUPLICATES WITH RESPECT TO THE VALUES OF THE IDENTIFIED COLUMNS AND PERIODS
-604	A DATA TYPE DEFINITION SPECIFIES AN INVALID LENGTH, PRECISION, OR SCALE ATTRIBUTE
-607	OPERATION OR OPTION operation IS NOT DEFINED FOR THIS OBJECT
-611	ONLY LOCKMAX 0 CAN BE SPECIFIED WHEN THE LOCK SIZE OF THE TABLESPACE IS TABLESPACE OR TABLE
-612	identifier IS A DUPLICATE NAME
-613	THE PRIMARY KEY OR A UNIQUE CONSTRAINT IS TOO LONG OR HAS TOO MANY COLUMNS AND PERIODS

-614	THE INDEX CANNOT BE CREATED OR THE LENGTH OF A COLUMN CANNOT BE CHANGED BECAUSE THE SUM OF THE INTERNAL LENGTHS OF THE IDENTIFIED COLUMNS IS GREATER THAN THE ALLOWABLE MAXIMUM
-615	operation-type IS NOT ALLOWED ON A PACKAGE IN USE
-616	obj-type1 obj-name1 CANNOT BE DROPPED BECAUSE IT IS REFERENCED BY obj-type2 obj-name2
-618	OPERATION operation IS NOT ALLOWED ON SYSTEM DATABASES
-619	OPERATION DISALLOWED BECAUSE THE WORK FILE DATABASE IS NOT STOPPED
-620	KEYWORD *keyword* IN *stmt-type* STATEMENT IS NOT PERMITTED FOR A *space-type* SPACE IN THE *database-type* DATABASEv
-621	DUPLICATE DBID dbid WAS DETECTED AND PREVIOUSLY ASSIGNED TO database-name
-622	FOR MIXED DATA IS INVALID BECAUSE THE MIXED DATA INSTALL OPTION IS NO
-623	CLUSTER IS NOT VALID FOR table-name
-624	TABLE table-name ALREADY HAS A PRIMARY KEY OR UNIQUE CONSTRAINT WITH SPECIFIED COLUMNS AND PERIODS
-625	TABLE table-name DOES NOT HAVE AN INDEX TO ENFORCE THE UNIQUENESS OF THE PRIMARY OR UNIQUE KEY
-626	THE ALTER STATEMENT IS NOT EXECUTABLE BECAUSE THE PAGE SET IS NOT STOPPED
-627	THE ALTER STATEMENT IS INVALID BECAUSE THE TABLE SPACE OR INDEX HAS USER-MANAGED DATA SETS
-628	THE CLAUSES ARE MUTUALLY EXCLUSIVE.
-629	SET NULL CANNOT BE SPECIFIED BECAUSE FOREIGN KEY name CANNOT CONTAIN NULL VALUES
-631	FOREIGN KEY name IS TOO LONG OR HAS TOO MANY COLUMNS
-632	THE TABLE CANNOT BE DEFINED AS A DEPENDENT OF table-name BECAUSE OF DELETE RULE RESTRICTIONS
-633	THE DELETE RULE MUST BE delete-rule
-634	THE DELETE RULE MUST NOT BE CASCADE
-635	THE DELETE RULES CANNOT BE DIFFERENT OR CANNOT BE SET NULL
-636	RANGES SPECIFIED FOR PARTITION *part-num* ARE NOT VALID
-637	DUPLICATE keyword KEYWORD OR CLAUSE
-638	TABLE table-name CANNOT BE CREATED BECAUSE COLUMN DEFINITION IS MISSING
-639	A NULLABLE COLUMN OF A FOREIGN KEY WITH A DELETE RULE OF SET NULL CANNOT BE A COLUMN OF THE KEY OF A PARTITIONED INDEX
-642	TOO MANY COLUMNS IN UNIQUE CONSTRAINTS
-643	A CHECK CONSTRAINT OR THE VALUE OF AN EXPRESSION FOR A COLUMN OF AN INDEX EXCEEDS THE MAXIMUM ALLOWABLE LENGTH KEY EXPRESSION
-644	INVALID VALUE SPECIFIED FOR KEYWORD keyword IN OR CLAUSE *keyword-or-clause* IN STATEMENT *stmt-type*
-646	TABLE table-name CANNOT BE CREATED IN SPECIFIED TABLE SPACE table-space-name BECAUSE IT ALREADY CONTAINS A TABLE
-647	BUFFERPOOL *bp-name* FOR IMPLICIT OR EXPLICIT TABLESPACE OR INDEXSPACE *name* HAS NOT BEEN ACTIVATED
-650	THE ALTER INDEX CANNOT BE EXECUTED, REASON reason
-651	TABLE DESCRIPTION EXCEEDS MAXIMUM SIZE OF OBJECT DESCRIPTOR.
-652	VIOLATION OF INSTALLATION DEFINED EDIT OR VALIDATION PROCEDURE
-653	TABLE table-name IN PARTITIONED TABLESPACE tspace-name IS NOT AVAILABLE BECAUSE ITS PARTITIONED INDEX HAS NOT BEEN CREATED
-655	THE CREATE OR ALTER STOGROUP IS INVALID BECAUSE THE STORAGE GROUP WOULD HAVE BOTH SPECIFIC AND NON-SPECIFIC VOLUME IDS

-658	A object-type CANNOT BE DROPPED USING THE statement STATEMENT
-660	INDEX index-name CANNOT BE CREATED OR ALTERED ON PARTITIONED TABLESPACE tspace-name BECAUSE KEY LIMITS ARE NOT SPECIFIED
-661	*object-type index-name* CANNOT BE CREATED ON PARTITIONED TABLE SPACE *tspace-name* BECAUSE THE NUMBER OF PARTITION SPECIFICATIONS IS NOT EQUAL TO THE NUMBER OF PARTITIONS OF THE TABLE SPACE
-662	A PARTITIONED INDEX CANNOT BE CREATED ON A TABLE SPACE, OR A TABLE SPACE CANNOT BE INDEX-CONTROLLED. TABLE SPACE *tspace-name*, REASON *reason-code*
-663	THE NUMBER OF KEY LIMIT VALUES IS EITHER ZERO, OR GREATER THAN THE NUMBER OF COLUMNS IN THE KEY OF INDEX index-name
-665	THE PART CLAUSE OF AN ALTER STATEMENT IS OMITTED OR INVALID
-666	stmt-verb object CANNOT BE EXECUTED BECAUSE function IS IN PROGRESS
-667	THE CLUSTERING INDEX FOR A PARTITIONED TABLESPACE CANNOT BE EXPLICITLY DROPPED
-668	THE COLUMN CANNOT BE ADDED TO THE TABLE BECAUSE THE TABLE HAS AN EDIT PROCEDURE DEFINED WITH ROW ATTRIBUTE SENSITIVITY
-669	THE OBJECT CANNOT BE EXPLICITLY DROPPED. REASON reason-code
-670	THE RECORD LENGTH OF THE TABLE EXCEEDS THE PAGE SIZE LIMIT
-671	THE BUFFERPOOL ATTRIBUTE OF THE TABLESPACE CANNOT BE ALTERED AS SPECIFIED BECAUSE IT WOULD CHANGE THE PAGE SIZE OF THE TABLESPACE
-672	OPERATION DROP NOT ALLOWED ON TABLE table_name
-676	THE PHYSICAL CHARACTERISTICS OF THE INDEX ARE INCOMPATIBLE WITH RESPECT TO THE SPECIFIED STATEMENT. THE STATEMENT HAS FAILED. REASON *reason-code*
-677	INSUFFICIENT VIRTUAL STORAGE FOR BUFFERPOOL XPANSION_REASON
-678	THE CONSTANT *constant* SPECIFIED FOR THE INDEX LIMIT KEY MUST CONFORM TO THE DATA TYPE *data-type* OF THE CORRESPONDING COLUMN *column-name*
-679	THE OBJECT name CANNOT BE CREATED BECAUSE A DROP IS PENDING ON THE OBJECT
-680	TOO MANY COLUMNS SPECIFIED FOR A TABLE, VIEW or TABLE FUNCTION
-681	COLUMN column-name IN VIOLATION OF INSTALLATION DEFINED FIELD PROCEDURE. RT: return-code, RS:
-682	FIELD PROCEDURE procedure-name COULD NOT BE LOADED
-683	THE SPECIFICATION FOR COLUMN, DISTINCT TYPE, FUNCTION, OR PROCEDURE data-item CONTAINS INCOMPATIBLE CLAUSES
-684	THE LENGTH OF LITERAL LIST BEGINNING string IS TOO LONG
-685	INVALID FIELD TYPE, column-name
-686	COLUMN DEFINED WITH A FIELD PROCEDURE CAN NOT COMPARE WITH ANOTHER COLUMN WITH DIFFERENT FIELD PROCEDURE
-687	FIELD TYPES INCOMPARABLE
-688	INCORRECT DATA RETURNED FROM FIELD PROCEDURE, column-name,
-689	TOO MANY COLUMNS DEFINED FOR A DEPENDENT TABLE
-690	THE STATEMENT IS REJECTED BY DATA DEFINITION CONTROL SUPPORT.
-691	THE REQUIRED REGISTRATION TABLE table-name DOES NOT EXIST
-692	THE REQUIRED UNIQUE INDEX index-name FOR DDL REGISTRATION TABLE table-name DOES NOT EXIST
-693	THE COLUMN column-name IN DDL REGISTRATION TABLE OR INDEX table-name (index-name) IS NOT DEFINED PROPERLY
-694	THE SCHEMA STATEMENT CANNOT BE EXECUTED BECAUSE A DROP IS PENDING ON THE DDL REGISTRATION TABLE *table-name*

-695	INVALID VALUE *seclabel* SPECIFIED FOR SECURITY LABEL COLUMN OF TABLE *table-name*
-696	THE DEFINITION OF TRIGGER trigger-name INCLUDES AN INVALID USE OF CORRELATION NAME OR TRANSITION TABLE NAME name. REASON CODE= reason-code
-697	OLD OR NEW CORRELATION NAMES ARE NOT ALLOWED IN A TRIGGER DEFINED WITH THE FOR EACH STATEMENT CLAUSE. OLD_TABLE OR NEW_TABLE NAMES ARE NOT ALLOWED IN A TRIGGER WITH THE BEFORE CLAUSE.
-713	THE REPLACEMENT VALUE value FOR special-register IS INVALID
-715	PROGRAM program-name WITH MARK release-dependency-mark FAILED BECAUSE IT DEPENDS ON FUNCTIONS OF THE RELEASE FROM WHICH FALLBACK HAS OCCURRED
-716	PROGRAM program-name PRECOMPILED WITH INCORRECT LEVEL FOR THIS RELEASE
-717	bind-type FOR object-type object-name WITH MARK release-dependency-mark FAILED BECAUSE object-type DEPENDS ON FUNCTIONS OF THE RELEASE FROM WHICH THE FALLBACK OCCURRED
-718	REBIND OF PACKAGE package-name FAILED BECAUSE IBMREQD OF ibmreqd IS INVALID
-719	BIND ADD ERROR USING auth-id AUTHORITY PACKAGE
-720	BIND ERROR, ATTEMPTING TO REPLACE PACKAGE = package_name WITH VERSION = version2 BUT THIS VERSION ALREADY EXISTS
-721	BIND ERROR FOR PACKAGE = pkg-id CONTOKEN = 'contoken'X IS NOT UNIQUE SO IT CANNOT BE CREATED
-722	bind-type ERROR USING auth-id AUTHORITY PACKAGE package-name DOES NOT EXIST
-723	AN ERROR OCCURRED IN A TRIGGERED SQL STATEMENT IN TRIGGER trigger-name, SECTION NUMBER section-number, INFORMATION RETURNED: SQLCODE sqlerror, SQLSTATE sqlstate, AND MESSAGE TOKENS token-list
-724	THE ACTIVATION OF THE object-type OBJECT object-name WOULD EXCEED THE MAXIMUM LEVEL OF INDIRECT SQL CASCADING
-725	THE SPECIAL REGISTER register AT LOCATION location WAS SUPPLIED AN INVALID VALUE
-726	BIND ERROR ATTEMPTING TO REPLACE PACKAGE = <package_name>. THERE ARE ENABLE OR DISABLE ENTRIES CURRENTLY ASSOCIATED WITH THE PACKAGE
-727	AN ERROR OCCURRED DURING IMPLICIT SYSTEM ACTION TYPE *action-type*. INFORMATION RETURNED FOR THE ERROR INCLUDES SQLCODE *sqlcode* SQLSTATE *sqlstate* AND MESSAGE TOKENS *token-list*.
-728	DATA TYPE data-type IS NOT ALLOWED IN DB2 PRIVATE PROTOCOL PROCESSING
-729	A STORED PROCEDURE SPECIFYING COMMIT ON RETURN CANNOT BE THE TARGET OF A NESTED CALL STATEMENT
-730	THE PARENT OF A TABLE IN A READ-ONLY SHARED DATABASE MUST ALSO BE A TABLE IN A READ-ONLY SHARED DATABASE
-731	USER-DEFINED DATA SET dsname MUST BE DEFINED WITH SHAREOPTIONS(1,3)
-732	THE DATABASE IS DEFINED ON THIS SUBSYSTEM WITH THE ROSHARE READ ATTRIBUTE BUT THE TABLESPACE OR INDEX SPACE HAS NOT BEEN DEFINED ON THE OWNING SUBSYSTEM
-733	THE DESCRIPTION OF A TABLESPACE, INDEX SPACE, OR TABLE IN A ROSHARE READ DATABASE MUST BE CONSISTENT WITH ITS DESCRIPTION IN THE OWNER SYSTEM
-734	THE ROSHARE ATTRIBUTE OF A DATABASE CANNOT BE ALTERED FROM ROSHARE READ
-735	DATABASE dbid CANNOT BE ACCESSED BECAUSE IT IS NO LONGER A SHARED DATABASE
-736	INVALID OBID obid SPECIFIED
-737	IMPLICIT TABLESPACE NOT ALLOWED

-739	ALTER FUNCTION function-name FAILED BECAUSE FUNCTIONS CANNOT MODIFY DATA WHEN THEY ARE PROCESSED IN PARALLEL
-740	FUNCTION name IS DEFINED WITH THE OPTION MODIFIES SQL DATA WHICH IS NOT VALID IN THE CONTEXT IN WHICH IT WAS INVOKED
-741	A WORK FILE DATABASE IS ALREADY DEFINED FOR MEMBER member-name
-742	DSNDB07 IS THE IMPLICIT WORK FILE DATABASE
-746	THE SQL STATEMENT IN AN EXTERNAL FUNCTION, TRIGGER, OR IN STORED PROCEDURE name VIOLATES THE NESTING SQL RESTRICTION
-747	TABLE table-name IS NOT AVAILABLE UNTIL THE AUXILIARY TABLES AND INDEXES FOR ITS EXTERNALLY STORED COLUMNS HAVE BEEN CREATED
-748	AN INDEX ALREADY EXISTS ON AUXILIARY TABLE
-750	THE SOURCE TABLE *source-name* CANNOT BE RENAMED OR ALTERED AS SPECIFIED
-751	object-type object-name (SPECIFIC NAME specific name) ATTEMPTED TO EXECUTE AN SQL STATEMENT statement THAT IS NOT ALLOWED
-752	THE CONNECT STATEMENT IS INVALID BECAUSE THE PROCESS ISNOT IN THE CONNECTABLE STATE
-763	INVALID TABLESPACE NAME table-space-name
-764	A LOB TABLESPACE AND ITS ASSOCIATED BASE TABLESPACE MUST BE IN THE SAME DATABASE
-765	TABLE IS NOT COMPATIBLE WITH DATABASE
-766	THE OBJECT OF A STATEMENT IS A TABLE FOR WHICH THE REQUESTED OPERATION IS NOT PERMITTED
-767	MISSING OR INVALID COLUMN SPECIFICATION FOR INDEX
-768	AN AUXILIARY TABLE ALREADY EXISTS FOR THE SPECIFIED COLUMN OR PARTITION
-769	SPECIFICATION OF CREATE AUX TABLE DOES NOT MATCH THE CHARACTERISTICS OF THE BASE TABLE
-770	TABLE *table-name* CANNOT HAVE A LOB COLUMN UNLESS IT ALSO HAS A ROWID, OR AN XML COLUMN UNLESS IT ALSO HAS A DOCID COLUMN
-771	INVALID SPECIFICATION OF A ROWID COLUMN
-773	CASE NOT FOUND FOR CASE STATEMENT
-775	STATEMENT SPECIFIED IN SQL ROUTINE IN NOT ALLOWED WITHIN A COMPOUND STATEMENT
-776	USE OF CURSOR *cursor-name* IS NOT VALID
-778	ENDING LABEL *label* DOES NOT MATCH THE BEGINNING LABEL
-779	LABEL *label* SPECIFIED ON A GOTO, ITERATE, OR LEAVE STATEMENT IS NOT VALID
-780	UNDO SPECIFIED FOR A HANDLER
-781	CONDITION *condition-name* IS NOT DEFINED OR THE DEFINITION IS NOT IN SCOPE
-782	A CONDITION OR SQLSTATE *value* SPECIFIED IS NOT VALID
-783	SELECT LIST FOR CURSOR *cursor-name* IN FOR STATEMENT IS NOT VALID. COLUMN *column-name* IS NOT UNIQUE
-784	CONSTRAINT *constraint-name* CANNOT BE DROPPED
-785	USE OF SQLCODE OR SQLSTATE IS NOT VALID
-787	RESIGNAL STATEMENT ISSUED OUTSIDE OF A HANDLER
-788	OWNERSHIP TRANSFER WAS IGNORED BECAUSE auth-id IS ALREADY THE OWNER OF THE OBJECT
-789	THE DATA TYPE OR OTHER ATTRIBUTES FOR PARAMETER OR SQL VARIABLE *name* ARE NOT SUPPORTED IN THE ROUTINE
-797	THE TRIGGER *trigger-name* IS DEFINED WITH AN UNSUPPORTED TRIGGERED SQL STATEMENT
-798	A VALUE CANNOT BE SPECIFIED FOR COLUMN *column-name* WHICH IS DEFINED AS GENERATED ALWAYS

-802	EXCEPTION ERROR 'exception-type' HAS OCCURRED DURING 'operation-type' OPERATION ON 'data-type' DATA, POSITION 'position-number'
-803	AN INSERTED OR UPDATED VALUE IS INVALID BECAUSE THE INDEX IN INDEX SPACE indexspace-name CONSTRAINS COLUMNS OF THE TABLE SO NO TWO ROWS CAN CONTAIN DUPLICATE VALUES IN THOSE COLUMNS. RID OF EXISTING ROW IS X'rid'
-804	AN ERROR WAS FOUND IN THE APPLICATION PROGRAM INPUT PARAMETERS FOR THE SQL STATEMENT, REASON reason
-805	DBRM OR PACKAGE NAME location-name.collection-id.dbrm-name-consistency-token NOT FOUND IN PLAN plan-name. REASON reason
-807	ACCESS DENIED: PACKAGE package-name IS NOT ENABLED FOR ACCESS FROM connection-type connection-name
-808	THE CONNECT STATEMENT IS NOT CONSISTENT WITH THE FIRST CONNECT STATEMENT
-811	THE RESULT OF AN EMBEDDED SELECT STATEMENT IS A TABLE OF MORE THAN ONE ROW, OR THE RESULT OF THE SUBQUERY OF A BASIC PREDICATE IS MORE THAN ONE VALUE
-812	THE SQL STATEMENT CANNOT BE PROCESSED BECAUSE A BLANK COLLECTION-ID WAS FOUND IN THE CURRENT PACKAGESET SPECIAL REGISTER WHILE TRYING TO FORM A QUALIFIED PACKAGE NAME FOR PROGRAM program-name.consistency-token USING PLAN plan-name
-817	THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE THE STATEMENT WILL RESULT IN A PROHIBITED UPDATE OPERATION.
-818	THE PRECOMPILER-GENERATED TIMESTAMP x IN THE LOAD MODULE IS DIFFERENT FROM THE BIND TIMESTAMP y BUILT FROM THE DBRM z
-819	THE VIEW CANNOT BE PROCESSED BECAUSE THE LENGTH OF ITS PARSE TREE IN THE CATALOG IS ZERO
-820	THE SQL STATEMENT CANNOT BE PROCESSED BECAUSE catalog-table CONTAINS A VALUE THAT IS NOT VALID IN THIS RELEASE
-822	THE SQLDA CONTAINS AN INVALID DATA ADDRESS OR INDICATOR VARIABLE ADDRESS
-840	TOO MANY ITEMS RETURNED IN A SELECT OR INSERT LIST
-842	A CONNECTION TO location-name ALREADY EXISTS
-843	THE SET CONNECTION OR RELEASE STATEMENT MUST SPECIFY AN EXISTING CONNECTION
-845	A PREVIOUS VALUE EXPRESSION CANNOT BE USED BEFORE THE |NEXT VALUE EXPRESSION GENERATES A VALUE IN THE CURRENT APPLICATION PROCESS |FOR SEQUENCE *sequence-name*
-846	INVALID SPECIFICATION OF AN IDENTITY COLUMN OR SEQUENCE OBJECT *object_type object_name*. REASON CODE = *reason_code*
-867	INVALID SPECIFICATION OF A ROWID COLUMN
-870	THE NUMBER OF HOST VARIABLES IN THE STATEMENT IS NOT EQUAL TO THE NUMBER OF DESCRIPTORS
-872	A VALID CCSID HAS NOT YET BEEN SPECIFIED FOR THIS SUBSYSTEM
-873	THE STATEMENT REFERENCED DATA ENCODED WITH DIFFERENT ENCODING SCHEMES OR CCSIDS IN AN INVALID CONTEXT
-874	THE ENCODING SCHEME SPECIFIED FOR THE object-type MUST BE THE SAME AS THE CONTAINING TABLESPACE OR OTHER PARAMETERS
-875	operand CANNOT BE USED WITH THE ASCII DATA REFERENCED
-876	object CANNOT BE CREATED OR ALTERED, REASON reason
-877	CCSID ASCII IS NOT ALLOWED FOR THIS DATABASE OR TABLE SPACE
-878	THE *explain-object* USED FOR EXPLAIN MUST BE ENCODED IN UNICODE. IT CANNOT BE IN ASCII OR EBCDIC

-879	CREATE or ALTER STATEMENT FOR *object-name* CANNOT DEFINE A COLUMN, TYPE, VARIABLE, FUNCTION OR STORED PROCEDURE PARAMETER AS MIXED OR GRAPHIC WITH ENCODING SCHEME *encoding-scheme*
-880	SAVEPOINT *savepoint-name* DOES NOT EXIST OR IS INVALID IN THIS CONTEXT
-881	A SAVEPOINT WITH NAME *savepoint-name* ALREADY EXISTS, BUT THIS SAVEPOINT NAME CANNOT BE REUSED
-882	SAVEPOINT DOES NOT EXIST
-900	THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE THE APPLICATION PROCESS IS NOT CONNECTED TO AN APPLICATION SERVER
-901	UNSUCCESSFUL EXECUTION CAUSED BY A SYSTEM ERROR THAT DOES NOT PRECLUDE THE SUCCESSFUL EXECUTION OF SUBSEQUENT SQL STATEMENTS
-902	POINTER TO THE ESSENTIAL CONTROL BLOCK (CT/RDA) HAS VALUE 0, REBIND REQUIRED
-904	UNSUCCESSFUL EXECUTION CAUSED BY AN UNAVAILABLE RESOURCE. REASON reason-code, TYPE OR RESOURCE resource-type, AND RESOURCE NAME resource-name
-905	UNSUCCESSFUL EXECUTION DUE TO RESOURCE LIMIT BEING EXCEEDED, RESOURCE NAME = resource-name LIMIT = limit-amount1 CPU SECONDS (limit-amount2 SERVICE UNITS) DERIVED FROM limit-source
-906	THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE THIS FUNCTION IS DISABLED DUE TO A PRIOR ERROR
-907	AN ATTEMPT WAS MADE TO MODIFY THE TARGET TABLE, *table-name*, OF THE MERGE STATEMENT BY CONSTRAINT OR TRIGGER *trigger-name*
-908	bind-type ERROR USING auth-id AUTHORITY. BIND, REBIND OR AUTO-REBIND OPERATION IS NOT ALLOWED
-909	THE OBJECT HAS BEEN DELETED OR ALTERED
-910	THE SQL STATEMENT CANNOT ACCESS AN OBJECT ON WHICH A DROP OR ALTER IS PENDING
-911	THE CURRENT UNIT OF WORK HAS BEEN ROLLED BACK DUE TO DEADLOCK OR TIMEOUT. REASON reason-code, TYPE OF RESOURCE resource-type, AND RESOURCE NAME resource-name
-913	UNSUCCESSFUL EXECUTION CAUSED BY DEADLOCK OR TIMEOUT. REASON CODE reason-code, TYPE OF RESOURCE resource-type, AND RESOURCE NAME resource-name
-917	BIND PACKAGE FAILED
-918	THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE A CONNECTION HAS BEEN LOST
-919	A ROLLBACK OPERATION IS REQUIRED
-922	AUTHORIZATION FAILURE: error-type ERROR. REASON reason-code
-923	CONNECTION NOT ESTABLISHED: DB2 condition REASON reason-code, TYPE resource-type, NAME resource-name
-924	DB2 CONNECTION INTERNAL ERROR, function-code, return-code, reason-code
-925	COMMIT NOT VALID IN IMS OR CICS ENVIRONMENT
-926	ROLLBACK NOT VALID IN IMS, CICS OR RRSAF ENVIRONMENT
-927	THE LANGUAGE INTERFACE (LI) WAS CALLED WHEN THE CONNECTING ENVIRONMENT WAS NOT ESTABLISHED. THE PROGRAM SHOULD BE INVOKED UNDER THE DSN COMMAND
-929	FAILURE IN A DATA CAPTURE EXIT: token
-939	ROLLBACK REQUIRED DUE TO UNREQUESTED ROLLBACK OF A REMOTE SERVER
-947	THE SQL STATEMENT FAILED BECAUSE IT WILL CHANGE A TABLE DEFINED WITH DATA CAPTURE CHANGES, BUT THE DATA CANNOT BE PROPAGATED
-948	DISTRIBUTED OPERATION IS INVALID

-950	THE LOCATION NAME SPECIFIED IN THE CONNECT STATEMENT IS INVALID OR NOT LISTED IN THE COMMUNICATIONS DATABASE
-951	OBJECT *object-name* OBJECT TYPE *object-type* IS IN USE AND CANNOT BE THE TARGET OF THE SPECIFIED ALTER STATEMENT
-952	PROCESSING WAS INTERRUPTED BY A CANCEL REQUEST FROM A CLIENT PROGRAM
-981	THE SQL STATEMENT FAILED BECAUSE THE RRSAF CONNECTION IS NOT IN A STATE THAT ALLOWS SQL OPERATIONS, REASON reason-code.
-989	AFTER TRIGGER *trigger-name* ATTEMPTED TO MODIFY A ROW IN TABLE *table-name* THAT WAS MODIFIED BY AN SQL DATA CHANGE STATEMENT WITHIN A FROM CLAUSE
-991	CALL ATTACH WAS UNABLE TO ESTABLISH AN IMPLICIT CONNECT OR OPEN TO DB2. RC1= rc1 RC2= rc2
-992	PACKAGE *package-name* CANNOT BE EXECUTED OR DEPLOYED ON LOCATION *location-name*
-1403	THE USERNAME AND/OR PASSWORD SUPPLIED IS INCORRECT
-1706	CREATE PROCEDURE FOR *procedure-name* MUST HAVE VALID LANGUAGE AND EXTERNAL CLAUSES
-2001	THE NUMBER OF HOST VARIABLE PARAMETERS FOR A STORED PROCEDURE IS NOT EQUAL TO THE NUMBER OF EXPECTED HOST VARIABLE PARAMETERS. ACTUAL NUMBER
-4302	JAVA STORED PROCEDURE OR USER-DEFINED FUNCTION *routine-name* (SPECIFIC NAME *specific-name*) HAS EXITED WITH AN EXCEPTION *exception-string*
-4700	ATTEMPT TO USE NEW FUNCTION BEFORE FUNCTION LEVEL IS ACTIVATED
-4701	THE NUMBER OF PARTITIONS, OR THE COMBINATION OF THE NUMBER OF TABLE SPACE PARTITIONS AND THE CORRESPONDING LENGTH OF THE PARTITIONING LIMIT KEY EXCEEDS THE SYSTEM LIMIT; OR THE COMBINATION OF THE NUMBER OF TABLE SPACE PARTITIONS EXCEEDS THE MAXPARTITIONS FOR PARTITION BY GROWTH TABLE SPACE
-4702	THE MAXIMUM NUMBER OF ALTERS ALLOWED HAS BEEN EXCEEDED FOR *object-type*
-4703	THE ALTER TABLE STATEMENT CANNOT BE EXECUTED BECAUSE COLUMN *column-name* IS MIXED DATA, OR THE DATA TYPE OR LENGTH SPECIFIED DOES NOT AGREE WITH THE EXISTING DATA TYPE OR LENGTH
-4704	AN UNSUPPORTED DATA TYPE WAS ENCOUNTERED AS AN INCLUDE COLUMN
-4705	*option* SPECIFIED ON ALTER STATEMENT FOR *routine-name routine-type* IS NOT VALID
-4706	ALTER STATEMENT FOR AN SQL ROUTINE OR ADVANCED TRIGGER CANNOT BE PROCESSED BECAUSE THE OPTIONS CURRENTLY IN EFFECT (ENVID *current-envid*) ARE NOT THE SAME AS THE ONES THAT WERE IN EFFECT (ENVID *defined-envid*) WHEN THE OBJECT OR VERSION WAS FIRST DEFINED
-4707	STATEMENT *statement* IS NOT ALLOWED WHEN USING A TRUSTED CONNECTION
-4708	TABLE *table-name* CANNOT BE DEFINED AS SPECIFIED IN THE *statement* STATEMENT IN A COMMON CRITERIA ENVIRONMENT
-4709	EXPLAIN MONITORED STMTS FAILED WITH REASON CODE = *yyyyy*
-4710	EXCHANGE DATA STATEMENT SPECIFIED *table1* and *table2* BUT THE TABLES DO NOT HAVE A DEFINED CLONE RELATIONSHIP
-4727	SYSTEM PARAMETER *system-parameter* VALUE *parameter-value* IS INCONSISTENT WITH CLAUSE *clause* SPECIFIED ON *statement-name* STATEMENT
-4728	ANOTHER VERSION OF ROUTINE *routine-name* EXISTS AND IS DEFINED WITH AN INCOMPATIBLE OPTION. THE OPTION IS *option-name*.
-4730	INVALID SPECIFICATION OF XML COLUMN *table-name.column-name* IS NOT DEFINED IN THE XML VERSIONING FORMAT, REASON *reason-code*

-4731	THE NATIVE SQL ROUTINE STATEMENT FOR PACKAGE *location-name.collection-id.programname*. *consistency-token* STATEMENT NUMBER *statement-number* CANNOT BE PROCESSED
-4732	THE MAXIMUM NUMBER OF ALTERS ALLOWED HAS BEEN EXCEEDED FOR *object-type*
-4733	THE ALTER TABLE STATEMENT CANNOT BE EXECUTED BECAUSE COLUMN *column-name* IS MIXED DATA, OR THE DATA TYPE OR LENGTH SPECIFIED DOES NOT AGREE WITH THE EXISTING DATA TYPE OR LENGTH
-4734	THE LOAD MODULE FOR THE PROCEDURE ASSUMES A PARAMETER VARCHAR OPTION THAT IS NOT CONSISTENT WITH THE OPTION SPECIFIED ON THE CREATE PROCEDURE STATEMENT FOR *procedure-name*
-4735	INVALID TABLE REFERENCE FOR TABLE LOCATOR
-4736	A PERIOD SPECIFICATION OR PERIOD CLAUSE IS NOT SUPPORTED AS SPECIFIED FOR OBJECT *object-name*. REASON CODE = *reason-code*.
-4737	STATEMENT *statement* IS NOT ALLOWED WHEN USING A TRUSTED CONNECTION
-4738	TABLE *table-name* CANNOT BE DEFINED AS SPECIFIED IN THE *statement* STATEMENT IN A COMMON CRITERIA ENVIRONMENT
-4739	ENVIRONMENT SETTINGS (IDENTIFIED BY *envid1*) USED BY *object-name* ARE NOT THE SAME AS THE ONES THAT WERE IN EFFECT (IDENTIFIED BY*envid2*) WHEN OTHER COLUMN MASKS AND ROW PERMISSIONS WERE DEFINED FOR TABLE *table-name*
-4743	ATTEMPT TO USE NEW FUNCTION WHEN THE APPLICATION COMPATIBILITY SETTING IS SET FOR A PREVIOUS LEVEL
-4744	THE STATEMENT EXPLICITLY OR IMPLICITLY REFERENCED TEMPORAL TABLE *table-name* IN AN UNSUPPORTED CONTEXT. REASON CODE *reason-code*.
-4749	PACKAGE = *package-name bind-type* ERROR WITH APREUSESOURCE(*copy-type*), THE *copy-type* COPY DOES NOT EXIST
-4750	*csect-name* PACKAGE *package-name* SWITCH TO THE *copy-indicator* COPY FAILED. THIS COPY IS NOT EXECUTABLE WITHOUT AN EXPLICIT REBIND OR AUTOBIND (REASON = *reason-code*)
-4753	*csect-name* PACKAGE *package-name* SWITCH TO THE *copy-indicator* COPY FAILED. THIS COPY IS NOT EXECUTABLE WITHOUT AN EXPLICIT REBIND OR AUTOBIND (REASON = *reason-code*)
-4759	*Bind-type* OPTION *option1-name* IS NOT ALLOWED WHEN OPTION *option2-name* IS NOT SPECIFIED
-5001	TABLE *table-name* IS NOT VALID
-5012	HOST VARIABLE *host-variable* IS NOT EXACT NUMERIC WITH SCALE ZERO
-7008	*object-name* NOT VALID FOR OPERATION (*reason-code*)
-16000	AN XQUERY EXPRESSION CANNOT BE PROCESSED BECAUSE THE *context-component* COMPONENT OF THE STATIC CONTEXT HAS NOT BEEN ASSIGNED. ERROR QNAME = err:XPST0001
-16001	AN XQUERY EXPRESSION STARTING WITH TOKEN *token* CANNOT BE PROCESSED BECAUSE THE FOCUS COMPONENT OF THE DYNAMIC CONTEXT HAS NOT BEEN ASSIGNED. ERROR QNAME = *err:XPDY0002*
-16002	AN XQUERY EXPRESSION HAS AN UNEXPECTED TOKEN *token* FOLLOWING *text*. EXPECTED TOKENS MAY INCLUDE: *token-list*. ERROR QNAME= ERR:XPST0003
-16003	AN EXPRESSION OF DATA TYPE *value-type* CANNOT BE USED WHEN THE DATA TYPE *expected-type* IS EXPECTED IN THE CONTEXT. ERROR QNAME= *err:XPTY0004*
-16005	AN XQUERY EXPRESSION REFERENCES AN ELEMENT NAME, ATTRIBUTE NAME, TYPE NAME, FUNCTION NAME, NAMESPACE PREFIX, OR VARIABLE NAME *undefined-name* THAT IS NOT DEFINED WITHIN THE STATIC CONTEXT. ERROR QNAME= ERR:XPST0008
-16007	THE XQUERY PATH EXPRESSION REFERENCES AN AXIS *axis-type* THAT IS NOT SUPPORTED. ERROR QNAME = *err:XQST0010*
-16009	AN XQUERY FUNCTION NAMED *function-name* WITH *number-of-parms* PARAMETERS IS NOT DEFINED IN THE STATIC CONTEXT. ERROR QNAME= *err:XPST0017*

-16011	THE RESULT OF AN INTERMEDIATE STEP EXPRESSION IN AN XQUERY PATH EXPRESSION |ONTAINS AN ATOMIC VALUE. ERROR QNAME = *err:XPTY0019*
-16012	THE CONTEXT ITEM IN AN AXIS STEP MUST BE A NODE. ERROR QNAME = *err:XPTY0020*
-16015	AN ELEMENT CONSTRUCTOR CONTAINS AN ATTRIBUTE NODE NAMED *attribute-name* THAT FOLLOWS AN XQUERY NODE THAT IS NOT AN ATTRIBUTE NODE. ERROR QNAME = ERR:XQTY0024
-16016	THE ATTRIBUTE NAME *attribute-name* CANNOT BE USED MORE THAN ONCE IN AN ELEMENT CONSTRUCTOR. ERROR QNAME = *err:XQTY0025*
-16020	THE CONTEXT NODE IN A PATH EXPRESSION THAT BEGINS WITH AN INITIAL "/" OR "//" DOES NOT HAVE AN XQUERY DOCUMENT NODE ROOT. ERROR QNAME = *err:XPDY0050*
-16022	OPERANDS OF TYPES *xquery-data-types* ARE NOT VALID FOR OPERATOR *operator-name* . ERROR QNAME = *err:XPTY0004*
-16023	THE XQUERY PROLOG CANNOT CONTAIN MULTIPLE DECLARATIONS FOR THE SAME NAMESPACE PREFIX *ns-prefix*. ERROR QNAME = *err:XQST0033*
-16024	THE NAMESPACE PREFIX *prefix-name* CANNOT BE REDECLARED OR CANNOT BE BOUND TO THE SPECIFIED URI. ERROR QNAME = *err:XQST0070*
-16031	XQUERY LANGUAGE FEATURE USING SYNTAX *string* IS NOT SUPPORTED
-16032	THE STRING *string* IS NOT A VALID URI. ERROR QNAME = *err:XQST0046*
-16036	THE URI THAT IS SPECIFIED IN A NAMESPACE DECLARATION CANNOT BE A ZERO-LENGTH STRING
-16038	THE ARGUMENTS OF FN:DATETIME HAVE DIFFERENT TIMEZONES. ERROR QNAME=ERR:FORG0008
-16046	A NUMERIC XQUERY EXPRESSION ATTEMPTED TO DIVIDE BY ZERO. ERROR QNAME = *err:FOAR0001*
-16047	AN XQUERY EXPRESSION RESULTED IN ARITHMETIC OVERFLOW OR UNDERFLOW. |ERROR QNAME= *err:FOAR0002*
-16048	AN XQUERY PROLOG CANNOT CONTAIN MORE THAN ONE *decl-type* DECLARATION. ERROR QNAME = *error-qname*
-16049	THE LEXICAL VALUE *value* IS NOT VALID FOR THE *type-name* DATA TYPE IN THE FUNCTION OR CAST. ERROR QNAME= *err:FOCA0002*
-16051	THE VALUE *value* OF DATA TYPE *source-type* IS OUT |OF RANGE FOR AN IMPLICIT OR EXPLICIT CAST TO TARGET DATA TYPE *target-type*. ERROR QNAME = err:*error-qname*
-16052	NAN CANNOT BE USED AS A FLOAT OR DOUBLE VALUE IN A DATETIME OPERATION. ERROR QNAME=ERR:FOCA0005
-16055	AN ARITHMETIC OPERATION INVOLVING A DATETIME VALUE RESULTED IN OVERFLOW. ERROR QNAME=ERR:FODT0001
-16056	AN ARITHMETIC OPERATION INVOLVING A DURATION VALUE RESULTED IN OVERFLOW. ERROR QNAME=ERR:FODT0002.
-16057	A TIMEZONE VALUE IS NOT VALID. ERROR QNAME=ERR:FODT0003.
-16061	THE VALUE *value* CANNOT BE CONSTRUCTED AS, OR CAST (USING AN IMPLICIT OR EXPLICIT CAST) TO THE DATA TYPE *data-type*. ERROR QNAME = *err:FORG0001*
-16065	AN EMPTY SEQUENCE CANNOT BE CAST TO THE DATA TYPE *data-type*, ERROR QNAME = *err:FORG0006*
-16066	THE ARGUMENT PASSED TO THE AGGREGATE FUNCTION *function-name* IS |NOT VALID. ERROR QNAME = *err:FORG0006*
-16067	THE FLAGS ARGUMENT VALUE PASSED TO THE FUNCTION *function-name* IS NOT VALID. ERROR QNAME= *err:*FORX0001
-16068	THE REGULAR EXPRESSION ARGUMENT VALUE PASSED TO THE FUNCTION *function-name* IS NOT VALID. ERROR QNAME= *err:*FORX0002
-16069	A REGULAR EXPRESSION ARGUMENT *value* PASSED TO THE FUNCTION *function-name* MATCHES A ZERO-LENGTH STRING. ERROR QNAME= *err:*FORX0003
-16075	THE SEQUENCE TO BE SERIALIZED CONTAINS AN ITEM THAT IS AN ATTRIBUTE NODE. ERROR QNAME = *err:SENR0001*

-16080	AN XAN XQUERY *expression-type* UPDATING EXPRESSION IS USED IN AN INVALID CONTEXT. ERROR QNAME=err:XUST0001
-16081	THE XQUERY-UPDATE-CONSTANT IN THE XMLMODIFY FUNCTION IS NOT AN UPDATING EXPRESSION OR AN EMPTY SEQUENCE EXPRESSION. ERROR QNAME=err:XUST0002.
-16085	THE TARGET NODE OF AN XQUERY *expression-type* EXPRESSION IS NOT VALID. ERROR QNAME=err:*error-name*
-16086	THE REPLACEMENT SEQUENCE OF A REPLACE EXPRESSION CONTAINS INVALID NODES FOR THE SPECIFIED TARGET NODE. ERROR QNAME=err:*error-name*.
-16087	THE RESULT OF APPLYING THE UPDATING EXPRESSIONS IN THE XMLMODIFY FUNCTION IS NOT A VALID INSTANCE OF THE XQUERY AND XPATH DATA MODEL. ADDITIONAL INFORMATION: *information-1*, *information-2*. ERROR QNAME=err:XUDY0021.
-16088	AN *expression-type* EXPRESSION HAS A BINDING OF A NAMESPACE PREFIX *prefix-string* TO NAMESPACE URI *uri-string*, INTRODUCED TO AN ELEMENT NAMED *element-name*, THAT CONFLICTS WITH AN EXISTING NAMESPACE BINDING OF THE SAME PREFIX TO A DIFFERENT URI IN THE IN-SCOPE NAMESPACES OF ,THAT ELEMENT NODE. ERROR QNAME=err:XUDY0023.
-16089	AN *expression-type* EXPRESSION AND POSSIBLY OTHER UPDATING EXPRESSIONS IN AN XMLMODIFY FUNCTION INTRODUCE CONFLICTING NAMESPACE BINDINGS INTO AN ELEMENT NAMED *element-name*. THE PREFIX *prefix-string* IS BOUND TO *uri-string* WHILE ANOTHER BINDING OF THE SAME PREFIX USES A DIFFERENT NAMESPACE URI. ERROR QNAME=err:XUDY0024.
-16246	INCOMPLETE ANNOTATION MAPPING AT OR NEAR LINE *lineno* IN XML SCHEMA DOCUMENT *uri*. REASON CODE = *reason-code*.
-16247	SOURCE XML TYPE *source-data-type* CANNOT BE MAPPED TO TARGET SQL TYPE *target-data-type* IN THE ANNOTATION AT OR NEAR LINE *lineno* IN XML SCHEMA DOCUMENT *uri*
-16248	UNKNOWN ANNOTATION *annotation-name* AT OR NEAR LINE *lineno* IN XML SCHEMA DOCUMENT *uri*
-16249	THE *db2-xdb:expression* ANNOTATION *expression* AT OR NEAR LINE *lineno* IN XML SCHEMA DOCUMENT *uri* IS TOO LONG.
-16250	THE *db2-xdb:defaultSQLSchema* WITH VALUE *schema-name* AT OR NEAR LINE *lineno* IN XML SCHEMA DOCUMENT *uri* CONFLICTS WITH ANOTHER *db2-xdb:defaultSQLSchema* SPECIFIED IN ONE OF THE XML SCHEMA DOCUMENTS WITHIN THE SAME XML SCHEMA.
-16251	DUPLICATE ANNOTATION DEFINED FOR *object-name* AT OR NEAR *location* IN XML SCHEMA DOCUMENT *uri*
-16252	THE *db2-xdb:rowSet* NAME *rowset-name* SPECIFIED AT OR |NEAR LINE *lineno* IN THE XML SCHEMA DOCUMENT *uri* IS ALREADY ASSOCIATED WITH ANOTHER TABLE
-16253	THE *db2-xdb:condition* ANNOTATION *condition* AT OR NEAR LINE *lineno* IN XML SCHEMA DOCUMENT *uri* IS TOO LONG.
-16254	A *db2-xdb:locationPath locationpath* AT OR NEAR LINE *lineno* IN XML SCHEMA DOCUMENT *uri* IS NOT VALID WITH REASON CODE *reason-code*.
-16255	A *db2-xdb:rowSet* VALUE *rowset-name* USED AT OR NEAR LINE *lineno* IN XML SCHEMA DOCUMENT *uri* CONFLICTS WITH A *db2-xdb:table* ANNOTATION WITH THE SAME NAME.
-16257	XML SCHEMA FEATURE *feature* SPECIFIED IS NOT SUPPORTED FOR DECOMPOSITION.
-16258	THE XML SCHEMA CONTAINS A RECURSIVE ELEMENT WHICH IS AN UNSUPPORTED FEATURE FOR DECOMPOSITION. THE RECURSIVE ELEMENT IS IDENTIFIED AS *elementnamespace* : *elementname* OF TYPE *typenamespace* : *typename*.
-16259	INVALID MANY-TO-MANY MAPPINGS DETECTED IN XML SCHEMA DOCUMENT *uri1* NEAR LINE *lineno1* AND IN XML SCHEMA DOCUMENT *uri2* NEAR LINE *lineno2*.
-16260	XML SCHEMA ANNOTATIONS INCLUDE NO MAPPINGS TO ANY COLUMN OF ANY TABLE.
-16262	THE ANNOTATED XML SCHEMA HAS NO COLUMNS MAPPED FOR ROWSET *rowsetname*.
-16265	THE XML DOCUMENT CANNOT BE DECOMPOSED USING XML SCHEMA *xsrobject-name* WHICH IS NOT ENABLED OR IS INOPERATIVE FOR DECOMPOSITION.

-16266	AN SQL ERROR OCCURRED DURING DECOMPOSITION OF DOCUMENT *docid* WHILE ATTEMPTING TO INSERT DATA. INFORMATION RETURNED FOR THE ERROR INCLUDES SQLCODE *sqlcode*, SQLSTATE *sqlstate*, AND MESSAGE TOKENS *token-list*.
-20003	GBPCACHE NONE CANNOT BE SPECIFIED FOR TABLESPACE OR INDEX IN GRECP
-20004	8K or 16K BUFFERPOOL PAGESIZE INVALID FOR A WORKFILE OBJECT
-20005	THE INTERNAL ID LIMIT OF limit HAS BEEN EXCEEDED FOR OBJECT TYPE object-type
-20006	LOBS CANNOT BE SPECIFIED AS PARAMETERS WHEN NO WLM ENVIRONMENT IS SPECIFIED
-20008	UNSUPPORTED OPTION keyword SPECIFIED
-20016	THE VALUE OF THE INLINE LENGTH ASSOCIATED WITH *object-name* IS TOO BIG OR THE INLINE LENGTH CLAUSE IS NOT ALLOWED IN THE CONTEXT
-20019	THE RESULT TYPE RETURNED FROM THE FUNCTION BODY CANNOT BE ASSIGNED TO THE DATA TYPE DEFINED IN THE RETURNS CLAUSE
-20046	THE SELECTIVITY CLAUSE FOLLOWING *predicate-string* CAN ONLY SPECIFIED FOR A SPATIAL PREDICATE FUNCTION.
-20058	THE FULLSELECT SPECIFIED FOR MATERIALIZED QUERY TABLE *table-name* IS NOT VALID
-20060	UNSUPPORTED DATA TYPE *data-type* ENCOUNTERED IN SQL *object-type object-name*
-20070	AUXILIARY TABLE table-name CANNOT BE CREATED BECAUSE COLUMN column-name IS NOT A LOB COLUMN
-20071	WLM ENVIRONMENT NAME MUST BE SPECIFIED function-name
-20072	bind-type bind-subtype ERROR USING auth-id AUTHORITY OPERATION IS NOT ALLOWED ON A package-type PACKAGE package-name
-20073	THE FUNCTION function-name CANNOT BE ALTERED BECAUSE IT IS REFERENCED IN EXISTING VIEW OR MATERIALIZED QUERY TABLE DEFINITIONS
-20074	THE OBJECT object-name CANNOT BE CREATED BECAUSE THE FIRST THREE CHARACTERS ARE RESERVED FOR SYSTEM OBJECTS
-20091	A VIEW NAME WAS SPECIFIED AFTER LIKE IN ADDITION TO THE INCLUDING IDENTITY COLUMN ATTRIBUTES CLAUSE
-20092	A TABLE OR VIEW WAS SPECIFIED IN THE LIKE CLAUSE, BUT THE OBJECT CANNOT BE USED IN THIS CNTEXT
-20093	THE TABLE *table-name* CANNOT BE CONVERTED TO OR FROM A MATERIALIZED QUERY TABLE, OR THE MATERIALIZED QUERY TABLE PROPERTY CANNOT BE ALTERED. REASON CODE = *reason-code*.
-20094	THE COLUMN *column-name* IS A GENERATED COLUMN AND CANNOT BE USED IN THE BEFORE TRIGGER *trigger-name*.
-20100	AN ERROR OCCURRED WHEN BINDING A TRIGGERED SQL STATEMENT. INFORMATION RETURNED: SECTION NUMBER : section-number SQLCODE sqlerror, SQLSTATE sqlstate, AND MESSAGE TOKENS
-20101	THE FUNCTION function FAILED WITH REASON rc
-20102	CREATE OR ALTER STATEMENT FOR USER-DEFINED FUNCTION function-name SPECIFIED THE option OPTION WHICH IS NOT ALLOWED FOR THE TYPE OF ROUTINE
-20104	AN ATTEMPT TO ALTER A CCSID FROM from-ccsid TO to-ccsid FAILED
-20106	THE CCSID FOR THE TABLE SPACE OR DATABASE CANNOT BE CHANGED BECAUSE THE TABLE SPACE OR DATABASE ALREADY CONTAINS A TABLE THAT IS REFERENCED IN EXISTING VIEW, OR MATERIALIZED QUERY TABLE DEFINITIONS OR AN EXTENDED INDEX
-20107	HOST VARIABLE OR PARAMETER NUMBER *position-number* CANNOT BE USED AS SPECIFIED BECAUSE REASON *reason*
-20108	A RESULT SET CONTAINS AN UNSUPPORTED DATA TYPE IN POSITION NUMBER *position-number* FOR CURSOR *cursor-name* OPENED BY STORED PROCEDURE *procedure-name*

-20110	CANNOT IMPLICITLY CONNECT TO A REMOTE SITE WITH A SAVEPOINT OUTSTANDING
-20111	CANNOT ISSUE SAVEPOINT, RELEASE SAVEPOINT, ROLLBACK TO SAVEPOINT FROM A TRIGGER, FROM A USER-DEFINED FUNCTION, OR FROM A GLOBAL TRANSACTION
-20117	A WINDOW SPECIFICATION FOR AN OLAP SPECIFICATION IS NOT VALID. REASON CODE = *reason-code*
-20120	AN SQL TABLE FUNCTION MUST RETURN A TABLE RESULT
-20123	CALL TO STORED PROCEDURE *procedure* FAILED BECAUSE THE RESULT SET RETURNED FOR CURSOR *cursor* IS SCROLLABLE, BUT THE CURSOR IS NOT POSITIONED BEFORE THE FIRST ROW
-20124	OPEN CURSOR *cursor* FAILED BECAUSE THE CURSOR IS SCROLLABLE BUT THE CLIENT DOES NOT SUPPORT THIS
-20125	CALL TO STORED PROCEDURE *procedure* FAILED BECAUSE THE RESULT SET FOR CURSOR *cursor* IS SCROLLABLE, BUT THE CLIENT DOES NOT SUPPORT THIS
-20127	VALUE SPECIFIED ON FETCH STATEMENT FOR ABSOLUTE OR RELATIVE IS TOO LARGE FOR DRDA
-20129	SPECIAL REGISTER IS NOT VALID AS USED
-20142	SEQUENCE *sequence-name* CANNOT BE USED AS SPECIFIED
-20143	THE ENCRYPTION OR DECRYPTION FUNCTION FAILED, BECAUSE THE ENCRYPTION PASSWORD VALUE IS NOT SET
-20144	THE ENCRYPTION IS INVALID BECAUSE THE LENGTH OF THE PASSWORD WAS LESS THAN 6 BYTES OR GREATER THAN 127 BYTES
-20146	THE DECRYPTION FAILED. THE DATA IS NOT ENCRYPTED
-20147	THE ENCRYPTION FUNCTION FAILED. MULTIPLE PASS ENCRYPTION IS NOT SUPPORTED
-20148	A RETURN STATEMENT DOES NOT EXIST OR WAS NOT INVOKED DURING THE EXECUTION OF ROUTINE *routine-name* WITH SPECIFIC NAME *specific-name*
-20163	HEXADECIMAL CONSTANT GX IS NOT ALLOWED
-20165	AN SQL DATA CHANGE STATEMENT WITHIN A FROM CLAUSE IS NOT ALLOWED IN THE CONTEXT IN WHICH IT WAS SPECIFIED
-20166	AN SQL DATA CHANGE STATEMENT WITHIN A SELECT SPECIFIED A VIEW *view-name* WHICH IS NOT A SYMMETRIC VIEW OR COULD NOT HAVE BEEN DEFINED AS A SYMMETRIC VIEW
-20177	SET DATA TYPE CLAUSE ON ALTER TABLE SPECIFIED FLOATING POINT, BUT THIS CHANGE IS DISALLOWED
-20178	VIEW *view-name* ALREADY HAS AN INSTEAD OF *operation* TRIGGER |DEFINED
-20179	THE INSTEAD OF TRIGGER CANNOT BE CREATED BECAUSE THE VIEW *view-name* IS DEFINED USING THE WITH CHECK OPTION
-20180	COLUMN *column-name* IN TABLE *table-name* CANNOT BE ALTERED AS SPECIFIED
-20181	COLUMN CANNOT BE ADDED TO INDEX *index-name*
-20182	PARTITIONING CLAUSE *clause* ON *stmt-type* STATEMENT FOR *index-name* IS NOT VALID
-20183	THE PARTITIONED, ADD PARTITION, ADD PARTITIONING KEY, ALTER PARTITION, ROTATE PARTITION, OR PARTITION BY RANGE CLAUSE SPECIFIED ON CREATE OR ALTER FOR *name* IS NOT VALID
-20185	CURSOR *cursor-name* IS NOT DEFINED TO ACCESS ROWSETS, BUT A CLAUSE WAS SPECIFIED THAT IS VALID ONLY WITH ROWSET ACCESS
-20186	A CLAUSE SPECIFIED FOR THE DYNAMIC SQL STATEMENT BEING PROCESSED IS NOT VALID
-20200	THE INSTALL OR REPLACE OF *jar-id* WITH URL *url* FAILED DUE TO REASON *reason-code-(reason-string)*.

-20201	THE INSTALL, REPLACE, REMOVE, OR ALTER OF *jar-name* FAILED DUE TO REASON *reason-code-(reason-string)*
-20202	THE REMOVE OF *jar-name* FAILED AS *class* IS IN USE
-20203	USER-DEFINED FUNCTION OR PROCEDURE *name* HAS A JAVA METHOD WITH AN INVALID SIGNATURE. THE ERROR IS AT OR NEAR PARAMETER *number*. THE SIGNATURE IS *signature*.
-20204	THE USER-DEFINED FUNCTION OR PROCEDURE *routine-name* WAS UNABLE TO MAP TO A SINGLE JAVA METHOd
-20207	THE INSTALL OR REMOVE OF *jar-name* SPECIFIED THE USE OF A DEPLOYMENT DESCRIPTOR.
-20210	THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE IT WAS PRECOMPILED AT A LEVEL THAT IS INCOMPATIBLE WITH THE CURRENT VALUE OF THE ENCODING BIND OPTION OR SPECIAL REGISTER
-20211	THE SPECIFICATION ORDER BY OR FETCH FIRST N ROWS ONLY IS INVALID
-20212	USER-DEFINED ROUTINE *name* ENCOUNTERED AN EXCEPTION ATTEMPTING TO LOAD JAVA CLASS *class-name* FROM JAR *jar-name*. ORIGINAL |EXCEPTION: *exception-string*
-20213	STORED PROCEDURE *procedure-name* HAS RETURNED A DYNAMIC RESULT SET, PARAMETER *number*, THAT IS NOT VALID
-20223	THE OPERATION FAILED. ENCRYPTION FACILITY NOT AVAILABLE *return-code*, *reason-code*
-20224	ENCRYPTED DATA THAT WAS ORIGINALLY A BINARY STRING CANNOT BE DECRYPTED TO A CHARACTER STRING
-20227	REQUIRED CLAUSE IS MISSING FOR ARGUMENT *number* OF *expression*
-20232	CHARACTER CONVERSION FROM CCSID *from-ccsid* TO *to-ccsid* FAILED WITH ERROR CODE *error-code* FOR TABLE *dbid.obid* COLUMN *column-number* REQUESTED BY *csect-name*
-20235	THE COLUMN *column-name* CANNOT BE ADDED, ALTERED OR DROPPED BECAUSE *table-name* IS A MATERIALIZED QUERY TABLE
-20240	INVALID SPECIFICATION OF A SECURITY LABEL COLUMN *column-name* REASON CODE *reason-code*
-20248	ATTEMPTED TO EXPLAIN ALL CACHED STATEMENTS OR A CACHED STATEMENT WITH STMTID OR STMTTOKEN *ID-token* BUT THE REQUIRED EXPLAIN INFORMATION IS NOT ACCESSIBLE.
-20249	THE PACKAGE *package-name* NEEDS TO BE REBOUND IN ORDER TO BE SUCCESSFULLY EXECUTED (*token*)
-20252	DIAGNOSTICS AREA FULL. NO MORE ERRORS CAN BE RECORDED FOR THE NOT ATOMIC STATEMENT
-20257	FINAL TABLE IS NOT VALID WHEN THE TARGET VIEW *view-name* OF THE SQL DATA CHANGE STATEMENT IN A FULLSELECT HAS AN INSTEAD OF TRIGGER DEFINED
-20258	INVALID USE OF INPUT SEQUENCE ORDERING
-20260	THE ASSIGNMENT CLAUSE OF THE UPDATE OPERATION AND THE VALUES CLAUSE OF THE INSERT OPERATION MUST SPECIFY AT LEAST ONE COLUMN THAT IS NOT AN INCLUDE COLUMN
-20264	FOR TABLE *table-name*, *primary-auth-id* WITH SECURITY |LABEL *primary-auth-id-seclabel* IS NOT AUTHORIZED TO PERFORM *operation* ON A ROW WITH SECURITY LABEL *row-seclabel*. THE RECORD IDENTIFIER (RID) OF THIS ROW IS *rid-number*.
-20265	SECURITY LABEL IS *reason* FOR *primary-auth-id*
-20266	ALTER VIEW FOR *view-name* FAILED
-20267	THE FUNCTION *function-name* (SPECIFIC *specific-name*) MODIFIES SQL DATA AND IS INVOKED IN AN ILLEGAL CONTEXT. REASON CODE *reason-code*
-20275	The XML NAME *name* IS NOT VALID. REASON CODE = *reason-code*

-20281	*primary-auth-id* DOES NOT HAVE THE MLS WRITE-DOWN PRIVILEGE
-20283	A DYNAMIC CREATE STATEMENT CANNOT BE PROCESSED WHEN THE VALUE |OF CURRENT SCHEMA DIFFERS FROM CURRENT SQLID
-20286	DB2 CONVERTED STRING *token-type token* FROM *from-ccsid* TO *to-ccsid*, AND RESULTED IN SUBSTITUTION CHARACTER
-20289	INVALID STRING UNIT *unit* SPECIFIED FOR FUNCTION *function-name*
-20295	THE EXECUTION OF A BUILT IN FUNCTION *function* RESULTED IN AN ERROR REASON CODE *reason-code*
-20300	THE LIST OF COLUMNS SPECIFIED FOR THE *clause* CLAUSE IS NOT ALLOWED IN COMBINATION WITH THE LIST OF COLUMNS FOR THE PARTITIONING KEY FOR THE TABLE
-20304	INVALID INDEX DEFINITION INVOLVING AN XMLPATTERN CLAUSE OR A COLUMN |OF DATA TYPE XML. REASON CODE = *reason-code*
-20305	AN XML VALUE CANNOT BE INSERTED OR UPDATED BECAUSE OF AN ERROR DETECTED WHEN INSERTING OR UPDATING THE INDEX IDENTIFIED BY index-id ON TABLE table-name. REASON CODE = reason-code
-20306	AN INDEX ON AN XML COLUMN CANNOT BE CREATED BECAUSE OF AN ERROR DETECTED WHEN INSERTING THE XML VALUES INTO THE INDEX. REASON CODE = reason-code
-20310	THE REMOVE OF *jar-name1* FAILED, AS IT IS IN USE BY *jar-name2*
-20311	THE VALUE PROVIDED FOR THE NEW JAVA PATH IS ILLEGAL
-20312	THE ALTER OF JAR *jar-id* FAILED BECAUSE THE SPECIFIED PATH REFERENCES ITSELF
-20313	DEBUG MODE OPTION FOR ROUTINE *routine-name* CANNOT BE CHANGED
-20314	THE PARAMETER LIST DOES NOT MATCH THE PARAMETER LIST FOR ALL OTHER VERSIONS OF ROUTINE *routine-name*
-20315	THE CURRENTLY ACTIVE VERSION FOR ROUTINE *routine-name* (*routine-type*) CANNOT BE DROPPED
-20316	THE CURRENTLY ACTIVE VERSION FOR ROUTINE *routine-name* (*type*) CANNOT BE DROPPED
-20327	THE DEPTH OF AN XML DOCUMENT EXCEEDS THE LIMIT OF 128 LEVELS
-20328	THE DOCUMENT WITH TARGET NAMESPACE *namespace* AND SCHEMA LOCATION *location* HAS ALREADY BEEN ADDED FOR THE XML SCHEMA IDENTIFIED BY *schema name*
-20329	THE COMPLETION CHECK FOR THE XML SCHEMA FAILED BECAUSE ONE OR MORE XML SCHEMA DOCUMENTS IS MISSING. ONE MISSING XML SCHEMA DOCUMENT IS IDENTIFIED BY *uri-type* AS *uri*
-20330	THE *xsrobject-type* IDENTIFIED BY XML *uri-type1 uri1* AND XML *uri-type2 uri2* IS NOT FOUND IN THE XML SCHEMA REPOSITORY
-20331	THE XML COMMENT VALUE *string* IS NOT VALID
-20332	THE XML PROCESSING INSTRUCTION VALUE *string* IS NOT VALID
-20337	MORE THAN ONE *xsrobject-type* EXISTS IDENTIFIED BY XML *uri-type1 uri1* AND *uri-type2 uri2* EXISTS IN THE XML SCHEMA REPOSITORY.
-20338	THE DATA TYPE OF EITHER THE SOURCE OR TARGET OPERAND OF AN XMLCAST SPECIFICATION MUST BE XML
-20339	XML SCHEMA *name* IS NOT IN THE CORRECT STATE TO PERFORM OPERATION *operation*
-20340	XML SCHEMA *xmlschema-name* INCLUDES AT LEAST ONE XML SCHEMA DOCUMENT IN NAMESPACE *namespace* THAT IS NOT CONNECTED TO THE OTHER XML SCHEMA DOCUMENTS
-20342	INCOMPATIBLE EXPRESSION-TYPE EXPRESSIONS EXIST IN THE XQUERY-UPDATE-CONSTANT IN THE XMLMODIFY FUNCTION. QNAME=err:*error-name*.
-20345	THE XML VALUE IS NOT A WELL-FORMED DOCUMENT WITH A SINGLE ROOT ELEMENT

-20353	AN OPERATION INVOLVING COMPARISON CANNOT USE OPERAND *name* DEFINED |AS DATA TYPE *type-name*
-20354	INVALID SPECIFICATION OF A ROW CHANGE TIMESTAMP COLUMN FOR TABLE *table-name*
-20355	THE STATEMENT COULD NOT BE PROCESSED BECAUSE ONE OR MORE IMPLICITLY CREATED OBJECTS ARE INVOLVED *reason-code*
-20356	THE TABLE WITH DBID = *dbid* AND OBID = *obid* CANNOT BE TRUNCATED BECAUSE DELETE TRIGGERS EXIST FOR THE TABLE, OR THE TABLE IS THE PARENT TABLE IN A REFERENTIAL CONSTRAINT
-20361	AUTHORIZATION ID *authorization-name* IS NOT DEFINED FOR THE TRUSTED CONTEXT *context-name*
-20362	ATTRIBUTE *attribute-name* WITH VALUE *value* CANNOT BE DROPPED BECAUSE IT IS NOT PART OF THE DEFINITION OF TRUSTED CONTEXT *context-name*
-20363	ATTRIBUTE *attribute-name* WITH VALUE *value* IS NOT A UNIQUE SPECIFICATION FOR TRUSTED CONTEXT *context-name*
-20365	A SIGNALING NAN WAS ENCOUNTERED, OR AN EXCEPTION OCCURRED IN AN ARITHMETIC OPERATION OR FUNCTION INVOLVING A DECFLOAT
-20366	TABLE WITH DBID=*dbid.obid* AND OBID= *obid* CANNOT BE TRUNCATED BECAUSE UNCOMMITTED UPDATES EXIST ON THE TABLE WITH 'IMMEDIATE' OPTION SPECIFIED IN THE STATEMENT
-20369	AN ALTER TRUSTED CONTEXT STATEMENT FOR *context-name* ATTEMPTED TO REMOVE THE LAST CONNECTION TRUST ATTRIBUTE ASSOCIATED WITH THE TRUSTED CONTEXT
-20372	THE SYSTEM AUTHID CLAUSE OF A CREATE OR ALTER TRUSTED CONTEXT STATEMENT FOR *context-name* SPECIFIED *authorization-name*, BUT ANOTHER TRUSTED CONTEXT IS ALREADY DEFINED FOR THAT AUTHORIZATION ID.
-20373	A CREATE OR ALTER TRUSTED CONTEXT STATEMENT SPECIFIED *authorization-name* MORE THAN ONCE OR THE TRUSTED CONTEXT IS ALREADY DEFINED TO BE USED |BY THIS AUTHORIZATION ID OR PUBLIC.
-20374	AN ALTER TRUSTED CONTEXT STATEMENT FOR *context-name* SPECIFIED *authorization-name* BUT THE TRUSTED CONTEXT IS NOT CURRENTLY DEFINED TO BE USED BY THIS AUTHORIZATION ID OR PUBLIC
-20377	AN ILLEGAL XML CHARACTER *hex-char* WAS FOUND IN AN SQL/XML EXPRESSION OR FUNCTION ARGUMENT THAT BEGINS WITH STRING *start-string*
-20379	AN AUTHORIZATION ID OR A ROLE CANNOT USE ITS SECADM AUTHORITY TO TRANSFER THE OWNERSHIP OF AN OBJECT TO ITSELF
-20380	ALTER INDEX WITH REGENERATE OPTION FOR *index-name* FAILED. INFORMATION RETURNED: SQLCODE *sqlcode*, SQLSTATE *sqlstate*, MESSAGE TOKENS *token-list*
-20381	ALTER INDEX WITH REGENERATE OPTION IS NOT VALID FOR *index-name*
-20382	CONTEXT ITEM CANNOT BE A SEQUENCE WITH MORE THAN ONE ITEM
-29385	THE STATEMENT CANNOT BE PROCESSED BECAUSE THERE ARE PENDING DEFINITION CHANGES FOR OBJECT *object-name* OF TYPE *object- type* (REASON *reason-code*)
-20398	ERROR ENCOUNTERED DURING XML PARSING AT LOCATION *n text*
-20399	ERROR ENCOUNTERED DURING XML VALIDATION: LOCATION *n*; TEXT: *text*; XSRID *schema-ID*
-20400	XML SCHEMA ERROR *n text*
-20409	AN XML DOCUMENT OR CONSTRUCTED XML VALUE CONTAINS A COMBINATION OF XML NODES THAT CAUSES AN INTERNAL IDENTIFIER LIMIT TO BE EXCEEDED
-20410	THE NUMBER OF CHILDREN NODES OF AN XML NODE IN AN XML VALUE HAS EXCEEDED THE LIMIT NUMBER OF CHILDREN NODES
-20411	A FETCH CURRENT CONTINUE OPERATION WAS REQUESTED FOR *cursor-name* BUT THERE IS NO PRESERVED, TRUNCATED DATA TO RETURN

-20412	SERIALIZATION OF AN XML VALUE RESULTED IN CHARACTERS THAT COULD NOT BE REPRESENTED IN THE TARGET ENCODING
-20422	A CREATE TABLE, OR DECLARE GLOBAL TEMPORARY TABLE STATEMENT FOR *table-name* ATTEMPTED TO CREATE A TABLE WITH ALL THE COLUMNS DEFINED AS HIDDEN
-20423	ERROR OCCURRED DURING TEXT SEARCH PROCESSING (*server*, *index-name*, *text*)
-20424	TEXT SEARCH SUPPORT IS NOT AVAILABLE *reason-code*
-20425	*column-name* (IN *table-name*) WAS SPECIFIED AS AN ARGUMENT TO A TEXT SEARCH FUNCTION, BUT A TEXT INDEX DOES NOT EXIST FOR THE COLUMN
-20426	CONFLICTING TEXT SEARCH ADMINISTRATION STORED PROCEDURE RUNNING ON THE SAME INDEX
-20427	ERROR OCCURRED DURING TEXT SEARCH ADMINISTRATION STORED PROCEDURE *error*
-20428	URI SPECIFIED IN THE XMLSCHEMA CLAUSE IS AN EMPTY STRING
-20430	GLOBAL VARIABLE *variable-name* CANNOT BE SET IN THIS CONTEXT
-20433	AN UNTYPED PARAMETER MARKER WAS SPECIFIED, BUT AN ASSUMED DATA TYPE CANNOT BE DETERMINED FROM ITS USE
-20434	AN UPDATE OPERATION HAS SET ALL OF ITS TARGET COLUMNS TO UNASSIGNED
-20435	THE SELECT CLAUSE INCLUDES MULTIPLE INVOCATIONS OF THE ARRAY_AGG FUNCTION AND ALL INVOCATIONS DO NOT SPECIFY THE SAME SORT KEYS.
-20436	THE DATA TYPE SPECIFIED FOR AN ARRAY TYPE IS NOT VALID.
-20437	AN ARRAY INDEX CANNOT BE APPLIED TO AN OBJECT THAT IS NOT AN ARRAY.
-20438	THE DATA TYPE OF THE EXPRESSION FOR AN ARRAY INDEX VALUE IS NOT CASTABLE TO THE DATA TYPE OF THE ARRAY INDEX.
-20439	AN ARRAY INDEX WITH VALUE *value* IS NULL, OUT OF RANGE OR DOES NOT EXIST.
-20440	THE ARRAY VALUE WITH CARDINALITY *cardinality* HAS TOO MANY ELEMENTS FOR THE REQUESTED OPERATION. THE MAXIMUM NUMBER OF ELEMENTS ALLOWED FOR THE REQUESTED OPERATION IS *value*.
-20441	*type-name* TYPE IS NOT VALID WHERE SPECIFIED. REASON CODE *reason-code*.
-20442	THERE IS NOT ENOUGH STORAGE TO REPRESENT THE ARRAY VALUE.
-20444	AN ERROR OCCURRED IN A KEY-EXPRESSION EVALUATION IN *index-name* INFORMATION RETURNED: SQLCODE: *sqlcode*, SQLSTATE: *sqlstate*, MESSAGE TOKEN *token-list* AND RID X *rid*
-20447	FORMAT STRING *format-string* IS NOT VALID FOR THE *function-name* FUNCTION
-20448	*string-expression* CANNOT BE INTERPRETED USING FORMAT STRING *format-string* FOR THE TIMESTAMP_FORMAT FUNCTION.
-20457	THE PROCEDURE *procedure-name* HAS ENCOUNTERED AN UNSUPPORTED VERSION, *version*, FOR PARAMETER *number*
-20465	THE BINARY XML VALUE IS INCOMPLETE OR CONTAINS UNRECOGNIZED DATA AT LOCATION *position* WITH THE HEX DATA *text*
-20467	THE STATEMENT WAS NOT EXECUTED BECAUSE AN EXPRESSION IS NOT A CONSTANT OR VARIABLE. THE INVALID EXPRESSION IS IN THE STATEMENT NEAR THE SYNTAX ELEMENT *syntax-element*
-20469	ROW OR COLUMN ACCESS CONTROL CANNOT BE ACTIVATED FOR TABLE *table-name* FOR REASON *reason-code*. *object-type object-name* IS NOT IN A VALID STATE FOR ACTIVATING ACCESS CONTROL FOR THIS TABLE
-20470	*object-type1 object-name1* MUST BE DEFINED AS SECURE BECAUSE *object-type2 object-name2* IS DEPENDENT ON IT
-20471	THE INSERT OR UPDATE IS NOT ALLOWED BECAUSE A RESULTING ROW DOES NOT SATISFY ROW PERMISSIONS
-20472	PERMISSION OR MASK *object-name* CANNOT BE ALTERED AS SPECIFIED. REASON CODE *reason-code*

-20473	THE INPUT ARGUMENT OF FUNCTION *function-name* THAT IS DEFINED WITH THE NOT-SECURED OPTION MUST NOT REFERENCE COLUMN *column-name* FOR WHICH A COLUMN MASK IS ENABLED AND THE COLUMN ACCESS CONTROL IS ACTIVATED FOR THE TABLE
-20474	PERMISSION OR MASK CANNOT BE CREATED FOR THE *object-name* OBJECT OF THE *object-type* TYPE. REASON CODE *reason-code*.
-20475	A COLUMN MASK IS ALREADY DEFINED FOR THE COLUMN *column-name* IN TABLE *table-name* (EXISTING MASK NAME *mask-name*)
-20476	THE *function-name* FUNCTION IS NOT ABLE TO USE FORMAT STRING *format-string* TO INTERPRET THE ARGUMENT *string-expression*.
-20478	THE STATEMENT CANNOT BE PROCESSED BECAUSE COLUMN MASK *mask-name* (DEFINED FOR COLUMN *column-name*) EXISTS AND THE COLUMN MASK CANNOT BE APPLIED OR THE DEFINITION OF THE MASK CONFLICTS WITH THE REQUESTED STATEMENT. REASON CODE *reason-code*.
-20479	THE SOURCE TABLE *table-name* CANNOT BE ALTERED AS SPECIFIED BECAUSE THE TABLE IS INVOLVED IN ROW OR COLUMN ACCESS CONTROLS. REASON CODE *reason-codereason-code*.
-20487	HASH ORGANIZATION CLAUSE IS NOT VALID FOR *table-name*
-20488	SPECIFIED HASH SPACE IS TOO LARGE FOR THE IMPLICITLY CREATED TABLE SPACE. REASON *reason-code*. (PARTITION *partition-number*)
-20490	A VERSIONING CLAUSE WAS SPECIFIED FOR TABLE *table-name*, BUT THE TABLE CANNOT BE USED AS A SYSTEM PERIOD TEMPORAL TABLE. REASON CODE = *reason-code*.
-20491	INVALID SPECIFICATION OF PERIOD *period-name*. REASON CODE = *reason-code*.
-20493	A TIMESTAMP WITHOUT TIME ZONE VALUE CANNOT BE ASSIGNED TO A TIMESTAMP WITH TIME ZONE TARGET
-20494	A PUBLIC ALIAS NAME, *name*, CAN ONLY BE QUALIFIED WITH SYSPUBLIC AND NOT THE SCHEMA NAME *schema-name*
-20497	A STRING REPRESENTATION OF A DATETIME VALUE THAT CONTAINS A TIME ZONE CANNOT BE IMPLICITLY CAST TO A TARGET DEFINED AS DATETIME WITHOUT TIME ZONE
-20505	THE WITH ORDINALITY CLAUSE IS NOT VALID WITH UNNEST OF AN ASSOCIATIVE ARRAY.
-20517	XMLMODIFY ATTEMPTED TO UPDATE A COLUMN WHICH WAS NOT SPECIFIED IN THE UPDATE SET CLAUSE
-20522	INVALID SPECIFICATION OF WITHOUT OVERLAPS CLAUSE. REASON CODE *reason-code*.
-20523	TABLE *table-name* WAS SPECIFIED AS A HISTORY TABLE, BUT THE TABLE DEFINITION IS NOT VALID FOR A HISTORY TABLE. REASON CODE = *reason-code*.
-20524	INVALID PERIOD SPECIFICATION OR PERIOD CLAUSE FOR PERIOD *period-name*. REASON CODE = *reason-code*.
-20525	THE REQUESTED ACTION IS NOT VALID FOR TABLE *table-name* BECAUSE THE TABLE IS THE WRONG TYPE OF TABLE. REASON CODE = *reason-code*
-20527	*period-name* IS NOT A PERIOD IN TABLE *table-name*
-20528	THE TARGET OF THE DATA CHANGE OPERATION IS A TABLE *table-name*, WHICH INCLUDES A PERIOD *period-name*. A ROW THAT THIS DATA CHANGE OPERATION ATTEMPTED TO MODIFY WAS ALSO MODIFIED BY ANOTHER TRANSACTION.
-20529	THE ARGUMENT OF THE WRAP FUNCTION OR CREATE_WRAPPED PROCEDURE IS NOT VALID
-20530	AN OBFUSCATED STATEMENT IS NOT VALID. REASON CODE= *reason-code*
-20531	THE VERSION NUMBER *actual-version* SPECIFIED IN A BINARY XML VALUE IS NOT SUPPORTED. THE HIGHEST SUPPORTED VERSION IS *supported-version*.

-20535	THE DATA CHANGE OPERATION *operation* IS NOT SUPPORTED FOR THE TARGET OBJECT *object-name* BECAUSE OF AN IMPLICIT OR EXPLICIT SYSTEM PERIOD SPECIFICATION INVOLVING *period-name*. REASON CODE: *reason-code*.
-20547	THE QUERY FAILED BECAUSE A NEGATIVE VALUE OR THE NULL VALUE IS USED IN THE *clause* CLAUSE
-20550	AN ARGUMENT, OR COMBINATION OF ARGUMENTS, SPECIFIED FOR THE *operator-name* OPERATOR ARE NOT VALID.
-20551	CONSTRUCTING AN ASSOCIATIVE ARRAY FAILED BECAUSE THE INPUT DATA INCLUDES AT LEAST ONE DUPLICATE ARRAY INDEX VALUE. DUPLICATED INDEX VALUE: *value*
-20553	AN ENABLE ARCHIVE CLAUSE WAS SPECIFIED FOR TABLE *table-name*, BUT THE TABLE CANNOT BE USED AS AN ARCHIVE-ENABLED TABLE. REASON CODE = *reason-code*.
-20554	TABLE *table-name* WAS SPECIFIED AS AN ARCHIVE TABLE, BUT THE TABLE DEFINITION IS NOT VALID FOR AN ARCHIVE TABLE. REASON CODE = *reason-code*.
-20555	AN ARCHIVE-ENABLED TABLE IS NOT ALLOWED IN THE SPECIFIED CONTEXT. REASON CODE *reason-code*.
-20565	THE REPLACEMENT VALUE FOR *built-in-global-var* IS INVALID
-20577	SQL DATA INSIGHTS HAS NOT BEEN CONFIGURED IN DB2, REASON *reason-code*
-20578	MODEL COLUMNS CANNOT BE DETERMINED FOR FUNCTION *function-name*
-20579	IN FUNCTION *function-name* MODEL COLUMN *column-name* FROM MODEL *model-name* CANNOT BE USED, REASON *reason-code*
-20580	IN AI FUNCTION *function-name*, ARGUMENT *n* IS NOT USABLE, REASON *reason-code*
-30000	EXECUTION FAILED DUE TO A DISTRIBUTION PROTOCOL ERROR THAT WILL NOT AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS OR SQL STATEMENTS: REASON *reason-code (sub-code)*
-30002	THE SQL STATEMENT CANNOT BE EXECUTED DUE TO A PRIOR CONDITION IN A CHAIN OF STATEMENTS
-30005	EXECUTION FAILED BECAUSE FUNCTION NOT SUPPORTED BY THE SERVER: LOCATION *location-name* PRODUCT ID *product-identifier* REASON *reason-code* (*sub-code*)
-30020	EXECUTION FAILED DUE TO A DISTRIBUTION PROTOCOL ERROR THAT CAUSED DEALLOCATION OF THE CONVERSATION: REASON < reason-code (sub-code)>
-30021	EXECUTION FAILED DUE TO A DISTRIBUTION PROTOCOL ERROR THAT WILL AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS OR SQL STATEMENTS: MANAGER manager AT LEVEL level NOT SUPPORTED ERROR
-30025	EXECUTION FAILED BECAUSE FUNCTION IS NOT SUPPORTED BY THE SERVER WHICH CAUSED TERMINATION OF THE CONNECTION: LOCATION *location* PRODUCT ID *pppvvrr* REASON *reason-code (sub-code)*
-30030	COMMIT REQUEST WAS UNSUCCESSFUL, A DISTRIBUTION PROTOCOL VIOLATION HAS BEEN DETECTED, THE CONVERSATION HAS BEEN DEALLOCATED. ORIGINAL SQLCODE= original-sqlcode AND ORIGINAL SQLSTATE= original-sqlstate
-30040	EXECUTION FAILED DUE TO UNAVAILABLE RESOURCES THAT WILL NOT AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS OR SQL STATEMENTS. REASON < reason-code> TYPE OF RESOURCE < resource-type> RESOURCE NAME < resource-name> PRODUCT ID < pppvvrrm> RDBNAME < rdbname>
-30041	EXECUTION FAILED DUE TO UNAVAILABLE RESOURCES THAT WILL AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS AND SQL STATEMENTS. REASON < reason-code> TYPE OF RESOURCE < resource-type> RESOURCE NAME < resource-name> PRODUCT ID < pppvvrrm> RDBNAME < rdbname>
-30045	EXECUTION FAILED BECAUSE THE DEFINITION OF OBJECT *object-name* OF TYPE *object-type* BEING ACCESSED AT *server-name-1* DIFFERS FROM THE DEFINITION OF THE OBJECT AT *server-name-2*

-30047	STATEMENT FAILED BECAUSE OBJECT OF TYPE *object-type* CANNOT BE ACCESSED USING DIFFERENT DISTRIBUTED PROTOCOLS ON A CONNECTION FROM *server-name-1* TO *server-name-2*
-30050	< command-or-SQL-statement-type> COMMAND OR SQL STATEMENT INVALID WHILE BIND PROCESS IN PROGRESS
-30051	BIND PROCESS WITH SPECIFIED PACKAGE NAME AND CONSISTENCY TOKEN NOT ACTIVE
-30052	PROGRAM PREPARATION ASSUMPTIONS ARE INCORRECT
-30053	OWNER AUTHORIZATION FAILURE
-30060	RDB AUTHORIZATION FAILURE
-30061	RDB NOT FOUND
-30062	RDB ACCESS FAILURE
-30070	< command> COMMAND NOT SUPPORTED ERROR
-30071	< object-type> OBJECT NOT SUPPORTED ERROR
-30072	< parameter>:< subcode> PARAMETER NOT SUPPORTED ERROR
-30073	< parameter>:< subcode> PARAMETER VALUE NOT SUPPORTED ERROR
-30074	REPLY MESSAGE WITH codepoint (svrcod) NOT SUPPORTED ERROR
-30080	COMMUNICATION ERROR code (subcode)
-30081	prot COMMUNICATION ERROR DETECTED. API= api, LOCATION= loc, FUNCTION= func, ERROR CODES= rc1 rc2 rc3
-30082	CONNECTION FAILED FOR SECURITY REASON reason-code (reason-string)
-30090	REMOTE OPERATION INVALID FOR APPLICATION EXECUTION ENVIRONMENT
-30104	ERROR IN BIND OPTION option AND BIND VALUE value
-30105	BIND OPTION option1 IS NOT ALLOWED WITH BIND OPTION
-30106	INVALID INPUT DATA DETECTED FOR A MULTIPLE ROW INSERT OPERATION. INSERT PROCESSING IS TERMINATED

Resource Types

Type Code	Type of Resource	Name, Content, Format
00000100	Database	DB
00000200	Table space	DB.SP
00000201	Index space	DB.SP
00000202	Table space	RD.DB.TS
00000205	Compression Dictionary	DB.SP
00000210	Partition	DB.SP.PT
00000220	Data set	DSN
00000230	Temporary file	SZ
00000240	Database procedure	DBP
00000300	Page	DB.SP.PG
00000301	Index minipage	DB.SP.PG.MP
00000302	Table space page	DB.SP.PG
00000303	Index space page	DB.SP.PG
00000304	Table space RID	DB.SP.RID
00000305	Index access/table space RID	DB.SP.RID
00000306	Index access/table space page	DB.SP.PG
00000307	Index space EOF	DB.SP.01
00000308	Table space page	DB.SP.PT.PG
00000309	Index space page	DB.SP.PT.PG
0000030A	Table space RID	DB.SP.PT.RID
00000400	ICF catalog	IC
00000401	Authorization function	

00000402	Security Server	SAF/RACF return/reason codes
00000500	Storage group	SG
00000600	EDM pool space	
00000602	EDM DBD Space	
00000603	EDM DYNAMIC STATEMENT Space	
00000604	EDM skeleton storage	
00000605	EDM above-the-bar	
00000606	EDM below-th-bar	
00000700	Buffer pool space	BP
00000701	Group buffer pool	GBP
00000800	Plan	PL
00000801	Package	COLLECTION. PACKAGE. CONTOKEN
00000802	BINDLOCK01 through BINDLOCK20	BINDLOCK01 through BINDLOCK20
00000900	32KB data area	
00000901	Sort storage	
00000903	Hash anchor	DB.SP.PG.AI
00000904	RIDLIST storage	
00000905	IRLM storage	
00000906	Db2	MEMBER
00000907	Data Space	MEMBER
00000908	Basic Floating Point Extensions Facility	
00000909	Extended Time-of-Day (TOD) Clock	
0000090A	XML storage	
00000A00	Table	RD.CR.TB
00000A10	Alias	RELDEP. OWNER. ALIAS. RD.CR.AL
00000A11	Distinct type	SC.DT
00000A12	User-defined function	SC.SN
00000A13	Stored procedure	SC.SN
00000A14	Sequence	
00000B00	View	RD.CR.VW
00000C00	Index	RD.CR.IX
00000C01	Index	CR.IX
00000D00	DBID/OBID	RD.DI.OI
00000D01	DBID/OBID	DI.OI
00000D02	OBID	OI
00000E00	SU limit exceeded	CN
00000F00	Auxiliary column	DI.OI. ROWID. COLN DI.OI.DOCID.COLN
00000F01	LOB lock	DIX.PIX. ROWID. VRSN
00000F81	XML Lock	DIX.PIX.DOCID
00001000	DDF	LOCATION or SUBSYSTEM ID
00001001	System conversation	LU.MODE. RTNCD. FDBK2. RCPRI. RCSEC. SENSE
00001002	Agent conversation	LU.MODE. RTNCD. FDBK2. RCPRI. RCSEC. SENSE
00001003	CNOS processing	LU. MODE. RTNCD. FDBK2. RCPRI. RCSEC. SENSE
00001004	CDB (Communication database)	LOCATION. AUTHORIZATION ID. PL
00001005	DB access agent	LOCATION
00001007	TCP/IP domain name	LINKNAME. DOMAIN. ERRNO
00001008	TCP/IP service name	LOCATION. SERVICE. ERRNO

00001080	ACCEL	SERVER.DOMAIN
00001102	Bootstrap data set (BSDS)	MEMBER
00002000	Table space CS-claim class	DB.SP
00002001	Table space RR-claim class	DB.SP
00002002	Table space write-claim class	DB.SP
00002003	Index space CS-claim class	DB.SP
00002004	Index space RR-claim class	DB.SP
00002005	Index space write-claim class	DB.SP
00002006	Table space partition CS-claim class	DB.SP.PT
00002007	Table space partition RR-claim class	DB.SP.PT
00002008	Table space partition write-claim class	DB.SP.PT
00002009	Index space partition CS-claim class	DB.SP.PT
00002010	Index space partition RR-claim class	DB.SP.PT
00002011	Index space partition Write-claim class	DB.SP.PT
00002100	Table space DBET entry	DB.SP
00002101	Index space DBET entry	DB.SP
00002102	Table space partition DBET entry	DB.SP.PT
00002103	Index space partition DBET entry	DB.SP.PT
00002104	DBET hash chain lock timeout	INTERNAL LOCK NN
00002105	Logical partition DBET entry	DB.SP.PT
00002200	Routine Parameter Storage	DBP
00002201	Debug Agent Storage	DBP
00002300	ICSF encryption and decryption facilities	
00003000	Code (release maintenance level or system parameter)	REL, APAR, ZPARM
00003002	Number of Stored Procedures	
00003072	Index	
00003073	Index	
00003328	Release dependency	
00003329	DBID/OBID	DI.OI
00003330	OBID limit exceeded	
00003840	LOB column	
00004000	Profile exception threshold exceeded	PID.PTYPE.PNAME
00004001	Access List Entry	ALET