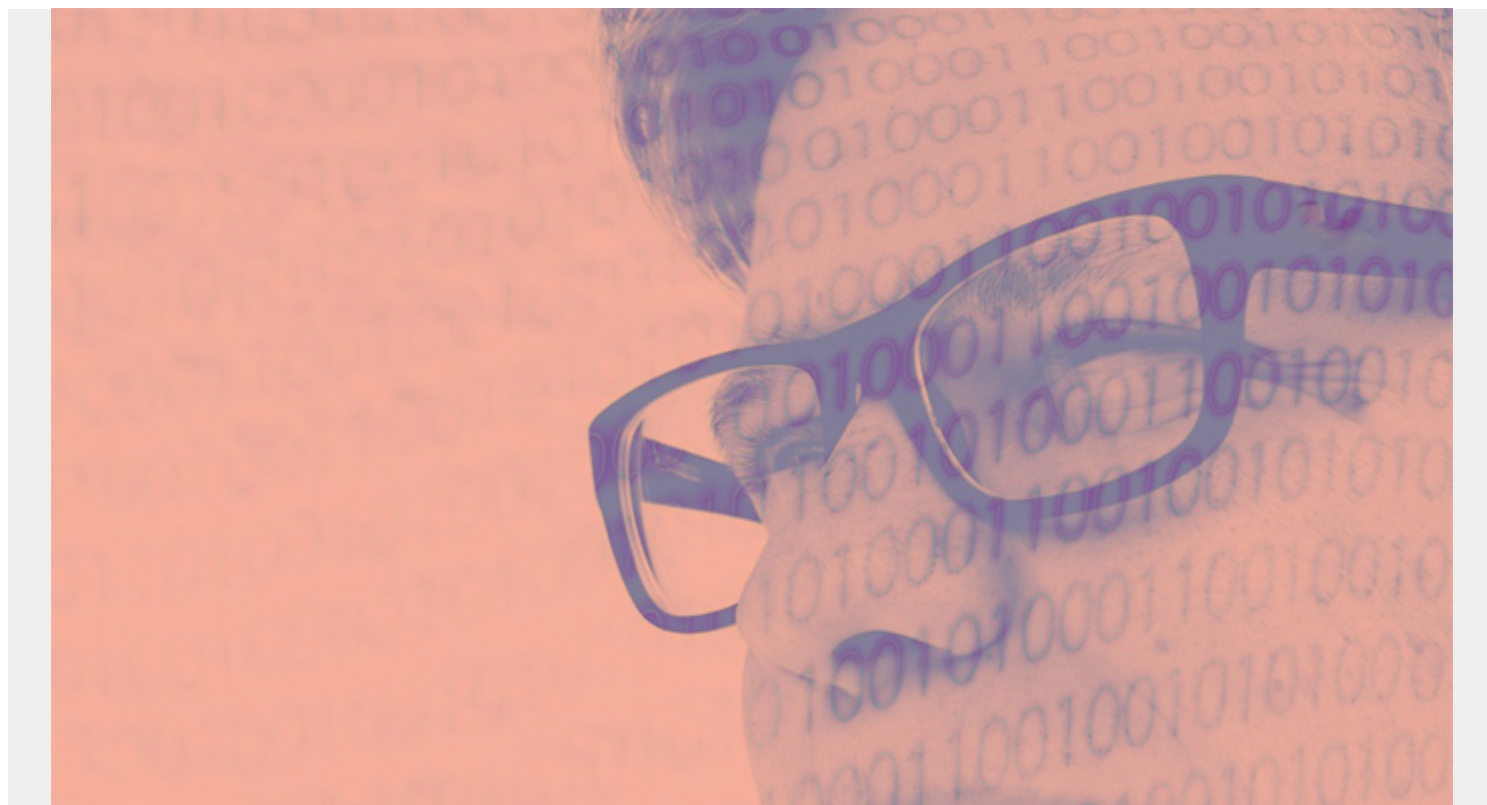


IBM UTILITIES IN DB2 12



(This article is part of our [Db2 Guide](#). Use the right-hand menu to navigate.)

BACKUP SYSTEM

```
. -FULL-----.
>>-BACKUP SYSTEM--+-----+-----+-----+----->
                        '-DATA ONLY-'  +-ESTABLISH INCREMENTAL-+
                        '-END INCREMENTAL-----'

>--+-----+-----+-----+-----+----->
    +--ALTERNATE_CP (copy-pool)--+-----+-----+-----+
                                '-DBBSG(stogroup)-'  '-LGBSG(stogroup-'
>--+-----+-----+-----+-----+-----><
+-FORCE-----+-----+-----+-----+ +--DUMP-----+
-----+-----+-----+-----+ | '- dumpclass-spec---+ '-
FORCE-' | '-DUMPNONLY--+-----+-----+-----+' '-
TOKEN- (X'byte-string')' '- dumpclass-spec --' dumpclass-spec: >--DUMPCCLASS-(-
-dc1---)----->< | -dc2- |
                | -dc3- |
                | -dc4- |
                | -dc5- |
```

CATMAINT

[illegible]

CHECK DATA

```

      V                                     I
>>-CHECK--DATA---table-space-spec--+-----+----->
                                   '-PART--integer-' .
                                           .--SHRLEVEL-REFERENCE-.
>+-----+-----+-----+-----+-----+----->
I -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-'

```



```

                                '-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-' '-FGCOPYDDN(ddname)-' Concurrent-spec: >>-+LIST--listdef-
name--data-set-spec-----+----->
    | .----- . |
    | V          .-DSNUM--ALL----- . | |
    '---+table-space-spec+--+-----+-----+-----+-----+-----+-----+
        '-index-name-spec--' '-DSNUM--integer-----'

>-data-set-spec--FILTERDDN--(ddname)--CONCURRENT-----
->< Data-set spec: >>-+COPYDDN(+ddname1-----+--+-----+--+)-+-----
-----+--+----->< |          |          '-
,ddname-' | '-RECOVERYDDN(+ddname3--+-----+--+)-' |
    |          '-,ddname2-----' |          '-
,ddname4-' | |
    |          |          '-,ddname4-----
-----' |
    '-RECOVERYDDN(-|ddname3--+-----+--+)------
-----'
                |          '-,ddname4-' |
                '-ddname4-----'
```

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-----+-----+)-+
-----+----->< | |
'-,ddname-' | '-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-' 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-space: >>-INDEX--+-+-----+--index-
name----->< '-creator-id.-'

```

LOAD

```

      .-DATA-.      .-INDDN--SYSREC----- .
>>-LOAD--+-+-----+--+-----+--+-----+----->
      +-INDDN--ddname-----+ '-PREFORMAT-'
      +-INCURSOR--cursor-name-+

      .-PRESORTED--NO-- .
>-+-----+--+-----+--+-----+----->
  |      .-1----- . | '-PRESORTED--YES-'
  '-COPYDICTIONARY--+-integer-+-'

>-+-----+--+-----+--+-----+----->
  '-PARALLEL--+-+-----+' '-ROWFORMAT--+-BRF-+-'
      '-(num-subtasks)-'      '-RRF-'

>-+-----+--+-----+--+-----+----->
  '-RBALRSN_CONVERSION--+-NONE-----+'
      +-BASIC-----+
      '-EXTENDED-'

>-+-----+--+-----+--+-----+----->
  '-I flashcopy-spec |--+-+-----+--+-----+----->
      '-KEEPDICTIONARY-' '-REUSE-'

      .-LOG--YES----- .
>-+-----+--+-----+--+-----+----->
  '-LOG--NO--+-+-----+'
      '-NOCOPYPEND-'

      (1)
      .-SORTKEYS--0----- .-FLOAT(S390)- .
>-+-----+--+-----+--+-----+----->
  +-SORTKEYS--NO-----+      '-FLOAT(IEEE)-'
  '-SORTKEYS--integer-'

```

```

.-EBCDIC-.
>--+-----+--+-----+--+-----+--+-----+----->
+-ASCII---+ |      ,-----, |  '-NOSUBS-'
'-UNICODE-' |      V      |  |
              '-CCSID(---integer+-)-'

.-ENFORCE-CONSTRAINTS-.  .-ERRDDN--SYSERR-.
>--+-----+--+-----+--+-----+----->
'-ENFORCE--NO-----'  '-ERRDDN--ddname-'

.-MAPDDN--SYSMAP-.  .-DISCARDN--SYSDISC-.
>--+-----+--+-----+--+-----+----->
'-MAPDDN--ddname-'  '-DISCARDN--ddname--'

.-DISCARDS--0-----,
>--+-----+--+-----+--+-----+----->
'-DISCARDS--integer-'  '-SORTDEVT--device-type-'

>--+-----+--+-----+--+-----+----->
'-SORTNUM--integer-'

>--+-----+--+-----+--+-----+----->
'-CONTINUEIF(start+-----+)=+X'byte-string'-----+-'
              '-:end-'  '-'character-string'-'

>--+-----+--+-----+--+-----+----->
'-IGNORE(WHEN)-'  '-I decfloat-spec I-'

>--+-----+--+-----+--+-----+----->
'-I override-spec I-'

.-INDEXDEFER--NONE-----,
>--+-----+--+-----+--+-----+----->
'-INDEXDEFER--+-NPI+--+-----+-'
              '-ALL-'  '-NONUNIQUE-'

>--+-----+--+-----+--+-----+----->
'-IMPLICIT_TZ--'timezone-string'-

V      I
>----I INTO-TABLE-spec I+----->< Resume-
spec: .-RESUME--NO-.  .-SHRLEVEL-NONE-. >>--+-----+--+-----+
+-----+--+-----+--+-----+--+>< I '-REPLACE-' 'copy-spec' '-stats-'
I I .-BACKOUT--NO-----, .-SHRLEVEL--NONE---, I '-RESUME--YES--+-----
-----+--+-----+--+-----+--+-----' I .-YES-. I '-SHRLEVEL--CHANGE-' '-
BACKOUT--+-+-----+-' Labelled-duration-expression >>+-CURRENT_DATE-----

```

```

-----+----->
'-CURRENT_TIMESTAMP-+-----+
'-WITH TIME ZONE-'

.-----,
V                                         I
>-----+ + -+-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--+ACCESPATH--+
+-SPACE-----+
+-NONE-----+
.-INVALIDATECACHE-NO--.
>--+-----+----->
'-INVALIDATECACHE YES-' '-HISTORY--+ALL-----+-'
+-ACCESSPATH--+
+-SPACE-----+
'-NONE-----'

```



```

-----+ +-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--+-----+-----+-----+----->
          'PERIODOVERRIDE-' '-TRANSIDOVERRIDE-'
          .-IGNOREFIELDS--NO--.
>--+-----+----->
          '-IGNOREFIELDS--YES-'

>--+-----+-----
-----+>
          |                                     .-INDDN -SYSREC-----
---. |
          '-PART-integer--+-----+--resume-spec--+-----
-----+-'
          ' -PREFORMAT-'                                     +-INDDN-ddname+-----
-----++
                                     |                                     '-
DISCARDN-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-+-+-----+-----+-----+-----+-----+
-----+
|          '-EXTERNAL-' '-(length)-'          '-CCSID 1200-'
|
+-VARGRAPHIC--strip-spec--+-+-----+-----+-----+
-----+
|          '-CCSID 1200-'
|
+-SMALLINT-----+
-----+
+-INTEGER-+-+-----+-----+-----+
-----+
|          '-EXTERNAL-+-+-----+-----+'
|
|          .-(length)-'
|
+-BIGINT-----+
-----+
+-BINARY-+-+-----+-----+-----+-----+
-----+
|          '-(length)-'
|
+-+VARBINARY-----+-----+-----+-----+
-----+
| '-BINARY VARYING-'
|
+-decimal-spec-----+
-----+
+-FLOAT-+-+-----+-----+-----+
-----+
|          '-EXTERNAL-' '-(length)-'
|
+-DATE--EXTERNAL--+-+-----+-----+-----+
-----+
|          '-(--+length-----+)-'
|
|          '-date-format-'
|
+-TIME--EXTERNAL--+-+-----+-----+-----+
-----+

```

```

|          '-(+-length-----+)-'
|
|          '-timestamp-format-'
|
+-TIMESTAMP-WITH-TIME-ZONE--EXTERNAL--+------+-----+-----+
-----+
|          '-(length)-'
|
+-ROWID-----+
-----+
+-BLOB-----+
-----+
+-CLOB-+------+-----+-----+
-----+
|          '-MIXED--+------+--'
|
|          '-CCSID 1208-'
|
+-DBCLOB-+------+-----+-----+
-----+
|          '-CCSID 1208-'
|
|          .-(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-+------+-----+-----+-----+-----+-----+-----'

```



```

>--+-----+--+-----+----->
  '-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-table-name-+
  |      ' -database-name.-'      |
  ' -INDEX--+-----+--index-name-----'
      ' -creator-id.-'
>--DELETE--+ALL-----+--+AGE--+ (integer) -+-+-----><
+-ACCESSPATH-+ |      '-(*)-----' |
      ' -SPACE-----' ' -DATE--+ (integer) -+-'
              '-(*)-----'

```

OPTIONS

```

>>-OPTIONS----->
>+-+-----+--+-----+--+-----+--+-----+--+><
| ' -PREVIEW-' ' -LISTDEFD-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-'

```


'-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 |-----, | |
| '---object+-----+-----' |
| '-DSNUM--integer-----' |
| |-----, |
+-object--+-----+-----recover-options-spec-----+
| '-DSNUM--integer-----' |
'-object--PAGE--page-number--+-----+-----'
'-CONTINUE-'
.-LOGRANGES--YES-----.
```



```
-->
'-REUSE-' '-CURRENTCOPYONLY-' '-ENFORCE--NO--'

>--+-----+----->
'-NOSYSCOPY--+-----+'
      +-INLCOPY-+
      '-FCCOPY--'

>--+-----+----->< '-
FLASHCOPY_PRCP--+--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----.  
>--+-----+--+-----+----->  
    '-LONGLOG--+TERM--+-'     '-DELAY--integer-'  
        '-DRAIN-'  
  
    .-LOGRANGES--YES-..  
>--+-----+----->  
    '-LOGRANGES--NO--'  
  
    .-SWITCHTIME--NONE-----.,  
>--+-----+-----+-----+-----><  
I .-NEWMAXRO--NONE----. I '-SWITCHTIME--+timestamp-----+--+--  
-----+' '-'labeled-duration-expression-' '-NEWMAXRO--integer-'  
Labelled-duration-expression >>+-CURRENT_DATE-----  
----->  
    '-CURENT_TIMESTAMP--+-----+-----'  
                        '-WITH TIME ZONE-'  
  
    ,-----,  
V                      I  
>-----+ + ---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-----, >-+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----, | | 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--'                                     |
'-+-----+-----+-----+-----+-----+-----+-----+-----+-----+
  '-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-----.                |
    '-OFFPOSTLIMIT--+-+-----+--INDREFLIMIT--+-+-----+--+-----+--'
                    '-integer-'                 '-integer-' '-REPORTONLY-'
    .-UNLOAD--CONTINUE--.

>--+--+-----+--+-----+--+-----+--+-----+--+----->
    | |              (1) |  '-KEEPDICTIONARY-'  '-| statistics-spec |-'|
    | '-UNLOAD--PAUSE-----'                                     |
+-UNLOAD--ONLY-----+
'-UNLOAD--EXTERNAL--+-+-----+--+-----+--+-----+'
                        '-NOPAD-' | .-----|. |
                               | V             | |
                               '---| FROM-TABLE-spec |--+'

    .-PUNCHDDN--SYSPUNCH-.   .-DISCARDDB--SYSDISC-.
>--+-----+--+-----+-----+----->
->
    '-PUNCHDDN--ddname---'   '-DISCARDDB--ddname--'

>--+-----+-----+-----+-----+----->
->
    '-| reorg tablespace options |-'
```

```

>--+-----+
->
    |                                     . |
    |                                     V   | |
' -DISCARD--+-+---+---| FROM-TABLE-spec |+-+'
              '-NOPAD-'
      .-PARALLEL=0-----
>--+-----+
->
    ' -PARALLEL-- (--num-subtasks--) - '

```

Copy - spec

[illegible]

[illegible]

FROM-TABLE spec

```
>>-FROM--TABLE--table-name-----
->
>--+-----+-----
->< '-WHEN--(--selection-condition-spec--)-' Selection-condition spec >>+-
predicate-----+----->
    '-selection condition-'
        .-----.
        V               I
>--+-----+-----+-----><
'-+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 I >>-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-'
                                   I -RRF- I
>--+-----+-----+-----><
'-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--++-----++-+-----+-----+----->< '-
+-----++-+-----+-----+-----+----->>-+-
-----+----->
        '-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--NUMQUANTITIES--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-----'
```

```

      . ,----- .
      V             I
>>-STOSPACE--STOGR0UP(+--+stogroup-name+--+)------
-->< '-----'

```

```

>>-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-----' '-MODELDB--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--+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+'
             '-(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-'      |

```



```

'-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-condition spec

IN predicate

```
      . ,----- .  
      V           I  
>>-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           I  
>---+- + -+--constant--+--YEAR-----+--+-----><  
+-YEARS-----+  
      +-MONTH-----+  
      +-MONTHS-----+  
      +-DAY-----+  
      +-DAYS-----+  
      +-HOUR-----+  
      +-HOURS-----+  
      +-MINUTE-----+  
      +-MINUTES-----+  
      +-SECOND-----+  
      +-SECONDS-----+  
      +-MICROSECOND--+  
      +-MICROSECONDS--+
```

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