CA Dataquery™ for CA Datacom®

Quick Reference Guide

Version 14.02

ca technologies

CA Technologies Product References

This document references the following CA products:

- CA Datacom®/DB
- CA Datacom® STAR
- CA Dataquery™ for CA Datacom® (CA Dataquery)
- CA ACF2™
- CA Top Secret®

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CA Dataquery in the CA Datacom System

System Table Batch Utilities

DQLANGMT

Used to maintain the DQM, DQP and DQV tables for CA Dataquery for CA Datacom language maintenance.

DQLIBRMT

Used to maintain the CA Dataquery for CA Datacom DQQ table for CA Dataquery for CA Datacom library maintenance.

DQWFINIT

Used to maintain the DQE, DQF, and DQW tables for Found Table Initialization.

DQUSERMT

Used to maintain the DQU tables for user maintenance.

DQCRRPT

Used to submit Condition and Restriction reports.

DQPANPRT

Used to print CA Dataquery for CA Datacom Panels.

Audit Facility

Location	Length	Format	Content
1	4	Binary	Work Area Length
5	32	Char	User ID Internal Security: Person External Security: Blank (ID can be obtained from the RXX Header)
37	9	Char	Blank (reserved for future)
46	1	Char	Environment O = Online B = Batch

Location	Length	Format	Content
47	15	Char	Query Name
62	39	Char	Blank (reserved for future)
101	2	Binary	Length of the query text that follows
103	7680	Char	Text of the query
7783	218	Char	Blank (reserved for future)

DQOPTLST Parameters

Following are descriptions of the DQOPTLST parameters, their valid entries, and their default values. They are listed in alphabetical order.

ASUPPRO=

Specifies whether associate users can modify their own user profile and print options.

Valid Entries:

NO or YES

Default Value:

NO

AUDIT1=

Specifies whether the Audit Facility is to be active.

Valid Entries:

OFF or ON

Default Value:

OFF

BTCHLPX=

Specifies the name of the module if the exit is to be linked as a separate module,. The module is used in the Batch Line Printer Exit.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

BUFSIZE=

Specifies the amount of space to be reserved in task-related storage for a special work area used as an input row buffer.

Code BUFSIZE as the length of the largest user CA Datacom/DB row to be accessed by CA Dataquery for CA Datacom. The value should not be larger than what is coded in DATALN in the CA Datacom/DB Master List. Also, the value should not be smaller than what is coded for DQESIZE=.

Valid Entries:

4600 or greater

Default Value:

4600

CADATE=

Specifies the format used to display columns which are defined as date fields with the SEMANTIC-TYPE attribute. For more information about the updateable attributes of FIELD entity-occurrences, see the *CA Datacom Datadictionary Online Reference Guide*.

Valid Entries:

1- to 30-character format name

Default Value:

A

CDBIDSL=

Specifies that database IDs greater than 999 are to be used by the DBID exit. For more information about the DBID exit see the descriptions of CDBXITB= and CDBXITO= and the information about the DBID exit in DBID Exit.

Valid Entries:

NO or YES

Default Value:

NO

CDBXITB=

Specifies the name of batch DBID exit. Must not be the same as any CA Dataquery for CA Datacom module name.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

CDBXITO=

Specifies the name of the online DBID exit. Must be in PPT and must not be the same as any CA Dataquery for CA Datacom module name.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

CMTBEG=

Specifies one or two characters to indicate the beginning of a comment within the text of a query. The value must be unique among CMTEND=, DIAFILL=, DIASYMB=, HDGSEP=, HDGSUB=, and LITMASK=.

Valid Entries:

One or two characters

Do not use:

- The letters A through Z
- The integers 0 through 9
- A period (.), a comma (,), or a single quote mark (')

You must not code a single arithmetic operator (= - + / *). You may use - and + and / and * *together* for two character values. However, in a z/VSE environment, changing the COMMENT BEGIN character to /* causes problems when using the CA Dataquery for CA Datacom online SUBMIT function.

Default Value:

*/

CMTEND=

Specifies one or two characters to indicate the end of a comment within a query. The value must be unique among CMTBEG=, DIAFILL=, DIASYMB=, HDGSEP=, HDGSUB=, and LITMASK=.

Valid Entries:

One or two characters

Do not use:

- The letters A through Z
- The integers 0 through 9
- A period (.), a comma (,), or a single quote mark (')

You must not code a single arithmetic operator (= - + / *). You can use - and + and / and * *together* for two character values.

Default Value:

/*

CONVUSR=

Specifies the level of access provided when the external security resource cxxname.DQACCESS.CONVUSR is specified with "ALL" access. See the *[assign the DAT variable value for your book] Security Reference Guide* for more details about CA Dataquery for CA Datacom and external security.

Valid Entries:

ASSOCIATE

Default Value:

CONVENTIONAL

DATAXIT=

Specifies the name of the user exit to examine the data rows retrieved by a DQL Mode query. The name must be in the PPT and not the same as any CA Dataquery for CA Datacom module.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

DATEFMT=

Specifies the format to use to print columns in DQL Mode and SQL Mode which are defined as SQL date types.

Valid Entries:

EUR (dd.mm.yyyy)
ISO (yyyy-mm-dd)
JIS (yyyy-mm-dd)
USA (mm/dd/yyyy)

Default Value:

USA

DDDBID=

Specifies the CA Datacom/DB database ID for the CA Datacom Datadictionary ordinarily accessed by CA Dataquery for CA Datacom. Normally you would identify the locaCA Datacom Datadictionary database. This is the CA Datacom Datadictionary in which all CA Dataquery for CA Datacom DQL Mode security information is stored regardless of the DDDBID specified in the user's profile.

Valid Entries:

A valid database ID

Default Value:

00002

DDHDG=

Specifies the method CA Dataquery for CA Datacom is to use to build the PRINT or DISPLAY column headings if the query does not specify a heading. (If the query provides the heading, CA Dataquery for CA Datacom uses it no matter how this parameter is coded.) The value consists of two subparameters separated by a comma and enclosed within parentheses.

Note: YES is honored only if the appropriate values have been coded for the column heading attributes HEADING-1 and HEADING-2 in CA Datacom Datadictionary. If none have been coded, CA Dataquery for CA Datacom takes the NO option.

Valid Entries:

(YES,1) -- CA Dataquery for CA Datacom obtains the heading from the CA Datacom Datadictionary column heading attribute HEADING-1.

(YES,2) -- CA Dataquery for CA Datacom uses the headings from the CA Datacom Datadictionary HEADING-1 and HEADING-2 column heading attributes.

(NO,1) or (NO,2) -- CA Dataquery for CA Datacom uses either an alternate name specified within the query or the occurrence name of the column or key, in that order.

Default Value:

(YES, 2)

DDPIC=

Specifies the edit pattern CA Dataquery for CA Datacom is to use for numeric columns if no edit pattern is specified in the query. (If an edit pattern is specified in the query with the PICTURE clause, CA Dataquery for CA Datacom uses it no matter how this parameter is coded.)

If you code YES, CA Dataquery for CA Datacom uses the edit pattern coded in CA Datacom Datadictionary. If the column has an invalid edit pattern in CA Datacom Datadictionary (one that does not fit the data), CA Dataquery for CA Datacom issues an error message and does not process the query.

If you code YES but no edit pattern is provided in CA Datacom Datadictionary, CA Dataquery for CA Datacom builds its own edit pattern as described in the NO option.

If you code NO, CA Dataquery for CA Datacom checks with CA Datacom Datadictionary to get the defined precision and builds a PICTURE that displays all digit positions and inserts a decimal point and sign if needed.

Valid Entries:

NO or YES

Default Value:

YES

DECPT=

*(Code only if using a language other than English.) S*pecifies the character to use to indicate the decimal point when printing numeric values. DECPT= is used only in conjunction with the Language Maintenance Facility.

Valid Entries:

The words PERIOD or COMMA

Default Value:

PERIOD

DIAFILL=

Specifies a dialog fill character, used in the dialog text as a space saver for variables so that values longer than their default are allowed. Use this parameter to set the dialog fill character for your site. (See the *CA Dataquery for CA Datacom User Guide* or *CA Dataquery for CA Datacom Reference Guide* for information about dialogs.) The value must be unique among LITMASK= and DIASYMB=, and it must not be the same as any part of the values assigned to CMTBEG= and CMTEND=.

Valid Entries:

Single character

Do not use:

- The letters A through Z
- The integers 0 through 9
- A period (.), a comma (,), or a single quote mark (')
- An arithmetic operator (= - + / *)

Default Value:

An underscore character (_)

DIASYMB=

Specifies a dialog symbol, used in the dialog text to mark a word or value as a variable. Use this parameter to set the dialog symbol for your site. The specified value must be unique among LITMASK= and DIAFILL= and must not be the same as any part of the values assigned to CMTBEG= and CMTEND=.

Valid Entries:

Single character

- The letters A through Z
- The integers 0 through 9
- A period (.), a comma (,), or a single quote mark (')
- An arithmetic operator (= - + / *)

Default Value:

? (A question mark character)

DQDBID=

Specifies the CA Datacom/DB database ID for the CA Dataquery for CA Datacom database.

Valid Entries:

A valid database ID

Default Value:

00003

DQESIZE=

Specifies the record size of the DQE table (block size minus 14). At installation, the block size is set to 4096. A record size 4082 means the largest total column length for data is 4030 (record size minus 52). If this is not sufficient for SQL retrieval of one row, redefine the DQE table through CA Datacom Datadictionary, reallocate and reinitiate the DQE table, and change this parameter to reflect the new size.

Valid Entries:

(Block size of DQE) minus 14

Default Value:

4082

DQIN=

Specifies the transaction ID to use in place of the DQIN transaction on this CA Dataquery for CA Datacom system.

Valid Entries:

Any 1- to 4-character TRANSID

Default Value:

DQIN

DQPR=

Specifies the transaction ID to use in place of the DQPR transaction on this CA Dataquery for CA Datacom system.

Valid Entries:

Any 1- to 4-character TRANSID

Default Value:

DQPR

DQRY=

Specifies the transaction ID to use in place of the DQRY transaction on this CA Dataquery for CA Datacom system.

Valid Entries:

Any 1- to 4-character TRANSID

Default Value:

DQRY

DSIEXIT=

Specifies the name of the Data Stream Input Exit, if any. Must be in CICS PPT and not the same as any CA Dataquery for CA Datacom module.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

DSOEXIT=

Specifies the name of the Data Stream Output Exit, if any. Must be in CICS PPT and must not be the same name as any CA Dataquery for CA Datacom module.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

EPAGES=

This parameter is no longer used but is kept for compatibility.

ETMSO=

Specifies the number of minutes that may elapse between entries to the terminal. If the specified time is reached, CA Dataquery for CA Datacom signs off the user the next time an entry is made at the terminal. Thus CA Dataquery for CA Datacom prevents an unauthorized user from accessing data if the user who signed on leaves the terminal unattended for the specified length of time.

Valid Entries:

1—1440

Default Value:

1440

EXPDELM=

Specifies the name of the character to use as a delimiter in the batch export file. It is used as a delimiter between variables when the export function is used in batch CA Dataquery for CA Datacom. It is also used in all records: header, data, and trailer.

Valid Entries:

Any character except commas

Default Value:

, (comma)

EXPDEV=

(z/VSE only) Specifies the device type used by batch CA Dataquery for CA Datacom for export data sets. You can change it on the Batch Execute panel if your JCL supports the selected device type. The device type specified in this parameter is used for *all* deferred batch jobs.

Valid Entries:

DISK or TAPE

Default Value:

TAPE

FNDBLKS=

(Online only.) Specifies the total number of logical blocks on the DQF (Found Table) one user can allocate during processing of the FIND statement of a query. This limit ensures adequate space for all the users. When the limit is exceeded, CA Dataquery for CA Datacom ends the search with one of two messages, either:

```
DQ472I - LIMIT EXCEEDED - FOUND NNNNNN, or
DQ478I - LIMIT EXCEEDED - NO ROWS FOUND.
```

These messages are also generated whenever the limits set in the MFTIME= or SRCHLIM= parameter are exceeded. To find out if the message you receive has been generated by a FNDBLKS=, MFTIME=, or SRCHLIM= limit, either use a PF key from the Print Output panel, or view the Find Statistics panel by issuing the STATS command and check the FIND TERMINATED BECAUSE column for one of the following:

```
FNDBLKS: MAX WORK TABLE BLOCKS EXCEEDED
MFTIME: MAX ELAPSED TIME EXCEEDED
SRCHLIM: SITE I/O LIMIT (DQOPTLST.SRCHLIM) EXCEEDED
```

To estimate the total number of logical rows that can be stored per logical block, use the following formula:

```
 ROWS = 760 / [ 6 + (n x 18) ]
```

where x is the number of tables named in the query.

For example, if the user names one table in a query (no RELATED, SET, or SORT statements), then:

```
ROWS = 760 / [ 6 + (1 x 18) ] = 33
```

Thus, if the default value for FNDBLKS is used (10 logical blocks), up to 330 logical rows could be stored by a user with one execution of a FIND that names only one row type.

This parameter sets the system default. You can override this value for specified users individually. See the *CA Dataquery for CA Datacom Administration Guide*. If you override, consider the extra blocks when you allocate space.

Valid Entries:

1—9999999

Default Value:

10

HDGSEP=

Specifies a separator character to be used to separate line one and line two of a two-line column heading for a column or key when it is specified in the text of a query. If a single character is used for CMTBEG= and/or CMTEND=, the same character should not be used for HDGSEP=.

See the *CA Dataquery for CA Datacom User Guide* or *CA Dataquery for CA Datacom Reference Guide* for more information about specifying column headings.

Valid Entries:

Single character

Do not use:

- The letters A through Z
- The integers 0 through 9
- A period (.), a comma (,), or a single quote mark (')

Default Value:

/ (a slash)

HDGSUB=

Specifies two characters that indicate to CA Dataquery for CA Datacom that it should substitute the value of the control break column of a DO statement for the two characters. If two characters are used for CMTBEG= or CMTEND=, the same two characters should not be used for HDGSUB=. If a single character is used for CMTBEG= or CMTEND=, that character should not be used in HDGSUB=.

See the *CA Dataquery for CA Datacom User Guide* or *CA Dataquery for CA Datacom Reference Guide* for more information about the DO statement.

Valid Entries:

Two characters

Do not use:

- The letters A through Z
- The integers 0 through 9
- A period (.), a comma (,), or a single quote mark (')

Default Value:

&& (two ampersands)

KANJISI=

Specifies the hex value of the code which causes the terminal to shift into double byte character mode.

Valid Entries:

0F

Default Value:

(No default)

Note: These values are supplied by the CA Datacom/DB MUF, overlaying what is specified here.

KANJISO=

Specifies the hex value of the code which causes the terminal to shift out of double byte character mode.

Valid Entries:

0E

Default Value:

(No default)

Note: These values are supplied by the CA Datacom/DB MUF, overlaying what is specified here.

LINPRTL=

Specifies the length of each line for the printing of a batch query. This parameter is equivalent to NETPRTC= for a network printer.

Valid Entries:

80—150

Default Value:

133

LINPRTP=

Specifies the number of lines per page for the printing of a batch query. This parameter is equivalent to NETPRTP= for a network printer.

Valid Entries:

24 or greater

Default Value:

66

LITMASK=

Specifies a literal masking character to be used in literals in the WITH clause of a FIND statement to indicate positions for which any value is acceptable. The value must not be the same as any part of the values assigned to CMTBEG= and CMTEND= and must be unique among DIAFILL=, DIASYMB=, HDGSEP=, and HDGSUB=.

See the *CA Dataquery for CA Datacom User Guide* or *CA Dataquery for CA Datacom Reference Guide* for more information about using masking characters in the WITH clause.

Valid Entries:

Single character

Do not use:

- The letters A through Z
- The integers 0 through 9
- A period (.), a comma (,), or a single quote mark (')
- An arithmetic operator (= - + / *)

Default Value:

(pound sign)

MAXIO=

Specifies a maximum limit for I/O for DQL queries. If CA Dataquery for CA Datacom estimates that a DQL query will exceed this I/O limit, it issues a warning message and allows the user to choose to continue with the query or to cancel it.

Valid Entries:

0—9999999

Default Value:

9999999

MFTIME=

(Online only.) Specifies the maximum number of seconds allowed to elapse during the execution of a FIND statement. If the specified time is exceeded, CA Dataquery for CA Datacom ends the search with one of two messages, either:

```
DQ472I - LIMIT EXCEEDED - FOUND NNNNNN, or
DQ478I - LIMIT EXCEEDED - NO ROWS FOUND.
```

These messages are also generated whenever the limits set in the FNDBLKS= or SRCHLIM= parameter are exceeded. To find out if the message you receive has been generated by a FNDBLKS=, MFTIME=, or SRCHLIM= limit, either use a PF key from the Print Output panel, or view the Find Statistics panel by issuing the STATS command and check the FIND TERMINATED BECAUSE column for one of the following:

```
FNDBLKS: MAX WORK TABLE BLOCKS EXCEEDED
MFTIME: MAX ELAPSED TIME EXCEEDED
SRCHLIM: SITE I/O LIMIT (DQOPTLST.SRCHLIM) EXCEEDED
```

Specifying a zero means that you want no limit placed on how long a FIND can take.

Valid Entries:

0—999999999

Default Value:

0

MXREQ=

(Online only.) Specifies the number of CA Datacom/DB I/O events CA Dataquery for CA Datacom is to allow during a query execution before it relinquishes control of the resources in use and reschedules the remainder of the task. CA Dataquery for CA Datacom then issues a message "Still in progress." This feature keeps one query from monopolizing the CICS system.

MXREQ works with the MXTLR parameter to set the length of time CA Dataquery for CA Datacom is to process before pausing to allow the user to end the query.

This parameter sets the system default. You can override this value for specified users. See the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

1—9999

Default Value:

100

MXSETS=

Specifies the total number of KEEP or EXTRACT row collections a user can save in the DQF (Found Table) at any given time. MXSETS, FNDBLKS and XTRBLKS control the space requirements for the DQF.

Valid Entries:

1—999

Default Value:

5

MXTLR=

(Online only.) Specifies the number of times CA Dataquery for CA Datacom is to relinquish control to other tasks during a query execution before pausing to allow the user to end processing. When the value is reached CA Dataquery for CA Datacom displays the message "Do you want to continue?" See the discussion of MXREQ for details.

This parameter sets the system default. You can override this value for specified users. See the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

1—9999

Default Value:

10

NETPRT=

Specifies the default network printer ID used as the destination of a query output. It can be overridden on a per user basis using the PROFILE command in online CA Dataquery for CA Datacom or through the Online Execution panel.

Valid Entries:

4-character CICS terminal ID of a printer

Default Value:

(No default)

NETPRTC=

Specifies the number of columns per line for print routed to an online network printer. To override the value for a specific user, use the PROFILE command in online CA Dataquery for CA Datacom and change the specification for PRINT NUMBER OF COLUMNS.

Valid Entries:

80—255

Default Value:

80

NETPRTP=

Specifies the lines per page of the network printers. To override the value for a specific user, use the PROFILE command in online CA Dataquery for CA Datacom and change the specification for PRINT NUMBER OF ROWS.

Valid Entries:

12—255

Default Value:

66

NEWPASS=

Specifies that users are allowed to change passwords on the Signon panel. If NO is specified, only an Administrator with User Maintenance authorization can change user passwords.

Valid Entries:

NO or YES

Default Value:

YES

OPNDURT=

Specifies whether to open dynamically-built User Requirements Tables for update (U) or read-only (R) or not at all (N).

Valid Entries:

N, R, or U

Default Value:

U

OPSYS=

Specifies the operating system.

Valid Entries for z/OS:

OS

Valid Entries for z/VSE:

DOS

OUTXITO=

Specifies the name of the Online Output exit to be called as output rows are read.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

OUTXITB=

Specifies the name of the Batch Output exit to be called as output rows are read.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

PDBAREA=

Specifies the name of an existing database area to use for personal tables. The value may be overridden for each user. This area is used when using DATACOM extensions to SQL.

Valid Entries:

Name of an existing area

Default Value:

CA Datacom/DB default area if no area named

PRECISN=

Specifies the precision to use on a SET statement in DQL Mode when precision is not specified.

Valid Entries:

(I,D) Where I is the number of integer digits left of the decimal point and D is the number of decimal digits right of the decimal point and I + D is less than or equal to 18.

Default Value:

(10,5)

PRTCTL=

Specifies the maximum number of pages of report output a user can send to a 3284 or 3286 printer for any given query.

Valid Entries:

1—999

Default Value:

10

QPAGES=

Specifies the maximum number of 24-line query pages that a query can occupy. Each page beyond 1 requires approximately 5K additional bytes of task related storage while the transaction is active, and 5K more of auxiliary temporary storage per session if the pages are actually used. If you are using the Guided Query Creation Facility, specify a minimum of 2.

Valid Entries:

1—4

Default Value:

1

QRYGRPS=

Specifies whether you can partition the public query library at the group level. Code YES to use group level access authorization partitioning of the query library.

Valid Entries:

NO or YES

Default Value:

NO

RCNTDQW=

Specifies number of times DQBATCH should retry getting a DQW partition when all are marked *in use* before going to end of job when none are available. DQBATCH waits 30 seconds between retries.

Valid Entries:

1—9999

Default Value:

5

RPTHEAD=

Specifies a character string, enclosed within apostrophes, that CA Dataquery for CA Datacom is to use as the first heading line of all query reports printed on a 328x hardcopy printer or line printer. This heading is printed as the primary heading on every report produced. Use the TITLE1 clause of the PRINT statement to produce a second line, and the TITLE2 clause to produce a third line.

Valid Entries:

1—30 characters, enclosed within apostrophes

Default Value:

(No default)

RTIMDQE=

Specifies the number of seconds SQL Mode batch CA Dataquery for CA Datacom is to wait before reusing a found set in the Work Table (DQE) which is marked as being "in use." Sets may be left marked "in use" after a system failure or batch CA Dataquery for CA Datacom abend.

Valid Entries:

60—32000

Default Value:

14400

RTIMDQW=

Specifies the number of seconds batch CA Dataquery for CA Datacom is to wait before reusing a partition of the Work Table (DQW) which is marked as being "in use." Partitions may be left marked "in use" after a system failure or batch CA Dataquery for CA Datacom abend. When CA Dataquery for CA Datacom is unable to allocate a partition, the message "CA Dataquery for CA Datacom WAITING FOR RESOURCES" appears.

Valid Entries:

60—32000

Default Value:

7200

RTRNMOD=

(CICS only.) Specifies the name of a user program that is to receive control through CICS XCTL when CA Dataquery for CA Datacom is signed off. The specified name must be in the CICS PPT and must not be the same as any CA Dataquery for CA Datacom module name. The value specified in this parameter overrides the RTRTRAN specification and the session level transaction ID.

Note: If you specify either RTRNMOD or RTRTRAN, CA Dataquery for CA Datacom ignores any value you specify for the USRCMD parameter.

Valid Entries:

Any valid 1- to 8-character module name as described above

Default Value:

(No default)

RTRTRAN=

(CICS only.) Specifies the CICS transaction ID to be initiated through CICS interval control initiate when CA Dataquery for CA Datacom is signed off. The value specified in this parameter can be overridden by using RTRNMOD or the session level return transaction ID. RTRTRAN use is preferred over RTRNMOD use.

Note: If you specify either RTRNMOD or RTRTRAN, CA Dataquery for CA Datacom ignores any value you specify for the USRCMD parameter.

Valid Entries:

Any 4-character transaction ID

Default Value:

(No default)

SECINF=

Specifies if CA Dataquery for CA Datacom should use the External Security Interface to get user IDs from CA ACF2, CA Top Secret, or IBM's RACF. If SECINF=YES when executing in CA Dataquery for CA Datacom batch SIGN/ON mode, you can eliminate the signon card from batch executions. You must also specify the necessary external iecurity resources and privileges. For more information about implementing external security, see the *[assign the DAT variable value for your book] Security Reference Guide*.

Valid Entries:

NO or YES

Default Value:

NO

SEQBUFS=

Specifies the number of batch sequential data buffers that can be used to speed the processing of some queries in batch by allowing the use of the CA Datacom/DB GETIT and GSETL commands. CA Dataquery for CA Datacom decides to use GETIT and GSETL based on input from the Compound Boolean Selection Facility.

Valid Entries:

2—32

Default Value:

2

SONEXIT=

Specifies the online Signon/off Exit module name. The specified name must be in the CICS PPT and must not be the same as any CA Dataquery for CA Datacom module name. See the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

SORTCTG=

Specifies, in 4096-byte increments, the maximum contiguous storage area for in-memory sorting which CA Dataquery for CA Datacom will request of CICS at one time. If this amount is not available when needed, CA Dataquery for CA Datacom tries to allocate a number of smaller areas for the sort.

This parameter sets the system default. You can override the value for specific users. See the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

1—16

Default Value:

16

SORTPAG=

Specifies, in 4096-byte increments, the maximum amount of storage CA Dataquery for CA Datacom will allocate to process a single sort request. If a request is too large to be sorted in this amount, or if the storage is unavailable in the monitor, then the CA Datacom/DB Index sort is used.

This parameter sets the system default. You can override this value for specific users. See the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

1—1024

Default Value:

64

SORTSYS=

Specifies, in 4096-byte increments, the maximum amount of storage CA Dataquery for CA Datacom allocates to process all concurrent sorts combined system wide.

Valid Entries:

1—2048

Default Value:

64

SORTWK=

(z/VSE only) Specifies the number of disk sort work files to be used for batch system sort. Batch JCL should reflect the value specified.

Valid Entries:

0—8

Default Value:

3

SQLPRTY=

Specifies the priority for SQL requests processed by MUF. One is the lowest priority and 15 is the highest.

Valid Entries:

1—15

Default Value:

7

SRCHLIM=

Specifies the maximum number of CA Datacom/DB physical I/O events CA Dataquery for CA Datacom is to issue to perform the FIND statement of any one query. The value should be small enough to prohibit full table searches and expensive queries. Code it large enough to allow users to issue queries of reasonable size. The limit is specified in terms of I/O events, not CA Datacom/DB requests. This parameter is ignored by batch CA Dataquery for CA Datacom.

If the limit you specify is exceeded, CA Dataquery for CA Datacom ends the search with one of two messages, either:

```
DQ472I - LIMIT EXCEEDED - FOUND NNNNNN, or
DQ478I - LIMIT EXCEEDED - NO ROWS FOUND.
```

These messages are also generated whenever the limits set in the FNDBLKS= or MFTIME= parameters are exceeded. To find out if the message you receive has been generated by a FNDBLKS=, MFTIME=, or SRCHLIM= limit, either use a PF key from the Print Output panel, or view the Find Statistics panel by issuing the STATS command and check the FIND TERMINATED BECAUSE field for one of the following:

```
FNDBLKS: MAX WORK TABLE BLOCKS EXCEEDED
MFTIME: MAX ELAPSED TIME EXCEEDED
SRCHLIM: SITE I/O LIMIT (DQOPTLST.SRCHLIM) EXCEEDED
```

Specifying a zero means that you want no limit placed on the number of I/O events.

Valid Entries:

0—99999999

Default Value:

9999999

SUBEXIT=

(Online only.) Specifies the name of the batch submit JCL exit module. The module name must be in the CICS PPT and must not be the same as any CA Dataquery for CA Datacom module name.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

SXBEXIT=

Specifies the name of a batch Signon/off Exit module. The module name must not be the same as any CA Dataquery for CA Datacom module name.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

SYSDIAL=

(Valid only for sites that use the Language Maintenance Facility.) Specifies the 2-character language code for the language you have chosen as the PRIMARY language (that is, the language translation that is searched first).

This parameter sets the system default. You can override the value for specific users. See the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

2-character language code previously defined in the Language Maintenance Facility

Default Value:

(No default. Note: Some panels show AE.)

SYSLANG=

(Valid only for sites that use the Language Maintenance Facility.) Specifies the 2-character language code for the language you have chosen as the SECONDARY language (that is, the language translation that is searched second).

This parameter sets the system default. You can override the value for specific users. See the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

2-character language code previously defined in the Language Maintenance Facility

Default Value:

(No default.

Note: Some panels show AE.)

TIMEFMT=

Specifies the format to use to print columns in DQL Mode and SQL Mode which are defined as SQL time types.

Valid Entries:

USA - hh:mm am (or pm)
ISO - hh.mm.ss
EUR - hh.mm.ss
JIS - hh:mm:ss

Default Value:

USA

TINIT=

Specifies whether CA Dataquery for CA Datacom can be initiated from a terminal. If YES is specified, CA Dataquery for CA Datacom can be initiated by entering DQRY at a terminal. If NO is specified, CA Dataquery for CA Datacom can only be initiated from a program. For information about initiating CA Dataquery for CA Datacom from a program, see the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

NO or YES

Default Value:

YES

TITLWC=

Specifies how you want report titles centered. If YES is specified, report titles are centered over the width of the presented data. If NO is specified, report titles are centered over the width of the device.

Valid Entries:

NO or YES

Default Value:

NO

UDFMOD=

Specifies whether a User-Defined Functions exit is to be used. If you specify a name, ensure that a user-written exit is provided. The specified name must be in the CICS PPT and must not be the same as any CA Dataquery for CA Datacom module name. For more information, see the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

URTPRTY=

Specifies the priority for requests processed by the batch program after the User Requirements Table is opened. 1 is the lowest priority; 15 is the highest. CA Dataquery for CA Datacom dynamically builds batch User Requirements Tables. For more information, see the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

1—15

Default Value:

7

USRCMD=

Specifies the names of up to ten transactions which CA Dataquery for CA Datacom recognizes as valid CA Dataquery for CA Datacom commands. When one of these is entered as a CA Dataquery for CA Datacom command, CA Dataquery for CA Datacom initiates the transaction.

Note: If you specify either RTRNMOD or RTRTRAN, CA Dataquery for CA Datacom ignores any value you specify for the USRCMD parameter.

Valid Entries:

(xxxx,xxxx,...) where xxxx is a 1- to 4-character transaction ID. Can be repeated up to ten times.

Default Value:

(No default)

VALEXIT=

Specifies whether a Query Validation exit is to be used. If you code a name, ensure that a user-written exit is provided. The specified name must be in the CICS PPT and must not be the ame as any CA Dataquery for CA Datacom module name. For information about writing a Query Validation exit, see the *CA Dataquery for CA Datacom Administration Guide*.

Valid Entries:

1- to 8-character module name

Default Value:

(No default)

XTRBLKS=

Specifies the amount of space on the DQF (Found Table) that a single EXTRACT request can allocate at one time. This limit prevents one user from using excessive table space. If the limit is exceeded, CA Dataquery for CA Datacom terminates the EXTRACT command and releases the assigned space. The value coded is in logical blocks; the number of logical rows that can be extracted at one time depends on the length of the logical row. For an estimate, divide 760 by the logical row length (total length of all columns and keys named by the average PRINT or DISPLAY).

Valid Entries:

1—9999

Default Value:

20

XTRSETL=

Specifies the length of a SET result in EXTRACT output. If 8 is specified and the SET result is greater than 15 digits in length, the value extracted will be zero (0). If 16 is used, all SET result values will be extracted as packed decimal length 16. If 8 is used, all SET result values will be extracted as packed decimal length 8. Setting the value to zero and continuing to process the rest of the output permits the program to continue. No other error message or error return code is set.

Valid Entries:

8 or 16

Default Value:

8

Preparing and Maintaining System Tables

The following tables must be present in CA Datacom/DB to run CA Dataquery with the SQL option installed. Some of the tables also include set allocations.

Note: For more information about space allocations, see the *CA Datacom Installation and Maintenance Guide*.

DQE

SQL Found Table - Contains the rows of the data returned by an SQL query.

DQF

CA Dataquery Found Table - Stores the results of a query or found set. The found set that results from a query remains active until another query is executed or the user signs off.

DQM

CA Dataquery Literals Table - Stores literal values that are output by the CA Dataquery system. These literal values are keywords and phrases that are commonly used by the CA Dataquery system.

DQP

CA Dataquery Panel Table - Stores the image of the panels that collectively comprise the CA Dataquery External Online Interface. Storing panel images on this table facilitates their translation into other languages by the CA Dataquery Language Maintenance Facility.

DQQ

CA Dataquery Query Library - Primarily stores query text members, JCL members, PROCs, terms, condition, and restriction definitions.

DQR

CA Dataquery Recovery Table - Contains one row for each Found Set in the DQE. It also contains some record keeping data, such as who created the Found Set, when it was created, and so on.

DQS

CA Dataquery Spool Table - Stores and controls the hardcopy report output of a query that has been routed to an online network printer.

DQU

CA Dataquery User Table - Stores the definitions of valid CA Dataquery users. This table contains user attributes such as name, password, language, system options and function authorizations. This information is used to validate a user attempting to sign on to the CA Dataquery system.

DQV

CA Dataquery Vocabulary Table - Stores Language and Command keywords that a CA Dataquery user would enter into the system. Storing these keywords on this table facilitates their translation into other languages by the CA Dataquery Language Maintenance Facility.

DQW

CA Dataquery Work Table - Performs as the batch equivalent of the DQF table. The Work Table stores and manages found sets that result from batch queries.

Initiating and Terminating CA Dataquery

Executing from a Program in CICS

Options for Starting CA Dataquery

Note: To start CA Dataquery with data, you can use the interval control PUT command or EXEC CICS START. The input record can be 132 or 135 bytes in length.

Position	Length	Description
1	32	User name, left-justified, blank padded
33	9	Password
42	4	Return transaction ID
46	15	Return parameter

Position	Length	Description
61	72	Input command
133 (optional)	1	Optional startup with or without data. (N for NO is the default, Y for YES can be entered.)

Initiating a Transaction at Signoff

If you supply a transaction ID to be initiated at signoff, CA Dataquery returns the following to that transaction at signoff:

Position	Length	Description
1	32	User name, left-justified, blank padded
33	4	DQRY
37	15	Parameter supplied on input (unaltered by CA Dataquery)
52	1	Unused
53	6	Last issued CA Dataquery message number
59	72	Last issued CA Dataquery message text

Utility Maintenance Control Statements

Note: Use the following maintenance control statements to identify the maintenance functions to be performed by DQLIBRMT. A maximum of 60 report and maintenance control statements are allowed.

SIGN/ON

(Required) Specifies the user ID and password. Only one SIGN/ON statement is allowed and it must be the first statement in the job stream.

BACKUP

(Optional) Copies specified members on the Query Library Table to a sequential tape or disk file. Multiple backup statements are allowed, but all members to be backed up are written to one backup data set.

RESTORE

(Optional) Adds members to the Query Library Table from a sequential tape or disk file created using the DQLIBRMT backup facility. Only one RESTORE statement is permitted per run. All records on input are restored to the Query Library Table using the user from the same option as the control statement. If the control statement member option is used, only that member on the input file is restored.

ADD

(Optional) Adds a query, dialog, term, PROC, or JCL to the Query Library Table for the specified users, dates or groups. Supply the text of the item being added on multiple lines following the ADD statement.

REMOVE

(Optional) Removes queries, dialogs, terms, PROCs, or JCL from the Query Library Table for the specified users, dates or groups. Multiple REMOVE statements can be used. Only one user can be named on each REMOVE statement.

Control Statement Options

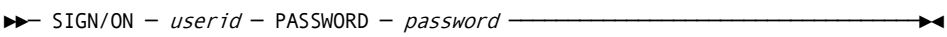
Control Statement Function	Valid Options (Use only 1 of italicized options)	Required YES/NO	Default Value
ADD	NAME	YES	No default
	MEMBER	YES	No default
	TYPE	NO	DQL Query
	STATUS	NO	Private
	GROUPS	NO	No groups
BACKUP	*NAME*	YES	No default
	GROUPS	YES	ALL
	DATE	YES	ALL
	STATUS	NO	ALL
	MEMBER	NO	ALL MEMBERS
	FILE (z/VSE only)	YES	No default
	TYPE	NO	ALL
RESTORE	NAME	YES	No default
	GROUPS	NO	ALL
	MEMBER	NO	ALL MEMBERS
	FILE (z/VSE only)	YES	NONE
	STATUS	NO	ALL
REMOVE	*NAME*	YES	No default
	GROUPS	YES	No default
	MEMBER	NO	ALL MEMBERS
	TYPE	NO	ALL
	DATE	YES	No default

Note: Options in italics are mutually exclusive, within their respective functions. You can execute a BACKUP with the NAME, or GROUPS, or DATE option. One of the three is required, but not a combination of the three options; they are mutually exclusive.

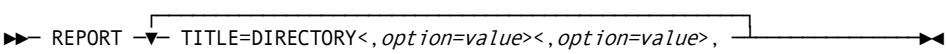
Utility Report Control Statements

Note: Use the report control statements to identify the report functions to be performed by DQLIBRMT. A maximum of 60 report and maintenance control statements is allowed.

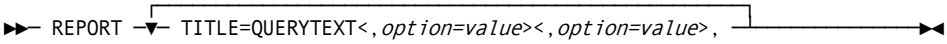
SIGN/ON Control Statement



Report Control Statement using DIRECTORY



Report Control Statement using QUERYTEXT

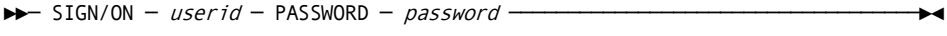


USER Control Statement

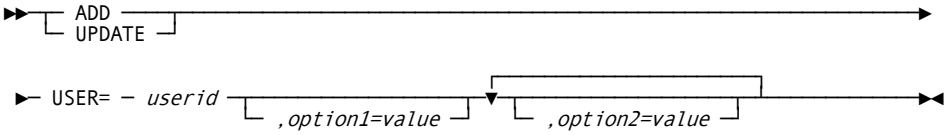
Performing User Table Maintenance (DQUSERMT)

User Table Maintenance Control Statements

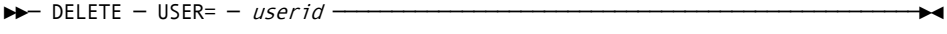
SIGN/ON Statements



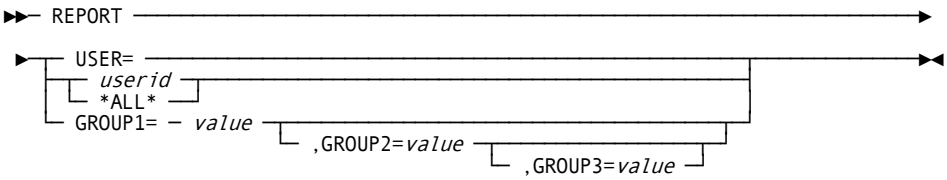
ADD/UPDATE Statements



DELETE Statement



REPORT Statement



Limit Access to Columns with the Security Control Function

SHOW CODES

Allows you to assign Datadictionary profile codes which protect sensitive column data to users who need to access the protected data. A profile-code is an attribute of a column that is used by CA Dataquery to classify columns into various security groups. Once a profile-code is established and included in the column definition, only users who are authorized for that code can access data in the protected columns. If **Y** (yes) has been specified on the DATA AUTHORIZED field on the User Table Maintenance panel, a user without profile-code authorization can read the data.

COPY SECURITY

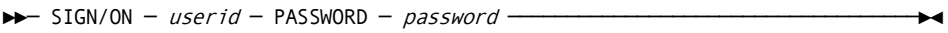
Allows you to copy to another user one or all of the authorizations that have been assigned to one user. The security access can remain the same or be further modified for the new user.

COPY CODES

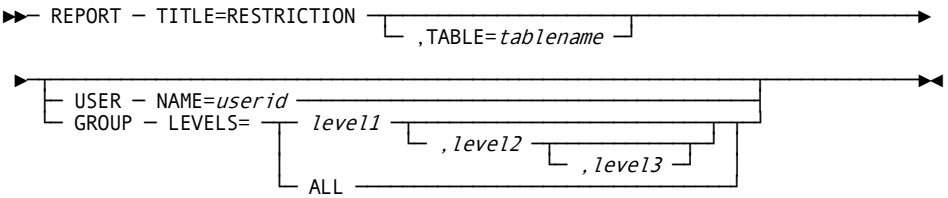
Allows you to copy the profile codes assigned to one user to another user. Another method of restricting access to data is the use of conditions and restrictions. Conditions are created which qualify access to rows of data based on data values.

Condition/Restriction Reporting (DQCRRPT) Statements

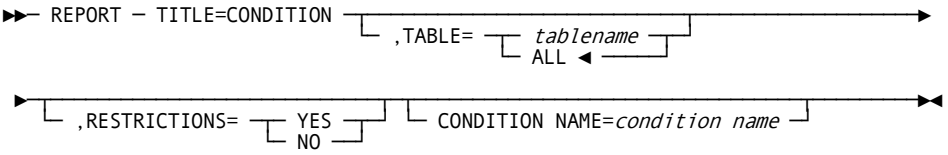
SIGN/ON Statement



REPORT (Restriction Reports)



CONDITION Reports



Enter the control statements in the following sequence:

For Condition Reports

- SIGN/ON
- REPORT
- CONDITION

For Restriction Reports

- SIGN/ON
- REPORT
- USER
- GROUP

Using Batch CA Dataquery

Batch Execution Method Comparison

Difference	Batch Online SUBMIT	Batch Sign/On
Requires control statements after the input statement.	No	Yes
Permits the use of #DQOPERATORNAME as the JCL user ID, allowing ID substitution.	Yes	No
Permits the use of variables.	Yes	No

Batch Signon Statements in Required Order

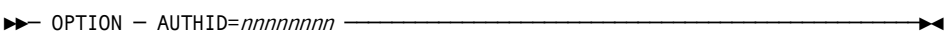
Statement	Description	DQL, SQL, or Both
SIGNON	*(Required.)* Specifies the user ID and password (if any).	Both
OPTION DDBASE=	Names the database ID of the Datadictionary database if different from the default.	Both

Statement	Description	DQL, SQL, or Both
OPTION QUERYLANG=	Specifies language to use if user is authorized for both. Otherwise the last online mode at signoff will be used.	Both
OPTION AUTHID=	Specifies the authorization ID to be used in the query.	SQL
OPTION DIAGNOSTICS=	With option CBS, tells CA Dataquery to produce Compound Boolean Selection diagnostic reports. If option RQT is used, this statement should follow FIND or EXECUTE.	DQL
OPTION PLANOPTS,MSG=	Tells CA Datacom/DB whether to produce detail or summary messages about preparation and execution time.	SQL
OPTION PLANOPTS,DISPLAY=	Tells CA Datacom/DB whether to print preparation and execution time messages during execution.	SQL
OPTION PLANOPTS,OPT=	Tells CA Datacom/DB whether to use user-specified join order or SQL-chosen join order.	SQL
OPTION STATISTICS=ON	Provides statistical information on execution.	Both
OPTION WINDOWING=NO	Specifies WRAP (NO) or NOWRAP (YES) selections for reports.	Both
OPTION QUERYTEXT=YES	Prints text of query.	Both
OPTION PAGESTOGETHER=YES	Print report pages together (YES) or print front pages and then back pages (NO).	Both
SELECT, UPDATE, DELETE, and INSERT	SQL query keywords. Each must be on a separate line.	SQL
FIND and COUNT	DQL query keywords.	DQL
EXECUTE	*(Required.)* Executes the query or dialog named in the statement.	Both
EXPORT	Exports data found by the query to a sequential file.	Both

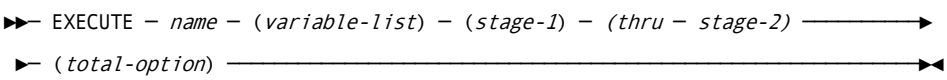
Statement	Description	DQL, SQL, or Both
STORE	Creates a new Personal Database Facility table containing query or dialog output.	Both

CA Dataquery Control Statements

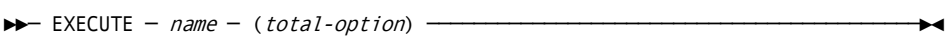
OPTION AUTHID=



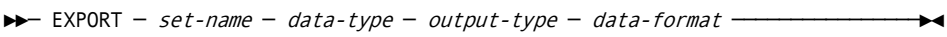
EXECUTE DQL Mode



EXECUTE SQL Mode

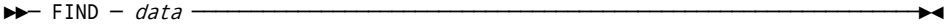


EXPORT

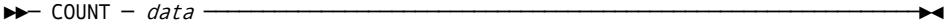


FIND or COUNT

FIND

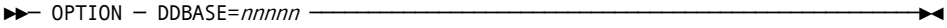


COUNT

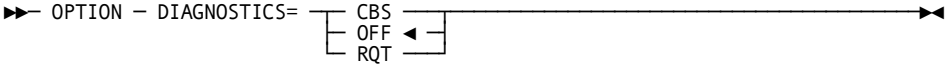


Note: Use only FIND or only COUNT.

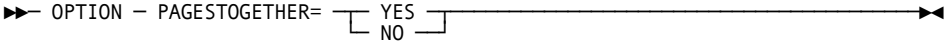
OPTION DDBASE=



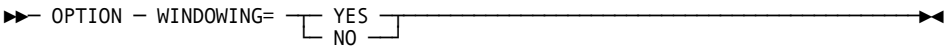
OPTION DIAGNOSTICS=



OPTION PAGESTOGETHER=

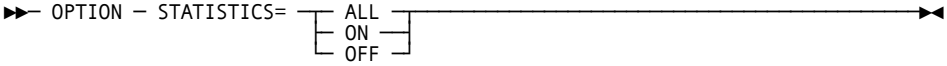


OPTION WINDOWING+

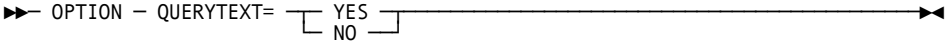


OPTION QUERYLANG=

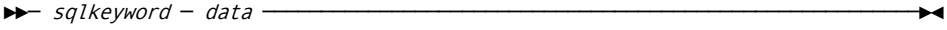
OPTION STATISTICS=



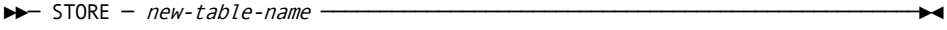
OPTION QUERYTEXT=



SELECT and Other SQL Statements



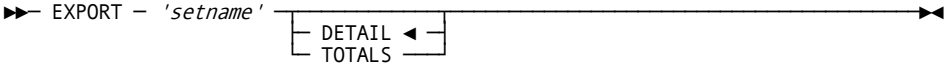
STORE



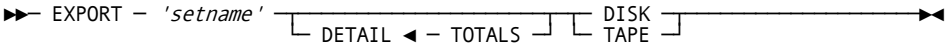
Exporting and Extracting Data

Accessing Exported Data

EXPORT Control Statement (Sample z/OS)

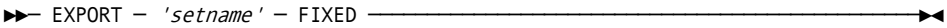


EXPORT Control Statement (Sample z/VSE)

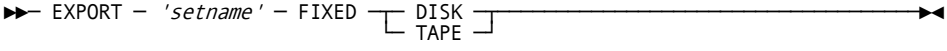


Fixed-Format Records

EXPORT Control Statement (Sample z/OS)



EXPORT Control Statement (Sample z/VSE)



Programming User Exits

Batch Line Printer Exit

Enables you to control output in DQBATCH. This exit must do all output to the system line printer.

Batch Submit Exit

Enables you to inspect and modify the JCL used for batch query execution initiated through the online submit function.

DBID Exit

Provides CA Dataquery with the correct CA Datacom/DB identifier prior to execution of a DQL Language query. When query validation is complete, CA Dataquery gives control to this exit and passes the following to the exit:

- Datadictionary entity-name
- CA Dataquery user identification
- CA Datacom/DB table name
- CA Datacom/DB database ID

The exit can change the CA Datacom/DB table name causing CA Dataquery to update its processing control blocks to reflect the new information. This process occurs one time for every table for each query. In batch or online, when a query is validated, this exit is called once for each table named in the query and has the opportunity to change the CA Datacom/DB ID of any table.

Data Exit

This exit is called every time CA Dataquery is ready to include a row in the found set of a query. It can reject the row, preventing its inclusion in the set. In online and batch, passes user's name, 3-character CA Datacom/DB name for the table being accessed, DBID, and the row itself. The exit may examine the row and return an indicator as to whether the user should have access to the row.

Data Stream Input Exit

Receives control when an input data stream is received by CA Dataquery from a terminal. It can examine and modify the data stream.

Data Stream Output Exit

Inspects and modifies the data stream in place but must not change its location or length. The Data Stream Output exit receives control just before CA Dataquery writes a data stream to a terminal. It can inspect and modify the data stream.

Network Printer Exit

Enables you to inspect and modify the print lines produced by an online query whose output destination is a network printer. CA Dataquery passes the address where the exit should build the data stream, the address of the image where the data stream should be built, the address of a flag that indicates whether a page ejection should occur and the number of columns per row in the data stream image to the user-written program. This allows nonstandard control codes to be inserted into the print lines to accommodate special printers.

Output Exit

Allows you to access individual rows of output data before the output is printed.

Query Validation Exit

Enables you to make changes to a query before the query is executed. CA Dataquery passes the query and user name that has been submitted for execution to the user-written program. The program may limit the number of rows searched by a query on a particular CA Datacom/DB table. This is an effective technique for enforcing site standards on queries.

Signon/off Exit

(In batch and online) Passes the user ID, password, and time of signon to the user-written program. The program can use this data to further validate the user, to track how frequently the user is accessing CA Dataquery, to enhance security, and so on. This exit must be used if CA Dataquery is to communicate with other security packages.

User-Defined Functions Exit

Enables you to manipulate the data resulting from a query execution by performing mathematical procedures in the form of SET statements. CA Dataquery passes the retrieved data resulting from a query execution to a user-written program.

Tuning and Troubleshooting

Using the Accounting Facility

Column	Offset	Length	Information
UID01	1	3	DQ, unless CA Dataquery diagnostics are on, then it is $$$.

Column	Offset	Length	Information
UID04	4	8	*(Character column.)* The user accounting code from the DQU row. Assigned during user authorization.
UID12	12	15	*(Character column.)* The name of the currently executing query, if any. This name may not be entirely accurate if, for example, a query has been fetched from the library, modified, and then executed. In this situation, the statistics reflect the modified query, and not the one on the library.
UID27	27	1	*(Binary column.)* The processing stage code. The codes are as follows: **0** General processing - not query execution **1** FIND statement processing **2** SET statement processing **3** SORT statement processing **4** PRINT/DISPLAY statement processing
	28	3	Reserved.
UID31	31	1	*(Binary column)* The CA Dataquery system indicator code as follows: **0** Online **1** Batch
	32	1	Reserved

Chapter 2: Reference Guide

Command Reference

All Editor Commands

A

After -- Destination for a move or copy after line with A.

B

Before -- Destination for a move or copy before line with B.

CH /string1/string2/

Changes the first string to the second string.

C

Copies a single line to the specified destination.

Cn

Copies the indicated number of lines starting with the line on which you entered the command to the specified destination.

CB

Copies all lines following the command through the end of the panel to the specified destination.

CC

Copies the block you define to the specified destination.

CT

Copies from the first line through the line with the command.

D

Deletes a single line.

DB

Deletes from line with the command through the last line.

DD

Deletes block of lines specified by a pair of line commands *DD*.

Dn

Deletes a specified number of lines including the one on which you enter the command.

DT

Deletes from first line through line with the command.

GC /string1/string2/

Changes every occurrence of first string to second string, and leaves display positioned at last string changed.

I

Inserts a blank line after the line with the I command.

I*n*

Inserts the specified number of lines after the line with the I*n*.

NE /string/

Searches forward for the specified text string.

PR /string/

Searches backward for the specified text string.

M

Moves a single line to the specified destination.

MB

Moves a block of text starting with the line on which you enter the command through the end of the panel.

MM

Defines and moves a block of text to the specified destination.

Mn

Moves the specified number of lines to the specified destination.

MT

Moves a block of text starting with line 01 and continuing through the line on which you enter the command.

R

Repeats the line on which you enter the R command.

Rn

Repeats the line with the R command n times.

Scrolls the line on which you enter the * to the top of the display.

T

Scrolls to the top of the panel.

<n

Shifts the display the specified number of columns to the left.

>n

Shifts the display the specified number of columns to the right.

SP

Splits the line into two lines at the point you place your cursor.

X

Cancels pending COPY, MOVE, BEFORE, or AFTER on any line.

Operation Commands

+nnnn

(Where nnnn represents a number) Scrolls forward nnnn pages on a multi-screen panel.

-nnnn

(Where nnnn represents a number) Scrolls backward nnnn pages on a multi-screen panel.

ADMIN

Displays Administrative Menu.

AUTHID

(With an SQL authorization ID as an operand) Changes the authid for the current session.

BOTTOM

Scrolls to bottom of multi-screen panel.

CREATE

Displays CA Dataquery Editor panel.

DETAIL

(Entered on the report output panel) Formats report to display the report as it is defined in the query, with detail and totals.

DIRECTORY

Displays Directory Selection panel.

DISPLAY

Displays Key and Columns Display panel for named table.

DRAW

(With a table-name operand) Creates a simple query that finds all simple columns.

DQL

Changes mode of operation from SQL Mode to DQL Mode.

EDIT

(With operand) Displays Editor panel containing named text.

EXECUTE

Displays online execution panel for query named in command.

EXTRACT

Displays Extract Active Found Set panel to save a set of data found by a query.

FORMAT

(Followed by the name of an existing query or dialog) Displays first panel for formatting the output created by executing an SQL query.

GUIDE

Displays the first panel for constructing a query with the Guided Query Creation function.

HELP

Displays Help panel topics you can select for additional Help.

KEEP

Displays panel for saving query output.

LIST

(With operands) Displays directory of queries, terms, dialogs, files, or saved found data sets.

MENU

Displays Main Menu.

MSG

(With operands) Sends a message to designated user.

NO-DETAIL

(Entered on the DQL Mode report output panel) Formats report to display query output without detail lines.

NO-TOTALS

(Entered on the DQL Mode report output panel) Formats report to display query output without totals.

NOWRAP

Issue after WRAP command to return wrapped report lines to multi-screen display.

OFF

Signs CA Dataquery off and returns to monitor.

PDB

Initiates Personal Database Facility.

PFn

(Where n is a number from 1 to 12) Acts as a numbered PF key.

PROFILE

Displays User Profile panel.

SQL

Changes mode of operation from DQL Mode to SQL Mode. To use personal tables, the SQL option of CA Datacom/DB must be installed at your site and you must be authorized by your CA Dataquery Administrator to access the Personal Database Facility.

STALL

Displays Execution Statistics panel with expanded statistics and a PF key for viewing tables statistics.

STATS

Displays Execution Statistics panel for current query.

STORE

(With unique, new table name operand) Creates a personal table from active found set of data in DQL Mode or SQL Mode.

SUBMIT

(With query name) Displays Batch Execution panel for query named.

TIME

Displays current time and date.

TOP

Scrolls to the top of a multi-screen panel.

TOTALS

(Entered on the report output panel) Formats report to display only total lines and suppresses detail lines.

WHEN-ONLY

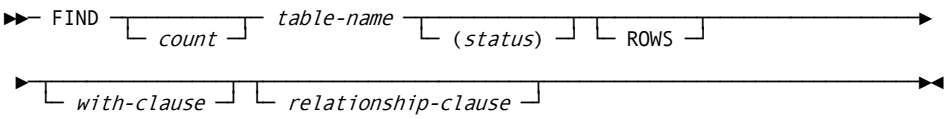
(Entered on the report output panel) Formats report to display only the results of DQL Mode WHEN/DO statements.

WRAP

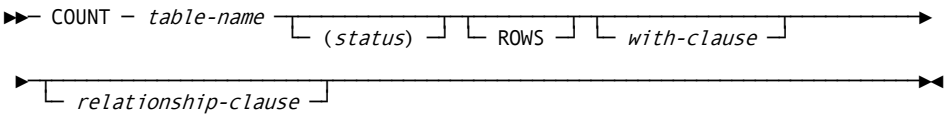
Moves off-screen lines to current screen of multi-screen display by wrapping each report line before starting the next report line.

DQL Statements

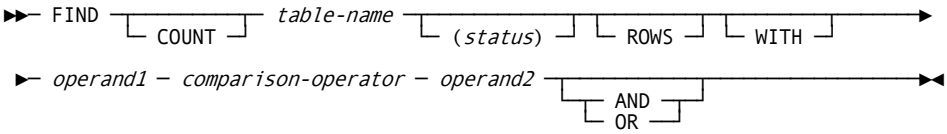
FIND Statement with Count



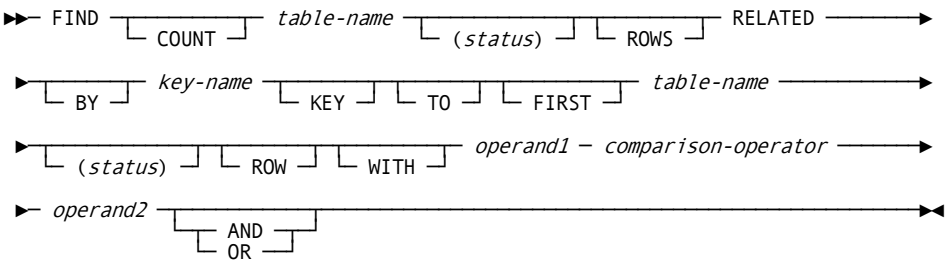
COUNT Statement



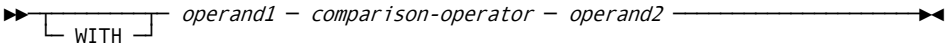
WITH Clause in a FIND Statement



WITH Clause in a RELATED BY Statement

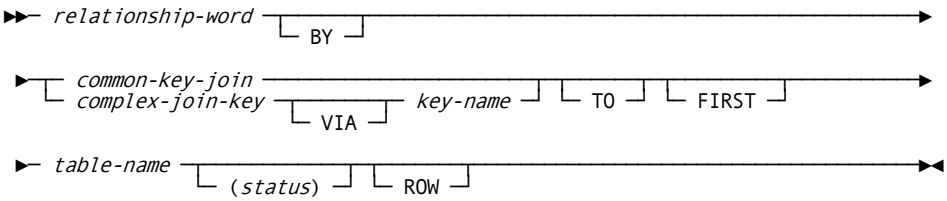


WITH Clause Arithmetic Expression

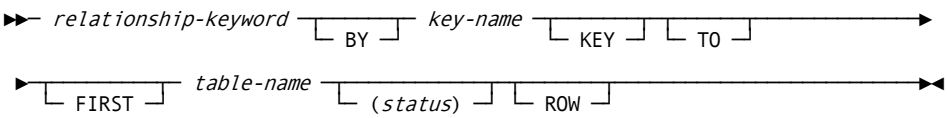


RELATED OUTER-JOINED, LEFT-JOINED, RIGHT-JOINED, OUTER-DISJOINED, LEFT-DISJOINED, RIGHT-DISJOINED

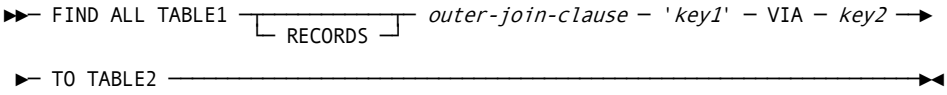
Complex Relationship



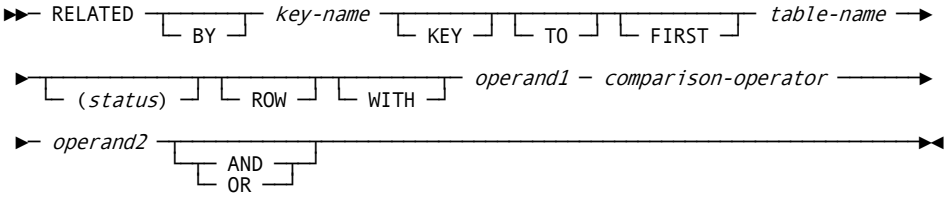
Simple Relationship Statement



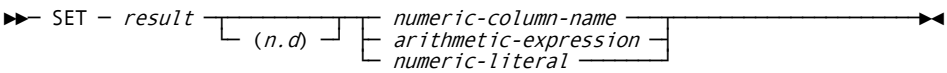
Outer Join Clause



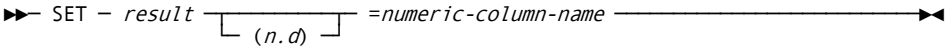
RELATED BY with a WITH Clause



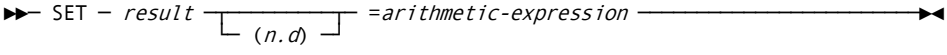
SET



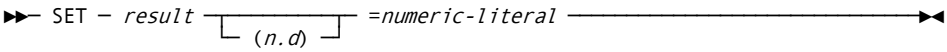
SET Statement with a Numeric Column Result



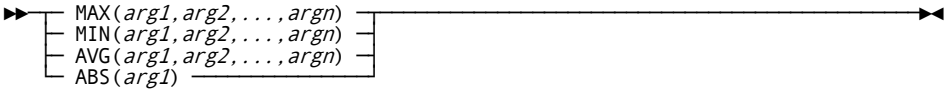
SET Statement with an Arithmetic Expression Result



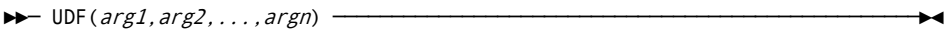
SET Statement with a Numeric Literal Result



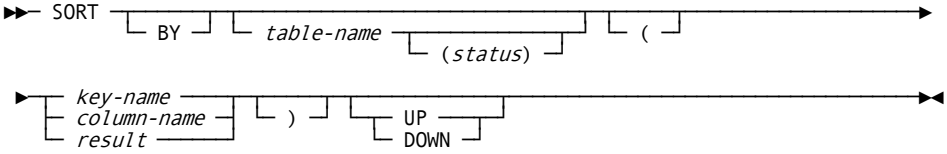
Mathematical Functions (Standard)



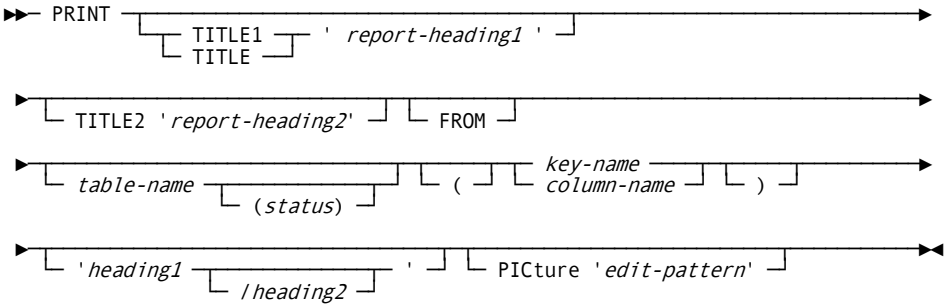
User-Defined Functions



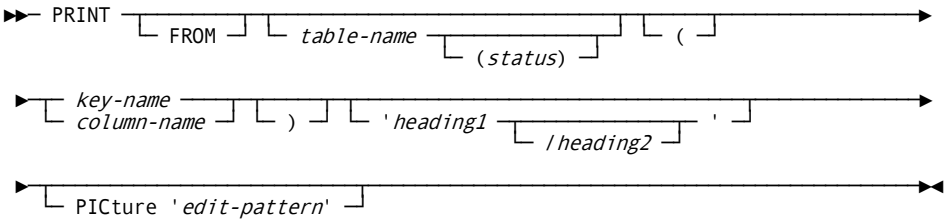
SORT Statement



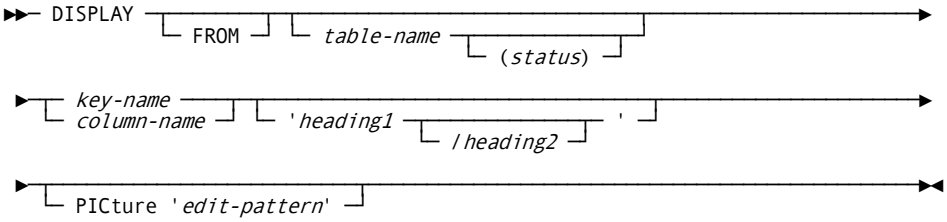
Complex PRINT Statement



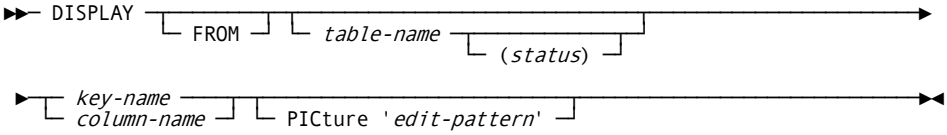
PRINT Statement with PICTURE Clause



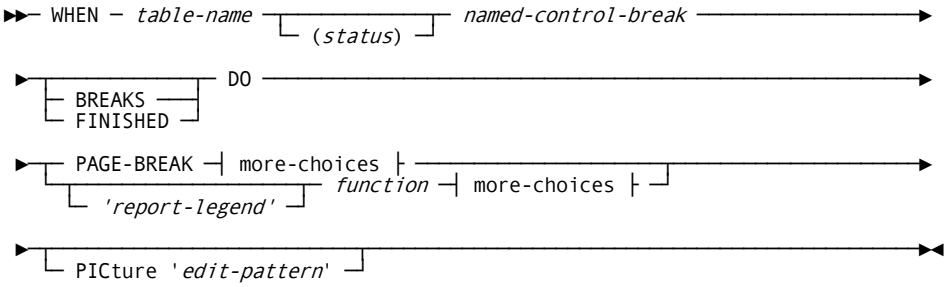
DISPLAY



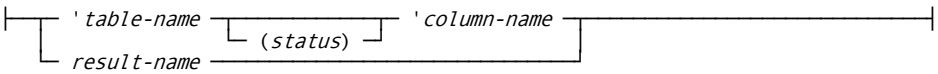
DISPLAY with PICTURE Clause



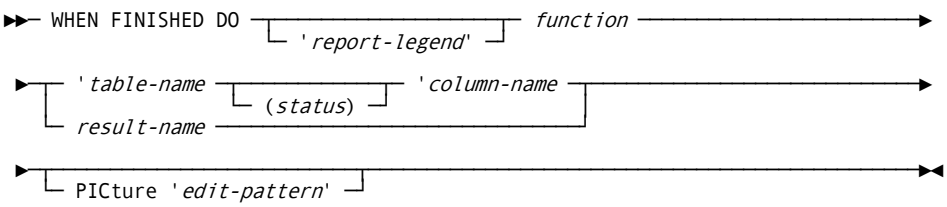
WHEN/DO Statement



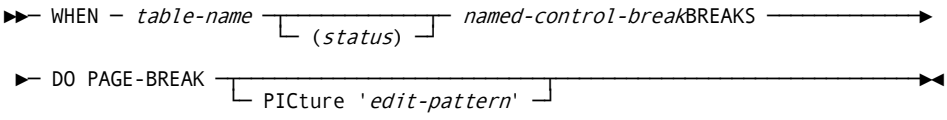
Expansion of more-choices



Complete WHEN/DO Statement for End of Report



WHEN/DO Statement for Page Break at a Control Break

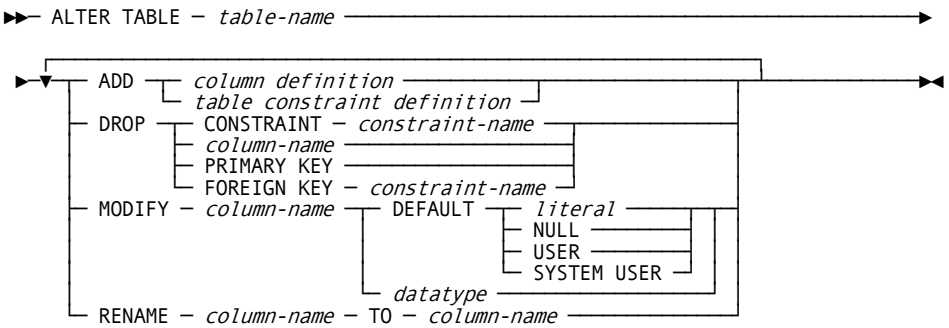


SQL Keywords

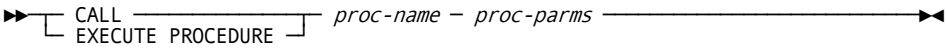
Keyword	Operand	Explanation
SELECT	selection-list	Starts an SQL query or dialog. Specifies the data to be retrieved. The items in a selection list can be: column names, mathematical functions, arithmetic expressions, and literal constants.
FROM	table-names	Identifies the table or tables where data can be found.
WHERE	predicate	Tests each row in the named tables. If the result of the test is true, the row is selected. A predicate can be a comparison or a special search condition.
GROUP BY	column-names	Arranges data in groups. Usually used when needed for applying functions (like SUM) to groups of data.
HAVING	predicate	Used with GROUP BY to retrieve rows whose groups meet the search condition.
ORDER BY	select-list-items	Lists column names to specify the order in which data is to be presented. Columns listed must be in the SELECT clause. Ascending order is the default but DESC (descending) can be specified.

SQL Statements

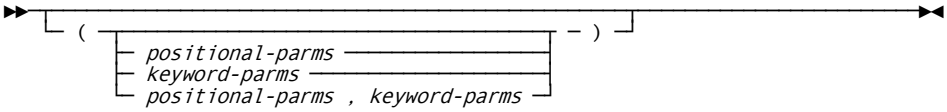
ALTER TABLE



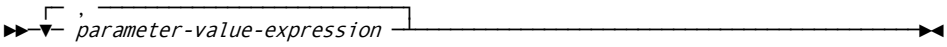
CALL/EXECUTE PROCEDURE Syntax



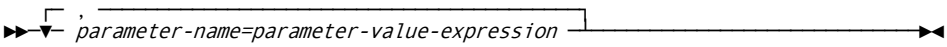
proc-parms



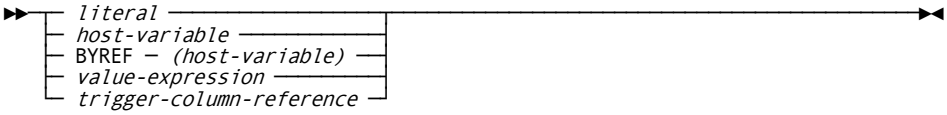
positional-parms



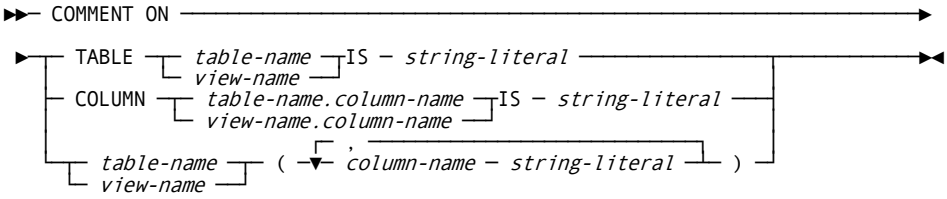
keyword-parms



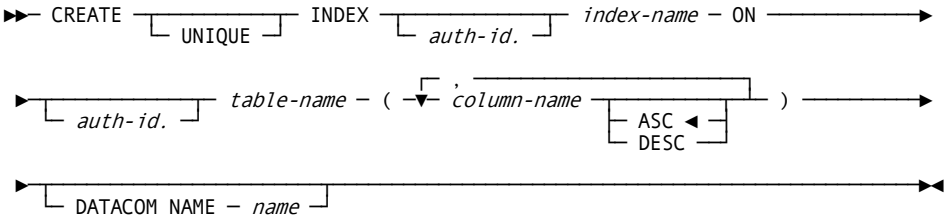
parameter-value-expression



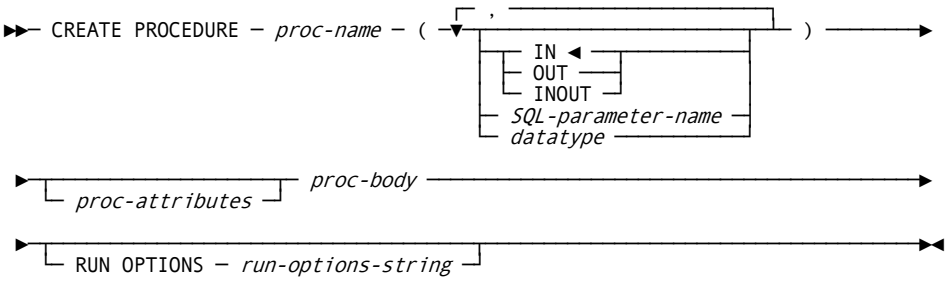
COMMENT ON



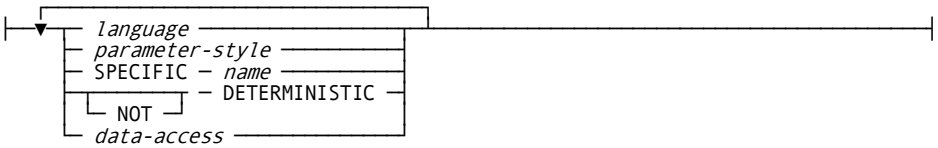
CREATE INDEX



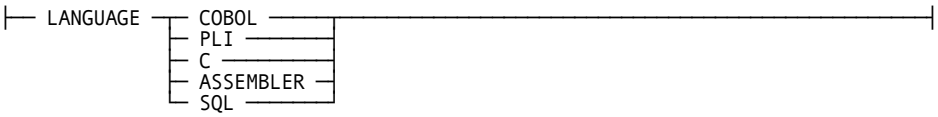
CREATE PROCEDURE



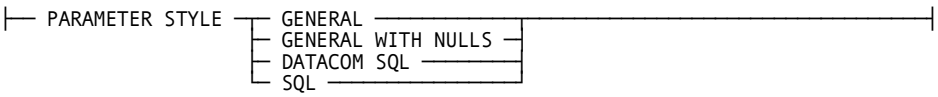
Expansion of Where proc-attributes is defined as



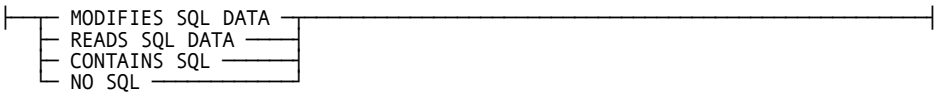
Expansion of Where language is defined as



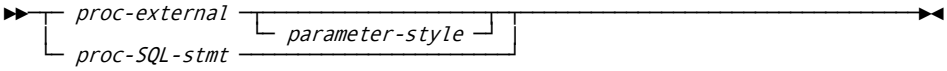
Expansion of Where parameter-style is defined as



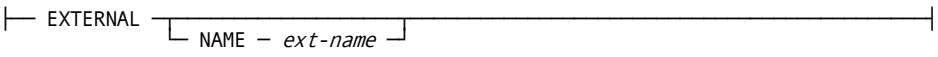
Expansion of Where data-access is defined as



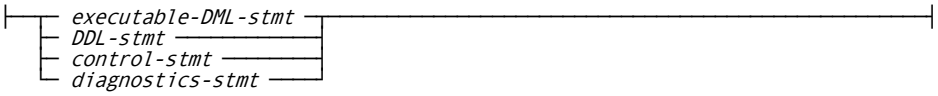
Middle View of proc-body syntax



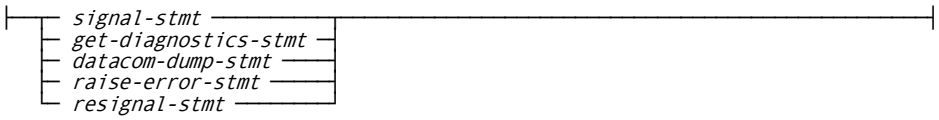
Expansion of Where proc_external is defined as



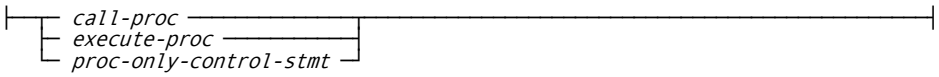
Expansion of Where proc-SQL-stmt is defined as



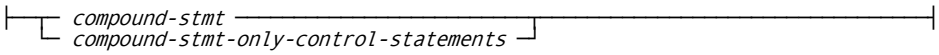
Expansion of Where diagnostics-stmt is defined as



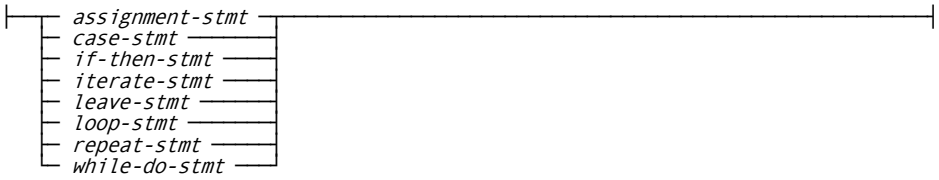
Expansion of Where control-stmt is defined as



Expansion of Where proc-only-control-stmt is defined as



Expansion of Where compound-stmt-only-control-statements are defined as



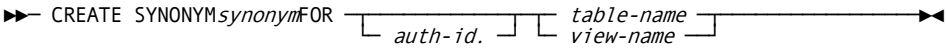
External Procedure definitions and SQL Procedures are created with this statement.

SQL Statements that Support SQL Procedures

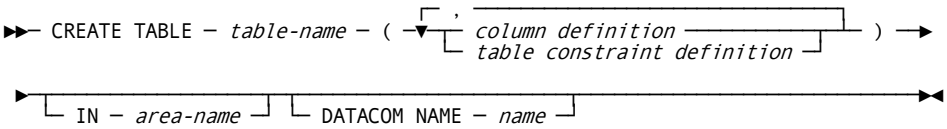
- Assignment Statement
- CASE Statement
- Compound Statement
- Condition Declaration
- DATACOM DUMP Statement
- GET DIAGNOSTICS Statement
- IF-THEN Statement
- ITERATE Statement
- LEAVE Statement
- SQL variable declaration
- Looping constructs
  - LOOP Statement
  - REPEAT-UNTIL Statement
  - WHILE Statement

- RAISE ERROR Statement
- RESIGNAL Statement
- SIGNAL Statement
- SIMULATE DATACOM PROCEDURE Statament (DBSQLPR only)

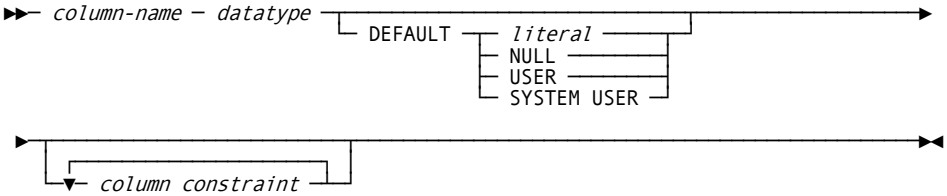
CREATE SYNONYM



CREATE TABLE



Column Definition



Column Constraint Definition

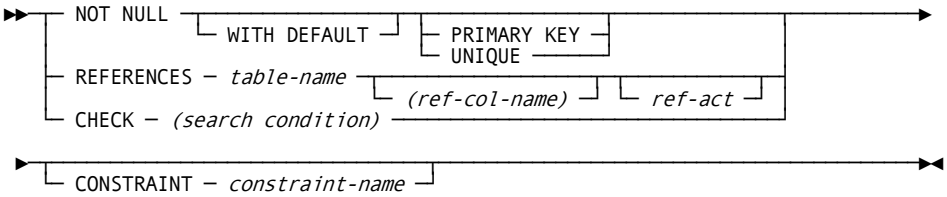
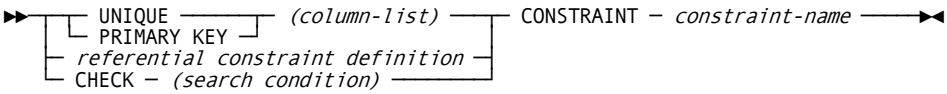
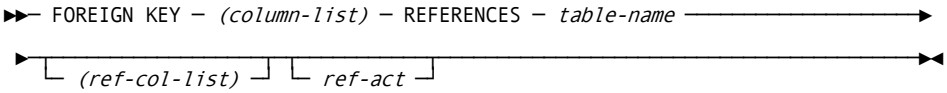


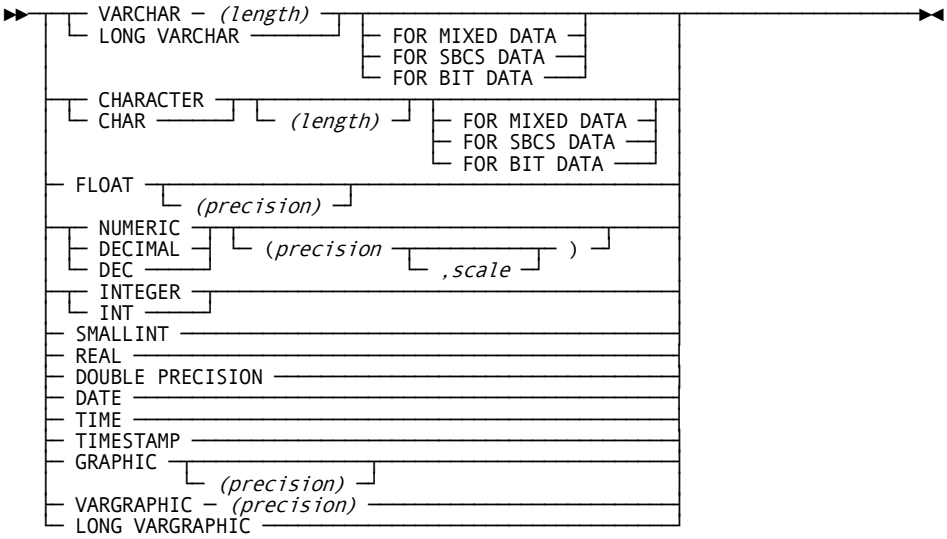
Table Constraint Definition



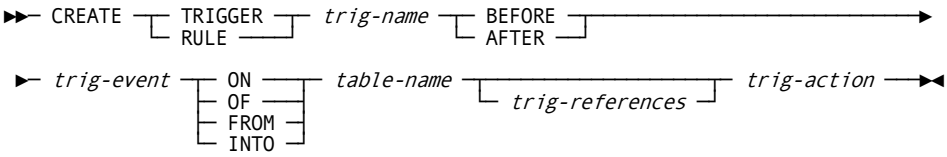
Referential Constraint Definition



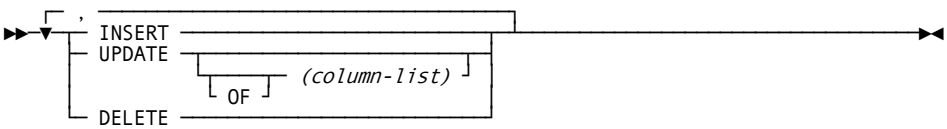
Data Types



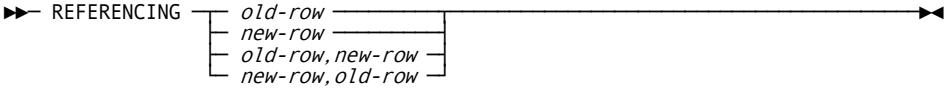
CREATE TRIGGER/RULE



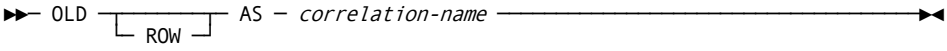
Trig-event



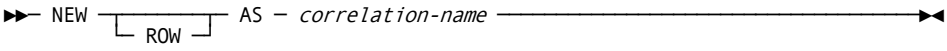
Trig-references



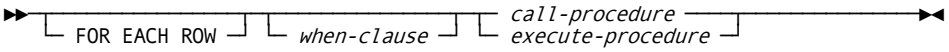
Old-row



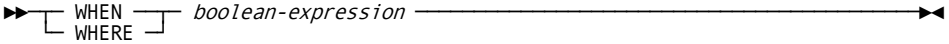
New-row



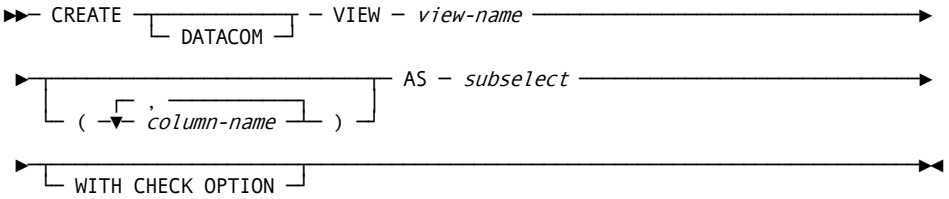
Trig-action



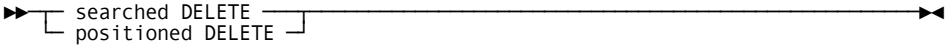
When-clause



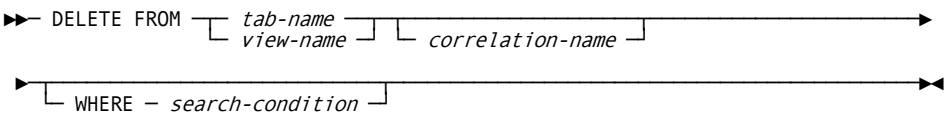
CREATE VIEW



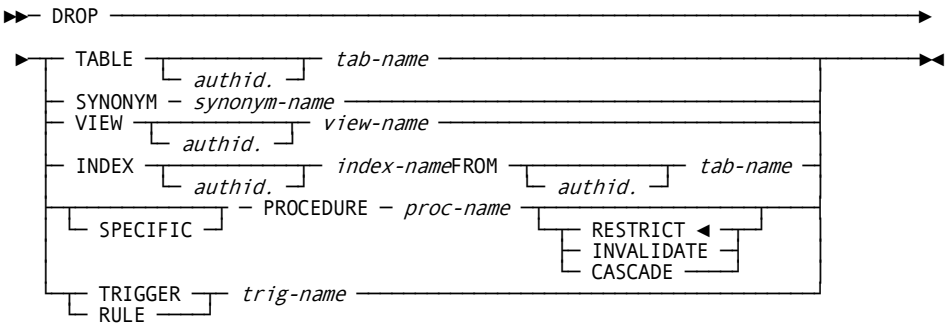
DELETE



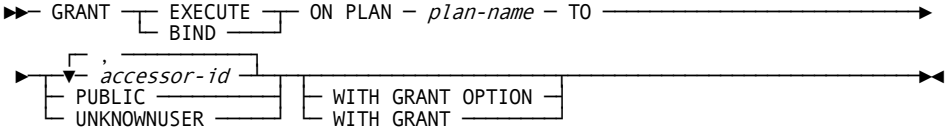
Searched DELETE



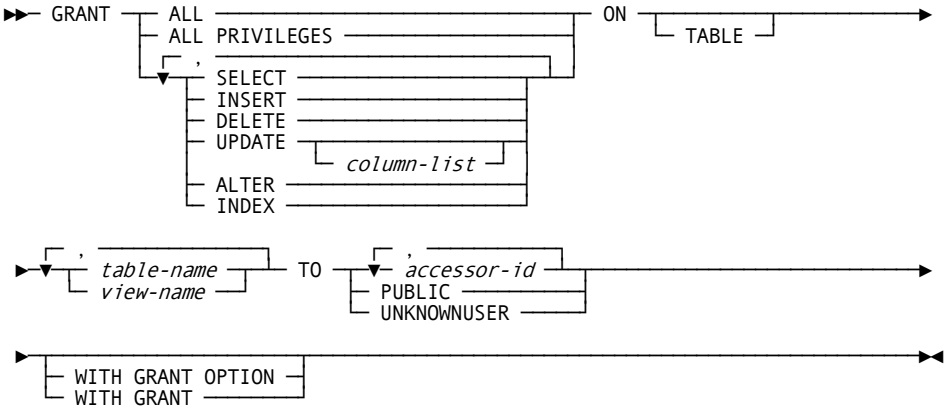
DROP



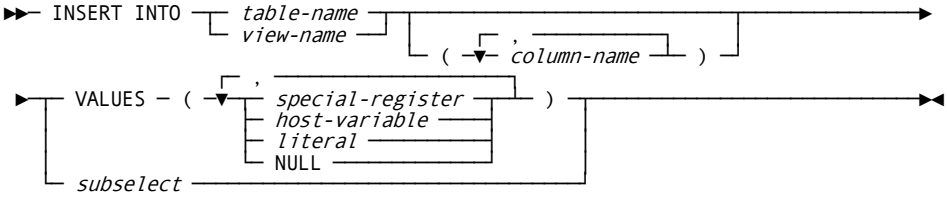
GRANT



Non-plan Security GRANT

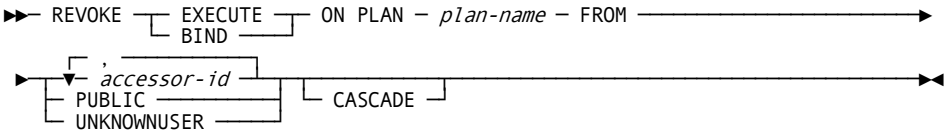


INSERT

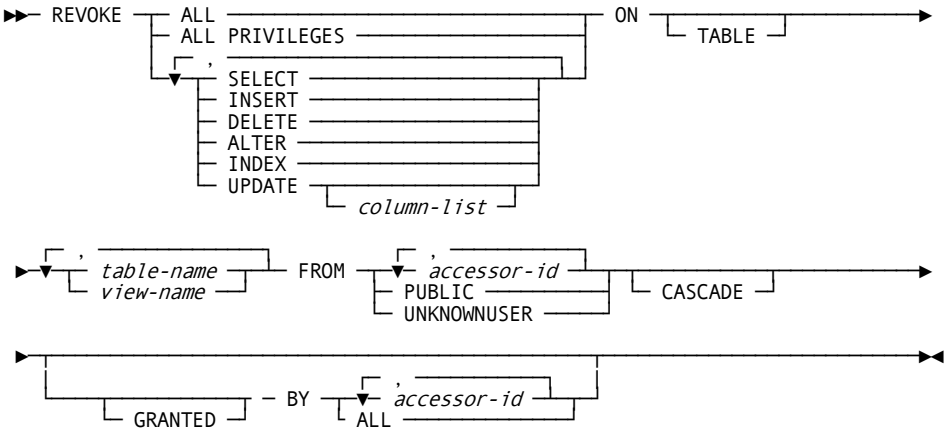


REVOKE

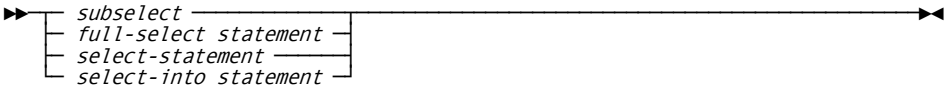
Plan Security REVOKE (this is a CA Datacom/DB extension)



Non-plan Security REVOKE (this is a CA Datacom/DB extension)



SELECT



Subselect

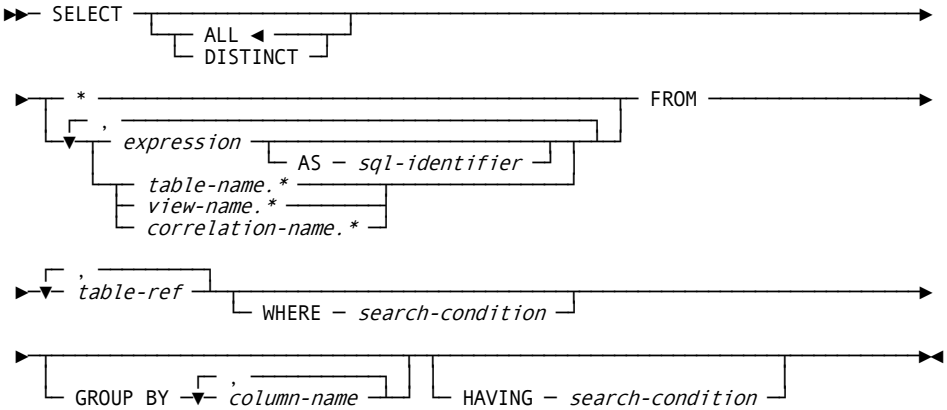
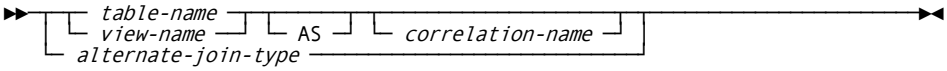
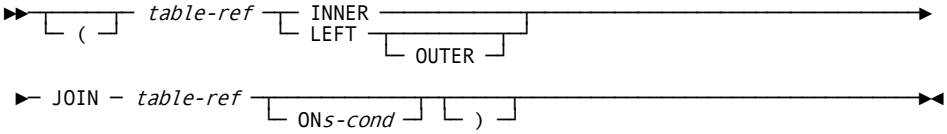


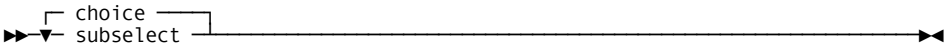
Table-ref



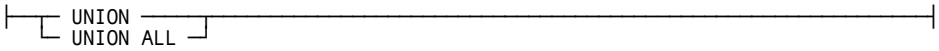
Alternate-join-type



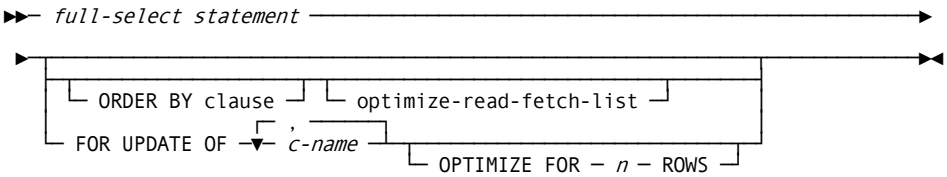
Full-select Statement



Expansion of where choice is as follows

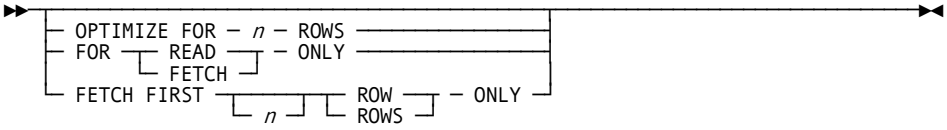


Select-statement

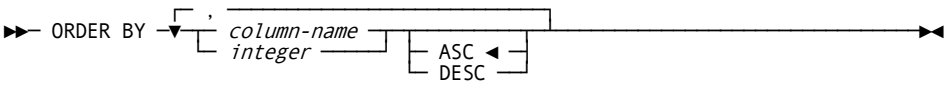


Optimize-read-fetch-list

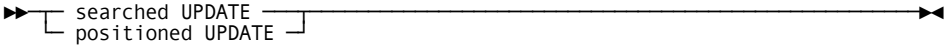
Only one use of each clause is allowed.



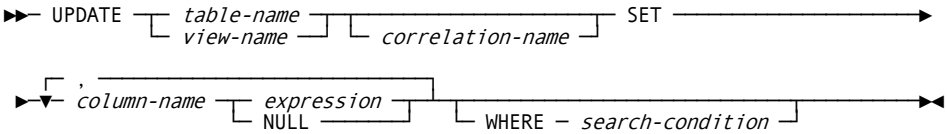
ORDER BY Clause



UPDATE



Searched UPDATE



Note: The Assignment Statement, CASE, CREATE RULE, IF-THEN, ITERATE, LEAVE, REPEAT-UNTIL, and WHILE statements are executed within the Compound Statement. See the CALL/EXECUTE PROCEDURE for the EXECUTE PROCEDURE syntax. See the CREATE TRIGGER/RULE for the CREATE RULE syntax.

Reserved and Ignored Words

DQL Ignored Words

ALL	BREAK	COLUMN	FIELD
AND	BREAKS	COLUMNS	FIELDS
ASCENDING	BY		FILE
			FILES
			FROM
IN	KEY	OF	RECORD
INTO	KEYS	ON	RECORDS
			ROW
			ROWS

TABLE	UP	VIA
TABLES		
THAN		
THE		
THEM		
THEN		
TO		

CA Dataquery Reserved Words

+nnnn	ADMIN	BOTTOM	CANCEL
-nnnn	ASC		CHANGE
	AUTHID		CNT
	AVG		CONDITIONS
			CONTAINING
			COPY
			COUNT
			CREATE
DESC	EDIT	FIND	GT
DESCENDING	ENCLOSE	FIRST	GTE
DETAIL	EQ		GREATER
DIAGNOSTICS	EQUAL		
DIRECTORY	ERASE		
DISPLAY	EXECUTE		
DO	EXTRACT		
DOWN			
DQL			
DRAW			
HELP	INSERT	JCL	KEEP
		JOIN	
		JOIN-AS-IS	
		JOINED	
LANGUAGE	MAX	NOT	OFF
LESS	MENU	NO-TOTALS	OR
LIBRARY	MIN	NOWRAP	ORDER
LIST	MOVE	NULL	
LOCATE	MSG		
LTE			

PDB	RELATED	SCROLL	THROUGH
PFn	REPEAT	SECURITY	TIME
PIC	RESTRICTIONS	SEND	TITLE
PICTURE		SET	TITLE1
PRINT		SETS	TITLE2
PRINTER		SHIFT	TOP
PROFILE		SORT	TOTALS
PROJECT		SPLIT	
		SQL	
		STATS	
		STALL	
		STORE	
		SUBMIT	
		SUM	
UPDATE	WHEN-ONLY		
USER	WHEN		
	WHERE		
	WITH		
	WRAP		

SQL Reserved Words

ADD	BEFORE	CALL	DATA
AFTER	BEGIN	CASE	DATACOM
ALL	BETWEEN	CAST	DATACOM DUMP
ALTER	BIT	COALESCE	DATACOM LOOPLIMIT
AND	BIT_ADD	COLUMN	DATACOM TSN
ANY	BIT_AND	COBOL	DELETE
ARRAY	BIT_NOT	CONCAT	DESCRIPTOR
AS	BIT_OR	CONDITION	DETERMINISTIC
ASSEMBLER	BIT_XOR	CONTINUE HANDLER	DISTINCT
ASENSITIVE	BY	CONTAINS	DO
ATOMIC	BYREF	CONVERSION	DROP
		COUNT	
		CURRENT	
		CURSOR	
EACH	FIRST	GENERAL	HANDLER
ELSE	FOR	GET CURRENT DIAGNOSTICS	HAVING
ELSEIF	FROM	GET DIAGNOSTICS	
END		GET STACKED	
END-EXEC*		GET STACKED DIAGNOSTICS	
EXECUTE		GRANT	
EXISTS		GROUP	
EXIT HANDLER			
EXTERNAL			

IF	JOIN	KEY	LANGUAGE
IMMEDIATE			LEADING
IN			LEAVE
INDEX			LEFT
INNER			LIKE
INOUT			LOOP
INPUT			LOWER
INSENSITIVE			LOWERCASE
INSERT			LTRIM
ITERATE			
INTEXTRACT			
INTO			
INVALIDATE			
IS			
MODIFIES	NEW	OF	PARAMETER
MUF_NAME	NEWFUN1	OLD	PLI
	NEWFUN2	ON	PRIVILEGES
	NEWFUN3	OPTIMIZE	PROCEDURE
	NO	OPTION	PROGRAM
	NOT	OPTIONS	
	NOT FOUND	OR	
	NULL	ORDER	
	NULLIF	OUT	
	NULLS	OUTER	
RAISE ERROR	SELECT	TABLE	UNION
READS	SENSITIVE	THEN	UNDO HANDLER
REFERENCING	SET	TO	UNTIL
REPEAT	SIGNAL	TO PXXSQL	UPDATE
RESIGNAL	SOME	TO SYSOUT	UPPER
RETURN	SPECIFIC	TRAILING	UPPERCASE
RTRIM	SQL	TRIGGER	USER
RULE	SQLEXCEPTION	TRIM	USING
RUN	SQLSTATE	TSN	
	SQLWARNING		
	SQUEEZE		
	STATEMENT		
	STRIP		
	STYLE		
	SUBSTRING		
	SYNONYM		
VALUES	WHEN	XMLATTRIBUTES	
VARCHAR	WHERE	XMLCONCAT	
VIEW	WHILE	XMLELEMENT	
	WITH	XMLFOREST	
	WITHOUT	XMLSERIALIZE	

Chapter 3: User Guide

Operating CA Dataquery

Using a Directory

PF Key	Cursor	Result
<PF1> HELP	Any position	Help panel appears
<PF2> RETURN	Any position	Previous panel appears
<PF3> EXECUTE	Any query name	CA Dataquery executes this query or dialog
<PF4> EDIT	Any query name	Display that query, or dialog for review, copying or changing, if allowed
<PF6> DELETE	Any private query or dialog name	CA Dataquery removes that query or dialog
<PF7> BACKWARD	Any position	Display previous queries or dialogs, if any
<PF8> FORWARD	Any position	Display more queries and dialogs, if any
<PF9> SUBMIT	Any query or dialog name	CA Dataquery displays the Batch Execution panel
<PF10> EXTENDED DEF	Any query or dialog name	CA Dataquery displays the extended attributes of the selected item

PF Key	Cursor	Result
<PF11> LEFT	Any position	Scroll left
<PF12> RIGHT	Any position	Scroll right

Using the Editor

Create Mode PF Keys

<PF1> HELP

Display information about the current panel.

<PF2> Return

Return to the previous panel.

<PF3> DISPLAY COLUMNS

Display a list of all columns for the current table.

<PF4> DISPLAY KEYS

DQL: Display a list of keys for the current table. SQL: Display columns for the current table. (Keys are not used in SQL statements.)

<PF5> DISPLAY ALL

Display a list of all columns for the current tables.

<PF6> LIST TABLES

Display a list of all tables you can access.

<PF7> BACKWARD

Display the previous screen of a partially shown panel.

<PF8> FORWARD

Display the next screen of a partially shown panel.

<PF9> TEMPLATE

Display template for selecting model statements for building queries.

<PF10> VALIDATE

Screen the current entries on the EDITOR panel for errors.

<PF11> RIGHT/LEFT

Move current panel four columns left or right on 80-column terminal screens.

<PF12> PROCESS MODE

Display PF keys for processing the current member. (*See the following for Process Mode PF key usage.*)

Process Mode PF Keys

<PF1> HELP

Display information about the current panel.

<PF2> Return

Redisplay previous panel.

<PF3> EXECUTE

Execute the current query or dialog online.

<PF4> SAVE

Save the current member in the appropriate library.

<PF5> DIALOG DEF

Define dialog variables if the EDITOR contains a query with variables specified.

<PF6> DELETE

Delete the last version saved, if you own the member.

<PF7> BACKWARD

Display the previous screen of a partially shown panel.

<PF8> FORWARD

Display the next screen of a partially shown panel.

<PF9> UPDATE

Apply any changes made to the member, if you own it.

<PF10> VALIDATE

Have CA Dataquery check the entries for errors.

<PF11> RIGHT/LEFT

Move the panel 4 columns to the left or right, if an 80-column terminal screen.

<PF12> CREATE MODE

Display PF keys for creating a member.

Line Commands

A

After -- Destination for a move or copy after line with A.

B

Before -- Destination for a move or copy before line with B.

CH /string1/string2

Changes the first string to the second string.

C

Copies a single line to the specified destination.

Cn

Copies the indicated number of lines starting with the line on which you entered the command to the specified destination.

CB

Copies all lines following the command through the end of the panel to the specified destination.

CC

Copies the block you define to the specified destination.

CT

Copies from the first line through the line with the command.

D

Deletes a single line.

DB

Deletes from line with the command through the last line.

dd

Deletes block of lines specified by a pair of line commands *DD*.

Dn

Deletes a specified number of lines including the one on which you enter the command.

DT

Deletes from first line through line with the command.

GC /string1/string2

Changes every occurrence of first string to second string, and leaves display positioned at last string changed.

I

Inserts a blank line after the line with the I command.

I*n*

Inserts the specified number of lines after the line with the I*n*.

NE /string

Searches forward for the specified text string.

PR /string

Searches backward for the specified text string.

M

Moves a single line to the specified destination.

MB

Moves a block of text starting with the line on which you enter the command through the end of the panel.

MM

Defines and moves a block of text to the specified destination.

Mn

Moves the specified number of lines to the specified destination.

MT

Moves a block of text starting with line 01 and continuing through the line on which you enter the command.

R

Repeats the line on which you enter the R command.

Rn

Repeats the line with the R command n times.

*****

Scrolls the line on which you enter the * to the top of the display.

T

Scrolls to the top of the panel.

<n

Shifts the display the specified number of columns to the left.

>n

Shifts the display the specified number of columns to the right.

sp

Splits the line into two lines at the point you place your cursor.

X

On any line, cancels pending COPY, MOVE, BEFORE, or AFTER.

Using the Online Output

Output PF Keys

<PF1> HELP

Display Help panel.

<PF2> RETURN

Redisplay ONLINE EXECUTION panel.

<PF3> TOTALS ONLY

See totals and no detail.

<PF4> DETAIL

See detail and totals.

<PF5> NO TOTALS

See detail with no totals.

<PF6> STATS

Display execution statistics.

<PF7> BACKWARD

Scroll back to previous screen.

<PF8> FORWARD

Scroll forward to next screen.

<PF11> LEFT

Shift report 80 characters to left.

<PF12> RIGHT

Shift report 80 characters to right.

Output Commands

DETAIL

Entered on the report output panel, formats report to display the report as it is defined in the query, with detail and totals.

NO-DETAIL

Shows PRINT command totals and WHEN/DO results. Suppresses detail lines.

NO-TOTALS

Show only detail lines and suppress total lines.

TOTALS

Show only total lines and omit detail lines.

NOWRAP

Issue after WRAP command to return wrapped report lines to multi-screen display.

WHEN-ONLY

Shows only WHEN/DO statement results and omits all other data.

WRAP

Moves off-screen lines to current screen of multi-screen display by wrapping each report line before starting the next report line.

BATCH EXECUTION Panel Entries

Field	Valid Entries	Explanation
Enter name of query to submit:	ACTIVE-QUERY	Query previously selected from Directory of Queries or query just executed
	Any valid query name	Type over ACTIVE-QUERY with a name
Select the type of execution:	Immediate:	Execution begins at next system opportunity.
	Defer execution until time __ : __:	Computer operator submits query for execution after the time specified. Time is expressed in *hours:minutes* using military time. For example, 3:00 p.m. is 15:00.
Enter the name of the JCL member to use:	default-name:	Executes the query as specified in the JCL maintained by the CA Dataquery Administrator. If a prompt panel appears, it must be completed.

Field	Valid Entries	Explanation
	A valid JCL member name:	Use only if authorized.
Enter non-blank to use JCL for deferred:	Enter any non-blank character to use deferred JCL.	*Defer execution until time __:__* must also be selected.
Select the report type:	Detail and totals:	Print detail and totals, if specified in query/report definition.
	Detail only (no totals):	Print only detail lines.
	Totals only (summary):	Suppress detail data.
	WHEN/DO column functions only	Suppress all contents except DQL Mode WHEN/DO results.
	No detail (totals and when/do)	Suppress detail lines.
	Suppress report	Do not produce hardcopy. Select this item if exporting.
To export print data to a sequential file, select output record type:	Variable comma separated	Data in character format with data fields separated by commas. Character fields will be in quotes with trailing blanks truncated. Numeric fields will have leading zeros truncated. Rows will vary in length.
	Fixed length record	Data will be exported in same type and length as retrieved from the database table. All rows will be the same length.
For variable, enter name of output set:	Any valid name.	Obtain a valid set name from the CA Dataquery Administrator.
For variable, select output type:	Any type listed	Choose one or both: Detail Totals
Select the output file device type:	Tape	Output to tape (DOS only).
	Disk	Output to disk (DOS only).

Preparing for Expert Use

SQL Query

Keyword	Operand	Explanation
SELECT	selection-list	Starts an SQL query or dialog. Specifies the data to be retrieved. The items in a selection list can be: column names, mathematical functions, arithmetic expressions, and literal constants.
FROM	table-names	Identifies the table or tables where data can be found.
WHERE	predicate	Tests each row in the named tables. If the result of the test is true, the row is selected. A predicate can be a comparison or a special search condition.
GROUP BY	column-names	Arranges data in groups. Usually used when needed for applying functions (like SUM) to groups of data.
HAVING	predicate	Used with GROUP BY to retrieve rows whose groups meet the search condition.
ORDER BY	select-list-items	Lists column names to specify the order in which data is to be presented. Columns listed must be in the SELECT clause. Ascending order is the default but DESC (descending) can be specified.

DQL Query

FIND

Starts a query that produces a report, specifying tables to search. Can specify number of rows to find. Can contain clauses that narrow the search and join more than one table.

COUNT

Starts a query that produces a count of rows in a table. Can specify types of rows and join more than one table if WITH and relationship clauses are added.

SET

Creates a report result for each detail row by combining existing columns mathematically.

SORT BY

Sorts rows found. Can specify grouping of rows found (control breaks).

PRINT

Requests columnar report format.

DISPLAY

Requests report format that displays one row per panel (or page). Can specify totaling and other numeric functions.

FIND

Starts a query that produces a report, specifying tables to search. Can specify number of rows to find. Can contain clauses that narrow the search and join more than one table.

COUNT

Starts a query that produces a count of rows in a table. Can specify types of rows and join more than one table if WITH and relationship clauses are added.

SET

Creates a report result for each detail row by combining existing columns mathematically, for example,

SET GROSS = SALES + COMMISSION.

SORT BY

Sorts rows found. Can specify grouping of rows found (control breaks).

PRINT

Requests columnar report format.

DISPLAY

Requests report format that displays one row per panel (or page). Can specify totaling and other numeric functions.