



SELCOPYi Quick Reference

Release 3.50

IBM Mainframe z/OS, z/VSE & z/VM (CMS) Systems

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SELCOPYi 3.50 Quick Reference

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Information in this document details general features and functionality of the **SELCOPY Product Suite 3.50** component, **SELCOPYi**.

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SELCOPY Product Suite for z/OS, z/VM (CMS) and z/VSE operating systems, which includes SELCOPY, SELCOPYi and CBLVCAT, is available for download and install from www.cbl.com/selcdl.php.

The following publications for SELCOPY Product Suite and its component products are available in Adobe Acrobat PDF format at CBL web page www.cbl.com/documentation.php:

- SELCOPY Product Suite Customisation Guide
- SELCOPY User Manual
- CBLVCAT User Manual
- SELCOPYi Reference and User Guide
- SELCOPYi Text Editor Manual
- SELCOPYi Data Editor (SDE) Manual
- SELCOPYi REPORT Utility
- SELCOPYi SMF Utilities
- SELCOPYi Quick Reference
- SELCOPYi Training Manual

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The following generic terms are used throughout this document to indicate all available versions and releases of IBM mainframe operating systems:

MVS - z/OS, OS/390, MVS/ESA, MVS/XA, MVS/SP, OS.

VSE - z/VSE, VSE/ESA, VSE/SP, DOS.

CMS - z/VM, VM/ESA, VM/XA, VM/SP.

All - All MVS, VSE and CMS operating systems.

Introduction

The Quick Reference summarises SELCOPYi commands, options and default Function Key settings which are arranged by application feature. It is intended for application developers and administrators who use SELCOPYi release 3.50.

Information in this document was extracted from the following release 3.50 publications:

- SELCOPYi Reference and User Guide
- SELCOPYi Text Editor Manual
- SELCOPYi Data Editor (SDE) Manual

Reading Syntax Diagrams

Syntax diagrams are used throughout SELCOPY Product Suite documents to define primary command syntax and obey a standard format as defined in "*Command Reference Syntax Conventions*" in the "*SELCOPYi Text Editor*" and "*SELCOPYi Data Editor (SDE)*" manuals.

Menu Panels

SELCOPYi functions and utilities may be launched via the panel option menus.

Primary Options (=)

Opt	Title	Description
0	Settings	Set SELCOPYi options.
1	Text Edit	Edit/View text.
2	Data Edit	Edit/Browse structured data and large data objects.
3	Lists	List Volumes, Files, ENQs, DB2 objects.
4	Home	Home command centre.
5	Copy/Reformat	Copy file data with optional copybook reformat.
6	Search/Update	Search, update, copy and/or reformat file data.
7	Compare	Compare files and PDS/PDSE libraries.
8	Utilities	General utilities
9	Structure	Create structures for structured data browse/edit.
10	Filter	Create filters for structured data browse/edit record selection.
11	Print/Report	Print Dataset or create a Report
12	DB2	Work with DB2. (Browse, edit, list tables etc.)
13	SMF	Work with DB2. (Browse, edit, list tables etc.)
T	Training	Work with MVS System Management Facilities data
WL	Window List	Display active windows, select to switch focus
X	Exit	Exit SELCOPY/i

Lists (=3)

Opt	Title	Command	Description
1	Volumes	LVOL	List DASD Volumes
2	VTOC	LV	List VTOC files
3	Extents	LX	List VTOC Extents
4	Dslist		Data Set List Utility
5	Catalog	LC	List Cataloged datasets (catalog detail)
6	Dataset	LD	List Dataset details (catalog & VTOC detail)
7	Library	LL	List PDS/PDSE Library members
8	Allocated	LA	List Allocated files (DD names)
9	Enqueues	LQ	List Resource Enqueues
10	Job Enqueues	LJQ	List Job Enqueues
11	Associations	LAS	List File Associations
12	HFS	LP	List HFS Paths
13	DB2	LDxx	List DB2 objects
14	StorGrps	LSG	List SMS Storage Groups
15	StorGrp Vols	LSGV	List SMS Storage Group Volumes

Utilities (=8)

Opt	Title	Command	Description
1	SELCOPY/debug	SELC	SELCOPY/batch language interactive debug
2	CBLVCAT	VCAT	Catalog/VTOC report online excution
3	IDCAMS	AMS	Execute IDCAMS commands interactively
4	Catalog ALIAS	AMSA	AMSA - Define new Catalog Alias
5	Library ALIAS	ALI	Create new PDS/PDSE library member Alias
6	IEBCOPY	IEBC	Execute IEBCOPY interactively
7	Favourites	FAV	Favourite Datasets/Commands
8	System	SY	Display System Information
9	Search	FS	Basic PDS/PDSE Library string search
10	Find Lib Member(s)	LLX	Search for member(s) across multiple libraries
11	Compare Files	COMPF	Compare Files
12	Compare Libraries	COMPL	Compare Libraries
13	Calendar	CAL	Basic Calendar
14	Calculator	CALC	REXX expression calculator
15	Alloc/Define		Create new VSAM or Sequential datasets
16	XML-Gen	XML	Produce eXtensible Markup Language from Data File
17	CSV-Gen	CSV	Produce Comma Separated Variables from a Data File
18	JSON-Gen	JSON	Produce JavaScript Object Notation from Data File
19	Merge Datasets	MERGE	Merge a number datasets sorted by a key field
20	Orphan Members	GENORPH	List/Delete PDSE v2 Orphaned Member Generations

DB2 Primary Options (=12)

Opt	Title	Description
0	Settings	Set DB2 options
1	DB2	Execute DB2 Commands
2	SQL	Execute SQL Commands
3	Edit	Edit Tables and Views
4	Browse	Browse Tables and Views
5	Create	Create DB2 Objects
6	Drop	Drop DB2 Objects
7	List	List DB2 Objects
8	Audit	Audit Trail functions
9	Compare	Compare DB2 Tables
10	Rename	Rename DB2 Tables and Indexes
11	Structure	Create/Edit a DB2 Table SDO
12	Utilities	DB2 utility job generarion
13	Report	Create a Report from a DB2 Table or from SQL
T	Training	Setup DB2 Training Material

Text Editor

Supporting most commands and features provided by both CMS XEDIT and the ISPF Editor, the SELCOPYi text editor (CBLe) allows the user to perform standard editing tasks on unformatted data.

Note that the **Data Editor** should be used for edit of VSAM data sets or where a data set is too large to be loaded entirely into available storage.

The text editor supports two, inter-changeable command environment interfaces as follow:

1. XEDIT - The SELCOPYi text editor environment based on XEDIT. (Default for z/VM CMS and z/VSE)
2. ISPF - The SELCOPYi text editor environment based on ISPF Edit. (Default for z/OS)

The currently active text edit interface may be changed using the **SET INTERFACE** option.

The complete set of supported text editor commands are available in both interfaces and, where the names of primary and prefix area (line) commands do not conflict between the 2 interface environments, those commands operate identically regardless of which interface is currently active. However, certain commands that exist in both interfaces (e.g. CHANGE) operate differently depending on which interface is currently active.

To execute the form of a primary command defined by the interface which is not currently active, specify "EC" (ECOMMAND) or "IC" (ICOMMAND) before the command verb, to explicitly nominate the interface (XEDIT or ISPF respectively) to be used to interpret the command.

Text Edit Startup

By default, SELCOPYi opens a text edit environment on startup. Any of the following may be used to open a text edit view of records belonging to a sequential, VSAM, GDG dataset, HFS file or PDS/PDSE library member:

1. For existing files only, open the Text Edit Entry Panel, select the required action (Edit, View or Browse) and enter values for the Name, Member and/or Volume fields as appropriate. This panel may be opened as follows:
 1. Primary command: **OPEN**
 2. Primary Option Menu, option 1. Text Edit. (=1)
 3. From the main menu bar, select File --> Open...
2. For new or existing files, execute primary commands: **EDIT** or **VIEW**
Note: To execute and Text Editor primary command from a Data Editor view, prefix it with "TE". (e.g. TE EDIT.)

Text Edit Function Key Defaults

F1	HELP	F13	SOS LINEADD
F2	SPLIT	F14	SOS LINEDEL
F3	END	F15	DUPLICATE
F4	WINDOW	F16	ACTION
F5	RFIND	F17	MARK BOX
F6	RCHANGE	F18	MARK LINE
F7	UP	F19	SPLTJOIN
F8	DOWN	F20	BOX
F9	SWAP	F21	SWAP LIST
F10	LEFT	F22	UNDO
F11	RIGHT	F23	REDO
F12	CRETRIEV	F24	RESET BLOCK

Text Edit Prefix Area (Line) Commands

<code>.name</code>	Set a line pointer (line name).
<code>/</code>	Make this line the current line.
<code>[[n] ([[n]</code>	Column shift a line or block of lines n columns to the left. Characters shifted past the current BOUNDS setting are deleted.
<code>][n]]][n]</code>	Column shift a line or block of lines n columns to the right. Characters shifted past the current BOUNDS setting are deleted.
<code><[n] <<[n]</code>	Data shift a line or block of lines n columns to the left while attempting to prevent loss of data.
<code>>[n] >>[n]</code>	Data shift a line or block of lines n columns to the right while attempting to prevent loss of data.
<code>A AK</code>	Interface ISPF: Make this line the target for a move or copy (move or copy lines After this line). AK is an intermediate line target, allowing for additional line targets to follow for the same copied or moved block of lines.
<code>A[n]</code>	Interface XEDIT: Insert (Add) a blank line or a block of n blank lines.
<code>B BK</code>	Make this line the target for a move or copy (move or copy lines Before this line). BK is an intermediate line target, allowing for additional line targets to follow for the same copied or moved block of lines.
<code>BOUNDS</code> <code>BOU</code> <code>BNDs</code>	Display the boundary definition line.
<code>C[n] CC</code>	Mark a line or a block of lines for copying. Lines may be copied or cut to the clipboard (using the CUT command) or copied to another position within the same edited data using prefix commands, A or B.
<code>COLs</code>	Displays a column identification line.
<code>D[n] DD</code>	Delete a line or a block of lines.
<code>F[n]</code>	Interface ISPF: Show the first n records of an excluded record group.
<code>F</code>	Interface XEDIT: Make this line the target for a move or copy (move or copy lines Following this line).
<code>HEX</code>	Opens a hex dump view of the line.
<code>I[n]</code>	Insert a new blank line or a block of n new blank lines.
<code>L[n]</code>	Show the last n records of an excluded record group.
<code>LC[n] LCC LCLC</code>	Mark a line or a block of lines for lower casing.
<code>M[n] MM</code>	Mark a line or a block of lines for move. Lines may be moved to the clipboard (using the CUT command) or moved to another position within the same edited data using prefix commands, A or B.
<code>MB</code>	Mark a corner of a box block at the cursor column position.
<code>ML</code>	Mark a limit of a line block.
<code>O[n] OK[n] OO</code> <code>OOK</code>	Mark a line or a block of lines to be the target of a move or copy (overlay this line or block of lines.) OK and OOK are intermediate line targets, allowing for additional line targets to follow for the same copied or moved block of lines.
<code>P</code>	Make this line the target for a move or copy (move or copy lines Previous to this line).
<code>R[n] RR(n)</code> <code>"[n] ""[n]</code>	Repeat (duplicate) a line or a block of lines n times.
<code>S[n]</code>	Show a number of excluded lines.
<code>SJ</code>	Split a line at the focus column if non-blank characters follow, otherwise join the line that follows to the focus column.
<code>T</code>	Tag a single line.
<code>TF[n]</code>	Text flow the current line and following lines up to the next blank line, wrapping text at the specified column, n, or at the display width.
<code>TS[n]</code>	Text split the current line at the cursor position inserting, n blank lines between the split text. (Default 1 blank line.)
<code>UC[n] UCC UCUC</code>	Mark a line or a block of lines for upper casing.
<code>X[n] XX</code>	Mark a line or a block of lines for exclusion from the display.

Text Edit Primary Commands

The following table identifies Text Editor primary commands and their task category. Note that the command summary is organised by task category.

Command	Category	Command	Category
ADD	Data Alteration	LINE	Data Alteration
ALL	Data Filtering	LINE AFTER	Data Alteration
ALLOCATE	Miscellaneous	LINE BEFORE	Data Alteration
AUTOSAVE	Miscellaneous	LOCATE	Data Navigation
BACKWARD	Data Navigation	LOWERCASE	Data Alteration
BOTTOM	Data Navigation	MACRO	Miscellaneous
BOUNDS	Display Format	MARK	Data Alteration
BOX	Data Alteration	MORE	Data Filtering
BROWSE	Display Format	MOVE	Data Alteration
CANCEL	Miscellaneous	NFIND	Data Navigation
CAPPEND	Data Alteration	NFINDUP	Data Navigation
CAPS	Data Alteration	NOND	Display Format
CDELETE	Data Alteration	ONLY	Data Filtering
CHANGE	Data Alteration	OPEN	Miscellaneous
CINSERT	Data Alteration	OPTIONS	Miscellaneous
CLOCATE	Data Navigation	OVERLAY	Data Alteration
COMPARE	Miscellaneous	OVERLAYBOX	Data Alteration
COPY	Data Alteration	PASTE	Data Alteration
COUNT	Miscellaneous	QUIT	Miscellaneous
COVERLAY	Data Alteration	QUIT	Miscellaneous
CREATE	Miscellaneous	RCHANGE	Data Alteration
CREPLACE	Data Alteration	REDO	Data Alteration
CUT	Data Alteration	REPLACE	Data Alteration
DELETE	Data Alteration	RESET	Display Format
DOWN	Data Navigation	RFIND	Data Navigation
DSN	Miscellaneous	RIGHT	Data Navigation
DUPLICATE	Data Alteration	RUNSLC	Miscellaneous
ECOMMAND	Miscellaneous	RUNSELCOPY	Miscellaneous
END	Miscellaneous	SAVE	Miscellaneous
EQU	Miscellaneous	SSAVE	Miscellaneous
EXCLUDE	Data Filtering	SETPT	Display Format
FFILE	Miscellaneous	SHIFT	Data Alteration
FILE	Miscellaneous	SORT	Data Alteration
FILLBOX	Data Alteration	SPLIT	Data Alteration
FIND	Data Navigation	SPLTJOIN	Data Alteration
FINDUP	Data Navigation	SUBMIT	Miscellaneous
FLIP	Data Filtering	SDATA	Miscellaneous
FORWARD	Data Navigation	SYSEDT	Display Format
FREE	Miscellaneous	TAG	Display Format
GEN	Miscellaneous	TFIND	Data Navigation
GENCOMP	Miscellaneous	TFLOW	Data Alteration
GENORPH	Miscellaneous	TOP	Data Navigation
GET	Miscellaneous	TSO	Miscellaneous
GO	Data Alteration	TSPLIT	Data Alteration
HEX	Display Format	UNDO	Data Alteration
HIDE	Display Format	UP	Data Navigation
ICOMMAND	Display Format	UPPERCASE	Data Alteration
IMMEDIATE	Miscellaneous	VIEW	Display Format
INPUT	Miscellaneous	VIGNORE	Miscellaneous
JOIN	Data Alteration	VRESPECT	Miscellaneous
LABEL	Data Alteration	WINDOW	Display Format
LEFT	Data Navigation	WW	Display Format
LESS	Data Filtering		

Text Edit Format Display Commands

The following CBL primary commands change how data is presented in an CBL text edit view. Note that these command do not alter data.

BOUNDS :

Set the left and right column boundaries between which certain search, sort and shift operations will operate.

```
>>--+ BOUNds +-----+-----+-----+-----+-----+-----+-----+-----<<
      |               |               |               |               |               |
      +- BNDs -----+ left_col  +-----+ right_col  +-----+
                |               |               |               |
                +--- * -----+   +--- * -----+
```

BROWSE :

For **VSE** and **CMS** systems, **BROWSE** is a synonym for **VIEW**.

For **z/OS**, performs Data Editor **BROWSE** to display pages of text without having to load the entire dataset.

```
>>-- Browse -- fileid ---| SDE BROWSE Opts |-----><
```

GO :

Switch edit type and/or display of records.

```
>>-- GO -----+-- Browse --+-----+-----+-----+-----+-----+-----<<
                |               |
                +- Edit -----+
                |               |
                +- SE -----+
                |               |
                +- SU -----+
                |               |
                +- View -----+
```

HEX :

Displays the contents of the current text editor window as character or as both character and hexadecimal.

```
>>-- HEX  +-----+-----+-----+-----+-----+-----+-----+-----<<
          +- ON -----+
          |               |
          +--- Off -----+
```

HIDE :

Hide all shadow lines. (Equivalent to **SET SHADOW OFF**.)

NOND :

Executes **SET COLOUR NONDISPLAY** option to toggle the display of underscores on printable text in lines of data which include unprintable characters.

RESET :

Interface ISPF: Reset attributes of lines in the current text edit view and all other text edit views that display the same data. Line attributes include pending line commands, excluded line status, text highlighting, display options and prefix area flags.

```
>>-- RESet +-----+-----+-----+-----+-----+-----+-----+----->
          | | | | | | | | | | | | | | | | | | | | | | | | | | | |
          +- BLock + +- CHange + +- COmmand + +- Error + | EXcluded +
                        | | | | | | | | | | | | | | | | | | | | | |
                        + X -----+
                                               +- .ZFIRST -- .ZLAST +
                                               |
          >+-----+-----+-----+-----+-----+-----+-----+-----><
          | | | | | | | | | | | | | | | | | | | | | | | | | | | |
          +- Find + +- Hide + +- Label + +- Special + +- .name1 +-----+
                        | | | | | | | | | | | | | | | | | | | | | |
                        +- .name2 +
```

Interface XEDIT: Reset (unmark) the currently marked block or text highlighted as a result of a **CLOCATE** or **LOCATE** command.

```
>>-- RESet +-----+-----+-----+-----+-----+-----+-----+-----<<
          |               |
          +- BLock -----+
          |               |
          +--- THighlight -----+
```

SETPT :

Assign labels to lines within a file based on the presence of "." (dot) prefixed words in line data found between the specified column boundary limits.

```

    +---- 70 ----+ +--- 132 ---+
    |              |           |
>>-- SETPT -----+-----+-----+-----+-----><
    |              |           |           |           |
    +- start_col +- end_col +- Q +-
                               |   |
                               +- V +-
  
```

SYSEdit :

For CMS and z/OS ISPF environments only, opens the system text editor (XEDIT or ISPF Edit) to edit the specified (or current) dataset.

```

>>-- SYSEdit -----+-----+-----><
    |               |
    +- fileid ----+
  
```

TAG :

Set the line tag flag on and so highlight lines matching the specified line-target.

```

>>-- TAG -----+-----+-----><
    |             |
    +- line-target +-
  
```

VIEW :

Equivalent to EDIT except that data is edited as read-only (i.e. no exclusive SYSEdit ENQ).

```

>>+- View -+-+-----+-----+-----+-----><
    |       |   |
    +- Browse + +- fileid -+-----+-----+
                               |
                               +- ( +- PROFILE macroname -+-+-----+
                                   |   |   |
                                   +- NOPROfile -----+ +-| HFS Opts |+-
  
```

HFS Opts:

```

    +--- STD -----+
    |               |
+- EOL -+-----+-----+
|       |   |
|       +--- CR -----+
|       +--- LF -----+
|       +--- NL -----+
|       +--- CRLF -----+
|       +--- LF CR -----+
|       +--- CR NL -----+
|       +- string ----+           +- LRECL lrecl +-
|-----+-----+-----+-----+
+- RECFM --- F -----+
  
```

WINDOW :

Perform window focusing, positioning and sizing operations on the current edit (document) view or MDI parent (frame) window.

```

+----+ + (plus) -----+
|                                         |
>>-- Window -----+-----><
|                                         |
+----+ - (minus) -----+
|                                         |
+----+ NEXTwindow -----+
|                                         |
+----+ PREVwindow -----+
|                                         |
+----+ CAScade -----+
|                                         |
|                                         |
|                                         |
+----+ TILE -----+
|                                         |
|                                         |
+----+ ARRANGEicons -----+
|                                         |
+----+ NEWwindow -----+
|                                         |
+----+ HEX -----+
|                                         |
|                                         |
+----+ CLOse -----+
|                                         |
|                                         |
+----+ MENUmode -----+
|                                         |
|                                         |
+----+ RESTore -----+
|                                         |
+---+ MINimise ---+ +---+ FRAmE -----+
+---+ MINimize ---+
|                                         |
+---+ MAXimise ---+
+---+ MAXimize ---+

```

WW :

Open a new text editor view of data in the focus view (WINDOW NEW) and optionally execute a primary command.

```

>>-- WW -----+-----><
|                                         |
+----+ command -----+

```

Text Edit Data Navigation Commands

The following CBL primary commands cause the display of data to be scrolled.

BACKWARD :

Scroll the view of the data within the edit view up one page towards the top of the data. (Equivalent to the **UP DATA**.)

BOTTOM :

Interface ISPF: Display the last page of data. (Equivalent to the **DOWN MAX**.)

Interface XEDIT: Display the last line of data in the file.

CLOCATE :

Locate and then position the focus column at a *column-target*.

```
>>-- CLocate  ---+-----+----->><
                |               |
                +- column-target -+
```

DOWN :

Interface ISPF: Scroll the view of the data within the edit view down towards the last record.

```
>>- Down  ---+-----+----->><
                |               |
                +-- Cursor -----+
                +-- CSR -----+
                +-- Data -----+
                +-- Half -----+
                +-- Max -----+
                +-- Page -----+
                +-- n_lines -----+
```

Interface XEDIT: Position the focus line one or more lines below the current focus line.

```
>>+--- Down  ---+-----+----->><
                |               |
                +- 1 -----+
                +-- Next ---+   +- nlines ---+
```

FIND :

Interface ISPF: Search data in the current text editor view for the specified character string.

```
>>--- Find --- string ---+-----+----->
                |               |
                +- NEXT ---+   +- CHARS ---+
                |               |
                +- ALL ---+   +- PREFIX ---+   +- EX ---+
                |               |               |
                +- FIRST ---+   +- SUFFIX ---+   +- NX ---+
                |               |               |
                +- LAST ---+   +- WORD ---+   +- X ---+
                |               |
                +- PREV ---+
                |
                +- .ZFIRST -- .ZLAST ---+
                |               |
                +-----+----->><
                |               |
                +- pos1 +-----+   +- .name1 +-----+
                |               |               |
                +- pos2 -+   +- .name2 -+
```

Interface XEDIT: Find the first line with line number greater than that of the focus line and contains the specified string in column 1. This line becomes the new focus line.

```
>>---- Find  ---+-----+----->><
                |               |
                +- string -+
```

FINDUP :

Find the first line with a line number lower than that of the focus line and contains the specified string in column 1. This line becomes the new focus line.

```
>>--++-- FINDUP  --++--++-----+-----+-----><
      |         |         |         |
      +-- FUp  +-----+   +- string -+
      |         |         |         |
```

FORWARD :

Scroll the view of the data within the edit view down one page towards the bottom of the data. (Equivalent to the **DOWN DATA.**)

LABEL :

Primarily used for ISPF Edit macro compatibility, LABEL may also be executed as primary command to set a line label at a specific line in the text edit view.

```
>>-- LABEL  --++-- line_num --+----- = --- .label_2  --+-----+-----><
      |         |         |         |
      +-- .label_1 --+         +----- level --+
      |         |         |         |
```

LEFT :

Interface ISPF: Scroll the view of the data within the edit view left towards the first column of the record data.

```
>>- LEFT  ---+-----+-----+-----><
      |         |         |         |
      +-- Cursor  +-----+
      +-- CSR    +-----+
      +-- Data   +-----+
      +-- Half   +-----+
      +-- Max    +-----+
      +-- Page   +-----+
      +-- n_lines +-----+
      |         |         |         |
```

Interface XEDIT: Position the focus column one or more columns to the left of the current focus column.

```
>>-- LEft  ---+-----+-----+-----><
      |         |         |         |
      +-- 1     +-----+
      +-- ncol  +-----+
      +-- HALF  +-----+
      |         |         |         |
```

LOCATE :

Interface ISPF: Scroll the view up or down to the first line that satisfies the specific or generic record location criteria.

```
>>-- Locate  --++-- line_num  -----+-----+-----><
      |         |         |         |
      +-- .label  +-----+-----+-----+
      |         |         |         |
      | +-- NEXT  --+         +-- .ZFIRST -- .ZLAST --+ |
      |         |         |         |
      +-----+-----+ Change  +-----+-----+
      |         |         |         |
      +-- FIRST  +  +-- COmmand  --+ +-- .name1  -- .name1  --+
      |         |         |         |
      +-- LAST  --+ +-- ERror  ----+
      |         |         |         |
      +-- PREV  --+ +-- EXcluded  -+
      |         |         |         |
      |         |         |         |
      +-- Label  ----+
      |         |         |         |
```

Interface XEDIT: Starting at the focus line of text, search for the first line that matches the specified *line-target* or satisfies the condition defined by regular expression *regexp*, and make it the new focus line.

```
>>--++-----+-----+-----+-----><
      |         |         |         |
      +-- Locate  --+ +-----+-----+-----+
      |         |         |         | |
      | + + + + + |         |         |         |
      |         |         |         |
      +-----+-----+ R /regexp/  --+
      |         |         |         |
      +-- - - + + +
      |         |         |         |
```

NFIND :

Find the first line with line number greater than that of the focus line and does **not** contain the specified string in column 1. This line becomes the new focus line.

```
>>----- NFIND -----+-----+-----><
                        |         |
                        +- string -+
```

NFINDUP :

Find the first line with line number lower than that of the focus line and does **not** contain the specified string in column 1. This line becomes the new focus line.

```
>>---+- NFINDUP -+-----+-----><
      |         |         |         |
      +- NFUP  ---+   +- string -+
```

RFIND :

Repeat the search performed by the ISPF format FIND, CHANGE or EXCLUDE command executed last.

RIGHT :

Interface ISPF: Scroll the view of the data within the edit view right towards the last column of the record data.

```
>>- RIGHT -+-----+-----><
          |         |
          +-- Cursor -----+
          +-- CSR -----+
          +-- Data -----+
          +-- Half -----+
          +-- Max -----+
          +-- Page -----+
          +-- n_lines -----+
```

Interface XEDIT: Position the focus column one or more columns to the right of the current focus column.

```
>>-- Right -+-----+-----><
          |         |
          +- 1 -----+
          +- ncol -----+
          +- HALF -----+
```

TFIND :

Locate the first line, starting at the focus line, to contain the specified *line-target* in the 1st position of the current ZONE (BOUNDS) and make this line the new focus line.

```
>>----- TFIND -----+-----+-----><
                        |         |
                        +- line-target -+
```

TOP :

Display the first page of data. (Equivalent to the UP MAX.)

UP :

Interface ISPF: Scroll the view of the data within the edit view up towards the first record.

```
>>- UP -----+-----+-----><
          |         |
          +-- Cursor -----+
          +-- CSR -----+
          +-- Data -----+
          +-- Half -----+
          +-- Max -----+
          +-- Page -----+
          +-- n_lines -----+
```

Interface XEDIT: Position the focus line one or more lines above the current focus line.

```
>>----- Up -----+-----+-----><
          |         |
          +- 1 -----+
          +- nlines ---+
```

Text Edit Data Filtering Commands

The following CBL primary commands are used to temporarily remove display of data records or to redisplay records in the CBL view. Note that these command do not alter data.

ALL :

Display only those lines that satisfy a condition defined by *line-target* search criteria.

```
>>-- ALL ---+-----+-----><
      |               |
      +- line-target -+
```

EXCLUDE :

Exclude from the all text edit views of the same data, records that satisfy a search for a specified search string.

```
>>--+- EXclude ---+--- string ----->
      |               |
      +- X -----+
                                     +- NEXT ---+ +- CHARS ---+
                                     |           | |           |
      +- ALL ---+ +- PREFIX ---+
      +- FIRST ---+ +- SUFFIX ---+
      +- LAST ---+ +- WORD ---+
      +- PREV ---+
                                     +- .ZFIRST -- .ZLAST --+
                                     |           | |           |
      +- pos1 ---+-----+ +- .name1 ---+-----+
      |           | |           | |           |
      +- pos2 ---+-----+ +- .name2 ---+-----+
      |           | |           | |           |
      +-----+-----+-----><
```

FLIP :

Flip the status of excluded and non-excluded lines of text in the current text edit view and all other text edit views that display the same data.

```
>>-- FLIP -----+-----+-----><
      |               |
      +--- .ZFIRST --- .ZLAST ---+
      |           | |           |
      +--- .name1 ---+-----+
      |           | |           |
      +- .name2 ---+-----+
      |           | |           |
      +-----+-----+-----><
```

LESS :

Exclude or un-tag visible lines that satisfy the *line-target* search criteria. Lines that are already excluded or are not tagged remain unchanged.

```
>>-- LESS ---+-----+--- line-target -----><
      |               |
      +--- TAG ---+
```

MORE :

Make visible excluded lines or tag visible lines that satisfy the *line-target* search criteria. Lines that are already visible or are tagged remain unchanged.

```
>>-- MORE ---+-----+--- line-target -----><
      |               |
      +--- TAG ---+
```

ONLY :

Uses an ISPF format FIND specification to display only those lines which match the specification and exclude all lines that do not.

```
>>--- Only +-----+-----><
           |             |
           +---| Find Spec |---+

Find Spec:

           +- CHARs --+
           |             |
|- string +-----+-----+-----+-----+-----+-----+-----+-----+-----+
           |             | |             | |             | |             |
           +- PREFIX -+ +- pos1 -+-----+ +- .name1 -+-----+
           |             | |             | |             | |             |
           +- SUFFIX -+             +- pos2 -+             +- .name2 -+
           |             |
           +- WORD ----+
```


CHANGE :

Interface ISPF: Search lines of text for matching occurrences of the specified character string *string1* and replace it with *string2*.

```

                                     +- .ZFIRST --- .ZLAST --+
                                     |                         |
>>--+- Change -+- string1 -- string2 -+-----+-----+----->
      |         |         |         |         |         |         |
      +- CHG ----+         +- .name1 ---- .name2 --+
                                     |                         |
      +- NEXT ---+ +- CHARS ---+
      |         |         |         |         |         |         |
>-----+-----+-----+-----+-----+-----+-----<<
      |         |         |         |         |         |         |
      +- ALL ---+ +- PREFIX -+ +- EX -+ +- pos1 -----+
      |         |         |         |         |         |         |
      +- FIRST -+ +- SUFFIX -+ +- NX -+ +- pos2 -----+
      |         |         |         |         |         |         |
      +- LAST ---+ +- WORD ---+ +- X ---+
      |         |         |         |         |         |         |
      +- PREV ---+
  
```

Interface XEDIT: Change occurrences of *string1* to *string2* on the focus line and on lines up to, but not including, the line containing the first match for *group-target*.

```

>>-- Change --+---- /string1/string2/ --+-----+----->
      |         |         |         |         |         |         |
      +--- R /regexp/string2/ ----+
                                     |                         |
>-----+-----+-----+-----+-----+-----<<
      |         |         |         |         |         |         |
      +- group-target --+-----+-----+-----+-----+
      |         |         |         |         |         |         |
      +--- max_in_line --+-----+-----+-----+
      |         |         |         |         |         |         |
      +--- first_in_line --+
  
```

CINSERT :

Insert a text string into the focus line starting at the focus column. Existing text in, or to the right of the focus column will be shifted to the right for the length of the inserted text string.

```

>>-- CInsert --+-----+-----+-----+-----<<
      |         |         |         |         |         |         |
      +- string -+
  
```

COPY :

Interface ISPF: Copy records from *fileid*, an existing sequential or VSAM data set, PDS/PDSE library member or HFS path, into the current text edit view.

```

>>-- COpy --+-----+-----+-----+-----+----->
      |         |         |         |         |         |         |
      +- fileid --+ +- AFTER ---+ .name -+
      |         |         |         |         |         |         |
      +- BEFORE -+
                                     |                         |
>-----+-----+-----+-----+-----+-----<<
      |         |         |         |         |         |         |
      |         |         |         |         |         |         |
      +-----+ start_line +-----+-----+
      |         |         |         |         |         |         |
      +- FROM -+ +- end_line -+
  
```

Interface XEDIT: Copy text from a *group-target* area to the line following the *line-target*. Where BLOCK is specified as the *group-target*, a marked block may be copied to file data in other text edit views, otherwise copying text is restricted to lines within the same edited file.

```

>>-- COpy -- group-target --+-----+-----+-----<<
      |         |         |         |         |         |         |
      +- line-target -+
  
```

COVERLAY :

Overlay text in the focus line with the specified text string starting at the focus column.

```

>>-- COverlay --- string -----<<
  
```

CREPLACE :

Replace text in the focus line with the specified text string starting at the focus column.

```

>>-- CReplace --- string -----<<
  
```

CUT :

Cut and save to the clipboard, lines or boxes marked using MARK primary command or lines selected using M/MM or C/CC line commands.

```

+-- Copy -----+ +-- REPlace --+ +-- ALL -----+
|               | |               | |               |
>>-- CUT -----+-----+-----+-----+-----><
|               | |               | |               |
+-- Move -----+ +-- APPend ---+ +-- X -----+
|               | |               | |               |
|               | |               | |               |
+-- NX-----+

```

DELETE :

Interface ISPF: Delete lines of text from the current text edit view and all other text edit views that display the same data.

```

+-- ALL --+ +-- .ZFIRST ----- .ZLAST --+
|         | |         |         |         |
>>-- DElete --+-----+-----+-----+-----+-----><
|         | |         |         |         |
+-- .name1 --+-----+-----+-----+-----+-----+
|         | |         |         |         |
+-- line1 --+ +-- .name2 --+ +-- EX --+
|         | |         |         |         |
|         | |         |         |         |
+-- line2 --+ +-- NX --+
|         | |         |         |         |
+-- Block -----+

```

Interface XEDIT: Delete one or more lines from the edited file starting at the focus line.

```

+----- 1 -----+
|                 |
>>-- DElete -----+-----+-----+-----+-----><
|                 |
+-- group-target --+

```

DUPLICATE :

From the file in the current edit view, duplicate, one or more times, one or more lines identified by *group-target* starting at the focus line.

```

+-- 1 -----+ +-- 1 -----+
|             | |             |
>>-- DUPLICATE -----+-----+-----+-----+-----><
|             | |             |
+-- ntimes --+ +-- group-target --+

```

FILLBOX :

Fill a marked block with the single character *char* or insert a >1 character text string *string* in every line of the marked block beginning at the leftmost column of the block.

```

>>-- FILLbox -----+-----+-----+-----+-----><
|                 |
+-- char -----+
|                 |
+-- string --+

```

GET :

Copy records from *fileid*, an existing sequential or VSAM data set, PDS/PDSE library member or HFS path, into the current text edit view following the focus line.

```

+-- 1 -----+ * -----+
|             | |             |
>>-- GET ---- fileid -----+-----+-----+-----+-----><
|             | |             |
|             | |             |
+-- start_line -----+-----+-----+-----+-----+
|             | |             |
+-- n_lines --+

```

INPUT :

Insert a new line containing *string* following the focus line.

```

>>-- Input -----+-----+-----+-----+-----><
|                 |
+-- Insert --+ +-- string --+

```

JOIN :

Join text from the line below the focus line to the focus line itself starting at the focus column. Text at, and to the right of, the focus column is overlaid.

```
>>-- Join -----><
      |           |
      +-- Aligned --+
```

LINE :

Primarily used for ISPF Edit macro compatibility, LINE may also be executed as primary command to replace text in a specified text edit line.

```
>>-- LINE ---+--- line_num ---+----- = --- data -----><
      |           |
      +-- .label ----+
```

LINE_AFTER :

Primarily used for ISPF Edit macro compatibility, LINE_AFTER may also be executed as primary command to insert a line of text following a specified line in the edited data.

```
>>-- LINE_AFTER ---+--- line_num ---+----- = ---+-----+--- data -----><
      |           |
      +-- .label ----+
                                     +- DATALINE -+
                                     |           |
```

LINE_BEFORE :

Primarily used for ISPF Edit macro compatibility, LINE_BEFORE may also be executed as primary command to insert a line of text before a specified line in the edited data.

```
>>-- LINE_BEFORE ---+--- line_num ---+----- = ---+-----+--- data -----><
      |           |
      +-- .label ----+
                                     +- DATALINE -+
                                     |           |
```

LOWERCASE :

Lower case all alpha characters in the *group-target* area.

```
>>-- LOWercase -----+-----><
      |           |
      +- group-target -+
```

MARK :

Mark the boundaries of a line or box. MARK LINE marks the focus line as one edge of a line block and MARK BOX marks the focus column in the focus line as one corner of a box block. Marked blocks are used as *group-target* arguments to commands such as CHANGE, COPY, DUPLICATE, DELETE, FILLBOX, etc.

```
>>-- MARK ---+--- Line -----><
      |           |
      +-- Box ----+
```

MOVE :

Interface ISPF: Move all records from *fileid*, an existing sequential or VSAM data set, PDS/PDSE library member or HFS path, into the current text edit view.

```
>>-- MOVE -+-----+----->
      |   |   |   |   |
      +- fileid + +- AFTER -+---- .name -+
      |           |
      +- BEFORE +
```

Interface XEDIT: Move text from a *group-target* area to the line following the *line-target*. Where BLOCK is specified as the *group-target*, a marked block may be moved to file data in other text edit views, otherwise moving text is restricted to lines within the same edited file

```
>>-- Move -- group-target ---+-----+-----><
      |           |
      +- line-target -+
```

OVERLAY :

Overlay text in the focus line with the specified text string starting at column 1. The text string begins immediately after the single separating blank that follows the OVERLAY command verb.

```
>>-- Overlay --- string -----><
```

OVERLAYBOX :

Overlay text on and, if necessary, below the focus line with text from a marked line block or box block.

PASTE :

Move or copy lines from the clipboard into the current text or data edit view.

```

+-- Keep -----+
|               |
>>-- PASTE -----><
|               |
+-- Delete ----+

```

RCHANGE :

Repeat the find and replace performed by the last CHANGE command.

REDO :

Re-apply one level of change made to the current file that was previous undone by an UNDO command.

REPLACE :

Interface ISPF: Replace the contents of *fileid*, an existing sequential or VSAM data set, PDS/PDSE library member or HFS path, with records from the current text edit view.

```

>>-- REPlace -----><
|               |
+--- fileid ---+-----+
|               |
+--- .name1 --- .name2 -----+

```

Interface XEDIT: Replace the focus line with the specified text string. The text string begins immediately after the single separating blank that follows the REPLACE command verb.

```

>>-- Replace -----><
|               |
+--- string ---+

```

SHIFT :

Shift text to the LEFT or RIGHT by the specified number of columns. Text is moved on the focus line and on lines up to, but not including, the line containing the first match for *group-target*.

```

+-- 1 -----+ +----- 1 -----+
|           | |           |
>>-- SHift --+-- Left ---+-----+-----><
|           | |           |
+-- Right ---+ + n_cols ---+ group-target ---+

```

SORT :

Interface ISPF: Sort lines of text based on the contents of one or more key fields.

```

+ .ZFIRST + + .ZLAST +
|         | |         |
>>-- SORT +-----+-----+-----+-----><
|         | |         | +-- EX --+ | +-----+ |
|         | |         | +-- X --+ | | v | |
|         | |         | +-- NX --+ | +--- | Sort Field | -+++
|         | |         |
+-- Block -----+

```

Sort Field:

```

+-- Ascending --+
|               |
|-----+-----+ start_col -----+-----|
|               |
+-- Descending -+
|               |
+-----+-----+ end_col -----+

```

Interface XEDIT: Sort lines in the target area specified by *group-target* in ascending or descending order.

```

>>-- SORT - group-target -----><
|               |
| +-----+-----+ |
| | +- Ascending -+ |
| v |               |
+-----+-----+ coll -----+-----+
|               |
+-- Descending +
|               |
+-----+-----+ col2 -----+

```

SPLIT :

Interface ISPF: Enter split-screen mode. For z/OS ISPF only, SPLIT and its operands are passed to ISPF to split the screen horizontally.

```
>>-- SPLIT ----+-----+-----><
          |           |
          +- | ISPF SWAP Operands | -+
```

Interface XEDIT: Split the focus line into two lines starting at the focus column. Text at, and to the right of, the focus column is moved to column 1 of a new line following the focus line.

```
>>-- Split -+-----+-----><
          |           |
          +-- ALigned --+
```

SPLTJOIN :

SPLTJOIN (or SJoin) performs a SPLIT ALIGNED or JOIN ALIGNED on the focus line.

TFLOW :

Flow text in the focus line and all text lines that follow until the End of File indicator or a line containing only blank characters between the boundary (zone) columns is encountered.

```
>>-- TFlow ----+-----+-----><
          |           |
          +-- col_num --+
```

TSPLIT :

Split the focus line at the focus column and insert a number of blank lines between the split text.

```
          +-- 1 -----+
          |           |
>>-- TSplit -+-----+-----><
          |           |
          +-- n_lines --+
```

UNDO :

Undo one level of changes made to the file data in the current edit view.

UPPERCASE :

Upper case all alpha characters in the *group-target* area.

```
>>-- UPPERcase ----+-----+-----><
          |           |
          +- group-target -+
```

Text Edit Miscellaneous Commands

The following miscellaneous CBL e primary commands relate to file management and saving changes and closing a text edit view.

ALLOCATE :

Allocate or free datasets or start the **Allocate Non-VSAM panel**.

```
>>-- ALLOCate  +-----+-----+-----+----->><
              |         |         |         |
              +- -Cat --+   +--- allocparms ---+
              +- -FREE -+
              |         |         |         |
```

AUTOSAVE :

Set the autosave mode which controls the action taken when END is executed an alterations exist in the file data within the current edit view.

```
>>-- AUTOSAVE  +-----+-----+-----+----->><
              |         |         |         |
              +- ON  -----+
              |         |         |         |
              +- PROMPT ---+
              +- OFF  -----+
              |         |         |         |
              +- NOPROMPT -+
              |         |         |         |
```

CANCEL :

Interface ISPF: Cancel all edit views of the same file data without saving any alterations made since the last time the file was saved, or else opened for edit.

Interface XEDIT: Issue the QUIT command for *every* text edit view for all files opened by the edit editor.

COMPARE :

Interface ISPF: ISPF Edit COMPARE command is as yet unsupported by the SELCOPYi text editor.

Interface XEDIT: Compare lines of text in two files that are displayed in existing edit views within the current CBL e edit environment.

```
>>-- COMPare -- fileid1 --- fileid2 ----->><
```

COUNT :

Count occurrences of *string* on the focus line and on lines up to, but not including, the line containing the first match for *group-target*.

```
>>-- COUnt -- /string/ +----- 1 -----+>><
                    |         |         |         |
                    +- group-target -+
                    |         |         |         |
```

CREATE :

Create *fileid*, a sequential or VSAM data set, PDS/PDSE library member or HFS path, with records from the current text edit view.

```
>>-- CREate -----+-----+-----+----->><
              |         |         |         |
              +- fileid -----+
              |         |         |         |
              +- .name1 ---- .name2 -----+
              |         |         |         |
```

DSN :

Display a menu of utility functions or perform Browse, Edit, Delete, Rename for a file referenced by the fileid on which the cursor is positioned within the text edit view.

```
>>-- DSN -----+-----+-----+----->><
              |         |         |         |
              +- /  ----+
              |         |         |         |
              +- B  ----+
              +- K  ----+
              +- R  ----+
              +- X  ----+
              |         |         |         |
```

ECOMMAND :

Execute the XEDIT interface version of a command (as opposed to the ISPF interface version).

```
>>-- ECommand -- command -----><
```

EQU :

Set, Unset or List text editor environment variables.

```
>>--- EQU ---+-----+-----+----->>
      |
      +- varname ---+-----+-----+
                |
                +- value ---+
                |
                +- = -----+
```

END :

Close the current text editor view.

FFILE :

As for FILE except that save will be successful even if *fileid* is an existing file.

```
>>-- FFile ---+-----+-----><
      |
      +-- fileid --+
```

FILE :

Save the file data in the current edit view to disk as *fileid* and, if successful, exit the edit view and place focus on the previous window.

```
>>-- FILE ---+-----+-----><
      |
      +-- fileid --+
```

FREE :

Unallocate a ddname or override the disposition or output class of an allocated data set.

```
>>-- FREE -- freeparms -----><
```

GEN :

Perform utility operations based on the library DSN, member name or generation number of the member generation in the current Text Editor or Data Editor view.

```
>>-- GEN ---+-----+-----+----->
      |
      +- *-1 -----+      +- View -----+
      |
      +- 0 -----+      +- Browse ---+
      +- -nnn ---+      +- Compare---+
      +- *-nnn ---+      +- Edit      |
                          +- List -----+
                          +- Orphan ---+
                          +- Recover -+
                          +- Sde -----+
                          +- Upd -----+
                          +- View -----+
                          +- ? -----+
```

GENCOMP :

Compare the currently displayed member generation with another (earlier or later) generation of the same member.

```
>>-- GENComp ---+-----+-----+----->
      |
      +- COMPGen ---+ +-- *-1 -----+ +-- CONTEXT 10 -----+
      |
      +- 0 -----+ +-- compare-options -+
      +- -nnn ---+
      +- *-nnn ---+
```


SDATA :

Execute a Data Editor primary command.

```
>>-- SData -- sde_command -----><
```

SSAVE :

As for SAVE except that save will be successful even if *fileid* is an existing file.

```
>>-- SSave --+-----+-----><
           |         |
           +-- fileid --+
```

SUBMIT :

Submit the specified batch job *fileid* to the MVS or VSE batch system. The file should contain a valid Job Card and Job Control. If *fileid* is not specified, the file in the current text edit view is submitted.

```
>>-- SUBmit --+-----+-----><
           |         |
           +-- fileid --+
```

TSO :

For z/OS, execute a TSO primary command. For CMS, execute a CMS primary command.

```
>>--+ TSO -----+--- command -----><
    |         |
    +- SYScommand -+
    +- CMS -----+
    +- DOS -----+
```

VIGNORE :

Execute a primary command without translating environment variable names (delimited by % symbols) to their assigned values.

```
>>-- VIGNore ---- command -----><
```

VRESPECT :

Execute a primary command so that any variable names (delimited by % symbols) specified in the command are translated to their assigned values.

```
>>-- VRespect --- command -----><
```

Text Edit Options

ACTION	Obtain information relating to command string text processed by the Action facility.
ACTIONCOMMENT	Define character string representing start of a comment for the Action facility.
ACTIONCURSOR	Controls interpretation by the Action utility of the first underscore (cursor positioning) character.
ACTIONDELIM	Controls interpretation by the Action utility of or-symbol (delimiter) characters.
ALT	Set or obtain alteration count for the current text edit view.
ARBCHAR	Manage use of arbitrary (wildcard) characters in line/column-target specifications.
AUTOSAVE	Control action on closing the edit view when unsaved alterations exist.
BEEP	Control beep when text edit error message returned.
BLOCK	Reports attributes of the currently marked block.
CASE	Control interpretation of character case in line/column-target specifications.
CHANGE	For macro processing only, obtain information about the last CHANGE command issued.
CLIPBOARD	Obtain the status of clipboard data.
CMDDDEF	Control use of trailing numerics in macro names.
CMDLINE	Control location of the command prompt in a text edit view.
COLOUR / COLOR	Manage colour settings for text edit display of highlighted fields.
COLUMN	For macro processing only, obtain the column number of the focus column.
COUNT	For macro processing only, obtain information about the last COUNT command issued.
CURLINE	For macro processing only, obtain information about the focus and current lines.
CURSOR	For macro processing only, obtain the location of the cursor.
DEFPROFILE	Control the name of the Text Editor profile macro.
DIALOG	For macro processing only, obtain information returned from a DIALOG command.
DISPLAY	Manage display of lines via their assigned selection level.
DSN	Set or obtain the DSN assigned to the text being edited in the current text edit view.
DSORG	Set or obtain the data set organisation of the dataset in the current edit view.
ENVVARS	Control use of Text Editor environment variables.
EOLIN	Control the input End-of-Line characters used for COPY or GET of an HFS file.
EOLOUT	Control the output End-of-Line characters used for SAVE of an HFS file.
FIDCHANGED	Control the file name changed indicator flag setting.
FILEID	Set or obtain the complete fileid assigned text in the current text edit view.
FLSCREEN	Obtain the line numbers of the first and last lines in in the current display area.
FMODE	Set or obtain the file mode portion of the name assigned text in the current text edit view.
FNAME	Set or obtain the file name portion of the name assigned text in the current text edit view.
FPATH	Set or obtain the HFS file path assigned text in the current text edit view.
FTYPE	Set or obtain the file type portion of the name assigned text in the current text edit view.
GENSAVE	Set the default action on save of a member in a library in which member generations exist.
HCOLOR / HCOLOUR	Control colours used by synatx highlighting.
HEXSTRING	Control support for hex strings in Text Editor primary commands.
HILITE / HILIGHT	Control syntax highlighting in Text Editor views.
HSCROLLCURSOR	Controls automatic horizontal scrolling of the display following CLOCATE.
IMPMACRO	Controls whether a search will occur for a macro member name if a primary command is not recognised.
INIFILE	Obtain the SELCOPYi System and User INI dataset names.
INIVAR	Obtain all variables set in bothe the SELCOPYi System and User INI datasets.
INSTANCE	Specifies whether a number of instances of the Text Editor frame window may be started.
INTERFACE	Control the default edit interface (ISPF of XEDIT).
ISPFMODE	In ISPF only, controls whether or not screen management is handled by ISPF.
KEY	For undefined KSDS datasets, alter the KSDS key position and length.
LASTMSG	Obtain the last message diplayed by the Text Editor.
LCOLOR / LCOLOUR	Assign colours to lines containing specific text strings.
LENGTH	Obtain the length of the focus line of text.
LINE	Obtain the line number of the focus line of text.
LINEFLAG	Controls flag bits set for a target group of lines.
LINEND	Controls use and specification of the Text Editor command delimiter character.
LISTFILEACTION	Controls the default action on pressing <Enter> on a list window entry.
LOADWARNING	Size threshold multiple at which load of a dataset is paused and a warning message displayed.
LRECL	Set or obtain the defined LRECL for the dataset in the current edit view.
LSCREEN	Obtain the size and location of the focusr Text Editor view.
MACRO	Display the name and contents of all macros loaded in storage by DEFINE.
MACROPATH	Set or obtain the list of library names that comprise the macro search path.
MBR	Synonym for FNAME.
MSGLINE	Set or obtain message line definitions and their location within the display area.
MSGMODE	Controls whether or not messages are displayed and if long messages wrap onto multiple message lines.
NBWINDOW	Obtain the number of active Text Editer window views.
OPSYS	Obtain information about the operating system.

PFKEY	Set or obtain PFKey definitions for Text Editor views.
POINT	Set or obtain named line label definitions.
PREFIX	Control display, location and width of the Text Editor numbered prefix area.
PSCOPE	Include/exclude excluded lines in the scope of lines processed by edit prefix area (line) commands.
RANGE	Restrict edit to a range of lines within the current edit view.
RECFM	Set or obtain the RECFM of the dataset in the current edit view.
REDO	Synonym for option UNDO.
RESERVED	Define reserved lines in the text edit view.
RING	Obtain information about each file being edited with the Text Editor.
SAVEOPTIONS	Maintain updates made to text editor options across SELCOPYi sessions.
SCALE	Manage display of the Text Editor scale line.
SCOLOUR / SCOLOR	Character string colour assignment within the edited text.
SCOPE	Include/exclude excluded lines in the scope of lines processed by edit primary commands.
SCREEN	Obtain dimensions of the physical 3270 display.
SELECT	Manage selection level assigned to the lines within a group-target area.
SHADOW	Control display of shadow lines which represent groups of excluded lines.
SIZE	Obtain number of lines belonging to file in the current edit view.
SIZEWARNING	Size threshold above which a file size warning is displayed before attempting load.
STAY	Control focus line update following LOCATE, CLOCATE, CHANGE, SORT and SET SELECT.
STREAM	Control column-target search streaming across subsequent edit lines.
SYNONYM	Display, manage and define text edit command synonyms.
THIGHLIGHT	Control target highlighting for LOCATE/CLOCATE.
UNDO	Obtain information relating to the undo chain of updates.
UNDOING	Control UNDO/REDO activation, maximum undo levels and available storage.
USERNAME	Obtain current user's logon user id.
VARBLANK	Single blank interpretation in line-targets and column-targets.
VERSION	Obtain Text Editor version information.
VIEW	Text display format as character or hexadecimal.
WINNAME	Text edit document and frame window naming.
WINPOS	Text edit document and frame window positioning.
WINSIZE	Text edit document and frame window sizing.
WRAP	Control line-target search wrapping from the last to first line of edited text.
ZONE	Zone (boundary) columns.

Data Editor (SDE)

The SELCOPYi Data Editor supports the Structured Data Environment (SDE).

SDE allows users to display and process datasets using a pre-defined SDE structure (optionally generated from COBOL, PL1 and/or Assembler language source copybooks) which formats the record data into individual fields. Similarly, SDE allows display and process of DB2 table rows formatted by the defined table column definitions.

Data Edit Startup

An SDE Edit or Browse view of a (non-segmented or segmented record) sequential, VSAM, HFS file or PDS/PDSE library member may be opened using any of the following methods:

1. Using the Structured Data Editor dialog panel, entering values for the INPUT fileid field and, to format the record data, one of the USING fields. This panel may be opened as follows:

1. Primary command: **SDE**
2. Primary Option Menu, option 2. Data Edit. (=2)
3. From the main menu bar, select File --> Structured Edit...

2. Directly using Data Editor primary commands: **EDIT** or **BROWSE**

Note: To execute a Data Editor primary command from a non-SDE view, prefix with "SD". e.g. SD EDIT.)

A Data Editor edit or browse view of DB2 table rows may be opened using any of the following methods:

1. Using the DB2 Edit Object or Browse Object dialog panel (option 3. Edit or option 4. Browse on the DB2 Primary Option Menu) enter values for the DB2 Object fields and other optional fields relating to filtering, comping, etc. The DB2 Primary Option Menu may be opened as follows:

1. Primary command: **DB2**
2. Primary Option Menu, option 12. DB2.
3. From the main menu bar, select File --> DB2...

2. Directly using Data Editor primary commands: **EDIT DB2** or **BROWSE DB2**

Data Edit Function Key Defaults

F1	HELP	F13	INSERT
F2	SPLIT	F14	DELETE
F3	END	F15	DUPLICATE
F4	WINDOW	F16	MACRO SDEUTIL
F5	RFIND	F17	MACRO SDEZOOMW
F6	RCHANGE	F18	
F7	UP	F19	
F8	DOWN	F20	
F9	SWAP	F21	SWAP LIST
F10	LEFT	F22	UNDO
F11	RIGHT	F23	REDO
F12	CRETRIEV	F24	

Data Edit Prefix Area (Line) Commands

<i>.name</i>	Set a line pointer (line name).
[n] (([n]	For unformatted record display only, column shift a line or block of lines <i>n</i> columns to the left. Characters shifted past the current BOUNDS setting are truncated.
) [n])) [n]	For unformatted record display only, column shift a line or block of lines <i>n</i> columns to the right. Characters shifted past the current BOUNDS setting are truncated.
A	Make this line the target for a move or copy (move or copy lines After this line).
B	Make this line the target for a move or copy (move or copy lines Before this line).
C[n] CC	Mark a line or a block of lines for copying. Lines may be copied or cut to the clipboard (using the CUT command) or copied to another position within the same edited data using prefix commands, A or B.
D[n] DD	Delete a line or a block of lines.
E	Applicable to edit of DB2 tables, E is used to display an SQL error panel describing the SQLCODE returned from the last attempt to save the row. Refer to the ERROR primary command, which has the same effect as this prefix command, for a description of the SQL error panel.
F[n]	Show the first <i>n</i> records of an excluded record group.
FMT	Display the record or record segment in single record , formatted view. Prefix commands FMT and MAP are synonyms.
HEX or HEXD	Display the record or record segment in HEXDUMP format.
I[n]	Insert a new line or a block of <i>n</i> new lines of the default record type.
ID[n] IDD	Remap (IDENTIFY) a line or a block of lines.
L[n]	Show the last <i>n</i> records of an excluded record group.
M[n] MM	Mark a line or a block of lines for move. Lines may be moved to the clipboard (using the CUT command) or moved to another position within the same edited data using prefix commands, A or B.
MAP	Display the record or record segment in single record, formatted view. Prefix commands FMT and MAP are synonyms.
R[n] RR[n] "[n]" "[n]"	Replicate (duplicate) a line or a block of lines <i>n</i> times.
RE	Applicable to edit and browse of DB2 tables, RE is used to list, edit or browse tables related to the current table. This command is equivalent to issuing the REDIT primary command with no parameters, with the row on which the prefix command is entered being the focus row for the command.
SEL	Open the SDE SELECT Columns Panel to apply column selection, column sequencing and/or column width definitions to the record-type definition mapping the focus line.
STP	Applicable to edit of Segmented Records only. Force a secondary segment to be a primary (base) segment so splitting the record into two. No action is taken if the segment is already a primary segment type.
STS	Applicable to edit of Segmented Records only. Force a primary segment to be a secondary segment so joining the record with the record before. No action is taken if the segment is already a secondary segment type.
V	Display only records that are of the same record type as this line.
V+	Add to the display records that are of the same record type as this line.
V-	Remove from the display records that are of the same record type as this line.
X[n] XX	Mark a line or a block of lines for exclusion from the display.
Z	Switch to a zoomed (single record view) display of the record occupying this line.

Data Edit Primary Commands

The Data Editor supports browse and edit of the following data formats:

1. Standard file records.
2. Segmented file records.
3. DB2 table rows.

The following table identifies primary commands, the data format to which they apply and the task category. Note that the command summary is organised by task category.

Command	Category	Record Edit	Segment Edit	DB2 Edit
ALL	Data Filtering	X	X	X
ARRC	Display Format	X	X	
ARRX	Display Format	X	X	
AVERAGE	Miscellaneous	X	X	X
ASCII	Display Format	X	X	X
BOTTOM	Data Navigation	X	X	X
BOUNDS	Miscellaneous	X	X	
BROWSE	Display Format	X	X	X
CANCEL	Miscellaneous	X	X	X
CAPS	Data Alteration	X	X	X
CHANGE	Data Alteration	X	X	X
CHAR	Display Format	X	X	
COLWIDTH	Display Format	X	X	X
COPY	Data Alteration	X	X	
CREATE	Miscellaneous	X	X	
CSVGEN	Miscellaneous	X	X	X
CUT	Data Alteration	X	X	X
DELETE	Data Alteration	X	X	X
DOWN	Data Navigation	X	X	X
DROP_DDOP	Miscellaneous	X	X	
DUPLICATE	Data Alteration	X	X	X
EDIT	Display Format	X	X	X
END	Miscellaneous	X	X	X
ERROR	Miscellaneous			X
EXCLUDE	Data Filtering	X	X	X
FILE	Miscellaneous	X	X	X
FILEIO	Miscellaneous	X	X	X
FIND	Data Navigation	X	X	X
FLIP	Data Filtering	X	X	X
FMT	Display Format	X	X	X
FORMAT	Display Format	X	X	X
GETXML	Miscellaneous			X
GO	Display Format	X	X	
GROUP	Display Format	X	X	X
GRPC	Display Format	X	X	
GRPX	Display Format	X	X	
HEX	Display Format	X	X	X
HEXDUMP	Display Format	X	X	
HIDE	Data Filtering	X	X	X
IDENTIFY	Display Format	X	X	
INFORMATION	Miscellaneous	X	X	X
INSERT	Data Alteration	X	X	X
JSONGEN	Miscellaneous	X	X	X
LAYOUT	Miscellaneous	X	X	X
LEFT	Data Navigation	X	X	X
LENGTH	Data Alteration	X	X	X
LESS	Data Filtering	X	X	X
LIST SDO	Miscellaneous	X	X	X
LOCATE	Data Navigation	X	X	X
OPTIONS	Miscellaneous	X	X	X
MAP	Display Format	X	X	X
MAPPING	Display Format	X	X	X
MARK	Data Alteration	X	X	X
MAXIMUM	Miscellaneous	X	X	X

Command	Category	Record Edit	Segment Edit	DB2 Edit
MINIMUM	Miscellaneous	X	X	X
MORE	Data Filtering	X	X	X
NEXT	Data Navigation	X	X	X
NOND	Display Format	X	X	X
OFFSET	Display Format	X	X	X
ONLY	Data Filtering	X	X	X
PASTE	Data Alteration	X	X	X
PERMANENT	Miscellaneous	X	X	X
PREFIX	Display Format	X	X	X
PREVIOUS	Data Navigation	X	X	X
PRINT	Miscellaneous	X	X	X
PUTXML	Miscellaneous			X
QUIT	Miscellaneous	X	X	X
QUERY	Miscellaneous	X	X	X
RCHANGE	Data Alteration	X	X	X
RCOLOUR	Display Format	X	X	X
RECINFO	Display Format	X	X	X
RECLENGTH	Display Format	X	X	X
REDIT	Display Format			X
REDO	Data Alteration	X	X	X
REPLACE	Miscellaneous	X	X	
REPLACELINE	Data Alteration	X	X	X
RESET	Display Format	X	X	X
RFIND	Data Navigation	X	X	X
RIGHT	Data Navigation	X	X	X
SAVE	Miscellaneous	X	X	X
SAVEAS	Miscellaneous	X	X	
SAVESTRUCTURE	Miscellaneous	X	X	
SEGTYPE	Data Alteration		X	
SELECT	Data Filtering	X	X	X
SET	Miscellaneous	X	X	X
SHIFT	Data Alteration	X	X	
SHOW	Display Format	X	X	
SORT	Data Alteration	X		
SORTINDEX	Display Format			X
SUM	Miscellaneous	X	X	X
TEDIT	Miscellaneous	X	X	X
TEMPORARY	Miscellaneous	X	X	X
TOP	Data Navigation	X	X	X
TOTALS	Miscellaneous	X	X	X
TSO	Miscellaneous	X	X	X
TYPE	Display Format	X	X	X
UNDO	Data Alteration	X	X	X
UNFMT	Display Format	X	X	
UNMAP	Display Format	X	X	
UNNAMED	Display Format	X	X	X
UP	Data Navigation	X	X	X
USE	Display Format	X	X	
VFMT	Display Format	X	X	X
VIEW	Display Format	X	X	
WHERE	Data Filtering	X	X	X
WINDOW	Display Format	X	X	X
WW	Display Format	X	X	X
XMLBROWSE	Miscellaneous			X
XMLEDIT	Miscellaneous			X
XMLGEN	Miscellaneous	X	X	X
XMLENGTH	Miscellaneous			X
XMLVIEW	Miscellaneous			X
XREF	Miscellaneous	X	X	
XREFLIB	Miscellaneous	X	X	
ZEROS	Display Format	X	X	X
ZOOM	Display Format	X	X	X

Data Edit Format Display Commands

The following SDE primary commands change how data is presented in an SDE browse or edit view. Note that these commands do not alter data.

ASCII :

SET option which causes data in all character (AN) fields to be interpreted in ASCII format.

```
>>+-----+ ASCII -----+ ON ---+-----><
|         |         |         |         |
+- SET -+-----+         +- OFF --+
|         |         |         |         |
```

ARRC :

Display a single dimension array (OCCURS) of one byte character fields (PIC X) with number of elements determined by a separate binary integer field (DEPENDING), as a single variable length character (XVARCHAR) field.

```
>>-- ARRC -----+----->
|         |         |
+--- field_col ---+
|         |         |
>+-----+-----+-----+-----><
|         |         |         |         |
+- FOR -+-----+ record_type +-----+
|         |         |         |         |
+- RECOrd +         +- IN +-----+ struct_name -+
|         |         |         |         |
+- STRUCTure +         |         |         |
```

ARRX :

Redisplay a single dimension array, which has been displayed as a variable length character field (ARRC), as a number of individual, single character fields.

```
>>-- ARRX -----+----->
|         |         |
+--- field_col ---+
|         |         |
>+-----+-----+-----+-----><
|         |         |         |         |
+- FOR -+-----+ record_type +-----+
|         |         |         |         |
+- RECOrd +         +- IN +-----+ struct_name -+
|         |         |         |         |
+- STRUCTure +         |         |         |
```

BROWSE :

Browse a data set, HFS file or DB2 result table with or without use of a structure which formats the data records/table rows.

```
>>-- Browse ---+-----+ fileid -----+ | SDE Opts |+->
|         |         |         |         |         |
+-----+ hfs_fileid ---+ | HFS Opts |---+ |         |
|         |         |         |         |         |
+--- DB2 ---+-----+-----+-----+ | DB2 Opts |+-+
|         |         |         |         |         |
+--- (ssn) ---+
|         |         |         |         |
+--- PROFile SDEPROF -----+
|         |         |         |         |
>-----+-----+-----+----->
|         |         |         |         |
+--- PROFile macro_name -----+
|         |         |         |         |
+--- NOPROFile -----+
|         |         |         |         |
>-----+-----+-----+-----><
|         |         |         |         |
+-----+-----+-----+-----+
|         |         |         |         |
+--- INItcmd - ( -+- sd_command -+- ) -+
|         |         |         |         |
```

CHAR :

Display records or record segments in multi-record, unformatted character view.

GRPC :

Display a group (structure) field, defined within a specified record type mapping, as a fixed length character field.

```
>>-- GRPC -----+-----+----->
                |         |
                +-- field_col --+

>+-----+-----+-----+-----><
|         |         |         |
+- FOR -+-----+- record_type +-----+
|         |         |         |
+- RECOrd +         +- IN +-----+ struct_name -+
|         |         |         |
+- STRUCture +         |         |
```

GRPX :

Redisplays a group (structure) field, which has been displayed as a fixed length character field (GRPC), as a formatted group of its component fields.

```
>>-- GRPX -----+-----+----->
                |         |
                +-- field_col --+

>+-----+-----+-----+-----><
|         |         |         |
+- FOR -+-----+- record_type +-----+
|         |         |         |
+- RECOrd +         +- IN +-----+ struct_name -+
|         |         |         |
+- STRUCture +         |         |
```

HEX :

Sets the hexadecimal display format on or off.

```
>>-- HEX ---+--- ON ---+-----><
                |         |
                +-- Off ---+---
```

HEXDUMP :

Display the focus record or record segment in single record, unformatted hex dump view.

```
>>-- HEXDump ---+-----+-----><
                |         |
                +-- New ---+---
```

IDENTIFY :

Remap changed records or record segments in the current SDE edit view.

```
>>-- IDentify -----+-----+-----><
|         |         |         |
+- n_lines -----+         +- EX -+
|         |         |         |
+- ALL -----+         +- X --+
+- * -----+         |         |
|         |         |         |
+- .name1 -----+         +- NX -+
|         |         |         |
+-- .name2 ---+-----+-----
```

MAP or FMT :

Display records or record segments in single record, formatted view.

MAPPING :

SET option which controls whether formatted data is displayed in its mapped or unmapped format.

```
>>+-----+--- MAPPING -----+--- ON ---+-----><
|         |         |         |
+- SET -----+         +- OFF ---+---
```

NOND :

Toggles display of underscores that identify printable characters within records containing unprintable characters.

REDIT :

Applies only to browse and edit of DB2 tables and is used to list, edit or browse tables that are related to the DB2 table in the focus SDE view.

```
>>-- REdit -----+-----+-----+-----><
      |
      +--- PAREnt -----+--- referential_constraint ---+
      |
      +--- DEPEndent -+---
      |
      +- CHILd -----+
      |
```

RESET :

Reset individual flags set for records or record segments in the current SDE BROWSE or EDIT view.

```
>>-- RESet -----+-----+-----+-----+-----><
      |
      +- CHange -+ +- COMmand -+ +- Duplicates -+
      |
      +- All -+
      |
      +- X -----+
      |
      +- ERror -+ +- EXcluded -+ +- Find -+
      |
      +-----+-----+-----+-----+-----><
      |
      +- HIDE -+ +- Label -+
      |
```

SHOW :

Controls display of various information for records or record segments in a single or multi record, formatted view.

```
>>-- Show -----+--- Level -----+-----><
      |
      +--- Number ---+
      |
      +--- Format ---+
      |
      +--- Offset ---+
      |
      +--- Picture ---+
      |
      +--- Type -----+
      |
```

SORTINDEX :

For DB2 table edit only, used to sort in-storage table rows by key columns/expressions identified by a DB2 Index that has been defined on the table.

```
>>-- SORTIndex -----+-----+-----+-----><
      |
      +- .ZFIRST -+ +- .ZLAST -+
      |
      +- .name1 -+ +- .name2 -+ +- index_name -+
      |
      +- Prime -----+
      |
```

TYPE :

SET option which controls display of the field data type, location and length display for SDE views in either mapped table view (VFMT) or mapped single record view (MAP).

```
>>+-----+--- TYPe -----+-----><
      |
      +- SET -----+
      |
      +- OFF -----+
      |
      +- Default ---+
      |
      +- FORMat ---+
      |
      +- FMT -----+
      |
      +- OFFSet ---+
      |
      +- PICTure ---+
      |
```

UNFMT or UNMAP :

Display records or record segments in single record, unformatted character view.

UNNAMED :

SET option which controls whether unnamed fields appear in the display. Note that COBOL **FILLER** fields are treated as unnamed.

```
>>+-----+--- UNNAmEd -----+-----><
      |
      +- SET -----+
      |
      +- OFF ---+
      |
```


WW :

Open a new SDE view of data in the focus view (WINDOW NEW) and optionally execute an SDE primary command.

```
>>-- WW -----+-----+-----><
      |           |           |
      +----- command -----+
```

ZEROS :

SET option which causes values in all numeric fields to be prefixed by zeros up to the width of the field display.

```
>>+-----+-- Zeros -----+-- ON ---+-----><
   |           |           |           |
   +- SET -----+           +-- OFF ---+
```

ZOOM :

Switches the display format between single and multi record view.

```
>>-- ZOOM -----+-----+-----><
      |           |
      +-- In -----+
      |           |
      +-- Out -----+
```


Data Edit Options

ABBREVIATION	Controls use of abbreviated field name reference.
ALT	Set or obtain alteration count for the current data edit view.
ARRAYALL	Controls display of all array available element fields.
ARRAYASCHARACTER	Controls display of all single byte array elements as variable character.
ASCII	Controls whether character fields are interpreted as being ASCII.
AUTOSAVE	Control action on closing the edit view when unsaved alterations exist.
AUTOSTRUCTURE	Manages data file to structure associations.
AUXDSNPREFIX	Identifies the auxiliary dataset name prefix qualifiers.
AUXDATACLASS	Identifies the auxiliary dataset SMS data class name.
AUXMGMTCLASS	Identifies the auxiliary dataset SMS management class name.
AUXSTORCLASS	Identifies the auxiliary dataset SMS storage class name.
AUXUNIT	Identifies the auxiliary dataset DASD unit.
BOUNDS	Sets or obtains the boundary columns.
CAPS	Sets or obtains the automatic upper casing of character data.
CCSID	Controls the CCSID used for XMLGEN batch execution.
CLIPBOARD	Obtain the status of clipboard data.
COLATTRIBUTES	Controls display of DB2 table column attributes in single row view.
COLOR / COLOUR	Manage colour settings for data edit display of highlighted fields.
COLWIDTH	Controls the display width of individual columns.
COLWIDTHAUTO	Controls the display width of variable length columns.
COMMIT	Controls the event that causes a DB2 COMMIT to occur.
COMPILER	Nominates the location and name of the COBOL, PL1 or HLASM compiler module.
COMPILERDDSIZE	Defines the dynamically allocated sizes of required compiler datasets.
COPYBOOKPROC	Controls how COBOL and PL1 copybooks are to be processed.
DESCRIPTION	Sets or obtains the description associated with a SELCOPYi SDO structure.
DFPSCALE	Controls the display format of decimal floating-point type fields.
DRECTYPE	Sets or obtains the default record-type in the focus Data Editor view.
DSN	Set or obtain the DSN assigned to the text being edited in the current data edit view.
DSORG	Set or obtain the data set organisation of the dataset in the current edit view.
EDITPRIMEKEY	Controls the ability to make changes to values in the DB2 primary key columns.
EOLIN	Control the input End-of-Line characters used for COPY or GET of an HFS file.
EOLOUT	Control the output End-of-Line characters used for SAVE of an HFS file.
FIELD	Obtain information about each selected field in the focus record.
FILEID	Set or obtain the complete fileid assigned to text in the current data edit view.
FMODE	Set or obtain the file mode portion of the name assigned text in the current data edit view.
FOCUS	Obtain information about the focus field.
FORMAT	Control the format of data displayed in the Data Editor view.
FNAME	Set or obtain the file name portion of the name assigned text in the current data edit view.
FPATH	Set or obtain the HFS file path assigned text in the current data edit view.
FTYPE	Set or obtain the file type portion of the name assigned text in the current data edit view.
FVALUE	Obtain the value for each specified field belonging to the focus record-type.
GROUP	Control display of GROUP field items in single-record view.
GROUPASCHARACTER	Controls display of GROUP fields as one single character field.
IDSCOPE	Nominates the record flag set in order to be included in an IDENTIFY command remap operation.
IDWARNING	Controls display of the ID flag when data identifying record mapping selection criteria is altered.
KEY	For undefined KSDS datasets, alter the KSDS key position and length.
LASTMSG	Obtain the last message displayed by the Data Editor.
LENGTH	Set or obtain the length of the focus line of data.
LEVEL	Controls display of hierarchical field levels in single-record view.
LOADWARNING	Size threshold multiple at which load of a dataset is paused and a warning message displayed.
LRECL	Set or obtain the defined LRECL for the dataset in the current edit view.
MACROPATH	Set or obtain the list of library names that comprise the macro search path.
MAPPING	Controls whether formatted data is displayed in mapped or unmapped format.
MAXCOBOLRC	Sets or obtains the maximum acceptable return code expected from the COBOL compiler.
MAXHLASMRC	Sets or obtains the maximum acceptable return code expected from the Assembler program.
MAXPL1RC	Sets or obtains the maximum acceptable return code expected from the PL1 compiler.
MAXSTOR	Imposes a maximum region of storage on the edit of any dataset by the Data Editor.
MBR	Synonym for FNAME.
MSGLINE	Set or obtain message line definitions and their location within the display area.
MSGMODE	Controls whether or not messages are displayed and if long messages wrap onto multiple message lines.
MULTIPOINT	Controls whether multiple labels may be assigned to the same line.
NULLCHAR	Identifies the input and output characters used to represent a NULL value in a DB2 column.
NULLIFBLANK	Controls whether a blanking a DB2 field sets it to NULL.
OFFSET	Controls display of the field offset values in single-record view.

PAD	Specifies the pad character used when a record length is increased.
PAGEDEPTH	Specifies the default page depth for PRINT.
PAGEWIDTH	Specifies the default page width for PRINT.
PFKEY	Set or obtain PFKey definitions for Data Editor views.
POINT	Set or obtain named line label definitions.
PREFIX	Control display, location and width of the Data Editor numbered prefix area.
QSEPARATOR	Controls the separator character used in qualified field name references.
RECFM	Set or obtain the RECFM of the dataset in the current edit view.
RECINFO	Manages display of record information in multi-record view.
RECTYPES	Obtain the names of all record-type definitions in the current SDO.
REFERENCE	Control display of the field reference numbers.
REGION	Obtain information relating to available storage region size.
RESERVED	Define reserved lines in the data edit view.
RESERVEDLEVEL	Identifies the options level (File or Global) at which option RESERVED will take affect.
RTSCOPE	Indicates whether or not FIND, CHANGE, EXCLUDE and ONLY operations apply to records of all record-types.
SAVEOPTIONS	Maintain updates made to data editor options across SELCOPYi sessions.
SCALE	Manage display of the Data Editor scale lines.
SESSION	Obtain general information about the current Data Editor view.
SHADOW	Control display of shadow lines which represent groups of excluded or suppressed lines.
SIZE	Obtain number of records/rows loaded in the current edit view.
STRUCTURE	Manage the data file to structure associations table entries.
TITLE	Sets or obtains the title associated with a SELCOPYi SDO structure.
TYPE	Controls display of the field data type, location and length.
UNDOING	Control UNDO/REDO activation, maximum undo levels and available storage.
UNNAMED	Controls display of unnamed fields.
USEOFFSET	Applies an offset to data mapped by the focus record-type.
USERNAME	Obtain current user's logon user id.
USING	Obtain information relating to the current mapping structure.
VALUE	Obtain the value of each selected field in the focus record.
VENDCHAR	Specifies the input and output characters used to denote end of data in a DB2 VARCHAR field.
VERSION	Obtain Data Editor version information.
VIEW	Control the record-type mappings displayed in the current view.
VSHOWEND	Controls display the output VENDCHAR character for DB2 VARCHAR field values.
VSTRIP	Controls whether trailing blanks are stripped from DB2 VARCHAR field values.
WINNAME	Data edit document and frame window naming.
WINPOS	Data edit document and frame window positioning.
WINSIZE	Data edit document and frame window sizing.
WRAP	Control LOCATE search wrapping from the last to first line of edited text.
ZEROS	Controls display of leading zeroes on numeric field values.

Lists

SELCOPYi List windows are used to display lists of objects. e.g. Data sets, library members, enqueued resources, allocated DDnames, DB2 objects, etc.

List Startup

List windows are used throughout SELCOPYi. Specific utility list windows may be opened using any of the following methods:

1. Primary commands: **LA LAS LC LD LJQ LL LP LQ LSG LSGV LV LVOL LX**
 2. Primary Option Menu, option 3. List. (=3)
 3. From the main menu bar, select Utilities --> List.
-

List Window Function Key Defaults

F1	HELP	F13	
F2	SPLIT	F14	
F3	CLOSE	F15	
F4	WINDOW	F16	SHOWPOPMENU
F5	RFIND	F17	ZOOMLIST
F6		F18	
F7	UP	F19	
F8	DOWN	F20	
F9	SWAP	F21	SWAP LIST
F10	LEFT	F22	
F11	RIGHT	F23	
F12	CRETRIEV	F24	

List Window Prefix Area (Line) Commands

A	Open the Create Library Alias dialog window for Library Lists or the Define Catalog ALIAS for all other file lists.
AP	Open the DB2 Print Audit Report panel for this entry, using the entry name as the Audit DSN field entry.
AS	Open an Associations list window for the entry.
B	Open the Structured Data Editor to to perform SDATA BROWSE on the entry.
C	Open the File Copy dialog panel to copy the entry.
CF	Open the Compare Files Panel for this entry, using the entry name as the New File field entry.
CL	Open the Compare Libraries Panel for this entry, using the entry name as the New DSN field entry.
D	Delete the entry. User will be prompted to verify the deletion.
E	Open the CBLe text editor to edit the entry.
EU	Open the SDE structured data editor to edit the entry in update mode only.
EX	Execute the library member entry. (Invokes the TSO command, EXECUTE, using the entry name as input. Supported in MVS TSO or ISPF environments only.
F	Open the FSU - File Search/Update Window to perform an advanced search and optionally update the contents of the entry. Supported for MVS SELCOPY licensees only on all types of data set.
FO	Open an SDE view to display (browse) the entry as output from the FSU - File Search/Update Window . Supported for MVS SELCOPY licensees only.
FS	Open the File Search window to search the contents of the entry. Supported for MVS PDS/PDSE, CMS fileid, VSE LIBR sub-library and member entries only.
I	Display detailed information for the entry. For file or DB2 object lists, opens a Data Set Information panel. For Volume lists, opens the DASD Volume Statistics window.
IC	Open the Execute IEBCOPY panel for this entry, using the entry name as the PDSIn field entry.
ID	Open an IDCAMS Command window and issue an IDCAMS LISTCAT for the entry.
J	Submit the library member entry to batch. Executes the CBL CLI SUBMIT command using the entry name as input. (A CBL frame window must be active for this operation to succeed.) Supported in MVS and VSE environments only.
K	Delete (Kill) the entry without prompting for verification.
L	Open a Dataset List window for the entry. Supported for Execute CBLVCAT windows only. For VSE LIBR Library member list windows only, lock the LIBR member.
M	Open a Library List window for the entry. Supported for MVS PDS/PDSE, VSE LIBR library and sub-library entries only.
Q	List dataset enqueues (major name SYSDSN) for the entry. Supported for MVS only.
R	Rename the entry.
SD	Open the SDE BROWSE/EDIT Dialog Window to edit or browse the entry's data within a Structured Data Environment window view . Supported for z/OS SELCOPY licensees only.
T	Issue a LISTVCAT operation against the entry with parameters TUNE and DEFINE . For DASD List windows only, open the VTOC list window for the volume entry.
U	Unallocate the MVS DD name or UNLOCK the VSE LIBR member entry. Entries may only be unallocated or unlocked by the user that originally allocated or locked it.
UT	Opens the general file utilities menu to perform tasks as follow. Note that, where command syntax is generated in a text edit window, it is in a format that may be executed using the ACTION key (i.e. position the cursor on the command and press the ACTION key to execute it. The default ACTION key is F16 (Shift-F4). <ol style="list-style-type: none"> 1. Open a text edit view containing the EDIT command for the selected file entry. 2. Open a text edit view containing an ALLOC DISP=SHR command for the selected file entry. 3. Exit the utilities menu. 4. Open a text edit view containing an EQU command for the selected file entry. 5. Open the Allocate non-VSAM dialog using the selected file entry as a model. 6. Open the Allocated Datasets List window filtering on the selected file entry DSN.

7. Open a text edit view containing an MVS JCL DD statement (DISP=SHR) for the selected file entry.
8. Open a text edit view containing a SELCOPY batch job to read and print records from the selected file entry.
9. Open a text edit view containing only SELCOPY control statements to read and print records from the selected file entry. (Use as SYSIN to SELCOPY program. Run in foreground using RUNSELCL.)

V	Open the CBL text editor to View (edit read/only) the entry.
VC	Open an Execute CBLVCAT window and issue a LISTVCAT and/or LISTVTOC operation (as appropriate) for the entry.
Z	Perform a compress of an MVS PDS library to reclaim disk space occupied by replaced (back-level) members. This action performs an IEBCOPY to itself. No action is taken for PDSE entries, however, the IEBCOPY dialog is opened with an error message if executed against any non-PDS(E) entry. Supported in MVS environments only.
/	Open a drop down menu containing valid prefix command functions for the list window entry. Position the cursor on the required function and hit <Enter> to action the command. Assigned to Function Key F16 (Shift-F4) by default.
?	Same as "/"
>	Open a new window containing a zoomed vertical display of the entry's fields. Particularly useful for list windows that have a large number of displayed columns. Assigned to Function Key F17 (Shift-F5) by default.

List Window Primary Commands

List Window commands are categorised as follows:

1. List Utility Startup.
2. List Window Commands.

List Utility Startup Commands

The following primary commands may be issued from any SELCOPYi window and are used to start individual List Utility windows.

LA : Open an **Allocated Datasets List** window and optionally list all MVS DD names or VSE file labels currently allocated to your job.

```
>>--+ LA -----+-----+-----+-----+-----+-----+-----+-----+-----+-----<<
      |          |          |          |          |          |          |          |          |          |
      +- LISTALLOC -+  +-- dname  --+
      |          |          |          |          |          |          |          |          |          |
```

LAS : Open an **Associations List** window and optionally select cataloged entries for which associated objects will be displayed.

```
>>--+ LAS -----+-----+-----+-----+-----+-----+-----+-----+-----+-----<<
      |          |          |          |          |          |          |          |          |          |
      +- LASSOC  -----+  +- entry -----+-----+-----+-----+-----+-----+-----+-----+
      |          |          |          |          |          |          |          |          |          |
      +- LISTASSOC -----+          +- catalog -----+-----+-----+-----+-----+-----+-----+
      |          |          |          |          |          |          |          |          |          |
      +- LISTASSOCIATIONS --+          +- types  --+
      |          |          |          |          |          |          |          |          |          |
```

LC : For CMS, opens a **File List** window in place of the Catalog List or Dataset List window, and displays information about files residing on accessed mini-disks.
 For MVS and VSE, open a **Catalog List** window and optionally list basic information about entries in the catalog.

Open an MVS Cataloged Entries List Window:

```
>>--+ LC -----+-----+-----+-----+----->>
| LISTCAT -----+ | entry -----+-----+-----+
| FL -----+ | catalog -----+-----+-----+
| FILELIST -----+ | types --+
+-----+-----+-----+-----+----->>
```

Open a CMS File List Window:

```
>>--+ LC -----+-----+-----+-----+----->>
| LISTCAT -----+ | entry -----+-----+-----+
| FL -----+
| FILELIST -----+
| LD -----+
| LISTDATASET --+
+-----+-----+-----+-----+----->>
```

Open a VSE Catalog List Window:

```
>>--+ LC -----+-----+-----+-----+----->>
| LISTCAT -----+ | catalog -----+-----+-----+
| FL -----+ | entry -----+-----+-----+
| FILELIST -----+ | types --+
+-----+-----+-----+-----+----->>
```

LD : For CMS only, the LD is a synonym for LC and is unsupported for VSE.
 For MVS, LD opens a **Dataset List** window and optionally list entries in the catalog together with additional detail obtained from VTOC entries.

```
>>--+ LD -----+-----+-----+-----+----->>
| LISTDATASET --+ | entry -----+-----+-----+
| | | catalog -----+-----+-----+
| | | types --+
+-----+-----+-----+-----+----->>
```

LJQ : Open a **Job Enqueue List** window containing outstanding MVS enqueues held by a given job.

```
>>--+ LJQ -----+-----+-----+-----+----->>
| LISTJOBENQ --+ | jobname --+
+-----+-----+-----+-----+----->>
```

LL : Open a **Library List** window and optionally list the members of an MVS PDS/PDSE, VSE LIBR library or CMS minidisk.

```
>>--+ LL -----+-----+-----+-----+----->>
| LISTLIBRARY --+ | library --+
| LM -----+
| LISTMEMBERS --+
+-----+-----+-----+-----+----->>
```

LP : Open an **HFS Path List** window to list information about entries that match the specified HFS path.

```
>>--+ LP -----+-----+-----+-----+----->>
| LISTPATH -----+ | -C --+ | -S --+ | hfs_path --+
| LISTP -----+
| LPATH -----+
+-----+-----+-----+-----+----->>
```

LQ : Open an **Enqueue List** window and optionally list outstanding MVS enqueues by major name and minor name (queue name and resource name).

```
>>--+ LQ -----+-----+-----+-----+-----><
      |          |          |          |          |
      +- LISTENQ -+  +- queueName -+-----+-----+
                                   |          |
                                   +-- resourceName --+
```

LSG : Open an **SMS Storage Group** list window and optionally specify a storage group name mask.

```
>>--+ LSG -----+-----+-----+-----+-----><
      |          |          |          |
      +- LISTSTORAGEGROUPS -+  +- SGName ---+
```

LSGV : Open an **SMS Storage Group Volumes** list window and optionally specify storage group name and volume id mask. The list displays volumes belonging to an SMS pool storage group.

```
>>--+ LSGV -----+-----+-----+-----+-----><
      |          |          |          |          |
      +- LISTSTORAGEGROUPVOLVS -+  +--- SGName -+-----+-----+
                                   |          |
                                   +-- volmask --+
```

LV : Open a **VTOC File List** window and optionally list, by data set name, entries contained in a DASD volume's Volume Table of Contents (VTOC).

```
>>--+ LV -----+-----+-----+-----+-----><
      |          |          |          |          |
      +- LISTVTOC -+  +--- volume ---+-----+-----+
                                   |          |
                                   +-- filter --+
```

LVOL : Open a **DASD Volumes List** window and optionally display the attributes of selected DASD volumes defined to your system.

```
>>--+ LVOL -----+-----+-----+-----+-----><
      |          |          |          |
      +- LISTVOL -+  +--- volume ---+
```

LX : Open a **VTOC Extent List** window and optionally list, by physical extent, the entries contained in a DASD volume's Volume Table of Contents (VTOC).

```
>>--+ LX -----+-----+-----+-----+-----><
      |          |          |          |
      +- LISTEXTENTS -+  +-- volume ---+
```

List Window Commands

The following primary commands are specific to List windows.

EXCLUDE : Exclude display of a list entry that contains a match for the specified search *string anywhere* within the field occupying the first column of the display.

```
>>--+ EXclude ---+--- string -----+-----+-----+-----><
      |          |          |          |          |
      +- X -----+          |          |
                                   +- NEXT ---+
                                   |          |
                                   +- ALL ---+
                                   +- FIRST --+
                                   +- LAST ---+
                                   +- PREV ---+
```

FIND :

Scroll the display to the **next** list entry to contain *string anywhere* within the text occupying the first column of the display.

```
>>-- Find ----- string -----><
```

FLIP :

FLIP will reverse the status of excluded and non-excluded lines in the list window so that excluded line entries are displayed and non-excluded line entries are excluded.

```
>>-- FLIP -----><
```

HIDE :

HIDE will hide all shadow lines that represent groups of one or more excluded line entries in the list window.

```
>>-- HIDE -----><
```

LOCATE :

Scroll the display to the **next** list entry to begin with *string* or the next entry immediately preceding *string*.

```
>>-- Locate ----- string -----><
```

MEMBER :

Exclude all list entries for data sets that are not libraries or do not contain at least one member whose name matches the specified member mask.

```
>>-- MEMBER --- member_mask -----><
```

ONLY :

Exclude all list line entries and then **include** entries that contain a character match for the specified search string **anywhere** within the field occupying the first column of the display.

```
>>---- Only ----- string -----><
                                     +- NEXT ---+
                                     |             |
                                     +-----+
                                     +- ALL ---+
                                     +- FIRST --+
                                     +- LAST  --+
                                     +- PREV  --+
```

RESET :

Reset display of list entry lines.

```
>>-- RESet -----><
                                     +- EXcluded ---+
                                     +- X -----+
                                     |             |
                                     +-----+
                                     +- Hide -----+
```

RFIND :

Following a successful FIND operation, RFIND (assigned to Function Key F5 by default) may be used to repeat the search for the remaining list entries.

S :

Supported for **Library Lists** only, S *member* will perform the default list operation (default Edit) on the specified library member.

```
>>-- S ----- member -----><
```

SELECT :

Identify field columns for display and the order in which they appear.

```
>>-- SElect -----><
                                     +----- ALL -----+
                                     |             |
                                     +-----+
                                     | +----- , -----+ | | +--- , ---+ |
                                     | v             | | | | |
                                     +---+ columnname +---+ +-----+ * ---+
                                     |             |
                                     +-----+
                                     +-| WHERE Command |-+ +- | SORT Command |-+
```

SHADOW :

Control display of shadow lines that represent groups of consecutive, excluded entry lines in the list window.

```

+--- ON ---+
|           |
>>-- SHADow ---+-----+-----><
|           |
+--- OFF ---+
  
```

SORT :

Modify the order in which the rows are displayed in the list. Alternativley, place the cursor on the column header of the column used to sort the entries and press <Enter>.

```

+-----+ , +-----+
|         | |         |
>>--++-- SORT -----+-----+-----+-----+----->
|         | |         | |         | |         |
+--- ORDER BY -+ |         | |         | |         |
+-----+-----+-----+-----+-----+-----+-----><
|         | |         | |         | |         |
+--| SELECT Command |-+ |         | |         | |         |
+-----+-----+-----+-----+-----+-----+-----><
  
```

SRCHFOR :

Executes the **File, Search & Update** utility to perform an unformatted text search for the specified search string in all files identified by non-excluded entries in the list.

```

+--- CHARS ---+
|           |
>>-- SRCHFOR ---- search_string ----+-----+-----+-----><
|           | |         | |         | |         |
+--- PREFIX -+ |         | |         | |         |
+--- SUFFIX -+ |         | |         | |         |
+--- WORD ---+ |         | |         | |         |
  
```

WHERE :

Restrict (filter) the rows displayed in the list.

```

+-----+ AND +-----+
|         | |         | |         |
>>-- Where -----+-----+-----+-----+----->
|         | |         | |         | |         |
+--- NOT ---+ |         | |         | |         |
+-----+-----+-----+-----+-----+-----+-----><
|         | |         | |         | |         |
+--| SELECT Command |-+ |         | |         | |         |
+-----+-----+-----+-----+-----+-----+-----><
  
```

Filter_Expr:

```

>-----+-----+-----+-----+-----+-----+----->
|         | |         | |         | |         |
+--- ( ---+ |         | |         | |         |
+-----+-----+-----+-----+-----+-----+-----><
|         | |         | |         | |         |
+--- ~ ---+ |         | |         | |         |
+--- ^ ---+ |         | |         | |         |
+--- \ ---+ |         | |         | |         |
+--- NOT ---+ |         | |         | |         |
  
```


Home Command Centre

The user's personal **HOME** command centre text file is allocated the first time a user starts SELCOPYi and is a central reservoir of useful primary commands that may be entered at any SELCOPYi or TSO command prompt.

When edited using the SELCOPYi text editor, commands entered in the file may be executed from within the file text using the **ACTION** key (assigned to F16 by default). i.e. To execute a command, simply position the cursor on the first line of the command syntax and press F16 (Shift-F4).

It is intended that the user maintain this file and insert and save additional commands and comments relating to commonly performed tasks. e.g. TSO RACF commands, SMP/E SYSMOD application, etc.

Note that most SELCOPYi utility panels allow the user to generate CMX (primary command) output, suitable for execution using the ACTION key, which may be copied and saved to the user's Home file.

Home Command Centre Startup

The user's Home command centre file may be opened with the text editor using any of the following shortcut methods:

1. Primary command: **HOME**
2. Primary Option Menu, option 4. Home. (=4)

Home Centre Command Syntax

The ACTION facility, used to execute commands entered or saved in any text edited data, interprets special characters in the focus line as follows:

- The less than symbol (" $<$ " - X'4C'), if found within the first 4 characters of the focus line, indicates that the string of text on which the cursor is positioned is to be executed as a command immediately upon pressing the ACTION key. Characters in front of the " $<$ " are ignored. e.g.

```
/*< SUBMIT XYZJCL
```

- The greater than symbol (" $>$ " - X'6E') operates as for less than (" $<$ ") except that the command string is to be placed at the text edit command prompt when the ACTION key is pressed. i.e. The command string will not be immediately passed to the command processor. This is the default if neither " $<$ " nor " $>$ " is found in the first four characters of the focus line.
- Controlled by a Text-Edit setting (which is off by default), the OR symbol ("|" - X'4F') may be used to delimit the end of one command string and, either the beginning of a new command string or, comment text. i.e. it marks the limits of command string on which the cursor is positioned.

Note: If "|" is a character within the command string, "||" should be inserted at the start of the focus line following " $<$ " or " $>$ ".

- The backslash symbol ("\ - X'E0'), if the last non-blank character of the focus line, is interpreted as the continuation character and indicates that the command string continues at column 1 of the next line of text. The continuation character may be repeated over any number of consecutive lines allowing extra long command strings and cosmetic spacing. e.g.

```
<ALLOC REUSE F(OUTDD) NEW DSN('CBL.TEST.OUTPUT') \
      SPACE(1,1) CYL UNIT(3390) VOL('DATT0B') \
      RECFM(F,B) LRECL(80) BLKSIZE(0)

<SUBMIT CBL.SAMPLE.JCL(SSJOB01) \
;EDIT CBL.SYSPRINT``(SSJOB01) \
;EDIT CBL.TEST.OUTPUT
```

Note: In the above example, ';' (semi-colon) is the command separator character.

- The reverse apostrophe symbol ("'" - X'79') is treated as a null character and all occurrences are removed from the command string when the ACTION key is pressed. Its purpose is to allow cosmetic alignment of text in command strings. e.g.

```
<LL ADCD.Z111.PARMLIB(BPX*) | List local copies of PARMLLIB members.
<LL SYS1.````PARMLIB(BPX*) | List master copies of PARMLLIB members.
```

- Controlled by a Text-Edit setting (which is off by default), the first occurrence of an underscore symbol ("_" - X'6D') may be treated as a null which gets removed from the command string when the ACTION key is pressed. Its purpose is to define the location within the command string at which the cursor is to be positioned when placed at the command prompt.

```
>SELCOPY CBL.SELCOPY.SYSIN(SSTEST_01) | Position the cursor on the "0".
```

Note: If the first occurrence of "_" in the focus command text is **not** to be removed as it constitutes part of the command string, then an extra "_" must be inserted before it.

SELCOPY Debug

SELCOPY Debug may be used to debug SELCOPY batch procedures. The debugger opens in a separate CBL text edit MDI frame (parent) window and is ended on closing the SYSIN or SYSPRINT debug window edit views.

SELCOPY Debug Startup

SELCOPY Debug may be opened using any of the following methods:

1. Primary command: **SELCOPY**
2. Primary Option Menu, option 8. Utilities, then, from the Utilities Menu, option 1. SELCOPY/debug. (=8.1)
3. From the main menu bar, select File --> SELCOPY Debug/Dev...

SELCOPY Debug Function Key Defaults

SELCOPY Debug windows are a mixture of list windows, text edit views, storage dump windows and the Watch window. The List windows have the same Function Key defaults as documented [above](#).

Default Function Keys for the SYSIN text edit view are as follows, but may be switched to standard text edit values by selecting "Edit Keys" from the SELCOPY Debug Popup menu opened using function key F16 (Shift-F4) .

F1	HELP	F13	STEPOVER
F2	SPLIT	F14	STEPINTO
F3	END	F15	GO
F4	WINDOW	F16	SDBPOPOP
F5	RFIND	F17	MARK BOX
F6	RCHANGE	F18	MARK LINE
F7	UP	F19	BREAKPOINT
F8	DOWN	F20	BOX
F9	SWAP	F21	SWAP LIST
F10	LEFT	F22	UNDO
F11	RIGHT	F23	REDO
F12	CRETRIEV	F24	RESET BLOCK

Storage dump windows have the following default Function Keys:

F1	HELP	F13	
F2	SPLIT	F14	
F3	CLOSE	F15	END
F4	WINDOW	F16	SHOWPOPOPMENU
F5	RFIND	F17	
F6		F18	
F7	UP	F19	
F8	DOWN	F20	
F9	SWAP	F21	SWAP LIST
F10	LEFT	F22	
F11	RIGHT	F23	
F12	CRETRIEV	F24	

The Watch list window has the following default Function Keys:

F1	HELP	F13	STEPOVER
F2	SPLIT	F14	STEPINTO
F3	END	F15	GO
F4	WINDOW	F16	POSWIN
F5	RFIND	F17	DELETE
F6	RCHANGE	F18	INSERT
F7	UP	F19	SCALE
F8	DOWN	F20	SPACE
F9	SWAP	F21	SWAP LIST
F10	LEFT	F22	UNDO
F11	RIGHT	F23	REDO
F12	CRETRIEV	F24	

SELCOPY Debug Primary Commands

BREAKPOINT :

By default, BREAKPOINT is assigned to Function Key F19 (Shift-F7).

Set or unset a permanent BReak point at the focus statement in the **SYsIN window**. If a break point is set at a particular control statement, then processing will be paused on the next attempt to execute that statement.

```

          +- TOGgle ---+   +- Cursor -----+
          |             |                   |
>>---+- BReakpoint ---+-----+-----+-----+----->>
          |             |                   |
          +- BRK -----+   +- ON -----+   +- line ---+-----+
          |             |                   |             |
          +- OFF -----+   +- Clear ----+   +- column ---+
          |             |                   |
          +-----+-----+ ALL ---+-----+
          |             |   +- * -----+
          +-----+-----+
          +----- SUSPENDALL -----+
          +----- RESUMEALL -----+
    
```

EOJ :

Force SELCOPY to immediately execute a "GOTO EOJ" operation and so close all opened files.

GO :

By default, GO is assigned to Function Key F15 (Shift-F3).

Continue processing of the control statements from the current break point.

LIST OPERATIONS :

LIST OPERATIONS will display the SELCOPY Debug Operations List window which provides statistical analysis information for each executable SELCOPY statement.

RERUN or RR :

Re-Run the job from the beginning. No further statements will be executed from the existing job run.

STEPINTO or SI:

By default, STEPINTO is assigned to Function Key F14 (Shift-F2). Step (execute then pause) through the SELCOPY control statements logically one at a time, including statements in executed sub-routines.

STEPOVER or SO:

By default, STEPOVER is assigned to Function Key F13 (Shift-F1). Step (execute then pause) through the SELCOPY control statements logically one at a time. Statements in sub-routines are executed but are not included in the stepped statements.

TRACK :

Track the value of a valid SELCOPY POS expression as a position in storage. The single byte, addressed by the POS expression, is highlighted in all open storage windows in which the position is displayed.

```

>>-- TRack -- expr ---+-----+-----+-----+----->>
          |             |                   |
          +----- colour -----+
          |             |
          +----- OFF -----+
    
```

WATCH :

WATCH may be used to open the **Debug Watch List** window and add variable or feild entries whose values are to be watched.

```

>>-- Watch +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|         |         |         |         |         |         |         |         |         |         |
+-----+ : +-----+ varmask -----+
|         |         |         |         |         |         |         |         |         |         |
+- name -+ |         | SLC Field Definition |         |
|         |         |         |         |         |         |         |         |         |         |
+- Position pos_expr -- | Data Type | +-
    
```

WCOMMAND :

WCOMMAND direct a command string to a Watch list window for immediate execution.

```

>>--+- WCommand --+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|         |         |         |         |         |         |         |         |         |         |
+- WCMD -----+ +- name -- : +-
    
```

The Watch list window supports its own set of sub-commands and options. A synopsis of the Watch sub-commands follows:

BOTTOM	Display the last page of list data.
CLOSE	Close the Watch List window.
DELETE	Delete (remove) the focus entry from the list.
DOWN	Scroll the view of the entries down towards the bottom of the list.
INSERT	Insert a new variable, field definition or space entry following the focus entry in the Watch list.
DOWN	Scroll the view of the Value column text belonging to an individual Watch list entry left towards the first character of the text.
POSITION	Insert or replace a new field entry in the Watch list following the focus entry.
POSWINDOW	Opens a SELCOPY Debug POS expression storage window for the focus watch list entry.
RESET	Reset individual flags that heve set on for entries in the Watch list.
RIGHT	Scroll the view of the Value column text belonging to an individual Watch list entry towards the last character of the text.
SPACE	Insert a blank line in the Watch list following the focus list entry.
TOP	Display the first page of list data.
UP	Scroll the view of the entries up towards the top of the list.
VARIABLE	Insert a new variable entry in the Watch list following the focus entry.
WORKAREA	Inserts a special variable entry for the work area buffer following the focus list entry.

WINDOW :

Open and place focus on the nominated window type.

```

>>-- Window --+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|         |         |         |         |         |         |         |         |         |         |
+-----+ @ +-----+
|         |         |         |         |         |         |         |         |         |         |
+-----+ Ctl -----+
+-----+ Equates -----+
+-----+ List -----+
+-----+ PCB -----+
+-----+ POS expr ----+
+-----+ SQL -----+
+-----+ Workarea ----+
+-----+ WTO -----+
+-----+ TRace -----+
    
```

SELCOPY Debug Options

BREAKIN	Set the maximum number of times that any single control statement operation can be executed before the SELCOPY Debug loop break-in is activated.
COLOUR, COLOR	Watch List option to set watch list display area attribute highlighting.
COLUMN	Watch List option to set decimal or hex display of the Watch list "Col" column value.
DATATYPE	Watch List option to set display of the "DataType" column.
DEBUGCOLOUR, DEBUGCOLOR	Set the colour display of areas within the SELCOPY Debug SYSIN input control statement window.
HEX	Watch List option to control hex display of the "Value" column contents.
PREFIX	Watch List option to control display of the watch list prefix area.
SCALE	Watch List option to control display of a counting scale line above the character or hex type value in the focus entry's "Value" column.
SHADOW	Watch List option to control display of a shadow line in place of one or more consecutive Watch list entries that have been excluded from the display.

File Copy Utility (FCOPY)

File Copy (FCOPY) is an advanced copy utility supporting copy and optional remap of records between 2 files of potentially different data set organisation and geometry (RECFM, LRECL, BLKSIZE).

Features include:

- Use of structures to remap fields in source records to fields of the same name in destination records. Structures may be specified as an SDE structure, COBOL or PL1 copybook or a COBOL or PL1 ADATA file.
- Specification of a start record and/or a number of records to be copied so defining a subset of records to be copied/remapped.
- Append to or overwrite records in an existing target data set.
- Choose a pad character to be used to pad short records that are copied to longer fixed format records (e.g. copying an ESDS to RECFM=F; RECFM=V to RRDS or RECFM=F LRECL=80 to RECFM=F LRECL=100). Default pad character is blank (X'40).

File Copy supports copy of multiple PDS/PDSE library members to another new or existing library (Library Copy). This type of copy/remap is performed if the source file is a PDS/PDSE library, specified with or without a member mask, and the target file is a PDS/PDSE library with no member name specified. Note that a target PDS/PDSE library DSN with no member name is valid only for library copy.

File Copy Utility Startup

The File Copy Utility panel may be opened using any of the following methods:

1. Primary command: **FCOPY**
2. Primary Option Menu, option 5. Copy/Reformat. (=5)
3. From the main menu bar, select Utilities --> File Copy...

File Copy

Copy a sequential, VSAM, PDS/PDSE member or HFS file to another file of same or different data set organisation. Alternatively, copy PDS/PDSE members that match a member name mask to another library or a single data set.

Optionally, specify start record and number of records for copy.

Required Panel fields:

```
Copy From DSN/Member>  
Copy To DSN/Member>
```

Primary Command Parameters:

```
FCOPY      from_fileid  to_fileid
```

Primary Command Examples:

```
FCOPY  A03.XDATA.D12365.KSDS  NBJ1.XDATA.ESDS  STARTKEY=X'05920000'  FOR 100  
FCOPY  OEM.SELC310.SZZSSAM2 (ZZSDATSA)  NBJ1.SDOTEST.DATA  
FCOPY  OEM.SELC310.SZZSSAM1 (ZZS*)      OEM.SELC310.INSTALL.JCL
```

File Copy & Remap

Supported for formatted data only, this feature is identical to Remap operation of the File Search, Update & Copy Utility except that no change of record field data is performed.

Required Panel fields:

```
Copy From DSN/Member>
USING DSN/Member (From)>
Copy To DSN/Member>
USING DSN/Member (To)>
```

Primary Command Parameters:

```
FCOPY  from_fileid USING {SDO|COBOL|PL1|ADATA} structure \
      to_fileid  USING {SDO|COBOL|PL1|ADATA} structure
```

Primary Command Example:

```
FCOPY  A01.SAMPDATA          USING SDO  OEM.SELCSDO (XXSAMP) \
      A01.SAMPDATA.REMAP     USING SDO  OEM.SELCSDO (XXSAMR)
```


File Search, Update, Copy & Remap Utility (FSU)

Features of the File Search/Update/Copy/Remap utility include:

- Search and optionally update multiple HFS paths or multiple sequential, PDS/PDSE, GDG and/or VSAM data sets.
- Restrict PDS/PDSE library search and/or update to only members with names that match a member name mask.
- Search and optionally update uncataloged data sets by volume id(s).
- Specify the start record for both search and update operations.
- Restrict the number of records read for search and/or update.
- Restrict the search and/or update operation to a specific area of the file records.
- Apply a **structure** (copybook) overlay to map **input** file records and optionally restrict search/update to all or specific fields in records assigned to specific record types. This is known as a **Formatted File Search/Update**.
- For both **Unformatted** and **Formatted** input file records, optionally specify an output file to which **all** input records will be copied regardless of whether record data has been changed. This is known as **Unformatted/Formatted File Copy**.
- For **Formatted File Search/Update**, optionally specify an output file **and** output structure (copybook) to remap input record fields (i.e. alter field data type, re-order and/or delete fields) whether or not record data is changed. This is known as a **Formatted File Remap**.
- Update unformatted or formatted character data using different length search and update CHANGE strings.
- Control use of blank padding or blank absorption when character search and update CHANGE strings are of different length. Note that the CHANGE operation will fail if the length of the updated record is greater than the file's maximum record length.

Following File Search/Update/Copy/Remap execution, report output is generated in a structured format suitable for presentation to the user in an SDE window view. To generate this report output and in order to perform advanced record selection and field compare, functions and features provided by the structured data environment (SDE) are used. Therefore, the File Search/Update/Copy/Remap utility is only available to users who have a licensed version of SELCOPY installed and operational on their system.

During execution, a progress window is displayed which allows the user to interrupt processing at any point using the Attention key.

File Search, Update, Copy & Remap Utility Startup

The File Search, Update, Copy & Remap Utility panel may be opened using any of the following methods:

1. Primary command: **FSU**
2. Primary Option Menu, option 6. Search/Update. (=6)
3. From the main menu bar, select Utilities --> File Search/Update/Remap...

FSU Utility Output Report Function Key Defaults

The File Search, Update, Copy & Remap Utility output report consists of formatted data records with an accompanying structure. If run interactively, the report is displayed in a Structured Data Editor window view and is updated as the utility executes.

F1	HELP	F13	INSERT
F2	SPLIT	F14	DELETE
F3	END	F15	DUPLICATE
F4	WINDOW	F16	MACRO SDEUTIL
F5	RFIND	F17	MACRO SDEZOOMW
F6	FSUEDIT	F18	
F7	UP	F19	
F8	DOWN	F20	
F9	SWAP	F21	SWAP LIST
F10	LEFT	F22	UNDO
F11	RIGHT	F23	REDO
F12	CRETRIEV	F24	

File Search

Search for strings/values in data sets that match one or more specified fileid masks.

Required Panel fields:

```
INPUT Fileid/Volume/DSN/Member Mask:
FIND: | Filter WHERE:
```

Primary Command Parameters:

```
FSU INPUT(fileid_mask...) WHERE SDE_expression \
                               FIND( SDE_find_command(s) )
```

Primary Command Examples:

```
FSU INPUT( US01.*.COPY(XY%%) ) FIND( C'OCCURS' 12 71)
FSU INPUT( AX01.SOURCE.**.PL1 ) \
                               FIND( ('PIC' PREFIX) AND ( (C'K') OR (C'E') ) )

FSU INPUT( OEM.**.JCL) WHERE WORD(#1,2) = 'EXEC' \
                               FIND( (C'REGION=') OR (C'PARM=') )
```

File Search, Change & Update

Perform one or more change operation on selected records and update (replace) the original record. FIND and WHEN search criteria identify records for selection. By default, all records are selected.

Required Panel fields:

```
INPUT Fileid/Volume/DSN/Member Mask:
CHANGE:
```

Primary Command Parameters:

```
FSU INPUT(fileid_mask...) CHANGE( SDE_change_command(s) )
```

Primary Command Examples:

```
FSU INPUT( NBJ1.JCL(SS*) ) CHANGE(C'PGM=IEWL' C'PGM=HEWL')
FSU INPUT(NBJ1.JCL(*PLI*)) FIND('PARM=') \
                               CHANGE(C'LIST,' C'LIST,XREF,' TEXT)

FSU INPUT( US01.*.COPY(XY%%) ) FIND( C'OCCURS' 12 71) \
                               CHANGE(C'TO 10' C'TO 20')
```

File Search, Change & Copy

Perform one or more change operation on selected records and copy both changed and unchanged records to a different data set. The original (source) data is unchanged. FIND and WHEN search criteria identify records for selection. By default, all records are selected.

If output fileid is a PDS/PDSE library, selected input library members are copied to the output library with member names unchanged.

Required Panel fields:

```
INPUT Fileid/Volume/DSN/Member Mask:
CHANGE:
OUTPUT Fileid:
```

Primary Command Parameters:

```
FSU INPUT(fileid_mask...) CHANGE( SDE_change_command(s) ) OUTPUT fileid
```

Primary Command Examples:

```
FSU INPUT(NBJ1.JCL(SS*)) CHANGE(C'PGM=IEWL' C'PGM=HEWL') \
                               OUTPUT NBJ1.HEWL.JCL

FSU INPUT( X139.D12053.LOG ) CHANGE(C'ERR077' C'###077') \
                               OUTPUT NBJ1.D12053.LOGCOPY
```

File Search, Change, Update & Copy Formatted Records

For each of the above operations, the processing can be further refined if record data has a standard format as defined by a COBOL or PL1 copybook, or a SELCOPYi SDO.

Using formatted data processing enables use of specific field references and data type interpretation on the FIND, WHERE and CHANGE parameters.

Required Panel fields:

```
INPUT Fileid/Volume/DSN/Member Mask:
USING SDO|COBOL|PL1|ADATA Copybook:
VIEW (RTO) Record-type:
```

Primary Command Parameters:

```
FSU INPUT(fileid_mask...) USING {SDO|COBOL|PL1|ADATA} structure \
                                       VIEW record_type
```

Primary Command Example:

```
FSU INPUT(A01.SAMPDATA) USING SDO OEM.SELCSDO (XXSAMP) \
      VIEW XX_ADDR      FIND (GT 20 (#5))
```

File Search, Change, & Remap

Supported for formatted data only, optionally perform one or more change operations on selected fields within selected records, then copy both changed and unchanged records to a different data set using another structure to re-order, omit and/or include record fields.

Fields in record types belonging to the input files correspond to fields of the same name defined in record types of the same name in the output structure. Fields and record types that are unreferenced in the output structure are lost, whereas new fields in the output structure are generated.

Required Panel fields:

```
INPUT Fileid/Volume/DSN/Member Mask:
USING SDO|COBOL|PL1|ADATA Copybook:
OUTPUT Fileid:
USING SDO|COBOL|PL1|ADATA Copybook: (Output)
```

Primary Command Parameters:

```
FSU INPUT(fileid_mask...) USING [SDO|COBOL|PL1|ADATA] structure \
      OUTPUT(fileid)        USING [SDO|COBOL|PL1|ADATA] structure
```

Primary Command Example:

```
FSU INPUT(A01.SAMPDATA) USING SDO OEM.SELCSDO (XXSAMP) \
      VIEW XX_ADDR      CHANGE( 17.5 20.0 (XX_VAT) ) \
      OUTPUT(A01.SAMPDATA.REMAP) USING SDO OEM.SELCSDO (XXSAMR)
```

File Compare Utility (COMPFILE)

The Compare Files utility (COMPFILE) provides a set of both basic and extended features that allow the user to compare records in **NEW** and **OLD** versions of a file.

Basic features include:

- Specify the start record.
- Restrict the number of records compared.
- Restrict the number of differences to be reported.
- Restrict the comparison to a specific area of the file records.
- Strip trailing characters prior to record compare.

Extended features include:

- All basic feature options but with separate specifications for the NEW and OLD files where sensible.
- Apply a **structure** (copybook) overlay to map records, and optionally restrict the comparison to specified record-types and/or named fields. This is known as a **formatted compare**.
- Control how re-synchronisation of record pairs should occur following detection of an inserted or deleted record.
- For formatted or unformatted compare, specify **key** segments (at the record-type level) that allow the utility to identify **synchronised pairs** of records.
- Formatted compare supports application of different structures to the NEW and OLD files, with comparison restricted to only those fields that exist in both structures. This allows comparison of NEW and OLD file records where corresponding fields are at different locations within the records and maybe of different data-type or length.
- Formatted **Hierarchical** compare of data sets where records exhibit a hierarchy based on key fields within the record data.

Following Compare Files execution, report output is generated in a structured format suitable for presentation to the user in an SDE window view. To generate this report output and in order to perform advanced record selection and field compare, COMPFILE utilises functions and features provided by the structured data environment (SDE). Therefore, the COMPFILE utility is only available to users who have a licensed version of SELCOPY installed and operational on their system.

File Compare Utility Startup

The File Compare Utility comprises a number of consecutive panel views whose display depends upon options selected within the current panel view when <Enter> is pressed. The initial "Basic Option" Compare Files utility panel view may be opened using any of the following methods:

1. Primary command: **COMPFILE**
2. Primary Option Menu, option 7. Compare. (=7)
3. From the main menu bar, select Utilities --> Compare Files...

File Compare Output Report Function Key Defaults

The File Compare Utility output report consists of formatted data records with an accompanying structure. The File Compare output and its SDO structure are written to report data sets and, if run interactively, displayed in a Structured Data Editor window view on completion of the run.

F1	HELP	F13	INSERT
F2	SPLIT	F14	DELETE
F3	END	F15	DUPLICATE
F4	WINDOW	F16	MACRO CFUTIL
F5	RFIND	F17	MACRO CFZOOMW
F6	CFEDIT	F18	
F7	UP	F19	
F8	DOWN	F20	
F9	SWAP	F21	SWAP LIST
F10	LEFT	F22	UNDO
F11	RIGHT	F23	REDO
F12	CRETRIEV	F24	

Basic 1-to-1 Compare

Compare an older version of a file with a newer version in which record data may have changed but records have not been inserted or deleted.

Optionally, the comparison may be limited to a range of records, nominated by Start> and For> fields; and a range of columns, nominated by Pos> and Length> fields.

A 1-to-1 compare of record pairs (one from each file) is performed so that, where a mismatch exists, no attempt is made to re-synchronise either of the records with records occurring later in the opposite file.

Required Panel fields:

```
New File/Volume/Member>
Old File/Volume/Member>
Sync> 1-to-1
```

Primary Command Parameters:

```
COMPFILE  new_fileid  old_fileid  SYNC 1TO1
```

Primary Command Example:

```
COMPFILE  OEM.SELC310.SELCOPYI.SITE.CBLE (PROFILE)  \
          OEM.SELC310.SZZSDIST.CBLE (PROFILE)      \
          SYNC 1TO1
```

Basic Read-Ahead Compare

Read-Ahead synchronisation is suitable where the new and old files are predominantly comprised of equal records, although some may have been updated, inserted and/or deleted.

If the current pair of records do not match, then records are read sequentially from one or both files in order to identify a matching pair with one of the current records. Record compare then proceeds from the new matching pair.

Required Panel fields:

```
New File/Volume/Member>
Old File/Volume/Member>
Sync> Read-Ahead
```

Primary Command Parameters:

```
COMPFILE  new_fileid  old_fileid  SYNC READAHEAD
```

Primary Command Example:

```
COMPFILE  A01JQE.D2012365.CONT21.TAB             \
          A01JQE.D2012365.CONT21.TAB.BKUP        \
          SYNC READAHEAD (100 1)
```

Extended Compare

Extended unformatted compare allows specification of the same options as basic unformatted compare but with potentially different values for each of the two files in the compare operation. In addition to this, extended unformatted compare allows specification of the following:

- Record synchronisation techniques **Sorted Keyed** and **Unsorted Keyed** which involves specification of key segments.
- For read-ahead record synchronisation, non-default values for limit and matching record count. Also the option to allow synchronisation on blank records.
- The option to perform case-insensitive compare.
- Report output options to exclude display of changed, inserted and/or deleted records. Also allows specification of a non-default report file DSN.
- Output file DSNs into which to copy records flagged as being matched, changed, inserted and/or deleted. A separate data set name may be specified for NEW and OLD file records that are attributed these flags.

Required Panel fields:

```
Use Extended Options
New File DSN/Path/Volume/Member>
Old File DSN/Path/Volume/Member>
```

Primary Command Parameters:

```
COMPFILE  new_fileid  old_fileid  newfile_opts  oldfile_opts
```

Primary Command Example:

```
COMPFILE  ZRCJ04.D2012199.T111522.XDUMP  \
          ZRCJ04.D2012187.T162327.XDUMP  \
          NSTARTCOL 5  NSTARTREC 11      \
          OSTARTCOL 1  OSTARTREC 1      \
          SYNC READAHEAD ( 50 5 )
```

Unsorted Keyed Compare

Key synchronisation is suitable where record pairs, containing potentially mismatching data, are considered to be synchronised when the data in specified areas of the records (key segments) matches.

Unsorted key synchronisation employs read-ahead synchronisation to synchronise record pairs matching only on the defined key segment areas as opposed to the entire record. Skipped records are flagged as being record inserts or deletions as appropriate.

Having synchronised on a record pair, the record pair is compared with any mismatch reported as a change to the record data.

Required Panel fields:

```
Use Extended Options
New File DSN/Path/Volume/Member>
Old File DSN/Path/Volume/Member>
Synchronisation: Keyed (Unsorted)
Option 1. Specify Key fields (Position/Length)
```

Primary Command Parameters:

```
COMPFILE  new_fileid  old_fileid  \
          SYNC UNSORTED  KEY (length new_pos old_pos)  \
          READAHEAD (ralimit ramatch)
```

Primary Command Example:

```
COMPFILE  NIG72X.ENTP.COPY (HIPX27B)  \
          NIG72X.DEVP.COPY (HIPX27B)  \
          SYNC UNSORTED KEY (4 8 8)  \
          READAHEAD (80 5)
```

Sorted Keyed Compare

Where keyed records are sorted by the synchronisation key in ascending order, sorted key synchronisation should be used. Sorted key synchronisation will perform a read ahead from the file record containing the lower key segment data in order to achieve record synchronisation.

As for unsorted key synchronisation, skipped records are flagged as being record inserts or deletions as appropriate and having synchronised on a record pair, the record pair is compared with any mismatch reported as a change to the record data.

Required Panel fields:

```
Use Extended Options
New File DSN/Path/Volume/Member>
Old File DSN/Path/Volume/Member>
Synchronisation: Keyed (Sorted)
Option 1. Specify Key fields (Position/Length)
```

Primary Command Parameters:

```
COMPFILE  new_fileid  old_fileid  \
          SYNC KEY (length new_pos old_pos)
```

Primary Command Example:

```
COMPFILE  CBL.XSI.MBLST.KSDS  \
          CBL.XSX.ABLST.KSDS  \
          SYNC KEY (10 1 21)
```

Formatted Compare

All compare operations and record synchronisation techniques may apply equally to files for which records are formatted by record-type into discrete fields by an associated structure (SDO, COBOL/PL1 Copybook).

On selection of Formatted compare, panels prompt for a structure fileid as well as presenting the user with additional panels that allow restricted compare of records based on assigned record-type and named fields within those records.

If Sorted or Unsorted Key synchronisation is selected, then key segments may be defined either by absolute position and length (as described above) or by one or more named fields.

Required Panel fields:

```
Use Extended Options
Option 2. Formatted
New File DSN/Path/Volume/Member>
Structure/Copybook overlay DSN/Path/Volume/Member>
Old File DSN/Path/Volume/Member>
```

Primary Command Parameters:

```
COMPFILE  new_fileid USING [SDO|COBOL|PL1|ADATA] structure  \
          old_fileid                                       \
          VIEW record_type, ...                             \
          SELECT field, ... FROM record_type1...           \
          SELECT field, ... FROM record_type2...
```

Primary Command Example:

```
COMPFILE  NBJ.Y2012.WIDG.ORDERDB USING COBOL  NBJ.MST.COBCOPY(WIDG061) \
          NBJ.Y2011.WIDG.ORDERDB                                       \
          VIEW REC#INV, REC#PAY, REC#NOTES                             \
          SELECT  XID, XINVNO, XIDATE, X#ITEMS      FROM REC#INV        \
          SELECT  P#CUSTID, PAUTH, PCNAME          FROM REC#PAY
```

Hierarchical Compare

Hierarchical compare is suitable where a hierarchy exists between formatted records or record segments of different record types in the same file. e.g. A file may be arranged in a hierarchy of record segments detailing ORDER, ORDER_ITEM and ITEM_PART so that ORDER base record segments are followed by a number of ORDER_ITEM record segments followed by a number of ITEM_PART record segments.

The record hierarchy is maintained by synchronisation key segments defined to at least one of the assigned record-types.

This record-type synchronisation key hierarchy is established by the order in which synchronisation keys are specified for each record-type. The first record type to be defined a synchronisation key is attributed the highest level (level-1) entry in the hierarchy, the next key definition is attributed the level-2 entry, etc. Record types with no defined synchronisation key are equally attributed the lowest level entry in the synchronisation key hierarchy.

The defining feature of hierarchical compare key synchronisation processing, is that input of records from the NEW and/or OLD files stops when a keyed record is read which is rated higher in the synchronisation key hierarchy than the record being synchronised in the current record pair.

Required Panel fields:

```
Use Extended Options
Option 2. Formatted
New File DSN/Path/Volume/Member>
Structure/Copybook overlay DSN/Path/Volume/Member>
Old File DSN/Path/Volume/Member>
Synchronisation: Keyed (Sorted) | Keyed (Unsorted)
Option 2. Select Key Columns by Name
```

Primary Command Parameters:

```
COMPFILE  new_fileid USING [SDO|COBOL|PL1|ADATA] structure  \
          old_fileid                                       \
          SYNC UNSORTED  KEY field, ... FROM record_type1... \
          KEY field, ... FROM record_type2...             \
          READAHEAD(ralimit ramatch)                      \
          \
COMPFILE  new_fileid USING [SDO|COBOL|PL1|ADATA] structure  \
          old_fileid                                       \
          SYNC          KEY field, ... FROM record_type1... \
          KEY field, ... FROM record_type2...
```

Primary Command Example:

```
COMPFILE  A01.D2012199.XORD.KSDS USING COBOL  A01.SELCOPYI.SDO(XXORD) \
          A01.D2012199.XORD.BKUP.KSDS                                       \
          SYNC KEY XORDID      FROM ORDER                                     \
          KEY MODEL,TYPE      FROM ORDER_ITEM                             \
          KEY PARTREF         FROM ITEM_PART
```