



ASG-SmartEdit™

Quick-start Reference Guide

Version 8.2

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This *ASG-SmartEdit Quick-start Reference Guide* summarizes the command syntax and usage information for ASG-SmartEdit (herein called SmartEdit) commands. SmartEdit is a powerful interactive system that helps programmers by automating the process of analyzing COBOL and PL/I programs.

Note:

The PL/I language extension for SmartEdit is a separately purchased option.

About this Publication

The *ASG-SmartEdit Quick-start Reference Guide* consists of these chapters:

- [Chapter 1, “ESW Overview,”](#) provides an overview of the ESW concepts and components.
- [Chapter 2, “Command Language Syntax,”](#) provides a description and command syntax for the SmartEdit commands.
- [Chapter 3, “Operand Definitions,”](#) defines the command operands.
- [Chapter 4, “Tree View Line Commands,”](#) lists the tree view commands that are valid for SmartEdit.
- [Chapter 5, “Source View Line Commands,”](#) lists the source view commands that are valid for SmartEdit.
- [Chapter 6, “VIASUB and VIASUBDS Parameters,”](#) lists the VIASUB/VIASUBDS parameters.
- [Chapter 7, “PF Keys,”](#) lists the default and suggested alternate PF key settings.
- [Chapter 8, “Action Bar Command Equivalents,”](#) lists the pull-down and action equivalent to SmartEdit commands.

Related Publications

The documentation library for SmartEdit consists of these publications (where *nn* represents the product version number):

- The *ASG-Center Installation Guide* (CNX0300-*nn*) contains installation and customization information for ASG-Center, the common set of libraries shared by the ASG-Existing Systems Workbench suite of products. ASG-Center must be installed before installing SmartEdit.
- *ASG-Existing Systems Workbench Installation Guide* (ESW0300-*nn*), provides information about installing ESW products.
- *ASG-Existing Systems Workbench Enhancement Summary* (ESW1000-*nn*) describes the new and enhanced features in this release of ESW products.
- The *ASG-SmartEdit COBOL Quick Reference* (SET0900-C-*nn*) summarizes how to use SmartEdit facilities and COBOL commands.
- The *ASG-SmartEdit PL/I Quick Reference* (SET0900-P-*nn*) summarizes how to use SmartEdit facilities and PL/I commands.
- The *ASG-SmartEdit Quick-start Reference Guide* (SET0600-*nn*) summarizes the syntax and usage of SmartEdit commands.
- The *ASG-SmartEdit User's Guide* (SET0200-*nn*) provides instructions and commands for using SmartEdit.

Note:

To obtain a specific version of a publication, contact ASG Customer Support.

Publication Conventions

ASG Technologies uses these conventions in technical publications:

Convention	Usage
Arrow (▶)	Used in a procedure to indicate commands within menus. Also used to denote a one-step procedure.
Bold	Indicates that case-sensitive usage is required for a directory, path, file, dataset, member, database, program, command, or parameter name. ▶ Verify the settings in the asg.conf file.

Convention	Usage
Capitalization	<p>For system element names, this varies according to the product interface and its operating environment.</p> <p>Mainframe file names use uppercase, for example:</p> <ul style="list-style-type: none"> ▶ Allocate a JSOPTM member in the JLRCL library. <p>Windows file names use mixed case, for example:</p> <ul style="list-style-type: none"> ▶ Create a text file named SECLIST.txt in the C:\Program Files\ASG\config directory. <p>UNIX file names use mixed case, for example:</p> <ul style="list-style-type: none"> ▶ Edit the databaseID.ACC file in the /database directory. <p>Typical product and operating system elements include:</p> <ul style="list-style-type: none"> • Directory, path, file, dataset, member, database, program, command, and parameter names. • Window, field, field group, check box, button, panel (or screen), and option labels. • Names of keys. A plus sign (+) is inserted for key combinations (e.g., Alt+Tab).
<i>lowercase italic monospace</i>	Information that you provide according to your particular situation. For example, you would replace <i>filename</i> with the actual name of the file.
Monospace	<p>Characters you must type exactly as they are shown, such as code, JCL, file listings, or command/statement syntax.</p> <p>Also used for denoting brief examples in a paragraph.</p>
<u>Underline</u>	Denotes a cursor-selectable field or line.
Vertical separator bar () with underline	Indicates options available with the default value underlined (e.g., Y <u>N</u>).

Worldwide Customer Support

ASG provides support throughout the world to resolve questions or problems regarding installation, operation, or use of our products. ASG provides all levels of support during normal business hours and emergency support during non-business hours.

You can access support information from [ASG's Support](#) page.

ASG Third-party Support. ASG provides software products that run in a number of third-party vendor environments. Support for all non-ASG products is the responsibility of the respective vendor. In the event a vendor discontinues support for a hardware and/or software product, ASG cannot be held responsible for problems arising from the use of that unsupported version.

Intelligent Support Portal (ISP)

The [ASG Intelligent Support Portal \(ISP\)](#) provides online support.

Log on to the ISP with this information:

Customer ID = *NNNNNNNNNN*

Password = *XXXXXXXXXX*

where:

NNNNNNNNNN is your customer ID supplied by ASG Product Distribution.

XXXXXXXXXX is your unique password supplied by ASG Product Distribution.

If you do not have your logon information, contact your local support center.

This table outlines the support response times you can expect:

Severity	Meaning	Expected Support Response Time
1	Production down, critical situation	Within 30 minutes
2	Major component of product disabled	Within 2 hours
3	Problem with the product, but customer has work-around solution	Within 4 hours
4	“How-to” questions and enhancement requests	Within 4 hours

Product Support Policy

ASG fully supports the current release and one previous release of each of its products. ASG will temporarily support an older release, for up to six months, to provide time for you to upgrade.

Once programming support for a product release is withdrawn, ASG will no longer supply new fixes for problems nor accept enhancement requests for that release. When a vendor announces the end of support for system software or a hardware configuration on which ASG products rely, ASG will make a similar announcement regarding the support plans for its products. ASG's support for problems affected by system software release levels will terminate when the vendor no longer supports their hardware or software. Announcements regarding support plans for various products can be found on ASG's Web site.

ASG Documentation/Product Enhancements

Use the ASG's [contact form](#) to submit your product and documentation suggestions. Ensure that you include the name of the ASG Technologies product you are using. For documentation suggestions, include the publication number located on the publication's front cover.

This chapter discusses the concepts of ASG-Existing Systems Workbench, and contains these topics:

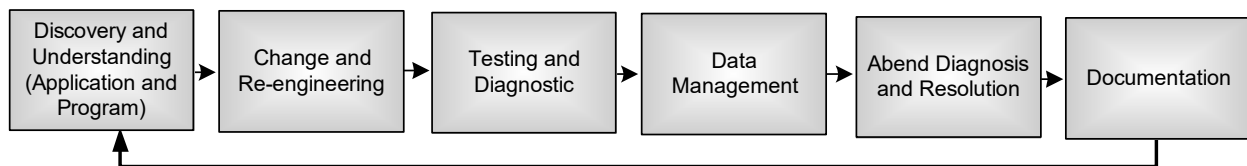
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ASG-Existing Systems Workbench

ASG-Existing Systems Workbench (herein called ESW) is an integrated suite of products designed to assist organizations in enhancing, redeveloping, or re-engineering their existing systems. ESW products use the Application Knowledge Repository (AKR) to store source program analysis information generated by the Analytical Engine.

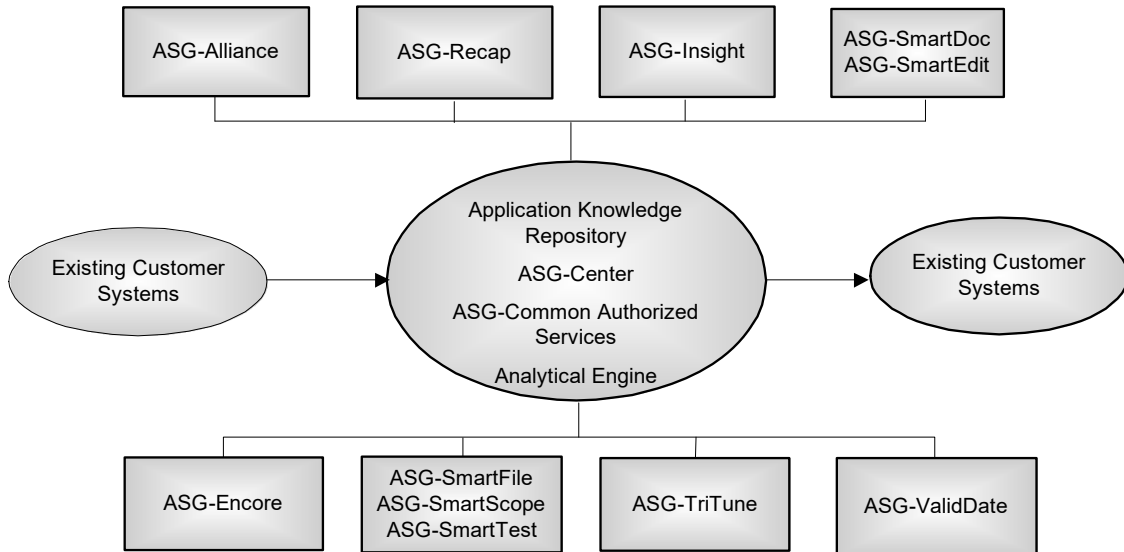
[Figure 1](#) shows the phases of a software maintenance process. ESW provides a full-cycle, integrated suite of products that enable programmer/analysts and others to perform these tasks with efficiency and accuracy. This enables you to accomplish more with significantly less effort and fewer resources, and with higher quality results.

Figure 1 • ESW Process Summary



The AKR is the repository for all information (i.e., applications, impact results, data items) used by ESW products. Analyzed programs are stored in the AKR. You can define a single AKR for use by all users, or separate AKRs for use by departments, groups, or individual users. [Figure 2](#) shows an overview of the ESW integration process.

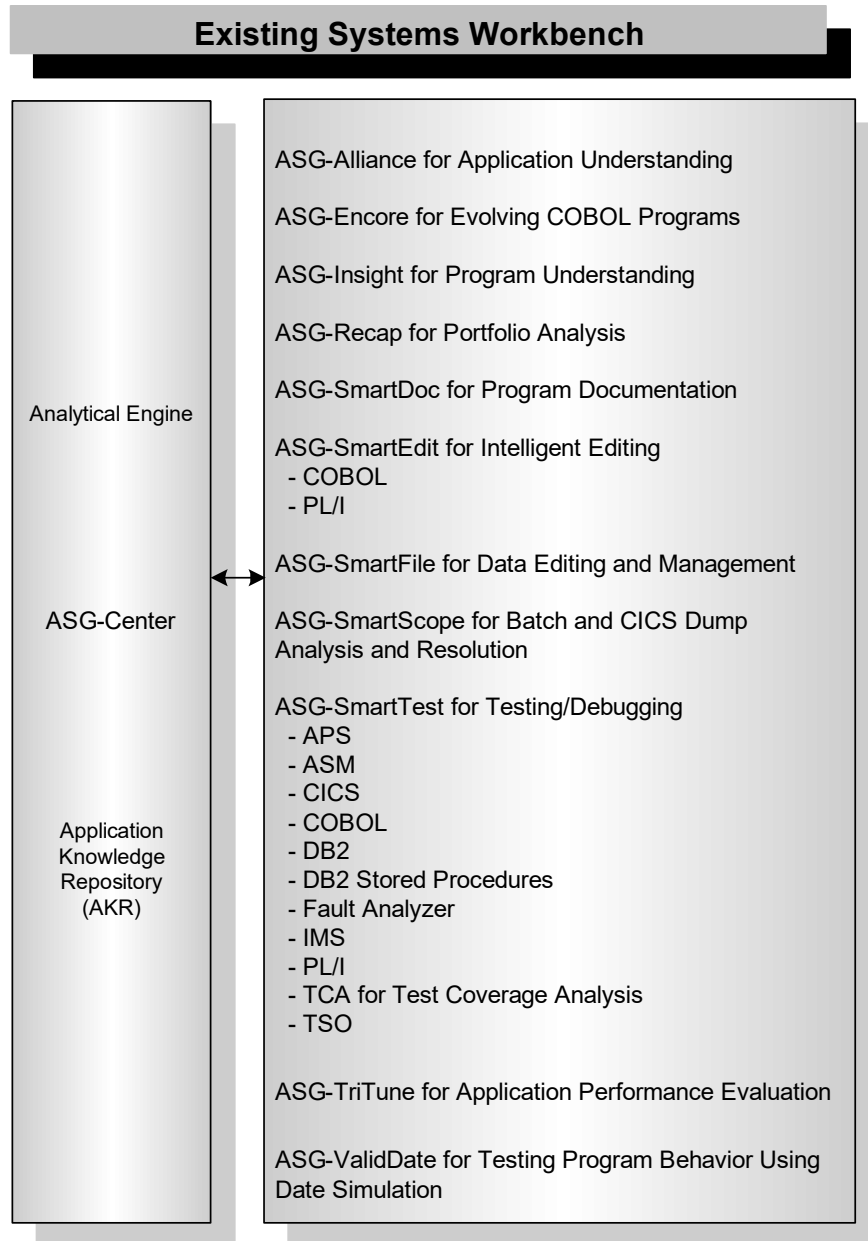
Figure 2 • ESW Integration Overview



ASG-Center is the common platform for all ESW products. ASG-Center provides the common Analytical Engine to analyze the source program and store this information in the AKR.

Figure 3 shows the components of ESW.

Figure 3 • ESW Component Overview



This table describes each ESW core component:

ESW Product	Herein Called	Description
ASG-Alliance	Alliance	The application-understanding component that is used by IT professionals to conduct an analysis of every application in their environment. Alliance supports the analysis and assessment of the impact of change requests upon an entire application. Alliance allows the programmer/analyst to accurately perform application analysis tasks in a fraction of the time it would take to perform these tasks without an automated analysis tool. The impact analysis from Alliance provides application management with additional information for use in determining the resources required for application changes.
ASG-Center	Center	The common platform for all ESW products. Center provides the common Analytical Engine to analyze the source program and store this information in the AKR. This common platform provides a homogeneous environment for all ESW products to work synergistically.
ASG-Common Authorized Services	ESW-CAS	The authorized services component that is used for providing common facilities to ESW SmartTeam products.
ASG-Encore	Encore	The program re-engineering component for COBOL programs. Encore includes analysis facilities and allows you to extract code based on the most frequently used re-engineering criteria. The code generation facilities allow you to use the results of the extract to generate a standalone program, a callable module, a complement module, and a CICS server. Prior to code generation, you can view and modify the extracted Logic Segment using the COBOL editor.
ASG-Insight	Insight	The program-understanding component for COBOL programs. Insight allows programmers to expose program structure, identify data flow, find program anomalies, and trace logic paths. It also provides automated procedures to assist in debugging program abends, changing a computation, and resolving incorrect program output values.

ESW Product	Herein Called	Description
ASG-Recap	Recap	The portfolio analysis component that evaluates COBOL applications. Recap reports provide function point analysis and metrics information, program quality assessments, intra-application and inter-application comparisons and summaries, and historical reporting of function point and metrics information. You can view this information interactively or export it to a database, spreadsheet, or graphics package.
ASG-SmartDoc	SmartDoc	The program documentation component for COBOL programs. SmartDoc reports contain control and data flow information, an annotated source listing, structure charts, program summary reports, exception reports for program anomalies, and software metrics.
ASG-SmartEdit	SmartEdit	The COBOL and PL/I editing component that can be activated automatically when the ISPF/PDF Editor is invoked. SmartEdit provides comprehensive searching, inline copybook display, and syntax checking. SmartEdit allows you to include an additional preprocessor (e.g., the APS generator) during syntax checking. SmartEdit supports all versions of IBM COBOL, CICS, PL/I (limited), SQL, and CA-IDMS.
ASG-SmartFile	SmartFile	The file manipulation utility program for systems and application programmers. It provides an ISPF-based, and where appropriate, batch interface to a variety of file management and manipulation tools. SmartFile provides comprehensive search/replace, copy/reformat, compare, browse/edit, and Data Map support, and also includes optional DB2 and IMS support.
ASG-SmartScope	SmartScope	The dump analysis/management system for Batch and CICS applications that provides detection, capture, notification, diagnostics, and analysis for application abends. All dumps normally requested by CICS are supported. Dump Analysis provides a flexible interface to integrate with the z/OS and OS/390 IBM operating systems. All dumps normally requested by z/OS, OS/390, and CICS are supported.

ESW Product	Herein Called	Description
ASG-SmartTest	SmartTest	The testing/debugging product for COBOL, PL/I, C, Assembler, and APS programs in the TSO, MVS Batch, CICS (including file services), and IMS environments. SmartTest features include program analysis commands, execution control, intelligent breakpoints, test coverage, pseudo code with COBOL source update, batch connect, disassembled object code support, DB2 and DB2 stored procedures, full-screen memory display, and Fault Analysis support for ASG-SmartScope generated dumps.
ASG-TriTune	TriTune	The product that identifies application performance delays and utilization. It monitors application programs to pinpoint delays and observes and samples program activity, showing you the application's view of performance. TriTune presents detailed application-specific delay information, allowing you to improve the performance of your application.
ASG-ValidDate	ValidDate	The method for testing program behavior using dates that are different from the current date. It uses the Job Name, Program Name, User ID, and Transaction ID or Terminal ID to determine if the date and time returned should be from a user-specified value or from standard TIME Services.

Invoking ESW Products

The method you use to invoke an ESW product depends on your system setup. If you need assistance to activate a product, contact your systems administrator.

- If your site starts a product directly, use the ISPF selection or CLIST as indicated by your systems administrator.
- If your site uses the ESW screen to start a product, initiate the ESW screen using the ISPF selection or CLIST as indicated by your systems administrator and then typing in the product command on the command line.

The product names can also vary depending on whether you access a product directly or through ESW. See [“ESW Product Integration” on page 8](#) for more information about using ESW.

To initialize ESW products from the main ESW screen, select the appropriate option on the action bar pull-down menus or type the product shortcut on the command line.

ESW Product Name	Short-cut	ESW Pull-down Options
Alliance (Application Understanding)	AL	Understand ▶ Application
Encore (Program Re-engineering)	EN	Re-engineer ▶ Program
Insight (Program Understanding)	IN	Understand ▶ Program
Recap (Portfolio Analysis)	RC	Measure ▶ Portfolio
SmartDoc (Program Documentation)	DC	Document ▶ Program
SmartEdit - Edit Mode	SN	Change ▶ Program/Edit
		Or
	SE	Change ▶ Program/Edit Options
SmartEdit - View Mode	V	Change ▶ Program/View
		Or
	SV	Change ▶ Program/View Options
SmartFile (File Manipulation)	FM	Change ▶ File Manipulation
SmartTest (Testing/Debugging)	ST	Test ▶ Module/Transaction
SmartScope (Dump Analysis)	SDA	Understand ▶ Dump Analysis

ESW Product Name	Short-cut	ESW Pull-down Options
TriTune (Performance Measurement)	M3	Measure ► Performance Measurement
ValidDate (Date Simulation)	BD	Test ► Date Simulation

ESW Product Integration

Because ESW is an integrated suite of products, you can access individual ESW products either directly, or through the main ESW screen. As a result, different fields, values, action bar options, and pull-down menus display on a screen or pop-up depending on how you accessed the screen or pop-up.

Certain ESW products also contain functionality that interfaces with other ESW products. Using SmartTest as an example, If Insight is installed and specified during the analyze, the Insight program analysis functions are automatically available for viewing logic/data relationships and execution path. For example, the Scratchpad option is available on the Options pull-down menu if you have Insight installed.

Access to these integrated products requires only that they be installed and executed in the same libraries.

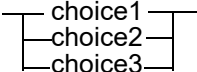
2

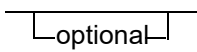
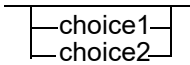
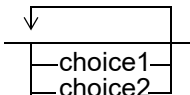
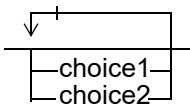
Command Language Syntax

This chapter provides a description and command syntax for the SmartEdit commands.

Command Diagrams

These notational conventions and symbols are used to describe command syntax:

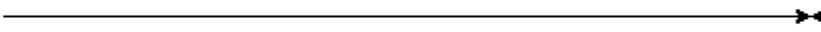
Item	Description
ABBREVIations	Illustrates the command abbreviation, which is shown in uppercase letters. Lowercase letters in the command are optional.
lowercase	Indicates user-supplied variable information.
UPPERCASE	Indicates commands or keywords.
Bold	Indicates operands that are available only if SmartEdit is installed and a SmartEdit analysis has been run on the COBOL program being tested.
Underline	Specifies the default value of an operand.
	Separates synonymous commands or operands.
—————>	Indicates that the command syntax is continued on the next line.
—>————	Indicates the command syntax is continued from the previous line.
—————✕	Indicates the end of the command syntax.
— required —	Indicates that the operand or keyword appearing on the main command line is required.
	Indicates that one operand is required.

Item	Description
	Indicates that an operand or keyword appearing below the main command line is optional.
	Indicates that operands are optional.
	Indicates that more than one operand can be chosen.
	Indicates that operands can be concatenated by placing a plus sign (+) between them.

SmartEdit supports all ISPF/PDF system commands on the appropriate screens (e.g., UP, DOWN, KEYS). Targets are searched in the order listed. A particular kind of target can be selected by entering the optional target-type prefix (e.g., SUBSET, LABEL, DATA). Data name subordinate operands (e.g., REF, ALIAS) pertain to all datanames in a concatenated series. For COBOL II Release 3 and later programs, a data item, label name, or program name that may be ambiguous or used multiple times can be qualified by using OF followed by the program name.


& (Retain)

Executes the specified primary command and keeps it displayed in the command input area for repeated use or modification.

&any primary command 

ACTION

Initiates the cursor sensitive function previously selected from a pull-down or pop-up. This command applies to COBOL applications only.

ACTION 

ALLOCDEF

Displays the Options - Product Allocations pop-up used to specify the DASD volumes for the Log, List, Punch, and Work files; and to specify space for the Work file.

ALLOCDEF | ADEF 

BRANCH

Positions the cursor at the specified target. Use the BRANCH command when tracking branching logic. You can also use the BRANCH command to scroll from a statement such as a PERFORM, to the paragraph being performed. Then use the BACKUP operand to return to the statement from which the branch occurred. Use PREVIOUS in conjunction with the current cursor location to position the cursor at the GO TO, PERFORM, or CALL statement from which a target was reached. This command applies to COBOL applications only.

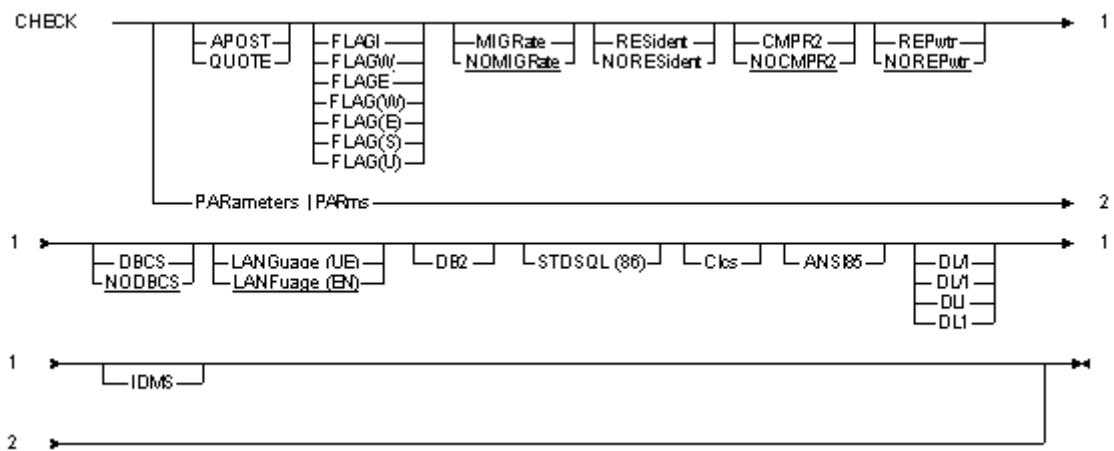
Branch 

	name
LABEL	
PROGRAM	
BACKUp	

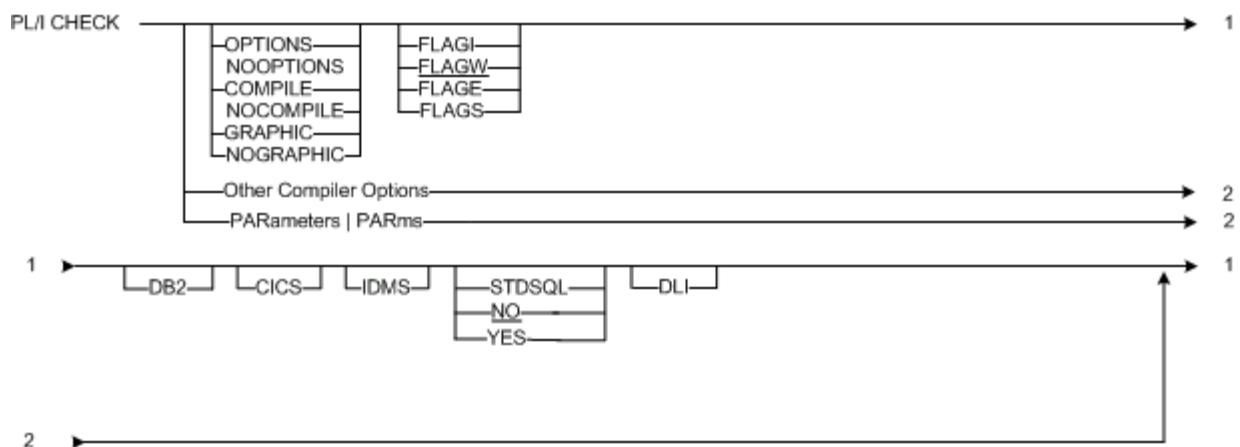
CHECK

Provides an online syntax check mechanism for the COBOL source currently being edited. This command also works with PL/I if you have purchased the language option. The CHECK command performs a syntax check of the program and places syntax error messages directly below the line in which errors are found.

Cobol Syntax

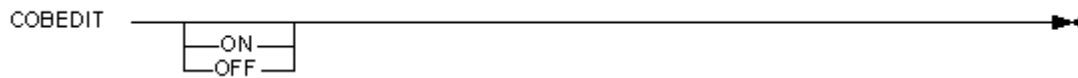


PL/I Syntax



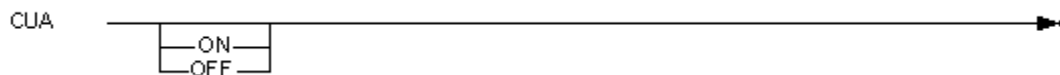
COBEDIT

Activates and deactivates SmartEdit for COBOL editing under ISPF/PDF. This command also works with PL/I if you have purchased the language option.



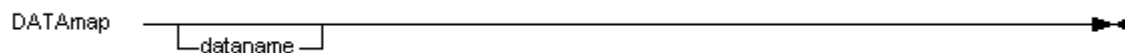
CUA

Displays or removes the SmartEdit CUA action bar from the screen for the current session. To make the setting permanent for your profile, use the SET command. For example, type SET CUA ON to display the CUA action.



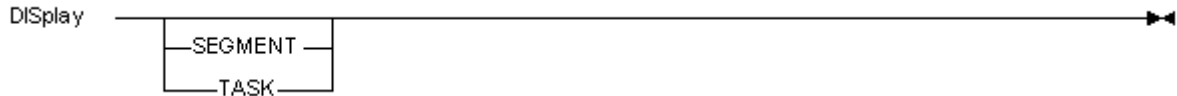
DATAMAP

Displays the length of a data item and the length and offset for any data items that are contained within the selected data item. Use a qualified dataname (i.e., *X of Y*) with the DATAMAP command if the dataname is ambiguous, or is defined multiple times. You can also use the DM line command to display the length of a data item. In addition, you can perform line command DM on the NOTE line (the line command and the cursor must be on the same NOTE line). This command applies to COBOL applications only.



DISPLAY

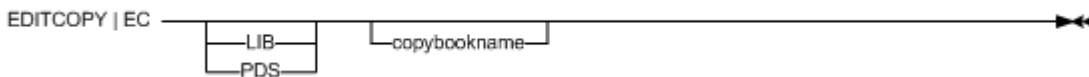
Displays all statements contained in the active Logic Segment (created in Encore) or statements found using the Task facility in Insight. DISPLAY is only valid if Encore and/or Insight are installed. This command applies to COBOL applications only.



EDITCOPY

Locates a COBOL copybook and opens it in an edit session using the ISPF editor. This command also works with PL/I if you have purchased the language option. You can use this command on all copybooks (except certain SQL Includes) that are currently viewable in the edit. You can also perform line command EC on the NOTE line.

The EDITCOPY command applies to all COBOL or PL/I copybooks that exist in the Copy/Include libraries you specified on the Edit Options - COPY/Include Libraries screen in SmartEdit.



EDITPGM

Locates a CALLED program and opens it in a COBOL edit session using your default editor. This command also works with PL/I if you have purchased the language option. If SmartEdit is not your default editor, an ISPF edit session is opened for the specified program. You can use this command on all programs that are currently viewable in the edit. You can also perform line command EP on the NOTE line.

EDITPgm —————▶
└─ programname ─┘

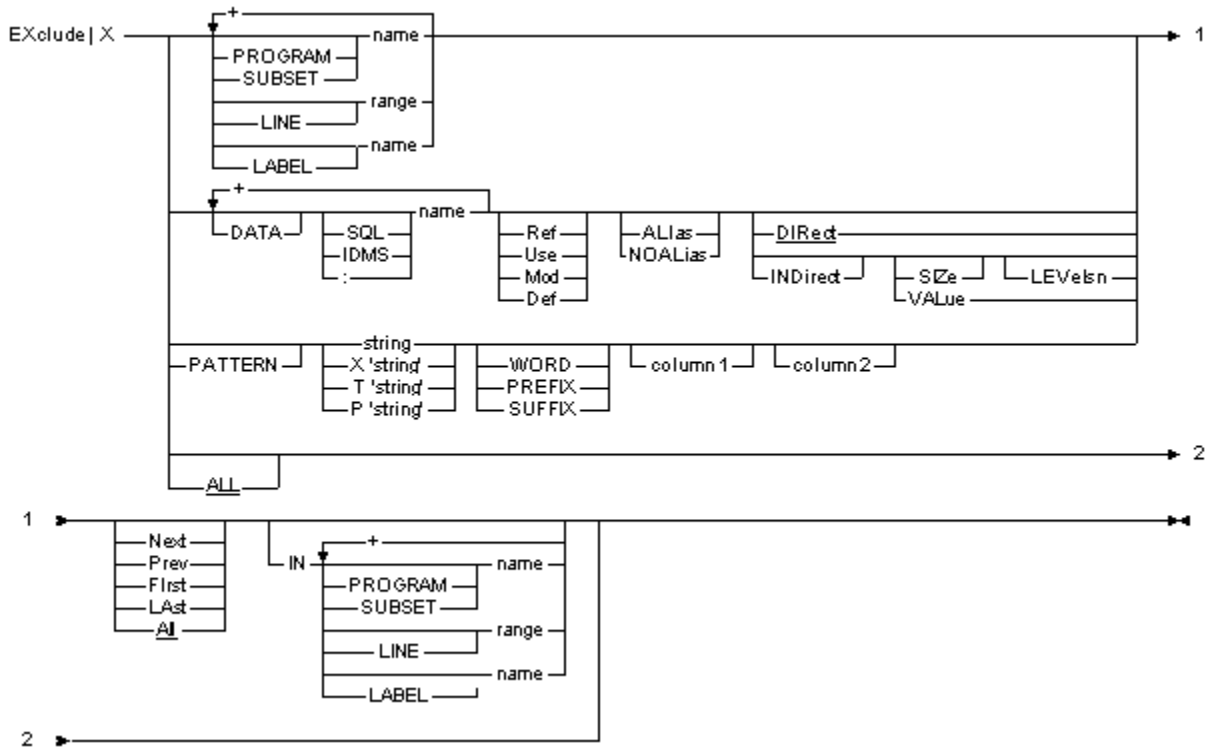
EQUATE

Defines a name for a character string. A character string can be a long command, operand set, pattern, dataname, etc. Use the equated names during SmartEdit sessions to reduce the number of keystrokes. You can also use and save multiple Equate statements in the AKR (see [“SCROLL” on page 27](#)). Type EQUATE and the name without the string to delete an equated name. The substitution string can be changed on the List - Equates pop-up by typing over it with the new value.

Equate —name— └─ string ─┘ —————▶

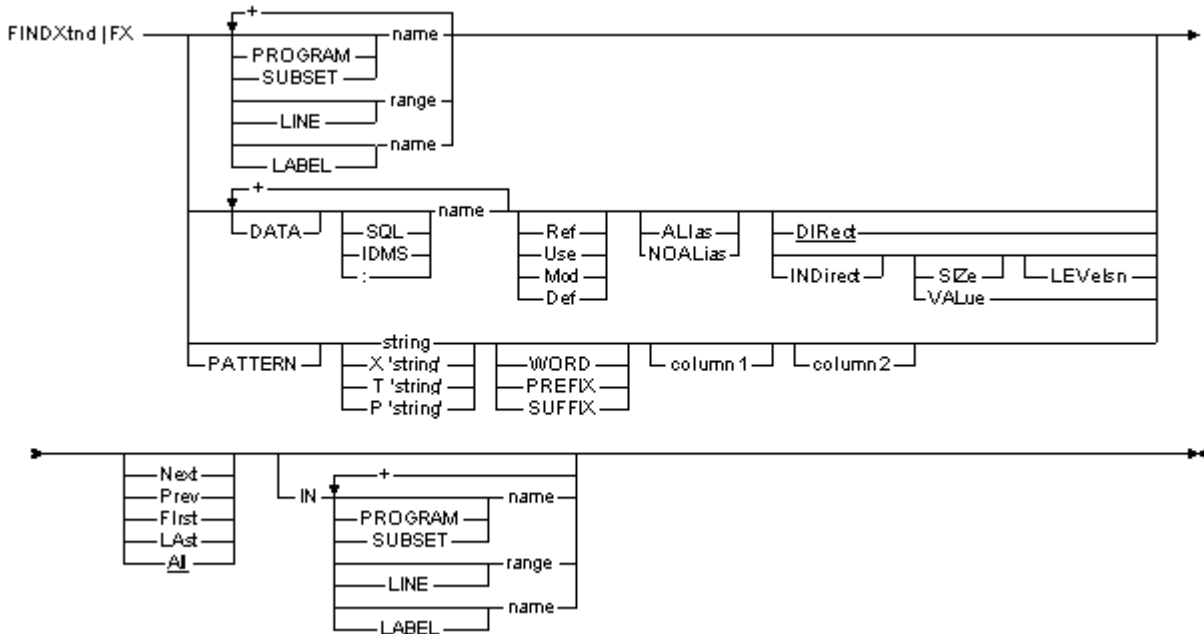
EXCLUDE

Performs a FINDXTND command on a specific target, excluding the resulting lines. Excluded lines are represented by a line of dashes and text stating *n* LINE(S) NOT DISPLAYED. You can also use the X or XX line commands to exclude lines from the screen. This command applies to COBOL applications only.



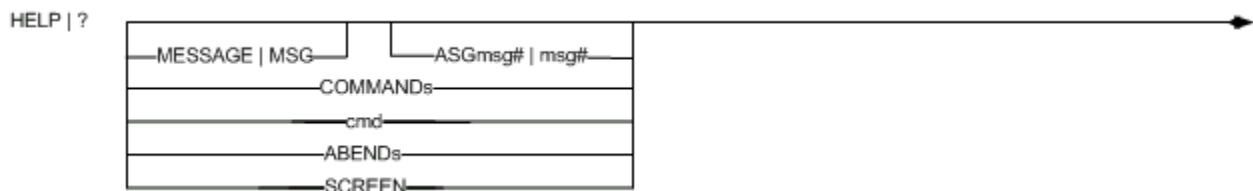
FINDXTND

Performs a COBOL intelligent search of the source code for one or all occurrences of the specified target. If lines containing results are excluded, they redisplay on the screen. Tags indicating the type of target found are highlighted and placed in columns 1 through 6 in the Edit session. This command applies to COBOL applications only.



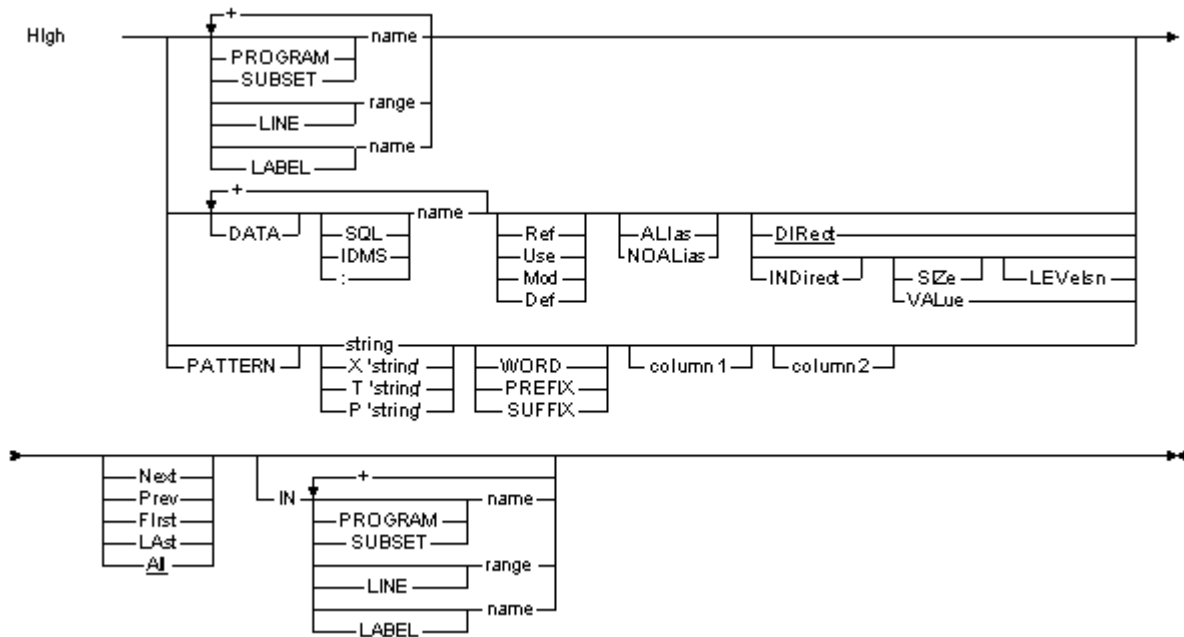
HELP

Displays information about the current SmartEdit screen, command, or error message. Help is presented as a long message or a tutorial screen. From the Help Tutorial, type INDEX and press Enter to display the Index, or type TOC and press Enter to display the Table of Contents.



HIGH

Highlights source code lines containing the specified targets. Lines already highlighted from prior commands are not reset. This command applies to COBOL applications only.



JUMP

Returns to the Edit screen at the location corresponding to the cursor position on the Tree View screen. This command is valid only on a Tree View screen. This command applies to COBOL applications only.

JUMP →

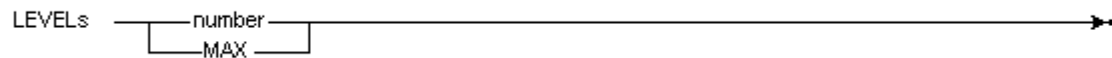
LANG

Switches between copybook lists in COBOL and PLI (if you have purchased the language option) and displays the action bar and options that correspond to the active language.



LEVELS

Redisplays the Tree View screen to the *n*th level. If there are less than *n* levels displayed, they are expanded to the requested level. If there are greater than *n* levels displayed, they are removed. This command applies to COBOL applications only.



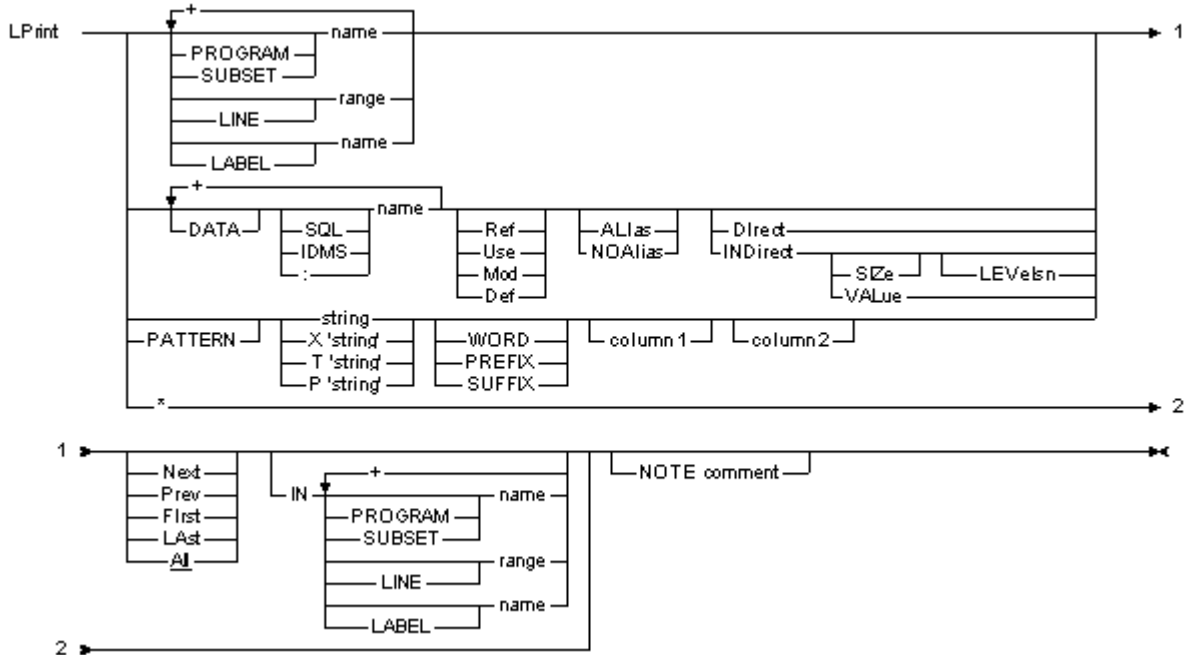
LIST

Displays the specified pop-up. Using the LIST command with no operand displays the List Menu pop-up. This command applies to COBOL applications only.



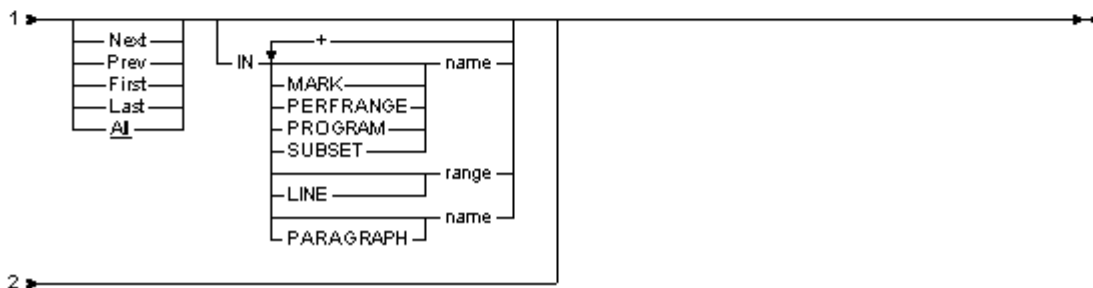
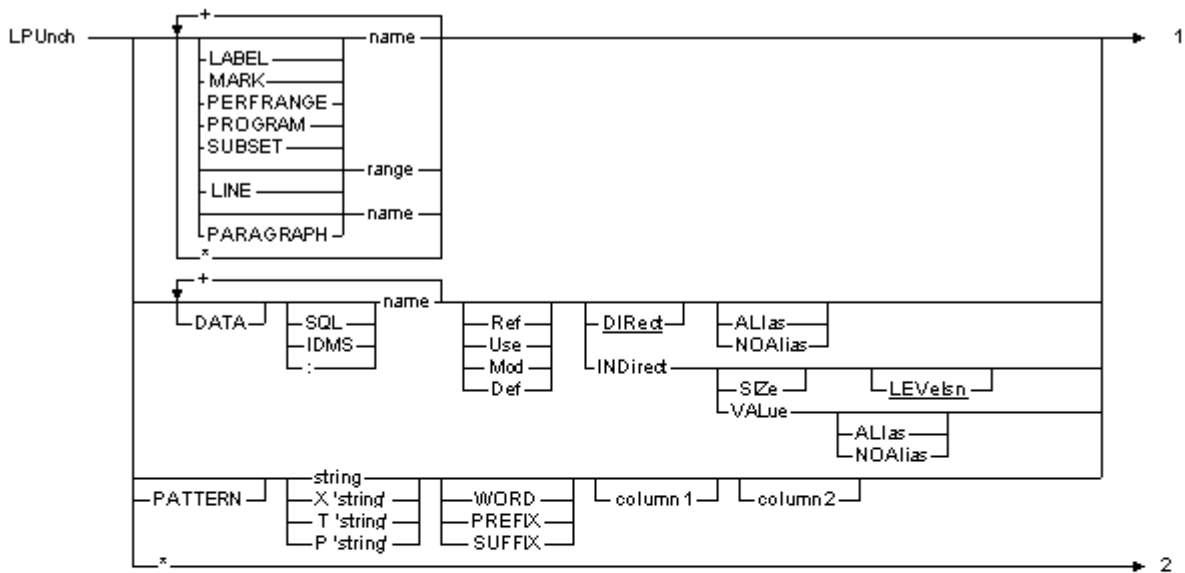
LPRINT

Copies lines containing the requested target to the List file. Entering LPRINT * causes the entire virtual screen (all data that can be viewed by scrolling forward and backward) to be copied to the List file. This command applies to COBOL applications only.



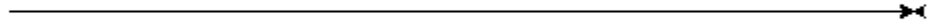
LPUNCH

Copies lines containing the specified target to the Punch file for subsequent processing. Entering LPUNCH * causes the entire virtual screen (all data that can be viewed by scrolling forward and backward) to be copied to the Punch file. This command applies to COBOL applications only.



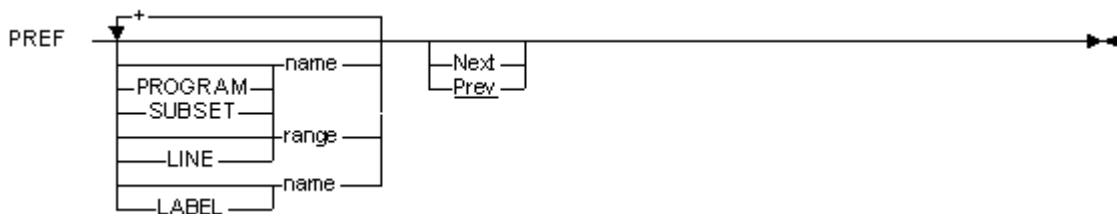
PARMDEF

Displays the Options - Product Parameters pop-up used to set parameters that affect the online operation of SmartEdit.

PARMDEF | PDEF 


PREF

Displays the View - Paragraph Cross Reference pop-up for the requested target. The View - Paragraph Cross Reference pop-up shows how control is transferred to or from the target. PREF includes all paragraphs containing the target lines. This command applies to COBOL applications only.



PREPROC

Displays the Options - Preprocessors pop-up. The Options-Preprocessors pop-up is used to select the preprocessor group to be used in your SmartEdit session.

PREPROC 

PRINTLOG

Displays the Options - Log/List/Punch Definition pop-up for processing of the Log, List, and Punch files. You can enter the PRINTLOG command on any SmartEdit screen.

PRINTLOG | PLOg

PRINTLST

Displays the Options - Log/List/Punch Definition pop-up for processing of the Log, List and Punch files. You can enter the PRINTLST command on any SmartEdit screen.

PRINTLST | PLlst

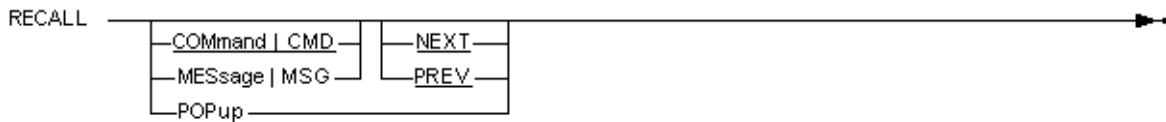
PRODLVL

Displays the current SmartEdit product levels on the message line, including the product name, operating system, product release number, and level.

PRODLVL

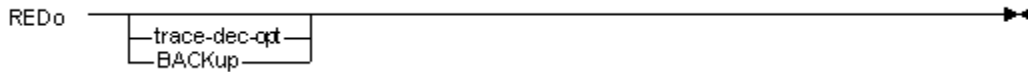
RECALL

Displays the previous primary command, pop-up, or message. The last 20 commands that have been executed and the last 20 messages that have been displayed are stacked. Use RECALL to redisplay these commands or messages in sequential order. The POPUP operand redisplay the most recent pop-up.



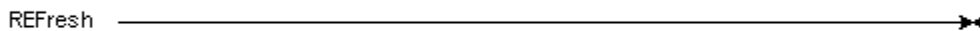
REDO

Executes the corresponding repeat command after execution of the FIND, FINDXTND, HIGH, PREF, SCROLL, or TRACE command.



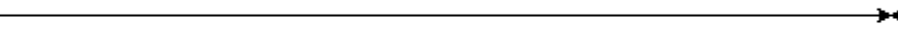
REFRESH

Brings in fresh versions of copy members. Redisplays the Options - COPY/Include Libraries screen so the Copy Library information can be updated, then reads the most recent COPY members. COPY members are retrieved from partitioned datasets, Librarian, and Panvalet datasets. The ++INCLUDE lines are retrieved from Panvalet datasets only. The -INC lines are retrieved from Librarian datasets only.




REPEAT

Re-executes the last stacked primary command from the cursor position.

REPEat 

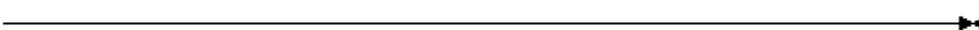
RESET

Turns off highlighting, erases tags, redisplay excluded lines, cancels pending line commands, and terminates message line displays. Any combination of operands can be specified.

RESet 

RFIND

Repeats the last FIND or FINDXTND command from the cursor position. The search is in the direction indicated in the last FIND or FINDXTND command.

RFind 

RHIGH

Repeats the last HIGH command from the cursor position. This command applies to COBOL applications only.

RHigh 

RPREF

When on the Edit screen, RPREF redisplay the last View - Paragraph Cross Reference pop-up. When used on the View - Paragraph Cross Reference pop-up, the last Source View screen redisplay. If you enter RPREF without having entered a PREF command, RPREF functions as a PREF command with the current cursor location as the target and default direction.

RPref 

RSCROLL

Repeats the last SCROLL command from the cursor position.

RScroll 

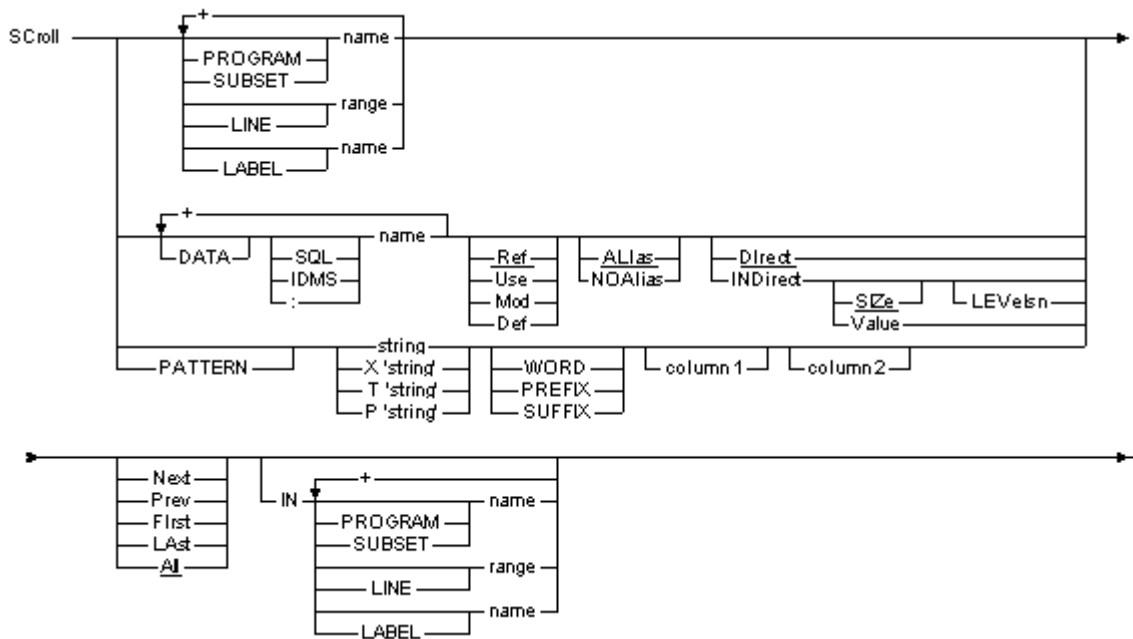
RTREEVW

Returns to the previous Tree View screen. This command applies to COBOL applications only.

RTREEvw | RTV ▶▶

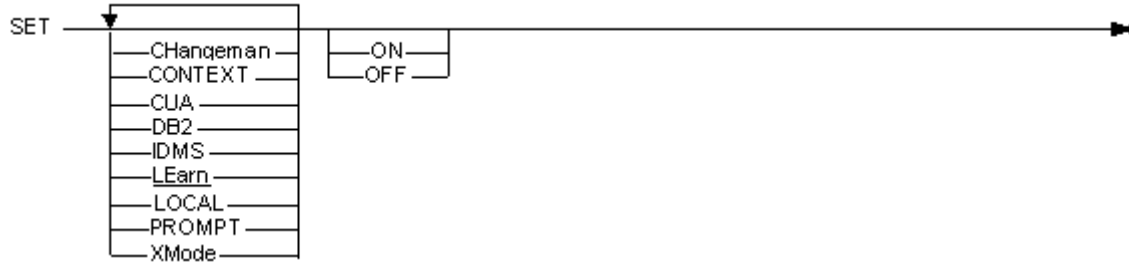
SCROLL

Scrolls to the first line or box containing the specified target without resetting highlighted lines or boxes.



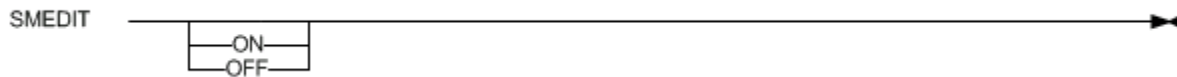
SET

Enables or disables the mode indicated by the specified operand. If this command is entered without any operands, the Options - Processing Modes pop-up displays, showing the current setting for each SET command mode. You can also change modes on the Options - Processing Modes pop-up.



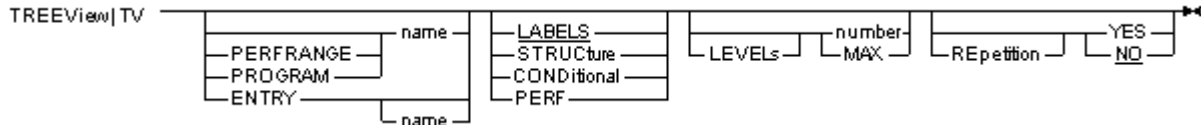
SMEDIT

Activates and deactivates SmartEdit for COBOL editing under ISPF/PDF. This command also works with PL/I if you have purchased the language option.



TREEVIEW

Displays the Tree View screen which shows the structural representation of a COBOL program in logical execution order. If you do not specify a target or level, the default is the main program at level 2. This command applies to COBOL applications only.



UPDATE

Changes pseudo code lines (created in SmartTest) to actual COBOL source lines, making them part of the program. After you enter the UPDATE command, the File - Generated Code Update Facility pop-up displays. Specify the program containing the pseudo code that you want to update. This command applies to COBOL applications only.



VIEW Command

Displays the View screen, which resembles the TSO/ISPF/PDF edit screen. Members of protected production datasets can be viewed and COBOL or PL/I Editor commands can be executed. By using the LPUNCH command during the view session, changes can be saved to the Punch file. The ISPF CREATE command can also be used to save changes. Otherwise, changes made during the view session are automatically discarded when the session ends.

VIEW _____▶▶

VIEWCOPY

VIEWCopy _____▶▶
┌───┴───┐
┌───LIB───┐
└───PDS───┘
┌──────────┐
└──copybookname──┘

Locates a copybook and opens it in a COBOL view session. This command also works with PL/I if you have purchased the language option. If the copybook is a PDS member, an ISPF VIEW session is opened for the specified copybook. If the copybook is located in a Librarian dataset, a Librarian VIEW session is opened.

You can use this command on all COBOL or PL/I copybooks that are currently viewable in SmartEdit.

VIEWPGM

VIEWPgm _____
 └─programname─┘

Locates a CALLED program and opens it in COBOL View mode. This command also works with PL/I if you have purchased the language option. You can use this command in Edit mode and View mode.

ZOOMCOPY

Brings in all COBOL copy members included by the current source module. This command also works with PL/I if you have purchased the language option.

ZOOMCOPY | ZC _____

ZOOMDEF

Displays the requested data item in the Data Item Definition pop-up when entered on the command line followed by a valid data item. Displays all definitions of all data items when entered on the NOTE line. This command applies to COBOL applications only.

ZOOMDEF | ZD _____
 └─DATAITEM─┘

ZOOMIN/ZOOMOUT

Displays or excludes source code lines according to the hierarchical levels of the program. Use in conjunction with each other to show the structure of a program, provide a means of stepping through each level, or going directly into or out of a particular section of source code.

ZOOMIn | ZI _____ ▶◀

ZOOMOut | ZO _____ ▶◀

3

Operand Definitions

This table contains the SmartEdit operands and their associated definitions.

Operand	Description
: name	Includes datanames that are COBOL variables only.
cmd	Represents a SmartEdit primary command.
column1	Specifies the column number where the search is to begin.
column2	Specifies the column number where the search is to end.
comment	Represents text following the NOTE operand that describes the name.
DATA <i>name</i>	<p>Specifies a COBOL dataname or qualified COBOL dataname. DATA name refers to any valid COBOL reference for a data element. The DATA name operand also accepts these values:</p> <ul style="list-style-type: none">• UseOccurrences of the dataname where its value is tested or used (including aliases unless using NOALIAS).• ModOccurrences of the dataname where its value is set or modified (including aliases unless using NOALIAS).• DefDefinitions for the dataname in the DATA DIVISION (including aliases unless using NOALIAS).• <u>Ref</u>Use, Mod, and Def.• <u>AL</u>iasIncludes aliases of the dataname.• NOAliasDoes not include aliases of the dataname.• <u>DI</u>RectConsiders only the specified dataname.• INDIrectIncludes occurrences of any dataname indirectly affected by the specified dataname (and aliases, if specified).• <u>SI</u>ZeConsiders datanames indirectly affected by a change in the size of the specified dataname.• VALueConsiders datanames directly or indirectly affected by a change in the value of the specified dataname.• LEVels <i>n</i>Identifies the depth of the indirect references.

Operand	Description
ENTRY <i>name</i>	Specifies an entry point name. If you specify ENTRY without a <i>name</i> , the main program and all ENTRY points are included.
IDMS <i>name</i>	Includes datanames that are IDMS variables only.
LABEL <i>name</i>	Specifies any paragraph or section name of the PROCEDURE DIVISION, as well as the literals PROCEDURE and PROC. This includes all transfers of control to the label name.
LEVELS <i>number</i>	Specifies the lowest to highest hierarchical level of code.
LINE <i>number</i>	Represents a single line number.
LINE <i>range</i>	Represents a single line number or range of lines.
<i>msg#</i>	Specifies the number of an error message or information message.
<i>name</i>	Specifies a name for a character string. This name can be up to 10 alphanumeric characters, must begin with an alphabetic character, and can include hyphens. The name can also be a PERFRANGE name, LABEL name, DATA name, or SUBSET name. See the specific operand for more information.
NOTE <i>comment</i>	Specifies a user-supplied description.
PATTERN <i>string</i>	Specifies a string of alphanumeric characters. If the string contains blanks, it must be enclosed in quotes. The PATTERN string operand also accepts these values: <ul style="list-style-type: none"> • X 'string' Hexadecimal string • T 'string' Text string • P 'string' Picture string • WORD Pattern string directly preceded and followed by any non-alphanumeric characters other than hyphens • PREFIX Word that begins with the pattern • SUFFIX Word that ends with the pattern
SQL <i>name</i>	Includes datanames that are DB2/SQL variables only.

Operand	Description																																														
<i>string</i>	Specifies a character string to be substituted by the EQUATE command. Also, a string of alphanumeric characters. See the PATTERN string operand for more information.																																														
SUBSET <i>name</i>	<p>Specifies COBOL verbs of a similar nature that have been grouped together. These are the predefined COBOL language subsets:</p> <table border="0"> <tr> <td>ASsignment</td> <td>DEFinition</td> <td>MAINline</td> </tr> <tr> <td>CALL</td> <td>DIRective</td> <td>MATH</td> </tr> <tr> <td>CIcs</td> <td>DIVision</td> <td>NATional</td> </tr> <tr> <td>COBOLII</td> <td>DL/I DL/1</td> <td>Output</td> </tr> <tr> <td>COBOL/370</td> <td>DML</td> <td>PARagraph</td> </tr> <tr> <td>COMment</td> <td>ENtry</td> <td>PERform</td> </tr> <tr> <td>CONditional</td> <td>EXIt PGMExit</td> <td>RETurn</td> </tr> <tr> <td>COPY</td> <td>FALLthrough</td> <td>SECTion</td> </tr> <tr> <td>DB2/SQL</td> <td>GOto</td> <td>SORTMerge</td> </tr> <tr> <td>DDL</td> <td>IDMS</td> <td>STructure</td> </tr> <tr> <td>DEAD</td> <td>INClude</td> <td></td> </tr> <tr> <td>DEADCode</td> <td>Input</td> <td></td> </tr> <tr> <td>DEADData</td> <td>IO</td> <td></td> </tr> <tr> <td>DEBug</td> <td>LABel</td> <td></td> </tr> </table> <p>Note: TESTed and UNTested subsets are available only if you have applied TCA results. See the <i>ASG-SmartTest TCA User Guide</i> for more information.</p> <p>Screen subsets:</p> <table border="0"> <tr> <td>Highlighted HI</td> <td>Excluded X</td> </tr> <tr> <td>NONHighlighted NHI</td> <td>NONExcluded NX</td> </tr> </table> <p>A tagged lines subset of tags appearing in columns 73 through 80 of the Program View screen.</p>	ASsignment	DEFinition	MAINline	CALL	DIRective	MATH	CIcs	DIVision	NATional	COBOLII	DL/I DL/1	Output	COBOL/370	DML	PARagraph	COMment	ENtry	PERform	CONditional	EXIt PGMExit	RETurn	COPY	FALLthrough	SECTion	DB2/SQL	GOto	SORTMerge	DDL	IDMS	STructure	DEAD	INClude		DEADCode	Input		DEADData	IO		DEBug	LABel		Highlighted HI	Excluded X	NONHighlighted NHI	NONExcluded NX
ASsignment	DEFinition	MAINline																																													
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DDL	IDMS	STructure																																													
DEAD	INClude																																														
DEADCode	Input																																														
DEADData	IO																																														
DEBug	LABel																																														
Highlighted HI	Excluded X																																														
NONHighlighted NHI	NONExcluded NX																																														

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Tree View Line Commands

This table contains the SmartEdit tree view line commands and their associated definitions.

Line Command	Description
DM	Datamap. Displays the length of a data item and the length and offset for any data items that are contained within the selected data item. You can also use this command on the NOTE line.
EC	Editcopy. Locates a COBOL or PL/I (if language option purchased) copybook and opens it in an edit session using the ISPF editor. You can use this command on all COBOL or PL/I copybooks (except certain SQL Includes) that are currently viewable in the edit. You can also use this command on the NOTE line.
EP	Editpgm. Locates a CALLED program and opens it in a COBOL or PL/I (if language option purchased) edit session using your default editor. If SmartEdit is not your default editor, an ISPF edit session is opened for the specified program. You can use this command on all COBOL or PL/I programs that are currently viewable in the edit. You can also use this command on the NOTE line.
F <i>n</i>	First. Redisplays the specified number of excluded lines, starting with the first line in the block. The default is 1.
J	Jump. Returns to the Editor screen at the location corresponding to the line where this command is issued on the Tree View screen.
L <i>n</i>	Last. Redisplays the specified number of excluded lines, starting with the last line in the block. The default is 1.
S <i>n</i>	Show. Redisplays the specified number of excluded lines, starting with the first line in the block. The default is 1.
SS	Show Block. Redisplays a block of lines that were previously excluded.
X <i>n</i>	Exclude. Hides a line or group of lines from being displayed. Excluded lines are replaced with a row of dashes. The default is 1.
XX	Exclude Block. Excludes a block of lines from being displayed.

Line Command	Description
ZI	Zoom In. Redisplays excluded source lines according to the hierarchical levels in the program and expands copy members in context. The ZI line command is used in conjunction with the ZO (zoom out) line command to show the structure of a program and provide a means of stepping through each level or going directly into or out of a particular section of source code.
ZO	Zoom Out. Redisplays a source line in its original format after a Zoom line command. Use the ZO (Zoom Out) line command in conjunction with the ZI (Zoom In) line command to show the structure of a program, provide a means of stepping through each level, or going directly into or out of a particular section of source code. The ZI (Zoom In) and ZO (Zoom Out) line commands display or exclude source lines according to the hierarchical levels of the program.

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Source View Line Commands

This table contains the SmartEdit source view line commands and their associated descriptions.

Line Command	Description
BR	Branch. Positions the cursor at the specified target. This line command is not valid on the Tree View screen. This command applies to COBOL only.
DM	Datamap. Displays the length of a data item and the length and offset for any data items that are contained within the selected data item. You can also use this command on the NOTE line. This command applies to COBOL only.
EC	Editcopy. Starts an ISPF edit session for the specified COBOL copybook. This command also works with PL/I if you have purchased the language option. You can use this command on all COBOL or PL/I copybooks that are currently viewable in the edit. You can also use this command on the NOTE line.
EP	Editpgm. Locates a CALLED program and opens it in a COBOL or PL/I (if language option purchased) edit session using your default editor. If SmartEdit is not your default editor, an ISPF edit session is opened for the specified program. You can use this command on all COBOL or PL/I programs that are currently viewable in the edit. You can also use this command on the NOTE line.
<i>Fn</i>	First. Redisplays the specified number of excluded lines, starting with the first line in the block. The default is 1.
<i>Ln</i>	Last. Redisplays the specified number of excluded lines, starting with the last line in the block. The default is 1.
<i>Sn</i>	Show. Redisplays the specified number of excluded lines, starting with the first line in the block. The default is 1.
VC	Locates a copybook and opens it in a view session. If the copybook is a PDS member, an ISPF VIEW session is opened for the specified copybook. If the copybook is located in a Librarian dataset, a Librarian VIEW session is opened. You can also use this command on the NOTE line.

Line Command	Description
VP	Locates a CALLED program and opens it in View mode. You can use this command in Edit mode and View mode. You can also use it on the NOTE line.
Xn	Exclude. Hides a line or group of lines from being displayed. Excluded lines are replaced with a row of dashes. The default is 1.
XX	Exclude Block. Excludes a block of lines from being displayed.
ZD	ZoomDef. Brings in the definition of any data items on the line where you enter ZD. This command is not valid on the Tree View screen, or outside the PROCEDURE DIVISION. This command applies to COBOL only.
ZI	Zoom In. Redisplays excluded source lines according to the hierarchical levels in the program, and expands copy members in context. Use the ZI line command in conjunction with the ZO (zoom out) line command to show the structure of a program and provide a means of stepping through each level or going directly into or out of a particular section of source code.
ZO	Zoom Out. Redisplays a source line in its original format after you enter a Zoom line command. Use the ZO (Zoom Out) line command in conjunction with the ZI (Zoom In) line command to show the structure of a program, provide a means of stepping through each level, or going directly into or out of a particular section of source code. The ZI (Zoom In) and ZO (Zoom Out) line commands display or exclude source lines according to the hierarchical levels of the program.

6

VIASUB and VIASUBDS Parameters

This table contains the SmartEdit parameters that are passed between the Center SCNXCLST VIASUB and VIASUBDS CLISTs when running a compile/analyze job:

Parameters	
Input(x,x,...x)	Output(x,x,...x)
NOInput(x,x,...x)	NOOutput(x,x,...x)
IO(x,x,...x)	PANCopy
NOIO(x,x,...x)	NOPANCopy
LIBCopy	RETurn(x,x,...x)
NOLIBCopy	NORETurn(x,x,...x)

Primary Defaults

PF Keys	
PF1/13 - HELP	PF7/19 - UP
PF2/14 - SPLIT	PF8/20 - DOWN
PF3/15 - END	PF9/21 - SWAP
PF4/16 - RTREEVW	PF10/22 - BRANCH

Suggested Alternate PF Keys

SmartEdit uses your existing ISPF PF keys. However, ASG recommends that you reassign a few of your default ISPF keys to make optimum use of SmartEdit. Type `KEYS` to display the ISPF PF Key Definitions and Labels screen and make these changes

PF Keys
PF1/13 - ZOOMIN
PF4/16 - ZOOMDEF
PF12/24 - ZOOMOUT

8

Action Bar Command Equivalents

This table contains the SmartEdit action bar command equivalents.

Command	Pull-Down	Action; Option
ALLOCDEF	Options	Product Allocations
BRANCH	Search	Branch. This command applies to COBOL only.
CHECK	Check	Perform COBOL Syntax Check. This command also works with PL/I if you have purchased the language option.
DISPLAY	File	Display Segment, Display Task. This command applies to COBOL only.
EQUATE	Options	Equate
EXCLUDE	Search	Data, Label, Pattern, Subset, Program, Line, or Any. This command applies to COBOL only.
	View	Exclude
FINDXTND	Search	Data, Label, Pattern, Subset, Program, Line, or Any. This command applies to COBOL only.
HELP	Help	All actions
HIGH	Search	Data, Label, Pattern, Subset, Program, Line, or Any. This command applies to COBOL only.
JUMP	View	Jump. This command applies to COBOL only.
LEVELS	View	Levels. This command applies to COBOL only.
LIST	List	All actions. This command applies to COBOL only.
LPRINT	Search	Data, Label, Pattern, Subset, Program, Line, or Any. This command applies to COBOL only.
LPUNCH	Search	Data, Label, Pattern, Subset, Program, Line, or Any. This command applies to COBOL only.

Command	Pull-Down	Action; Option
PARMDEF	Options	Product Parameters
PREF	View	Paragraph X-Ref. This command applies to COBOL only.
PREPROC	Options	Preprocessors
PRINTLOG	Options	Log/List/Punch
PRINTLST	Options	Log/List/Punch
PRODLVL	Help	About
REFRESH	Options	Refresh
RESET	View	Reset. This command applies to COBOL only.
RTREEVW	View	Return to Tree view. This command applies to COBOL only.
SCROLL	Search	Data, Label, Pattern, Subset, Program, Line, or Any. This command provides limited PL/I support.
SET	Options	Processing Modes
TREEVIEW	View	Tree. This command applies to COBOL only.
ZOOMCOPY	View	Zoom All COBOL or PL/I (if language option purchased) Copies
ZOOMDEF	View	Zoom Definition. This command applies to COBOL only.
ZOOMIN	View	Zoom in
ZOOMOUT	View	Zoom out

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