# CA Endevor® Software Change Manager

## Quick Edit Option User Guide

**Version 17.0.00**

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# CA Technologies Product References

This document references the following CA Technologies products:

- CA Endevor® Software Change Manager (CA Endevor SCM)
- CA Endevor® Software Change Manager Automated Configuration (CA Endevor Automated Configuration)
- CA Endevor® Software Change Manager Parallel Development (CA Endevor Parallel Development)
- CA Endevor® Software Change Manager Quick Edit (CA Endevor Quick Edit)

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# Documentation Changes

The following documentation updates have been made since the last release of this documentation:

**Version 16.0, Second Edition**

*For PTF RO69632, May 2014*

- Edit an Element (see page 33), Generate an Element (see page 39), Limit System and SubSystem Selection Lists (see page 70), and CA Endevor Quick-Edit Option Panel Features (see page 91)— Updated the description of how the list option setting of DISPLAY ENV/SYS/SBS LIST=N behaves for Edit and Generate command options.

**Version 16.0**

- ISPF Edit Session Save, End, and Cancel Commands (see page 21)— Updated to state how the Preserve VB record length parameter affects the Save command.
- Change Action Options (see page 25)— Updated to add the Autogen Span options to the sample panel.
- Create an Element (see page 26)— Updated to add information about the Preserve VB record length Action Option field on the CA Endevor Quick-Edit Option panel.
- Edit an Element— Updated to add information about the Preserve VB record length field.
- Generate an Element— Updated to add the AUTOGEN_SOURCE option for ENCOPTBL and the Autogen Span options.
- How Generating Elements with Autogen Works (see page 45)— Updated to add a note about the AUTOGEN_SOURCE option for ENCOPTBL.
- How Autogen Span Options Work (see page 47)— Added to describe the Autogen Span options.
- Run Autogen in Simulation Mode for Impact Analysis (see page 48)— Added to describe this procedure.
- Component Lists (see page 63)— Updated to change the version and level format to VVLL in an example.
- View Component List Levels (see page 65)— Updated the sample panel to change the version and level format to VVLL.
- How SMF Records are Created for Edit Actions (see page 87)— Updated to change the version and level format to VVLL in an example.
- Element Record Format (see page 88)— Added to describe how the ISPF editor determines the temporary edit data set record length format and how the editor Save command affects the element record length format.

- CA Endevor Quick-Edit Option Panel Features— Updated to add the Preserve VB Length field.

**Version 15.0**

- The content of this guide has been reorganized and rewritten for clarity. Information about installation and configuration was moved from this guide to the *Installation Guide*.
- CA Endevor Quick-Edit Option Panel Features— Shows that the User Menu option U has been added to the panel to enable access to the User Options Menu.

# Contents

# Chapter 1: Introduction

This section contains the following topics:



## Purpose of this Guide

This guide describes how to use CA Endevor Quick Edit to control the development and maintenance of mainframe source code. CA Endevor Quick Edit serves as a developer workbench, with the most commonly used features of CA Endevor SCM on one panel, and allows your development staff to use standard ISPF Edit services to work on source code that is under the control of CA Endevor SCM.

The following additional options are accessible from CA Endevor Quick Edit, but are not discussed in this guide:

- The CA Endevor SCM package feature, which lets you group actions together in a package and require that the package be approved before it is executed. For more information, see the *User Guide* or *Packages Guide*.
- The CA Endevor Parallel Development option, which enables you to compare the content of elements, if you are licensed to use this option. This option facilities concurrent development and the resolution of out-of-sync elements. For more information, see the *Parallel Development Guide*.
- The User Options Menu, which can be customized by your CA Endevor SCM administrator to include user-defined functions. By default, the menu enables you to build and submit report JCL in foreground or run ACM queries, if your site is licensed for the CA Endevor Automated Configuration Option. For more information, see the *Reports Guide* and the *Automated Configuration Guide*.

**Note:** For information about the software management lifecycle, see the *User Guide*.

## Audience

This guide is intended for the Development and QA staff responsible for the development and maintenance of mainframe source code using the CA Endevor Quick Edit option.

# How CA Endevor Quick Edit Processing Differs from Standard CA Endevor SCM

CA Endevor Quick Edit handles the process of updating an element differently than does standard CA Endevor SCM.

To change an element using standard CA Endevor SCM services, the user performs the following steps:

1. Uses the Retrieve action, which writes the element to an external data set.
2. Changes the element data set using an editor.
3. Uses the Add or Update action to place the element back under the control of CA Endevor SCM.

To change an element using CA Endevor Quick Edit, the user performs the following steps:

1. Uses the Edit action, which fetches the element into memory and invokes the Interactive System Productivity Facility (ISPF) editor.
2. Changes the element in the ISPF editor.
3. Uses the Save or End command, which updates the element in CA Endevor SCM at the entry Stage of the Environment specified on the Edit action request.

**Important!** When CA Endevor Quick Edit fetches the element into memory, it is not performing a standard CA Endevor SCM RETRIEVE request. Therefore, the RETRIEVE CCID and COMMENT fields are not updated in the Master Control File information for the element. Also, CA Endevor Quick Edit handles sign out processing differently. For more information, see How Sign Out Processing Works (see page 85).

Otherwise, CA Endevor Quick Edit functions in essentially the same manner as standard CA Endevor SCM processing. Any deviations from the standard are noted in the appropriate topics.

**More Information**

Operating Information (see page 79)

# How to Start CA Endevor Quick Edit

To use the CA Endevor Quick Edit option to change and manage your source code, you access your product source in CA Endevor SCM through the CA Endevor Quick-Edit Option panel.

To access the CA Endevor Quick-Edit Option panel, follow the instructions provided by your CA Endevor SCM administrator, because the ISPF menu location of the CA Endevor Quick Edit option depends on your site's specific implementation.

# Chapter 2: Usability Features

This section contains the following topics:



## How to Make Tasks Easier

To help you work more efficiently, you should become familiar with usability features that make working in the ISPF panels easier. These features are the same for all users, except for the user dialog defaults, which you can change according to your preferences. Similar features are available in standard CA Endevor SCM and CA Endevor Quick Edit. Any differences are noted in the appropriate topics.The usability features follow:

- Online help (see page 15)
- Extended messages (see page 16)
- Name masking of search strings (see page 16)
- Sortable selection lists (see page 75)
- User dialog defaults (see page 17)
- Panel field default values (see page 19)
- Foreground execution reports (see page 19)

In addition, you should be familiar with the commands and functions of the ISPF panels and the ISPF Edit panel. For more information, see ISPF Interface (see page 19).

## Display Online Help

You can display online help for panel options and fields or ISPF fields, to help you understand the options or fields. To display online help, press PF1 from any panel. The help text for that panel opens, if it exists. The help page displays information about the options or fields on that panel.

# Display Expanded Message Text

Abbreviated message text is automatically displayed on a panel, but you can display expanded message text to read more detailed information. To display expanded message text, press PF1 when abbreviated message text is displayed on a panel. The expanded message text for that message is displayed.

**Note:** If you press PF1 again, the online help text for the current panel opens.

# Name Mask Search Strings

To help you more easily find information and process requests, you can use name masking. Name masking lets you substitute a wildcard asterisk (*) character or a placeholder percent sign (%) character for one or more characters in a search string. Name masking is valid on many, but not all, search requests.

To name mask a search string, substitute characters in your search string with a wildcard (*), a placeholder (%), or both. Valid uses for wildcards and placeholders follow.

**Wildcard**

***** – A wildcard asterisk (*) character substitutes for either the entire search string or for one or more characters at the *end* of a search string. You cannot have more than one wildcard in a string. A wildcard can be used as follows:

- As the *only* character in the search string. This use of the wildcard returns all members of the search field. For example, entering the following in a CCID field on the CA Endevor Quick-Edit panel returns a selection list of all elements that match the other selection criteria, regardless of the CCID associated with the elements: *
- At the *end* of the search string. This use of the wildcard returns only the members of the search field that begin with the characters in the search string preceding the wildcard. For example, entering the following in the Element name field on the CA Endevor Quick-Edit panel, returns a selection list of all elements that begin with abcxyz, provided they match the other selection criteria: *abcxyz**

**Placeholder**

% – A placeholder is a percent sign (%) character that substitutes for one character in a specific location in a search string. A placeholder can be used in one of the following ways:

- At the *end* of a search string. This use of the placeholder returns all members of the search field that begin with the characters in the search string preceding the placeholder, plus any *one* additional character at the end.
- *Multiple times within* a search string. This use of the placeholder returns all members of the search field that are the same length as the search string, but with any characters substituted in place of the placeholders.

### Example: Name Mask Location Fields

In this example a wildcard and a placeholder are both used to name mask a Location specification on the CA Endevor Quick-Edit Option panel. If F%N* is entered in the SYSTEM field, a selection list will be returned that includes all Systems that have F as the first character, any one character as the second character, and N as the third character. The list could include the following matches: FDNACCT, FIN1, FIN15A, FDNPAY, and so on.

# Set Dialog Defaults

The Quick-Edit Dialog Defaults panel specifies user preferences for allocated space for work and list data sets, the listing data set string that identifies list data sets, the threshold for the Execution Report, and the whether the ISPF browse or view display services is used. Default values are set by your CA Endevor SCM administrator, but you can change the default values for your user ID on the Quick-Edit Dialog Defaults panel. These values remain in effect from session to session, until you change them again. Changes made to the Quick Edit Dialog Defaults panel are reflected in the standard User Defaults panel. Also, any changes made to the User Defaults panel are reflected on the Quick Edit Dialog Defaults panel.

### Set your dialog defaults

1. Select option **D** Dialog Defaults on the CA Endevor Quick-Edit Option menu and press Enter.

   The Quick-Edit Dialog Defaults panel opens.

2. Change the dialog defaults to your preferences and press Enter. You can change the following fields or types of fields:

   **Work Data Set Allocation Information**

   Defines the default DASD space allocations for your work areas (temporary data sets).

   **List Data Set Allocation Information**

   Defines the default DASD space allocations for your foreground browse requests.

   **Component List Information**

   Defines the listing data set string that the CA Endevor Quick Edit List Listing (LL) option uses when selecting data sets from the output component list.

   **ISPF View/Browse Mode**

   Displays information in ISPF view or browse mode.

   **Show messages when RC is greater than or equal to**

   Displays the messages issued during CA Endevor Quick Edit activities, when the return code (RC) is equal to, or greater than, the setting. Valid values follow:

   **0** – Displays the message file after *every* executed action.

   **4** – Displays the message file if *any* CA Endevor SCM message was equal to or exceeded a warning level (W).

   **8** – Displays the message file if *any* CA Endevor SCM message was equal to or exceeded a caution level (C).

   **12** – Displays the message file if *any* CA Endevor SCM message was equal to or exceeded an error level (E).

   **16** – Displays the message file if *any* CA Endevor SCM message was equal to or exceeded a serious level (S).

   The settings associated with your user ID are saved and the CA Endevor Quick-Edit Option panel opens.

**Note:** For more information about panel options and fields, press PF1 to access online help.

# Panel Field Values

When you enter values in the fields on the CA Endevor Quick-Edit Option panel, those values remain in effect for the session or until you change them. In addition, some field values remain in effect from session to session.

# View the Foreground Execution Report

The Execution Report is displayed whenever the return code from foreground action processing is greater than, or equal to, a threshold value.

If the report is not automatically displayed because the threshold value was not met, you can still view the report. To view the Execution Report, type **QMSGS** (or **QM**) in the command field or use the ISPF Browse facility. The following file contains the Execution Report for the requested action:

`Browse` *`userid`*`.C1TEMPR`*`n`*`.Q`*`sysid`*`.MSGS`

*userid* – Specifies your ISPF user ID.

*n* – Specifies a system-assigned number between 1 and 9.

*sysid* – Specifies the SYSID of the LPAR where you are using CA Endevor SCM.

**Note:** You can change the threshold value that determines when the Execution Report is automatically displayed. For more information, see Set Dialog Defaults (see page 17).

# ISPF Interface

The CA Endevor Quick Edit interface consists of a set of Interactive System Productivity Facility (ISPF) panels. To edit an element, a copy of the element is automatically written to an external data set and you use the standard ISPF Edit service to make changes to the element. Elements are similarly created using the ISPF Edit service. When you view an element or component, an ISPF browse panel opens to display the file.

**More Information**

ISPF Edit Session Save, End, and Cancel Commands (see page 21)
Element Record Length (see page 22)
Edit Recovery (see page 22)

## ISPF Standard Commands and Function Keys

Several standard ISPF commands and function keys can help you move through the product more easily. The following commands and function keys are available from any ISPF panel.

**Note:** For more information about these commands and key assignments, see your ISPF documentation.

**ENTER (command), ENTER (function key)**

Processes the information on the panel.

**REFRESH (command), PA2 (function key)**

Refreshes the screen.

**HELP (command), PF1 (function key)**

Displays online help and expands abbreviated message text.

**End (command), PF3 (function key)**

Returns to the previous logical panel.

**RETURN (command), PF4 (function key)**

Returns to the ISPF Primary Options panel.

**UP (command), PF7 (function key)**

Scrolls up one page.

**DOWN (command), PF8 (function key)**

Scrolls down one page.

**LEFT (command), PF10 (function key)**

Scrolls left.

**RIGHT (command), PF11 (function key)**

Scrolls right.

## ISPF Edit Session Save, End, and Cancel Commands

The ISPF Edit session Save, End, and Cancel commands operate differently under CA Endevor Quick Edit than in a standard ISPF Edit session. In CA Endevor Quick Edit, the commands behave as follows:

**Note:** For more information about how these commands affect the creation of SMF records, see SMF Action Records (see page 87).

- **Save –** Creates a new level of the element at the entry Stage of the specified Environment. This level contains only the changes entered between the beginning of the session and the issuing of the Save command. The Generate Processor is *not* executed. You remain within the Edit session. If you save the element without changing it, you receive a message indicating that no changes were detected, and a new level of the element is *not* created.

  When the data is saved, the record length of the record in a variable length file is preserved if you specified Preserve VB record length = Y on the CA Endevor Quick-Edit Option panel. If Preserve VB record length = N was specified, trailing spaces are removed when a variable length file is saved. For more information about element formats, see Element Record Format (see page 88).

- **End** – If the element has been changed, a new level is created at the entry Stage of the specified Environment. A browse panel opens displaying messages summarizing the changes made to the element. The Generate Processor is invoked if the element had been saved previously or if the element was changed. If the element has not been saved or was not changed, the End command does not perform any actions, except to terminate the Edit session.

- **Cancel –** Terminates the edit session. Any changes made after the last explicit Save command are lost. The element is *not* generated.

### Example: Save, End, and Cancel commands

The following examples describe how the Save, End, and Cancel commands work in various situations.

- If you enter a Save command on an existing element that you did not change, then a new level of the element is not created and you remain in the edit session.
- If you enter a Save command on a new element or an existing element that you changed, then a new level of the element is created at the entry Stage of the specified Environment, and you remain in the edit session.
- If you enter an End command without changing the element after the initial Save command, then another new level is *not* created.
- If you enter an End command on an existing element that you did not change, then the edit session is terminated.
- If you enter an End command on an existing element that you changed, then a new level of the element is created at the entry Stage of the specified Environment generated, and the edit session is terminated.

- If you enter an End command on an existing element after you changed and saved it, but no more changes were made after the Save command, then the element is generated and the edit session is terminated.
- If you enter an End command on a new element, then the element is added at the entry Stage of the specified Environment, the element is generated and the edit session is terminated.
- If you enter an End command on a new element with a Save command issued after one or more changes have been made, and no changes were made after the Save command, then the element is generated and the edit session is terminated.
- If you enter a Cancel command without changing the element, then the edit session is terminated and a new level is not created.
- If you enter a Cancel command and one or more changes have been made, then the edit session is terminated, a new level is not created, and the element is not generated.
- If you enter a Cancel command after a Save command was issued after one or more changes were made, but no changes were made after the Save command, then the edit session is terminated and the element is not generated.
- If you enter a Cancel command after a Save command was issued after one or more changes were made and a change was made after the Save command was issued, then the edit session is terminated and the element is not generated. In addition, any changes made after the last Save command are lost. A new level is created by the initial Save command. When you issue the Cancel command without changing the element after the Save command, another new level is *not* created.

## Edit Recovery

In a system or session crash, such as a time-out, CA Endevor Quick Edit recovers changes made during an ISPF Edit session. CA Endevor Quick Edit moves the element to a z/OS data set, where a standard ISPF EDIT command can be used to edit the data set.

**Note:** This feature can be turned off by entering the RECOVERY OFF command when the edit session panel is displayed.

## Element Record Length

The ISPF Edit services can edit data sets with a maximum length of 32000 bytes. Therefore, you can only use CA Endevor Quick Edit to edit elements that have a source length less than or equal to 32000 bytes. If the source length is greater than 32000, the request fails.

Although you cannot edit an element with a source length greater than 32000, you can browse or generate an element whose source length is greater than 32000.

# Chapter 3: Performing Actions on Elements

This section contains the following topics:



## Element Actions

When you change source code that is under the control of CA Endevor SCM, you perform an action on an *element*. An *element* is a partitioned data set (PDS) member or sequential data set that has been placed under control of CA Endevor SCM. These element actions consist of Create, Edit, Generate, Move, Delete, and Signin.

Action options affect Create, Edit, Generate, Delete, and Move action processing. You can change the defaults in effect for these actions on the Action Options panel to further define the action you want performed.

Some element actions can be processed in foreground or batch mode or in packages. The Action Options set for the action determine the processing mode. You can use the package feature from the CA Endevor Quick Edit-Option panel. For more information about how to use the package feature, see the *User Guide* or the *Packages Guide*.

You can perform element actions from the CA Endevor Quick-Edit Option panel or from an Element Selection List or an Element Levels Selection List. However, the Create action is only available from the CA Endevor Quick-Edit Option panel.

For each element action, CA Endevor SCM automatically performs the following source control operations:

- *Source management*, which relates to the maintenance of the element source, or the updating of base and delta libraries.
- *Inventory management*, which relates to the maintenance of Master Control File (MCF) definitions. For more information, see View Master Control Information about an Element (see page 67).
- O*utput management*, which relates to any processing that creates or maintains data sets related to the element being processed, including object modules, load modules, listings, and so on. For more information, see Processor Groups (see page 82).

# Element Source for Element Actions

When you request an element action, you must specify the element name and inventory location of the element. You do not specify the Stage location, because the Stage is assumed to be the entry stage defined for the specified Environment.

**Specified Environment**

The Environment name entered on the CA Endevor Quick-Edit panel or the Environment selected from the Environment Selection List. The element is automatically placed in the entry Stage of the specified Environment after you have edited the element.

**Entry Stage**

The Stage in an Environment where elements are placed after they have been updated in an ISPF Edit session. The entry Stage is defined in the C1DEFLTS table by the ENTRYSTG# parameter. If it is not defined in the C1DEFLTS table, the entry Stage defaults to Stage 1.

When CA Endevor Quick Edit adds, updates, or generates the element, it does so at the entry stage of the specified Environment. CA Endevor Quick Edit supports the BUILD USING MAP option. This option allows you to search for elements along the entire map. When CA Endevor Quick Edit searches for an element, it begins at the entry stage of the specified Environment. No matter where an element might be found on the map, CA Endevor Quick Edit always does the following:

- Copies the element to the entry Stage of the specified Environment, if it was not found at that location, to perform the requested function.
- Locks the element at the specified Environment and the source Environment when the element is being edited or generated.

# Change Action Options

You can change the options that affect action processing on the Action Options panel. Use this panel to further define the following action requests:

- Create
- Edit
- Generate
- Delete
- Move
- Signin
- Signout

**To change action options**

1. Select option **AO**, Action Options, on the CA Endevor Quick-Edit Option panel and press Enter.

   The Action Options panel opens.

2. Review and change the options to your preference and then press Enter.

   The following types of fields appear on the Action Options panel:

   **Create/Edit/ Generate Action Options –** Use these options to further define Create, Edit, and Generate actions.

   **Delete Action Options –** Use these options to further define your Delete action request.

   **Move Action Options –** Use these options to further define your Move action request.

   **Signin (SI) Action Options –** Use these options to further define your Signin action request by specifying a signout ID, an action mode, or both.

   **Signout (SO) Action Options –** Use these options to further define your Signout action request by specifying an action mode.

   Values that you enter on this panel remain in effect for your current session and change the values in your profile so they will continue in effect, until you change them again.

### Example: Sample Action Options panel

The Action Options panel displays the action options that are in effect for the element actions Create, Edit, Generate, Delete, Move, Signin, and Signout. A sample Action Options panel is shown next.

```
--------------------------- Action Options ---------------------------------
Command ===> ____________________________________________________________

  CReate/Edit/Generate Action Options:      Signin (SI) Action Options:
    Generate Element after Edit.. Y (Y/N)     Signout To..... ________
    Generate Element in Place.... N (Y/N)     Signin Action Mode..... F (F/B)
    Generate Element NoSource.... N (Y/N)
    Generate Action Mode......... F (F/B)   Signout (SO) Action Options:
    Generate with AUTOGEN........ N (Y/N)     Signout Action Mode.... F (F/B)
      SPAN (NONE/ALL/SYS/SUB).....NONE

  Move Action Options:                      Delete Action Options:
    Sync......................... N (Y/N)     Only Component......... N (Y/N)
    With History................. N (Y/N)     Delete Action Mode..... F (F/B)
    Retain Signout............... N (Y/N)
    Signout to................... ________
    Acknowledge Element Jump..... N (Y/N)
    Delete FROM Element.......... Y (Y/N)
    Move Action Mode............. F (F/B)

  Make the necessary changes and hit ENTER to continue, END to cancel
```

# Create an Element

You can create an element using CA Endevor Quick Edit, provided the element does not exist in any Stage of the lifecycle. Before CA Endevor Quick Edit creates the element, it searches to verify that an element of the same name and Type does not exist at the entry Stage of the specified Environment, at any Stage further up the map, or at any *in-between* Stage.

The element is always added at the entry Stage of the specified Environment.

**To create an element**

1. Type **AO** in the command line on the CA Endevor Quick-Edit Option panel.

   The Action Options panel opens.

2. Review the Create, Edit, Generate Action Options on the Action Options Panel to verify that the options are set to your preferences. If necessary, change the options to suit your preferences and press Enter.

   The options that affect the Create action are as follows:

   **Generate Element After Edit**

   Specifies whether the element will be generated after editing. Select: Y|N.

   **Y** – Executes the Generate Processor for the element each time you exit the ISPF Edit session by pressing PF3 or entering the Save command. The default.

   **N** – Do not generate the element.

   **Generate Processor Mode**

   Specifies whether the Generate Processor can execute in foreground or batch for the specified action. Select: F|B.

   **F –** Executes the Generate Processor in foreground.

   **B –** Submits a batch job to execute the Generate Processor.

   **Note:** The Processor Group definition that determines whether the Generate Processor can be executed in foreground can influence the Generate After Edit and the Generate Processor Mode options. For more information, see How the Generate Processing Mode is Determined (see page 43).

3. Type **CR** on the command line of the CA Endevor Quick-Edit Option panel, complete the following fields on the panel, and then press Enter.

   **Location –** The following fields specify the inventory location at which CA Endevor Quick Edit begins the search for the element.

   **ENVIRONMENT**

   Specifies the one- to eight-character Environment associated with the element. This is the specified Environment. If you leave this field blank or use name masking, an Environment Selection List is returned.

   **SYSTEM**

   Specifies the one- to eight-character System associated with the element. If you leave this field blank or use a name mask, the System Selection List is returned.

   **SUBSYSTEM**

   Specifies the one- to eight-character Subsystem associated with the element. If you leave this field blank or use a name mask, the Subsystem Selection List is returned.

**ELEMENT**

Specifies a one- to ten-character element name. The name must be specified using the national character set (A-Z, 0-9, @, #, and $) and name masking in not allowed. If your CA Endevor SCM administrator has enabled the Element Registration feature, CA Endevor SCM verifies that the element name is unique before processing can complete. For more information, see Element Registration (see page 82).

**TYPE**

Specifies the one- to eight-character element Type associated with the element. If you leave this field blank or use a name mask, a Type Selection List is returned.

**Action Options fields –** The Action Option fields define options that are specific to your action request.

**Note:** For action options that affect action processing, see Change Action Options (see page 25).

**CCID**

Specifies the Change Control Identifier (CCID) associated with this request. Enter a 1- to 12-character value that conforms to CCID naming conventions. A System's definition can require that you specify a CCID for any element action against any element associated with that System. If a CCID is required at the System level and you do not enter a CCID, an Action Prompt panel opens where you can add the CCID.

**Comment**

Specifies the comment associated with this request. Enter a 1- to 40-character value that does not include embedded single quotation marks. A System's definition can require that you specify a comment for any element action against any element associated with that System. If a comment is required at the System level and you do not enter a comment, an Action Prompt panel opens where you can add the comment.

**Processor Group**

Specifies the Processor Group to be associated with the element. If you enter an explicit Processor Group name, that Processor Group must exist. If you use name masking, a Processor Group Selection List is returned. If you do not specify a Processor Group, CA Endevor SCM determines the appropriate Processor Group to use.

**Note:** For more information about Processor Groups, see the Processor Groups (see page 82) in the chapter "Operating Information."

**Override Signout**

Specifies whether you want to edit or generate the element when it is signed out to a user other than yourself. Select: Y|N.

**Y—** Override the current signout and allow access to the element. In a fetch situation (for an Edit or Generate action), when override signout is needed, the signout of the element that was fetched does not change to you even if SOFETCH=Y. However, the element will be signed out to you in the entry stage in which the element is put.

**N—** Do not override the current signout. The default.

**Preserve VB record length**

Specifies whether the ISPF editor will preserve the record length of the record in a variable length file, when the data is saved in an ISPF edit session. This option applies when the file is saved to its base data set in reverse delta format. Valid values:

**Y—** Preserve trailing spaces when saving variable length files.

**N—** Remove trailing spaces when saving variable length files.

**Note:** For more information about ISPF edit session data set record formats, see Element Record Format (see page 88).

If you used name masking or left any of the Location fields blank, a related selection list appears and you must make a selection from the selection list. The System and Subsystem Selection Lists appear no matter what value is specified in the Display ENV/SYS/SUBSYS LIST field of the List Options. After you make a selection from a selection list, the selection appears on the CA Endevor Quick-Edit Option panel when the panel is next accessed.

A blank ISPF Edit panel opens, after you have made all the required selections.

4. Type the content for the new element in the ISPF Edit panel. Then Type End on the command line and press Enter.

   The new element is created as version 1, level 00 (VER 01 LVL 00) and is added to the entry Stage of the specified Environment. In addition, the Generate Processor is executed if Generate Element After Edit=Y is set on the Action Options panel. Whether generate processing occurs in foreground or batch depends on the Generate Processor Mode setting in the Action Options panel.

# Create an Element from an Existing Element

You can create a new element from an existing element or add the content of an element into an element you are editing. If the element Type uses either reverse deltas or a source output library, you can copy an image of the element into the Edit session. The following commends enable you to reuse content.

- **Copyelm** – The Edit session Copyelm command lets you copy *an entire element from a CA Endevor SCM inventory location* into an Edit panel where an element is being edited or created.
- **Copy** – The Edit session standard Copy command lets you copy *one or more lines of data from an external data set* that isa sequential data set, a member of a partitioned data set (PDS), or a z/OS UNIX file, into the member, data set, or z/OS UNIX file currently being edited or viewed.
- **Move** – The Edit session standard Move command lets you move the a partitioned data set member, sequential data set, or z/OS UNIX file. The external data is copied into the current Edit session, and then the external data set, member, or file is deleted.

## Copy an Element into an Edit Panel

You can copy an element from an inventory location into an ISPF Edit panel.The Copyelm command lets you copy another element into an existing element that you are editing or an element you are creating.

**To copy any element into an Edit panel**

1. Type the Copyelm command on the command line of the ISPF Edit panel for the element you are creating or editing, specify the target line, and then press Enter.

   a. The Copyelm command as the following format:

      `Copyelm [elmname Typename]`

      **elmname**

      (Optional) Specifies the name of the element you want to copy.

      **Typename**

      (Optional) Specifies the Type name of the element you want to copy.

   b. Specify the target location of the copy. Type the line commands B (Before) or A (After) on the line number in the Edit session to indicate the destination of the copy. You do not need to specify a target, if the element is empty.

   The Quick-Edit Copy Element panel opens displaying the inventory location for the current edit session element. If the element or Type names were specified on the Copyelm command, these appear as the defaults on the Copy Element Panel. You can change any of the fields displayed on the panel.

2. Complete the Endevor Location fields on the CA Endevor Quick Edit Copy Element panel to specify the element you want to copy and press Enter.

   **Note:** If you do not explicitly specify the Endevor Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

   The Edit panel opens showing that the element you selected has been copied into the Edit panel.

## Copy from an External Data Set

You can copy data from an external data set into an Edit panel using the Edit session Copy command.

**To create an element from an external data set**

1. Type CR on the command line of the CA Endevor Quick-Edit Option panel, complete the fields on the panel, and then press Enter. For more information about the fields, see Create an Element.

   An empty ISPF Edit panel opens.

2. Enter the Copy command on the command line and press Enter.

   The Edit/View Copy panel opens.

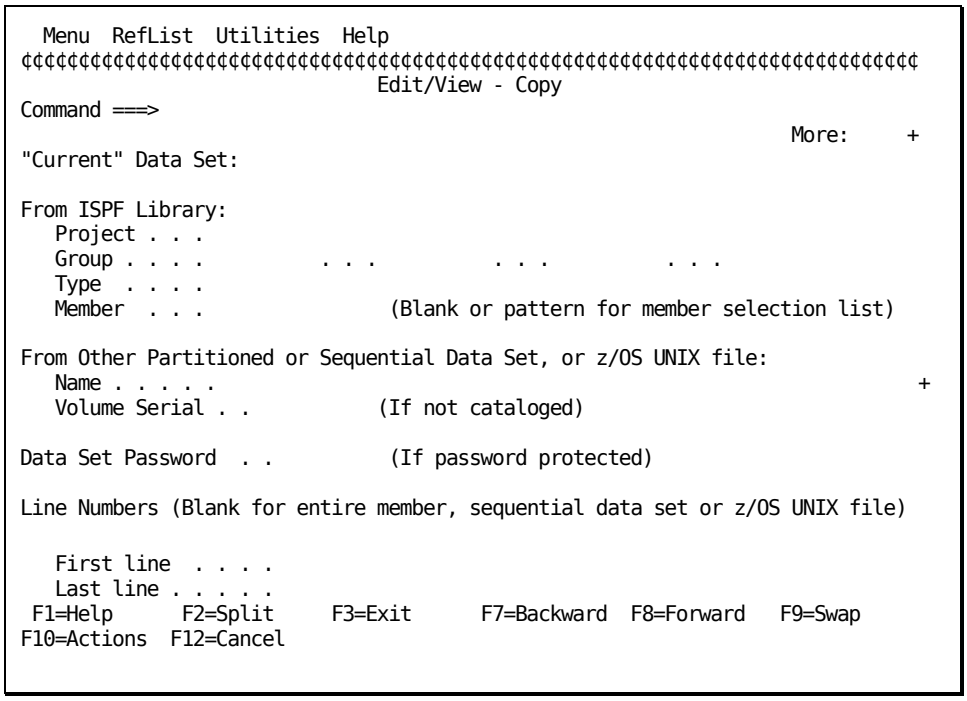
3. Enter the name of the source output library or a base library. Specify the name of the element to be copied. Press Enter.

   The element you requested appears on the Edit panel.

4. Make the necessary changes to the element and enter the End command.

   The new element is created as version 1, level 00 (VER 01 LVL 00) and is added to the entry Stage of the specified Environment. In addition, the Generate Processor is executed if Generate Element After Edit=Y is set on the Action Options panel. Whether the generate processing occurs in foreground or batch depends on the Generate Processor Mode setting in the Action Options panel.

   **Note:** For more information about the generate action options, see Change Action Options (see page 25).



# Edit an Element

You edit elements using the ISPF Edit service. The Edit command copies the element to an external data set and you must have the proper ADD or UPDATE authority for the Edit command to execute, even if you do not intend to change the element. You can also access the Edit service from the Element Selection List or Summary of Element Levels. If you only want to view the element, you can use the Browse option. For more information, see View an Element, Its Changes or History (see page 59).

**To edit an element**

1. Type **E** in the command line on the CA Endevor Quick-Edit Option panel and complete the Location, List Options, and Action Options fields on the panel. Information about some of the fields follows. For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

   **DISPLAY ENV/SYS/SUBSYS LIST**

   Specifies whether the Environment, System, and Subsystem selection lists will appear when these Location fields do not contain explicit entries. Values are:

   Y— Display the Environment, System, and Subsystem selection lists. Then, you must select from each selection list until the specification is complete.

   N— Do not display the Environment, System, and Subsystem selection lists. This is the default. A dialog will open that asks you to specify the Edit Target Location. On this screen you can manually specify the element target location data. If you leave the fields blank or name-masked when you press Enter, you will be prompted for a specific target Environment, System, and Subsystem name.

   Only when the location information is complete, is an element selection list displayed. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

   **Preserve VB Length**

   Specifies whether the ISPF editor will preserve the record length of the record in a variable length file, when the data is saved in an ISPF edit session. This option applies when the file is saved to its base data set in reverse delta format. Valid values:

   Y— Preserve trailing spaces when saving variable length files.

   N— Remove trailing spaces when saving variable length files.

   For more information about ISPF edit session data set record formats, see Element Record Format (see page 88).

   Press Enter.

   The Edit panel opens for the current level of the element showing on the top line the name of the element and the location to which it will be added. Additional information appears after the command line, for the following situations:

- If the element was taken from up the map.
- If CA Endevor Quick Edit determines that an element exists at a Stage between the base Stage and the Stage from which the element was taken.
- If the element is a component of a backed-out package.
- If the Generate Processor associated with the Processor Group for the element cannot execute in foreground.
- If the element is sourceless.

**Note:** A sync check is performed each time an element is selected for editing. If an element is found to be out of synchronization with another instance of the element located higher in the lifecycle map, a caution panel is displayed to notify the user. The panel lets the user continue or cancel the edit request.

2. Edit the text on the Edit panel.

   **Note:** You can optionally copy the content of another element into the element you are editing, using the Copyelm command. For more information, see Copy an Element into an Edit Panel (see page 30).

   When editing is completed (or during the editing session, if necessary), enter the Save, End, or Cancel command, depending on the result you prefer:

- **Save –** Creates a new level of the element at the entry Stage of the specified Environment. This level contains only the changes entered between the beginning of the session and the issuing of the Save command. The Generate Processor is *not* executed. You remain within the Edit session. If you save the element without changing it, you receive a message indicating that no changes were detected, and a new level of the element is *not* created.
- **End** – If the element has been changed, a new level is created at the entry Stage of the specified Environment. A browse panel opens displaying messages summarizing the changes made to the element. The Generate Processor is invoked if the element had been saved previously or if the element was changed. If the element has not been saved or was not changed, the End command does not perform any actions, except to terminate the Edit session.
- **Cancel –** Terminates the edit session. Any changes made after the last explicit Save command are lost. The element is *not* generated.

  **Note:** For more information about these commands, see ISPF Edit Session Save, End, and Cancel Commands (see page 21).

**Note:** CA Endevor Quick Edit puts a *lock* on an element when it is being edited or generated. For more information, see Element Locking.

### Examples: Sample Edit panel with messages

This panel illustrates an Edit panel with additional messages. The messages provide the following information:

- The element to be edited at location ENV1 Stage 1 was copied back from up the map. The location where it was copied back from is displayed.
- The copied back location is not the next logical location of the element in the map. Therefore, a set of messages indicating the compare copy location is displayed.
- The element already exists at the entry Stage and you are about to replace it.
- If the element is sourceless, the location where it copied the source from is displayed.
- Another copy of the element exists at a non-mapped location in-between the source and base locations.
- The Processor Group associated with this element indicates a foreground generate is not permitted.

- This element is part of a package that is currently in backed-out status.
- This element is referenced by other elements. This message is printed if ACMQ is installed and the ISSUE_ELEMENT_REFERENCED_MSGS optional feature is not active.

```
TESTELM  TO: ENV1/1/SP4370/SP4370/MYTYPE                        Map Searched
Command ===>                                                  Scroll ===> CSR
****** **************************** Top of Data ******************************
==MSG> *-------------------------------------------------------------------------*
==MSG> *                                                                         *
==MSG> *  TESTELM was copied back from inventory location:                        *
==MSG> *  ENV: ENV3 STG: 6 SYS: SP4370 SBS: SP4370 TYPE: MYTYPE                  *
==MSG> *                                                                         *
==MSG> *  The update to TESTELM will be compared to the copy of                  *
==MSG> *  the element located at inventory location:                             *
==MSG> *  ENV: ENV3 STG: 5 SYS: SP4370 SBS: SP4370 TYPE: MYTYPE                  *
==MSG> *                                                                         *
==MSG> *  Caution! TESTELM already exists in the EDIT Entry Stage.               *
==MSG> *  That copy of the element will be replaced by this copy                 *
==MSG> *  when the element is saved.                                             *
==MSG> *                                                                         *
==MSG> *  Caution! Another copy of TESTELM exists at inventory location:         *
==MSG> *  ENV: ENV2 STG: 3 SYS: SP4370 SBS: SP4370 TYPE: MYTYPE                  *
==MSG> *                                                                         *
==MSG> *  Caution! TESTELM will NOT be generated when the Edit session is        *
==MSG> *  normally terminated because the generate processor for processor       *
==MSG> *  group TESTPGRP cannot execute in foreground mode.                      *
==MSG> *                                                                         *
==MSG> *  Caution! TESTELM is a component of backed out pkg TESTPACKAGEABCDE.*
==MSG> *                                                                         *
==MSG> *  Caution! TESTELM is referenced by 2 elements.                          *
==MSG> *                                                                         *
==MSG> *-------------------------------------------------------------------------*
000001 TESTELM   CSECT
000002           XR  15,15
000003           BR  14
000004           END
****** ************************* BOTTOM OF DATA ****************************
```

# Edit an Element Level

You can view the list of all the levels that exist for a particular element. Then you can select which level you want to edit. However, this option is not available for sourceless elements.

**To edit an element level**

1. Type option **S** on the command line of the CA Endevor Quick-Edit Option panel and complete the fields to specify the target element.

   **Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

   **Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

   The Summary of Element Levels panel opens displaying a list of all the levels that exist for the element you specified.

   **Note:** You can also open the Summary of Element Levels from the Element Selection List.

2. Type the **E** option to the left of the level you want to edit and press Enter.

   A standard ISPF Edit panel opens that shows the element level you selected.

3. Edit text on the Edit panel.

   **Note:** You can optionally copy the content of another element into the element you are editing, using the Copyelm command. For more information, see Copy an Element into an Edit Panel (see page 30).

When editing is completed (or during the editing session, if necessary), enter the Save, End, or Cancel command, depending on the result you prefer:

**Save –** Creates a new level of the element at the entry Stage of the specified Environment. This level contains only the changes entered between the beginning of the session and the issuing of the Save command. The Generate Processor is *not* executed. You remain within the Edit session. If you save the element without changing the element, you receive a message indicating that no changes were detected, and a new level of the element is *not* created.

**End** – If the element has been changed, a new level is created at the entry Stage of the specified Environment. A browse panel opens displaying messages summarizing the changes made to the element. The Generate Processor is invoked if the element had been saved previously or if the element was changed. If the element has not been saved or was not changed, the End command does not perform any actions, except to terminate the Edit session.

**Cancel –** Terminates the edit session. Any changes made after the last explicit Save command are lost. The element is *not* generated.

**Note:** For more information about these commands, see The Save, End, and Cancel Commands (see page 21).

**Note:** CA Endevor Quick Edit puts a *lock* on an element when it is being edited or generated. For more information, see Element Locking.

**Note:** From the Summary of Element Levels panel, you can also display a level in browse mode, or display its history and changes. For more information, see View or Edit Element Levels (see page 61).

### Example: Sample Summary of Element Levels panel

The following panel shows a sample Summary of Levels panel.

```
------------------ Summary of Element Levels ------------------ROW 1 TO 2 OF 2
Command ===> _____________________________________________ Scroll ===> PAGE

   Element Options:
    E Edit Element         B Browse     H History    C Changes    M Master

   Element: ELM100
   Environment: ENV1      Stage ID: A
   System: VACTSYS        Subsystem: VACTSUB     Type: TEXT

    VVLL           User     Date    Time  Statements Inserts Deletes Sync
  - ---- ---------- -------- ------- ----- ---------- ------- ------- ----
  _ 0100           RQVASETU 04FEB13 17:39          1       0       0
  _ 0101           RQVASETU 04FEB13 17:39          2       1       0
 ----------------------------- Bottom of the List -----------------------------
```

# Generate an Element

You can request a Generate action to execute a Generate Processor. Generate Processors execute automatically when an element is added to the specified Environment entry Stage for a Create or Edit action. Typically, the Generate Processor creates an executable form of the element, together with any associated outputs (such as listings).

The processing options Generate Element NoSource and Generate Element In Place determine what element source is used to generate elements. These options are mutually exclusive. The Generate with AUTOGEN option improves processing by eliminating duplicate processing of components. This option automatically uses NoSource processing for the Generate actions it creates for the using elements.

**Note:** The Generate option is also available on the Element Selection List panel.

**To generate an element**

1. Type **AO** in the command line on the CA Endevor Quick-Edit Option panel.

   The Action Options panel opens.

2. Review the Create, Edit, Generate Action Options on the Action Options Panel. If necessary, change the options to suit your preferences and press Enter.

   The options are as follows:

   **Generate Element After Edit**

   Specifies whether to generate the element after editing. Select: Y|N.

   **Y** – Executes the Generate Processor for the element each time you exit the ISPF Edit session by pressing PF3 or entering the Save command. The default.

   **N** – Do not generate the element.

   **Generate Element in Place**

   Specifies whether to generate the element at the location where the element resides. Select Y|N.

   **Y** – Executes the Generate Processor at the Stage where the element resides. The element is *not* copied back to the specified Environment entry Stage.

   **N** – Performs a Copyback of the element to the entry stage of the specified Environment before executing the Generate Processor only if the Generate Element NoSource option is also set to N. The default.

**Generate Element NoSource**

Specifies whether to generate the element without first fetching the element back to the target location when the element does not exist at the target location. The Generate Processor uses the first found sourced element from up the map as input to the generate process. Select Y|N.

**Y –** Executes the Generate Processor for the element as follows:

- When the target location has a sourced element, the element is generated in place.
- When the target location has a sourceless element, the element is generated at the target location using the source of the first occurrence of the element found up the map.
- When the element does not exist at the target location, the element is generated at the target location using the source of the first occurrence of the element found up the map. The source is not fetched to the target.

**N –** Performs a Copyback of the element to the entry Stage of the Environment before generating the element, only if the Generate Element in Place option is also set to N.

**Generate Processor Mode**

Specifies whether to execute the Generate Processor in foreground or batch for the specified action. Select: F|B.

**F –** Executes the Processor in foreground.

**B –** Submits a batch job to execute the Generate Processor.

**Generate with AUTOGEN**

Specifies whether to generate all elements that use the component that is the target of the action. These *using* elements are generated at the component's target location. If they do not exist at the target location, they are brought back to the target location as sourceless elements. An administrator can change the behavior of the Autogen feature, by activating AUTOGEN_SOURCE in the Optional Features Table (ENCOPTBL). When this option is activated, the Generate actions for the using elements are built with the Copyback, instead of the NoSource, option. To find out how the SOURCE_OPTION parameter is set in ENCOPTBL, contact your CA Endevor SCM administrator. If you specify Autogen, or Autogen Span None, the SCL is written as “AUTOGEN SPAN NONE”. Autogen is valid in batch mode only. Select Y|N.

**Y –** Generate all using elements associated with the component being acted upon.

**N –** Do not generate all using elements associated with the component being acted upon.

**SPAN (NONE/ALL/SYS/SUB)**

Specifies whether to generate using element across Systems and Subsystems. The Span options are ignored if AUTOGEN is set to N. If the field is blank, the default is SPAN NONE.

**NONE**— Generates all elements that use the component being acted upon. Specifying Autogen Span None has the same effect as specifying Autogen.

**ALL**— Generates using elements that are found in any System and Subsystem combinations within the Environment and Stage of the component's logical map.

**SYS**— Generates using elements found in any System, provided the element's Subsystem name matches the name of the Subsystem of the target component. Only Systems found within the Environment and Stage of the component's logical map or higher up the map are searched. This option is different from the Autogen option in that it includes additional Systems with the same Subsystem name in the search.

**SUB**— Generates using elements from all Subsystems with the same-named System of the component specified. Only Subsystem found in the System of the target component within the Environment and Stage of the component's logical map or higher up the map are searched. This option is different from the Autogen option in that it includes additional Subsystems with the same System in the search.

**Note:** The Processor Group definition that determines whether the associated Generate Processor can be executed in foreground affects the Generate After Edit and the Generate Processor Mode options. For more information, see How the Generate Processing Mode is Determined (see page 43).

3. Type **G** in the command line on the CA Endevor Quick-Edit Option panel and complete the Location, List Options, and Action Options fields on the panel. Information about some of the fields follows. For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

**DISPLAY ENV/SYS/SUBSYS LIST**

Specifies whether the Environment, System, and Subsystem selection lists will appear when these Location fields do not contain explicit entries. Values are:

Y— Display the Environment, System, and Subsystem selection lists. Then, you must select from each selection list until the specification is complete.

N— Do not display the Environment, System, and Subsystem selection lists. This is the default. A dialog will open that asks you to specify the Generate Target Location. On this screen you can manually specify the element target location data. If you leave the fields blank or name-masked when you press Enter, you will be prompted for a specific target Environment, System, and Subsystem name.

Only when the location information is complete, is an element selection list displayed. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

**BUILD USING MAP**

Specifies whether the environment map will be searched when building a list of elements. Specify Y|N:

**Y**— Search the map for all occurrences of the element.This is the default. If DISPLAY ENV/SYS/SUBSYS LIST=N, then the Element Selection List lists all the elements in all Systems and Subsystems beginning in the specified Environment to the end of the map. If you name masked the System and Subsystem fields, then the list is limited to only those Systems and Subsystems that match the name mask.

**N**— Do not search the map. If DISPLAY ENV/SYS/SUBSYS LIST=N, then the Element Selection List lists all elements across all Systems and Subsystems of the specified Environment. If you name masked the System and Subsystem fields, then the list is limited to only those Systems and Subsystems that match the name mask.

Press Enter.

**Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned.

A message is displayed after successful completion of the Generate action. The message depends on the generate options specified in the Create, Edit, Generate Action Options fields on the Action Options panel. For example, if the element is generated in place, then the following message is displayed: *Gen/Inplc. If the element is generated with copyback, then the message is: *Gen/Cpybk

**Note:** For more information about the Generate action options, see Change Action Options (see page 25).

**Note:** CA Endevor Quick Edit puts a *lock* on an element when it is being edited or generated. For more information, see Element Locking.

## How the Generate Processing Mode is Determined

CA Endevor Quick Edit allows for generate processing in either foreground or batch. The following Action Options and the Processor Group determine whether generate processing for the Create, Edit, or Generate actions is performed and whether it is performed in foreground or batch.

- The following Action Options affect generate processing:
  - Generate Processor Mode, which can be set to B to allow batch execution or F to allow foreground execution.
  - Generate Element After Edit, which can be set to Y to allow the element to be generated after an Edit session or N to not allow generation after an Edit session.
- The Processor Group definition specifies whether the Generate Processor associated with the Processor Group for the element being acted upon can be executed in foreground. *The Processor Group definition overrules the Generate Processor Mode option.*

These factors have the following effects:

- If the Generate Element After Edit field is set to N, the Generate Processor is not invoked.
- If the Generate Element After Edit field is set to Y, the result depends on the following conditions:
  - If the Generate Processor Mode is set to B, the Generate Processor is executed in batch.
  - If the Generate Processor Mode is set to B, and the Processor Group allows foreground execution, the Generate Processor executes in batch.
  - If the Generate Processor Mode is set to F, and the Processor Group allows foreground execution, the Generate Processor executes in foreground.
  - If the Generate Processor Mode is set to F, and the Processor Group does *not* allow foreground execution, it has the following effect:
    - For the Create or Edit actions – Allows you to make source changes to the element, but the element is not generated. A set of ===MSG> lines appear in the ISPF Edit panel, warning the user that the element will not be generated.
    - For the Generate action – Terminates the request. An error message is returned, indicating that the Generate Processor cannot be executed in foreground mode.

## How Generate Element Works According to Generate Action Options Setting

To GENERATE an element in the Eclipse-Based UI you can choose between the two mutually exclusive options:

**Generate Element in Current location**

When element is generated with "Generate Element in Current Location" option (which corresponds to "in place" Quick Edit terminology) then the selected element at any location is generated at its current Stage and will remain in its original state regardless if this is either sourced or sourceless element. No COPYBACK, not even NOSOURCE additional options are applicable

An element can be selected from Element View, Search Map View, or Project View list and where selected this is taken as its current (source) location which is equal to target (generate from) location. The element always exists in target (generate from) location.

**Generate Element in Project location**

When element is generated with "Generate Element in Project Location" option it means that the selected element is generated in the entry Stage of currently selected Project (nowhere else). This project (target) location must not be necessary same as a currently selected element location.

An element can be selected from Element View, Search Map View, or Project View list and where selected this is taken as its current (source) location but not as the target (generate from) location, because target location is taken purely as the entry Stage of currently selected Project. The current (source) location and target (generate from) location may differ or may be equal. The element either exists or does not exist in project (target) location.

Within this option either **NoSource** or **Copyback** option has to be selected. These options are mutually exclusive. The behavior according to selected option is as follows:

If **NoSource** option is selected:

- The selected element is generated at the target (entry Stage of currently selected Project) with NOSOURCE option.
- If the element does not exist at this entry Stage the first sourced element found up the map is used as input to the generate process. Processor outputs are targeted to the entry Stage. Element source is not copied back to the entry Stage before generation.
- If either a sourced or source less element exists at this entry Stage the element is generated there "in place" and remains in its original state (sourced or sourceless).

If **Copyback** option is selected:

- The selected element is generated at the target (entry Stage of currently selected Project) with COPYBACK option.

- If the element does not exist at the entry Stage or if a sourceless element exists at the entry Stage the first sourced element from up the map will be copied back to the entry Stage then generated.
- If a sourced element exists at the entry Stage it will be generated there "in place" and remains in its original state (sourced).

**Note:** The COPYBACK option implies SEARCH. Currently NOSEARCH option is not supported here.

## How Generating Elements with Autogen Works

Autogen is available in batch only for the Add, Update, and Generate actions and cannot be used in packages. When an element is generated, either by the Generate statement or through an Add or Update request, and the Autogen option is specified, CA Endevor SCM processes the request as follows:

1. An ACMQ search is performed for all elements that use the component element being generated.
2. For each using element, a Generate action is created and added to the list of actions to be performed. However, duplicate Generate actions are eliminated, so that each using element will only be generated once, even if multiple components are being generated that are used by use the same element.

   The Generate action created for each using element will perform as follows:

   - Generate the using element in the same inventory location as the component.
   - Use the same CCID and COMMENT specified in the original statement.
   - Override signout, if specified in the original statement.
   - Use the NoSource option.

     **Note:** An administrator can change the behavior of the Autogen feature, by activating AUTOGEN_SOURCE in the Optional Features Table (ENCOPTBL). When this option is activated, the Generate actions for the using elements are built with the Copyback, instead of the NoSource, option.

   Accordingly, the using elements are generated as if the following Generate statement had been specified:

```
GENERATE ELEMENT name
FROM <inventory location in the original command>
TYPE type
OPTION CCID <same ccid>
COMMENT <same comment>
<override signout, if specified on original command>
NOSOURCE.
```

If the Copyback option is specified on the original action, then the Copyback only applies to the component element that is specified on the original request. The NoSource option is always used on all the Generate statements built for the using elements, unless the administrator has activated the AUTOGEN_SOURCE option in ENCOPTBL.

3. Autogen only acts on components whose Types are listed in the Global Type Sequencing table. If the component's Type is not listed in the Global Type Sequencing table, the Autogen request is ignored.
4. Global type sequencing is used to determine the order in which the elements are generated. However, with the Autogen option, SCL requests are fully resolved based on current inventory contents prior to any action being processed. When multiple actions are specified and the Autogen option is specified on at least one of the actions, all the actions are expanded before any of the actions are processed. All name masking is resolved and individual actions are built and then the expanded actions are executed according to the Global type sequence order.

   Consequently, if the Generate Autogen option is specified and several Move actions are included in the same request, the Move actions do not include any of the additional elements that are copied back as a result of the Generate action.

### Example: Autogen Processing when Move actions are included on the same request

In this example, Macro MD1 exists at the DEV stage 1 location. This macro is used in program PD1 located at the DEV stage 1 location and in programs PQ2 and PQ3 located at the QA stage 2 location. The following two actions are included in the same batch job:

```
SET FROM ENV DEV SYS SYS1 SUBS SUB1 STAGE NUM 1.
GENERATE ELE MD1 OPTION AUTOGEN.
MOVE ELE *.
```

The Generate action results in elements MD1, PD1, PQ2, and PQ3 being generated at the DEV stage 1 location. However, the Move action results in only the MD1 and PD1 elements being moved to the next location in the logical map. This is because PQ2 and PQ3 were originally not at the STG1 location, so they remain at the DEV stage 1 environment.

## How Autogen Span Options Work

Autogen generates *only* those using elements that are in the same logical map as the target component. Autogen Span options *also* generates using elements that are found in different Systems and Subsystems within the Environment and Stage of the logical map. Using elements are generated at the target Environment and Stage specified in the Autogen request, but in the System and Subsystem of the using element. The Span enhancement makes it easy to locate and generate using elements across Systems or Subsystems.

For all Autogen and Autogen Span results, any generated elements that are not currently at the target location are brought back as sourceless elements. However, an administrator can change the behavior of the Autogen feature, by activating AUTOGEN_SOURCE in the Optional Features Table (ENCOPTBL). When this option is activated, the Generate actions for the using elements are built with the Copyback, instead of the NoSource, option.

Also for all Autogen and Autogen Span results, using elements are not generated if they are located in unmapped Environments or they are located lower in the map than the target location of the component.

You can run any of the Autogen Span options in simulation mode, to preview the effects of an Autogen request.

The following values are valid for the Autogen option:

- Autogen or Autogen Span None: Generates only those using elements that are in the same logical map of the component specified. Whether you specify "Autogen" or "Autogen Span None", the SCL is written as "Autogen Span None".
- Autogen Span All: Generates using elements from all Systems and Subsystems.
- Autogen Span Systems: Generates using elements from all Systems with the same-named Subsystem of the component specified.
- Autogen Span Subsystems: Generates using elements from all Subsystems with the same-named System of the component specified.

The following restrictions apply to the SPAN options:

- Common libraries must be included in the generate processor concatenations of the Systems and Subsystems of the using elements. If the libraries are not included, then the Generate action does include the changes made to the component element when searching across Systems or Subsystems.
- The same Systems and Subsystems must exist in each Environment and Stage location. For example, if ELEMENTA is a using element in the PROD Environment, system A, then system A must exist in the DEV Environment also.
- SPAN only includes using elements from Systems or Subsystems located in the target Environment and higher up the map.
- SPAN does not include using elements from outside the Environment map.

## Run Autogen in Simulation Mode for Impact Analysis

You can run the Autogen option in simulation mode to see what the results would be without actually performing actions with Autogen activated. Simulation mode causes the actual execution of all actions in the batch job to be bypassed. No updates are performed. This procedure assumes that you have already coded Autogen on the actions you want to process with Autogen.

**Follow these steps:**

1. Append the EN$AUSIM DD statement to your batch job that includes Autogen options. For Foreground Batch requests (or CA Endevor Quick Edit requests) use the Include Additional JCL option to add the DD statement. An example of the DD statement is shown next:

   ```
   //EN$AUSIM DD SYSOUT=*
   ```

2. Submit the job for processing.

   The C1MSGS1 and C1MSGS2 reports show the Syntax Request report and Action Summary report as if the actions were executed. There will be a heading line, labeled "*** AUTOGEN SIMULATION ***" to indicate that the job ran in simulation mode.

3. Review the reports for impact analysis to see what the results would be if the actions were performed.

# Move an Element

You can move an element from one CA Endevor SCM inventory location (Environment, Stage) to the next location on a map route. You can only move an element from one Environment to another if the element you are moving is in Stage 2 of the source Environment. Therefore, to move an element from Stage 1 of the Development Environment into Stage 1 of the QA Environment, you must move the element to Stage 2 in Development and then move it into Stage 1 in QA.

**Note:** The Move option is also available on the Element Selection List panel.

**Note:** Another way to move an element is by using packages. Packages offer some advantages over the Move action, such as being able to validate the package components and prevent elements from being moved until the elements have been assembled, compiled, and linked with current versions of all their dependencies. A promotion package is a type of package that contains Move actions only and the from Environment and Stage locations on all the move actions are the same. For more information about how to move elements using packages, see the *Packages Guide*.

**To move an element**

1. Type **AO** in the command line on the CA Endevor Quick-Edit Option panel.

   The Action Options panel opens.

2. Review the Move Action Options on the Action Options Panel to verify that the options are set to your preferences. If necessary, change the options to suit your preferences, and press Enter. The Move Action Options are as follows:

   **Sync**

   Specifies whether you want the Move action performed when the base level of the element at the source location is different from the current level of the element at the target. Select: Y|N.

   **Y –** Creates a *sync* level at the target that reflects the differences between the base level at the source location and the current level at the target, and then moves the sync level. You must specify SYNC = Y when moving an element that has remained at a source location after being moved using Delete from Element = N.

   **N –** Does not move the element, if the base level at the source location and the current level at the target are different.

   **Important!** You must specify SYNC = Y when moving to a location where the out-of-sync condition exists. If the element does not exist at the target of the move, the SYNC=Y option searches up the map for the element and fetches (copies back) the element to the target and creates a sync level at the target. If you do not want this to happen, you must disable the DO_NOT_SYNC_AT_TARGET=ON option in the optional features table ENCOPTBL.

**With History**

Specifies whether you want to move the element with history. Select: Y|N.

**Y –** Moves the element with history.

**N –** Moves the element without history. This is the default. When you move the element without history CA Endevor SCM searches through the element levels at the source location to find a matching level at the target location. CA Endevor SCM then compares the two and creates a new level at the target location that reflects the differences.

**Retain Signout**

Specifies whether CA Endevor SCM retains the signout associated with an element at the source location when it is moved to the target location. Select: Y|N.

**Y –** Retains the source location signout at the target location. If Retain Signout=Y, then you cannot use the Signout To field.

**N –** Does not retain the source location signout at the target location.

**Signout To**

Specifies the TSO user ID of the user to whom you want to sign out the element at the target location. This option lets you sign the element out to another user at the target location. This option is only valid, if Retain Signout = Y.

**Acknowledge Elm Jump**

Specifies whether the move can execute in a jump situation. A jump situation occurs when a copy of an element being moved is found at a non-mapped stage between the FROM and TO locations of the Move. In a jump situation, CA Endevor Quick Edit examines the REQ ELM JUMP ACKNOWLEDGEMENT field in the System definition.

**Y –** Issues a message when an element is jumped during a move, informing you of this fact. If the System definition setting for REQ ELM JUMP ACKNOWLEDGEMENT is set to Y, then Acknowledge Elm Jump must also be set to Y for this move action to complete.

**N –** Does not issue a message when an element is jumped during a move. If the System definition setting for REQ ELM JUMP ACKNOWLEDGEMENT is set to Y, then the move is not completed.

**Delete From Element**

Specifies whether the element will be deleted at the source location after it is moved. Select: Y\N.

**Y –** Deletes the element at the source location after it is moved.

**N –** Does not delete the element at the source location.

**Caution:** If you specify Delete From Element=N, you are in danger of creating a future sync condition. If updates occur to the copy created up the map, you will need to specify SYNC = Y for any subsequent moves of this element. For more information, see the Sync option description in this step.

**Move Action Mode**

Specifies whether to execute the Move action in foreground or batch. Select: F|B.

**F –** Execute the Move action in foreground.

**B –** Submit a batch job to execute the Move action.

**Note:** The Processor Group definition, which determines whether the Move Processor can be executed in foreground, can overrule the Move Action Mode option. For more information, see Move Processing (see page 52).

Your preferences for the Move action are set.

3. Type **O** in the command line on the CA Endevor Quick-Edit Option panel, complete the fields on the panel, and then press Enter.

   **Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

   **Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

   The element is moved to the next Stage in the map route, subject to the options specified on the CA Endevor Quick-Edit Option panel and the Move Action Options on the Action Options Panel.

## How the Move Processing Mode is Determined

CA Endevor Quick Edit allows for move processing in either foreground or batch. Whether move processing initiated by the Move action is performed in foreground or batch is determined by the following:

- The Action Options panel's Move Action Mode, which can be set to B for batch or F for foreground.
- The Processor Group definition that specifies whether the Move Processor associated with the Processor Group for the element being acted upon can be executed in foreground. The Processor Group definition overrules the Move Action Mode.

These factors have the following effects:

- When the Processor Group definition allows foreground execution for the Move Processor, it has the following effect:
  - If the Move Action Mode is B, the move action is processed in batch.
  - If the Move Action Mode is F, the move action is processed in foreground.
- When the Processor Group definition does *not* allow foreground execution for the Move Processor, it has the following effect:
  - If the Move Action Mode is B, the move action is processed in batch.
  - If the Move Action Mode is F, the move action is terminated and an error message indicates that the Move Processor cannot be executed in foreground mode.

# Delete an Element

You can delete *all levels* of an element and any associated Processor outputs from either Stage. If you are using the CA Endevor Automated Configuration Manager (ACM), you can also delete the component list.

**Note:** The Delete option is also available on the Element Selection List panel.

**To delete an element**

1. Type **AO** in the command line on the CA Endevor Quick-Edit Option panel.

   The Action Options panel opens.

2. Review the Delete Action Options on the Action Options Panel to verify that the options are set to your preferences. If necessary, change the options to suit your preferences and press Enter. The Delete Action Options are as follows:

   Only Components

   Applicable for CA Endevor Automated Configuration option users only. Specifies whether you want to delete both the element component list and the element, or the element component list only. Select: Y|N.

   **Y –** Deletes the element component list.

   **N –** Deletes the element and the element component list.

   Delete Action Mode

   Specifies whether to execute the Delete action in foreground or batch. Select: Y|N.

   **F –** Executes the Delete action in foreground.

   **B –** Submits a batch job to execute the Delete action.

   **Note:** The Processor Group definition, which determines whether the Delete Processor can be executed in foreground, can overrule the Delete Action Mode option. For more information, see How the Delete Processing Mode is Determined (see page 54).

   Your preferences for the Delete action are set.

3. Type **#** in the command line on the CA Endevor Quick-Edit Option panel, complete the fields on the panel, and then press Enter.

   **Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

   **Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

   The result depends on the Delete Actions options specified on the Action Options Panel.

   - If Only Components is set to Y, then only the element component list is deleted.
   - If Only Components is set to N, then the element and its component list are deleted. The element you specified is deleted. All levels of the element at the specified Stage and any associated Processor outputs at that Stage are deleted.

## How the Delete Processing Mode is Determined

CA Endevor Quick Edit allows for delete processing in either foreground or batch. Whether delete processing initiated by the Delete action is performed in foreground or batch is determined by the following:

- The Action Options panel's Delete Action Mode, which can be set to B for batch or F for foreground.
- The Processor Group definition that specifies whether the Delete Processor associated with the Processor Group for the element being acted upon can be executed in foreground. The Processor Group definition overrules the Delete Action Mode.

These factors have the following effects:

- When the Processor Group definition allows foreground execution for the Delete Processor, it has the following effect:
  - If the Delete Action Mode is B, the delete action is processed in batch.
  - If the Delete Action Mode is F, the delete action is processed in foreground.
- When the Processor Group definition does *not* allow foreground execution for the Delete Processor, it has the following effect:
  - If the Delete Action Mode is B, the delete action is processed in batch.
  - If the Delete Action Mode is F, the delete action is terminated and an error message indicates that the Delete Processor cannot be executed in foreground mode.

**More Information**

How Sign Out Processing Works (see page 85)

# Sign In an Element

Use the Signin action to sign in an element that was signed out for an Edit action. This removes the signout user ID associated with the element. Signin is only available for Systems for which Signin/signout is in effect.

You can also use the Signin action to sign an element out to another user.

**To sign in an element**

1. Type **AO** in the command line on the CA Endevor Quick-Edit Option panel.

   The Action Options panel opens.

2. Review the SignIn (SI) Action Options on the Action Options Panel to verify that the options are set to your preferences. If necessary, change the options and then press Enter. The Signin (SI) Action Options are as follows:

   **Signout To**

   Specifies the user ID the element will be signed out to.

   - If *no* user ID is specified, the Signin action (SI) simply signs in the element.
   - If a user ID is specified, the Signin action signs in the element and then signs it out to the specified user ID.

   **Signin Action Mode**

   Specifies the processing mode. Select F or B.

   **F –** Executes the Signin action in foreground.

   **B –** Submits a batch job to execute the Signin action.

   Your preferences for the Signin action are set.

3. Type **SI** in the command line on the CA Endevor Quick-Edit Option panel, complete the fields on the panel to specify the element you want to sign in, and then press Enter. If the element is currently signed out to someone other than yourself, you must specify Override Signout=Y on this panel.

   A message appears indicating whether the element was successfully signed in.

**Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

**Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

# Sign Out an Element

Use the Signout action to sign out an element to the user ID of the signed on user. Signout is only available for Systems for which Signin/signout is in effect.

**To sign out an element**

1. Type **AO** in the command line on the CA Endevor Quick-Edit Option panel.

   The Action Options panel opens.

2. Review the Action Options Panel to verify that the Signout (SO) Action Option, Signout Action Mode, is set to your preference. If necessary, change the option and then press Enter.

   **Signout Action Mode**

   Specifies the processing mode. Select F or B.

   **F –** Executes the Signout action in foreground.

   **B –** Submits a batch job to execute the Signout action.

   Your preference for the Signout action is set.

3. Type **SO** in the command line on the CA Endevor Quick-Edit Option panel, complete the fields on the panel to specify the element you want to sign out, and then press Enter. If the element is currently signed out to someone other than yourself, you must specify Override Signout=Y on this panel.

   If you have permission to override the signout of another user, then when Override Signout=Y, CA Endevor SCM overrides the current signout and allows access to the element. In a fetch situation (for Edit or Generate), when override signout is needed, the signout of the element that was fetched will not change to you even if SOFETCH=Y. However, the element will be signed out to you in the entry stage in which the element is put.

   If the element is already signed out to another user and you do not have permission to override a signout, the action fails.

**Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

**Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

**More Information**

How Sign Out Processing Works (see page 85)

# Submit a Batch Generate Request

If you specified B for Generate Processor Mode on the CA Endevor Quick-Edit Option panel, the CA Endevor Quick Edit Batch Generate panel displays immediately after you enter the End command from your edit session. You can either generate your request or cancel the generate request from this panel. However, if you cancel the request, the batch Processor is **not** executed.

To submit the batch generate request, enter the following information on the CA Endevor Quick Edit Batch Generate panel and press Enter.

**JOB statement area**

Enter at least one JCL statement in this area; otherwise, you receive an error. The JOB statement is initialized with the sample information shown if you have never provided a JOB statement either within CA Endevor SCM or CA Endevor Quick Edit.

**Include the following additional JCL?**

Indicate whether you want to include additional JCL information with this JOB statement. Select Y|N:

**Y –** Include additional JCL with this request. If you select this option, enter the JCL statements you want included in the request.

**N –** Do not include additional JCL with this request.

The Batch Generate dialog creates and submits the JCL to execute the Generate action.

**Note:** To cancel the Batch Generate request, Type End on the command line. The request is terminated.

# Chapter 4: Viewing Elements and Components

This section contains the following topics:



## View Element, Its Changes or History

You can view the current level of an element in browse mode. You can also view the changes made to that level since the last level or view a history of all the changes made to that level. However, these options are not available for sourceless elements.

If an element is defined with an element Type that uses the log delta storage format, you can only browse the current level of the element, because this format only stores the current level. You cannot display source changes or history for the element, because this information is not stored. However, a log of changes appears in the element source. The log contains change information, but not source code changes.

If an element is defined with an element Type that uses the image delta storage format, changes or history of change information cannot be viewed, because this information is not stored. When viewing an image delta element, the source is displayed without any reference as to what level created the changes, because each level is a full image of the source.

To view an element's current level, its history or changes, complete the Location fields on the CA Endevor Quick-Edit Option panel to select the target element. Then enter one of the following view options on the command line and press Enter.

- **B** – Display the element's current level in an ISPF Browse panel, where you can view all the statements in the current level of an element. This option is not valid for sourceless elements.
- **H** – Display the element's current level in an ISPF Browse panel, where you can view the history of an element. This history option displays all statements in all levels of the element, from the base level through the current level, indicating the level at which each insertion and deletion occurred. This option is not valid for sourceless elements or elements stored in image delta or log delta formats.
- **C** – Display the current level of an element in an ISPF Browse panel showing all the changes (insertions and deletions) that make it different from its immediate predecessor. This option is not valid for sourceless elements or elements stored in full-image delta or log delta formats.

**Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

**Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from the lists until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

An ISPF browse panel opens to display the Element Browse, Element History, or Element Changes panel that corresponds to your view option selection for the current level of the element you specified.

**Note:** Prior levels of the element can be viewed from the Summary of Levels panel. For more information, see View or Edit Element Levels (see page 61).

# View or Edit Element Levels

You can view the list of all the levels that exist for a particular element. However, this option is not available for sourceless elements. In addition, the options are limited for elements defined with an element Type that uses the full-image delta or log delta storage formats.

**To view an element's output components**

1. Type option **S** on the command line of the CA Endevor Quick-Edit Option panel and complete the fields to specify the target element.

   **Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

   **Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

   The Summary of Element Levels panel opens displaying a list of all the levels that exist for the element you specified.

   **Note:** You can also open the Summary of Element Levels from the Element Selection List.

2. Type the option to the left of the level you want to display or edit, and then press Enter.

   Select from these options:

   **E** – Edit the element.

   **B** – Display the Element Browse panel. For elements stored in log delta format, this option is only valid on the current (last) level of the element.

   **H** – Display the Element History panel. This option is not valid for elements stored in full-image or log delta format or sourceless elements.

   **C** – Display the Element Changes panel. This option is not valid for elements stored in full-image or log delta format or sourceless elements.

   You can select more than one element level for processing and specify a different option for each element level. CA Endevor Quick Edit processes the elements in the order in which they appear on the panel. However, you **cannot** generate the element from this panel.

   If you selected E, a standard ISPF Edit panel opens that shows the element level you selected.

   If you selected B, H, or C, the corresponding Element Browse, Element History, or Element Changes panel opens for the element level you selected.

### Example: Sample Summary of Element Levels panel

The following panel shows a sample Summary of Levels panel.

```
------------------ Summary of Element Levels ------------------ROW 1 TO 2 OF 2
Command ===> _____________________________________________ Scroll ===> PAGE

   Element Options:
    E Edit Element         B Browse     H History    C Changes    M Master

   Element: ELM100
   Environment: ENV1      Stage ID: A
   System: VACTSYS        Subsystem: VACTSUB     Type: TEXT

    VVLL            User     Date    Time  Statements Inserts Deletes Sync
  - ---- ---------- -------- ------- ----- ---------- ------- ------- ----
  _ 0100            RQVASETU 04FEB13 17:39          1       0       0
  _ 0101            RQVASETU 04FEB13 17:39          2       1       0
 ---------------------------- Bottom of the List -----------------------------
```

# View Element Components

You can view a list of input component, output component, or both for particular element. Then you can select any of the components from the list to view in an ISPF browse panel.

**To view element components**

1. Type one of the component list options on the command line of the CA Endevor Quick-Edit Option panel and complete the fields to specify the target element. Selection one of the following options:

   **LC** – Display a list of input and output components for an element.

   **LO** – Display a list of output components for an element.

   **LI** – Display a list of input components for an element.

**Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

**Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

A selection list opens displaying a list of components (inputs, outputs, or both, depending on the option you selected) for the element you specified.

**Note:** You can also open the component selection lists from the Element Selection List.

2. Type an **L** to the left of the member name you want to view and press Enter.

   A standard ISPF browse panel opens that shows the member you selected.

# Component Lists

If the CA Endevor Automated Configuration Manager option is enabled at you your site and component monitoring is in effect, then a component list is created at the time a program is generated. The component list provides a detailed snapshot of all the components from monitored data sets, including all input program components and where they originated as well as output components created as the result of the generate process. Footprint information, including the version and level of the component, is also noted, if present.

A *base component list* is created and stored the first time an element is generated after component monitoring is enabled for the element. It contains a snapshot of the element components at that time. Subsequent generations produce new component lists which are automatically compared to the base to produce delta levels. A new delta level is stored only when one or more items change in the component list. This base-delta architecture makes it possible to compare component list changes from compile to compile. With this information, you can quickly determine what has changed since the last compile.

There is not a one-to-one relationship between the element's version and level and its component list's version and level. Each time an element is generated at its current inventory location, a new level of its component list is created, even though the element's source may not have changed. For example, you could have element FINARP01 with a current source level of 0101. However, its component list would be 0100, if this is the first component list created for this element at SMPLTEST Stage T.

## View Element Component List, Changes or History

If the CA Endevor Automated Configuration Manager option is enabled at you your site and component monitoring is in effect, a component list is created at the time a program is generated. You can view the component list for the current level of an element in browse mode. You can also view the changes made to that component list or view a history of all the changes made to that list.

To view an element's component list, its history or changes, complete the Location fields on the CA Endevor Quick-Edit Option panel to select the target element. Then enter one of the following view options on the command line and press Enter.

- **BX** – Display the component list for element's current level in an ISPF Browse panel.
- **HX** – Display the component list for element's current level in an ISPF Browse panel, showing all component information for all levels of the element, from the base level through the current level. The display shows the level at which each insertion or deletion occurred.
- **CX** – Display the component list for element's current level in an ISPF Browse panel, showing all the inserts and deletions made to the component information for the element as of the current level.

**Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

**Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

An ISPF browse panel opens to display the Component Browse, Component History, or Component Changes panel that corresponds to your view option selection for the current level of the element you specified.

**Note:** You can also open the Component Browse, Component History, or Component Changes panels from the Element Selection List or the Summary of Levels panel.

## View Component List Levels

You can view the list of all the component list levels that exist for a particular element.

**To view a summary of component list levels**

1. Type option **SX** on the command line of the CA Endevor Quick-Edit Option panel and complete the fields to specify the target element.

   **Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

   **Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

   The Summary of Levels panel opens for the element you specified, showing a summary of change history for the component list requested.

   **Note:** You can also open the Summary of Levels from the Element Selection List.

2. Type the option to the left of the level you want to display or edit, and then press Enter.

   Select from these options:

   **BX –** Display the Component Browse panel.

   **HX** – Display the Component History panel.

   **CX–** Display the Component Changes panel.

   You can select more than one component list level for processing and specify a different option for each level. CA Endevor Quick Edit processes the lists in the order in which they appear on the panel.

   The panel opens for the level you selected, depending on the option you selected.

## View Stored Component Lists

If the CA Endevor Automated Configuration Manager option is enabled at you your site and component monitoring is in effect, a component list is created at the time a program is translated (generated) to provide a detailed snapshot of all the components from monitored data sets. The first time a program is generated, a base level component list is created. Then delta levels, which record differences from the prior level, are created for subsequent component lists. You can view a list of the base and delta component lists for a particular element and then select a component list to view from the selection list.

**To view stored component lists**

1. Type **LL** on the command line of the CA Endevor Quick Edit panel and complete the fields to specify the target element.

   **Note:** For more information about the fields, see the CA Endevor Quick Edit Option Panel Features.

   **Note:** If you do not explicitly specify the Location fields, selection lists will open, and then you must select from each successive selection list until the specification is complete. You can use the List Option fields to limit the selection lists that are returned. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

   A selection list opens displaying a list of component lists for the element you specified.

   **Note:** You can also open the component list selection list from the Element Selection List.

2. Type an L to the left of the member name you want to view and press Enter.

   A standard ISPF browse panel opens that shows the member you selected.

# View Master Control File Information for an Element

The Master Control File (MCF) is a CA Endevor SCM file that contains the definitions of Stages, Systems, Subsystems, element Types, and elements. This file is accessed and updated by CA Endevor Quick Edit to manage the element definitions, to execute Processors, and for other miscellaneous functions. There are two Master Control Files (MCFs) for each Environment—one per Stage.

You can view Master Control File information about a specific element. To view this information, Type option **M** on the command line of the CA Endevor Quick-Edit Option panel and complete the Location fields to specify the target element.

The Master Display panel opens for the element you specified. All fields are display only. The display consists of two panels. Press Enter to switch between the panels.

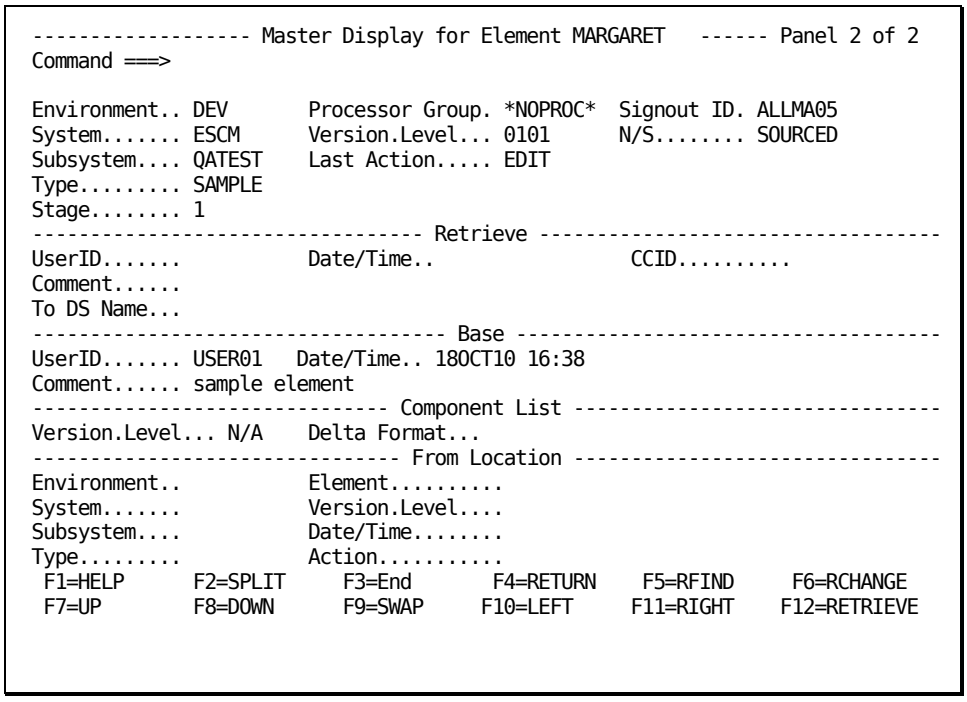
**Note:** You can also display the Master Control File for an element from the Element Selection List.

### Example: Sample Master Control File Information for an Element

```
------------------- Master Display for Element SAMPLELM   ------ Panel 1 of 2
Command ===>

Environment.. DEV       Processor Group. *NOPROC*  Signout ID. USER05
System....... ESCM      Version.Level... 0101      N/S........ SOURCED
Subsystem.... QATEST    Last Action..... EDIT      Lock Pkg...
Type......... SAMPLE    Source Package..
Stage........ 1         Output Package..
Base Comment. sample element
---------------------- Last Element Action - EDIT     -------------------------
User ID...... USER05   Date/Time... 12NOV10 12:06  CCID.......... 1
Action RC.... 0008      Processor... *NOPROC*  (GEN)
Processor RC.
Comment...... test
------------------------------ Current Source --------------------------------
User ID...... USER05   Date/Time... 12NOV10 12:06  Delta Format.. R
Comment.. test                                      CCID.......... 1
From DS Name. USER05.QERCVY10.RECOVERY
--------------------------------- Generate -----------------------------------
UserID....... USER05   Date/Time... 12NOV10 12:06  CCID.......... 1
Comment...... test

 F1=HELP      F2=SPLIT     F3=End       F4=RETURN    F5=RFIND     F6=RCHANGE
 F7=UP        F8=DOWN      F9=SWAP     F10=LEFT     F11=RIGHT    F12=RETRIEVE
```


------------------- Master Display for Element MARGARET ------ Panel 2 of 2
Command ===>
Environment.. DEV Processor Group. *NOPROC* Signout ID. ALLMA05
System..... ESCM Version.Level... 0101 N/S..... SOURCED
Subsystem.... QATEST Last Action..... EDIT
Type..... SAMPLE
Stage..... 1
---------- Retrieve ----------
UserID..... Date/Time.. CCID.....
Comment.....
To DS Name...
---------- Base ----------
UserID..... USER01 Date/Time.. 18OCT10 16:38
Comment..... sample element
---------- Component List ----------
Version.Level... N/A Delta Format...
---------- From Location ----------
Environment.. Element.....
System..... Version.Level....
Subsystem.... Date/Time.....
Type..... Action.....
F1=HELP F2=SPLIT F3=End F4=RETURN F5=RFIND F6=RCHANGE
F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE

# Chapter 5: Using Selection Lists

This section contains the following topics:



## Select Inventory Locations from Selection Lists

The CA Endevor Quick-Edit Option panel includes Endevor inventory location specification fields. When you use name masking in an Endevor inventory location field or leave that field blank, a selection list may be returned. The DISPLAY ENV/SYS/SUBSYS LIST option, the element action option selected, and the name masked fields affect the selection lists that are returned. If a selection list is displayed, you need to make a selection from the list in order to continue your work.

To select an inventory location from a selection list Type an **S** to the left of location you want to select and press Enter. The value selected replaces the blank or name masked entry on the CA Endevor Quick-Edit panel. However, the panel that is returned when you press Enter depends on the information provided on the CA Endevor Quick-Edit panel. Several selection lists may appear before the CA Endevor Quick-Edit Option panel reopens with the location fields showing all selections you made from the selection lists.

If you used name masking in all the Location fields or left them all blank, then the selection lists are returned in the following order, enabling you to make a selection for each field. If you entered a complete specification for a particular location field, then the selection list for the location is skipped.

- Environment Selection List
- System Selection List
- SubSystem Selection List
- Type Selection List
- Processor Group Selection List.

**Note:** You can Type End on the COMMAND line of the selection list to cancel the function.

## Limit System and SubSystem Selection Lists

You can specify whether the System and Subsystem selection lists will appear when you do not enter explicit values in the System or Subsystem fields on the CA Endevor Quick-Edit Option panel. However, this list option behaves differently for the Create, Edit, and Generate options.

Select your preference in the List Options area of the CA Endevor Quick Edit Option panel. This option behaves as follows:

**DISPLAY ENV/SYS/SUBSYS LIST**

Specifies whether the System and Subsystem selection lists will appear when the System or Subsystem fields do not contain explicit values. Specify Y|N:

**Y** - Display System and Subsystem selection lists. Then, you must select from each selection list until the specification is complete.

**N** - Do not display the System and Subsystem selection lists. This is the default.

- For actions other than Create, Edit, or Generate, the Element Selection List is returned based on the value in Build Using Map option.
  - *If Build Using Map=Y*, then the Element Selection List lists all the elements in all Systems and Subsystems beginning in the specified Environment to the end of the map. If you name masked the System and Subsystem fields, then the list is limited to only those Systems and Subsystems that match the name mask.
  - *If Build Using Map=N*, then the Element Selection List lists all elements across all Systems and Subsystems of the specified Environment. If you name masked the System and Subsystem fields, then the list is limited to only those Systems and Subsystems that match the name mask.
- For the Create, Edit, and Generate options, DISPLAY ENV/SYS/SUBSYS LIST=N has the following effects:
  - *If you select the Create option*, the Environment, System, and Subsystem Selection Lists are returned.
  - *If you select the Edit or Generate options*, a dialog will open that asks you to specify the Edit Target Location or the Generate Target Location. On this screen, you can manually specify the element target location data. If you leave the fields blank or namemasked when you press Enter, you will be prompted for a specific target Environment, System and Subsystem name.

Only when the location information is complete, is an element selection list displayed. For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

# Element Selection Lists

The Element Selection List appears in the following situations:

- You leave the COMMAND line blank and press Enter.
- You leave the ELEMENT field blank or use a wildcard.
- You do not provide an explicit name in the SYSTEM field, SUBSYSTEM field, or both fields and you set the DISPLAY ENV/SYS/SUBSYS LIST field to N.
- You set the BUILD USING MAP field to Y and the RETURN FIRST FOUND field to N and more than one element matches the criteria specified on the CA Endevor Quick-Edit Option panel.

You can perform various element action on an element and display the element or information about the element from the same Element Selection List. You can select more than one element for processing and specify a different option for each element. CA Endevor Quick Edit processes the elements in the order in which they appear in the selection list.

## Limit Element Selection Lists Using List Options

List options are available on the CA Endevor Quick-Edit panel to limit the elements in the Element Selection List. To limit the Element Selection List, select the list options you want to be applied to limit the list. The following options are available:

**Apply List Filters**

Displays a panel where you can enter options to filter the elements presented in the selection list. On this panel, you can filter the list by CCID, user ID, and by Processer Group name. For example, you can use the user ID filter to find elements previously acted upon (modified, generated, or retrieved) by you, or by someone else, depending on the user ID you specify. You can further limit the list by eliminating CCID and user ID matches for any of the following categories: current, generate, last action, or retrieve.

**Build Using Map**

Specifies whether the Environment map should be searched building the element selection list.

**Y** - Search the map.

**N** - Do not search the map.

**Return First Found**

Specifies whether the search should stop after finding the first occurrence of an element.

**Y** - Return the first matching element found.

**N** - Search for all occurrences and return a list.

**Note** - The list option DISPLAY ENV/SYS/SUBSYS List, also available on the CA Endevor Quick Edit Option panel, indicates whether the System and Subsystem selection lists will appear when the System or SubSystem fields do not contain explicit values. For more information, see Limit System and SubSystem Selection Lists.

## View the Element Selection List

To view all the information that is displayed for each element in the Element Selection List, scroll right or left. You can scroll the panels by entering LEFT or RIGHT in the command line or by using the corresponding PF keys, which are usually PF10 and PF11.

To return to the CA Endevor Quick-Edit Option panel, Type End on the COMMAND line.

## Perform Element Actions from a Selection List

You can perform all element actions (except Create) on an element and display the element or information about the element from the same Element Selection List. You can select more than one element for processing and specify a different option for each element. CA Endevor Quick Edit processes the elements in the order in which they appear in the selection list.

To perform an action on an element, type the option you want to perform to the left of the element. Then press Enter.

Available options follow:

**E—**Edit the element.

**#—**Delete the element.

**G—**Generate the element.

**O—**Move the element.

**SI—**Sign in an element. This removes the signout ID from the element. In addition, the Signout To value under the Signin (SI) Action Options on the Action Options panel affects the SI action as follows:

- If Signout To specifies a user ID, then after the SI action removes the current signout ID from the element, the element is signed out to the user ID specified in the Signout To field.
- If Signout To is blank, then the SI action simply removes the current signout ID from the element and leaves the signout ID blank.

**SO—**Sign out an element to the current user ID.

## Display Element Information from a Selection List

You can display the element, or information about the element, from the same Element Selection List. You can select more than one element for processing and specify a different option for each element. CA Endevor Quick Edit processes the elements in the order in which they appear in the selection list.

**Note:** You can also perform all element actions (except for Create) on an element from the Element Selection List.

To display the element or information about the element, type the option you want to perform to the left of the elements. Then press Enter.

Available display options are:

**C—**Display the Element Changes panel.

**S—**Display the Summary of Levels panel.

**B—**Display the Element Browse panel.

**H—**Display the Element History panel.

**M—**Display Master Control File information for the element.

**BX—**Display the Element Browse panel for an element component list.

**CX—**Display the Element Changes panel for component list changes.

**HX—**Display the Element History panel for component list history.

**LL—**Display the element Listing from the Component List.

**LO—**Display Output Component libraries.

**LI—**Display Input Component libraries.

**LC—**Display both Input and Output Component libraries.

**SX—**Display the Summary of Component Levels panel.

Some restrictions apply to the viewing options. These restrictions depend on what delta storage format is used by an element's Type definition or whether the element is a sourceless element. The restrictions are as follows:

- Sourceless elements – Element Browse, Change, History and Summary (B, C, H, and S) are not valid options on sourceless elements. However, Component Browse, Change and History (BX,CX, and HX) options are valid against sourceless elements.
- Log delta storage format – If an element is defined with an element Type that uses the log delta storage format, you can only browse the current level of the element, because this format only stores the current level. You cannot display source changes or history for the element, because this information is not stored.
- Full-image delta format – If an element is defined with an element Type that uses the full-image delta storage format, options C and H (Element Changes and Element History) are not valid, because this information is not stored.

## Sourceless Elements on Element Selection Lists

A *sourceless element* is created when the Generate NoSource action does not find the element source at the target location and then uses the first element source found up the map from the target to generate the element at the target. Because the element source is not fetched back to the target location, the MCF record for the element generated at the target identifies it as a sourceless element. The MCF element contains the last level timestamp of the upstream element. Base and deltas do not exist for the sourceless elements, so these fields are blank in the MCF. When actions are performed against sourceless elements the source from the next sourced element upstream from it will be used providing that the last level timestamps are equal.

If an element is a sourceless element, a Y is shown in NS column on the Element Selection List. If the NS column is blank, the element is not a sourceless element. You cannot use the display functions browse, change, history, or summary against a sourceless element; if attempted, an invalid option message will occur. However, you can use the master, listings, and component display functions.

You can use the edit (E) function against a sourceless element. CA Endevor SCM will search up the map (from the selected element) for the next sourced element and open a edit session with the source from the found element. Informational text in the edit session will show where the source was copied from. Warning text will also appear if the fetched source is out-of-sync with the sourceless element.

# Sort a Selection List

To make it easier to view a selection list, you can sort the rows by the content of a particular column. The ESORT command lets you specify a column and whether the content of that column is to be sorted in ascending or descending order.

To sort a selection list, enter the ESORT command (ES)in the command line, followed by the first three letters of the column heading. This sorts by ascending order of the contents of the specified column. To sort in descending order, include a minus sign (-) in front of the column heading.

Use the ESORT command to sort the rows of a selection list by the content of a particular column. This makes it easier to find information in a selection list.

The ESORT command as the following format:

```
ESort [-]column
```

**–**

(Optional) Specifies that the column is to be sorted in descending order. If the minus sign (–) is not specified, the column is sorted in ascending order.

***column***

Specifies the *first three letters* of the name of the column to be sorted.

### Example: To sort a selection list in ascending order

Enter **ES** in the command field, followed by the first three letters of the column heading, and then press Enter. The rows of the selection list are sorted in ascending order based on the content of the column you specified. For example, to sort a selection list by Environment in ascending order, enter: ES ENV

### Example: To sort a selection list in descending order

Enter **ES** in the command field, followed by the first three letters of the column heading preceded by a minus sign (**–**), and then press Enter. The rows of the selection list are sorted in descending order based on the content of the column you specified. For example, to sort a selection list by System in descending order, enter: ES –SYS

### Example: To sort a selection list by the default sort order

Enter **ES** in the command field and press Enter. The rows of the selection list are sorted in ascending order based on the content of the default column, which is usually the first column.

**Note:** You can also enter **TSO ESORT**.

# Filter Columns in a Selection List

You can use the EONLY command to filter a selection list by including or excluding rows that match the column filter value that you specify. Before using EONLY, you must build a selection list for a scrollable list panel.

When you enter the column name, you only have to enter the first three characters (with a maximum of six characters). In addition, the value field supports placeholders. Finally, you can filter columns using EONLY or EO (as long as the supplied CTLICMDS table is in use) and using TSO EONLY.

**Important!** After you filter a selection list, the only way to remove the filter is to press PF3. You must then rebuild the list.

**To filter a selection list**

The following table lists the different ways you can use EONLY to filter a selection list:

| To filter | Do the following |
|---|---|
| All rows including a specific column value | Enter **EONLY** *columnname value* in the Command field, and press Enter. For example, enter **EONLY TYPE CBL** to filter an Element Selection List to display only those elements of type CBL (for COBOL code). |
| All rows that do not include a specific column value | Enter **EONLY -** *columnname value* in the Command field, and press Enter. For example, enter **EONLY - TYPE ASMPGM** to filter an Element Selection List to display all elements except those of type ASMPGM (for Assembler code). |

## Placeholders and Wildcards in a Selection List

Before you use placeholders [the percent (%) sign] and wildcard characters [the asterisk (*) character] in a selection list, consider the following information to ensure your success:

- When filtering columns in a selection list, you can use EONLY with the percent sign (%) placeholder character to represent any single character in a string. In addition, you can use the percent sign as a placeholder multiple times in a single field, for example, C%CC%C. However, any value that you enter in the value field is treated as if it ends in the wildcard character. Therefore, you cannot use EONLY to filter rows containing a specific number of characters less than the maximum of six characters. For example, the values C, C%, and C%%%%% will return the same result.
- When filtering columns in a selection list, you cannot use EONLY with the asterisk (*) wildcard character because the asterisk is treated as a character. For example, the value C* will produce an empty list, unless there is an item in the list that contains an asterisk in the second position.

## Dates in a Selection List

When you use dates and date ranges in a selection list, you specify the dates in the value field of EONLY in the format DDMMMYY (for example, 30SEP01). In addition, you can filter all rows that have dates earlier than or later than the date in the value field, as well as the rows that are between two dates specified in the value field.

### Example: Filter all rows with a date later than December 31, 2001

This example shows how to use the greater than sign (>) to filter all rows containing a date later than December 31, 2001.

```
EO DAT >31DEC01
```

### Example: Filter all rows with a date earlier than January 1, 2002

This example shows how to use the less than sign (<) to filter all rows containing a date earlier than January 1, 2002.

```
EO DAT <01JAN02
```

### Example: Filter all rows containing a date between January 1 and June 30, 2001

This example shows how to use a dash (-) to filter all rows containing a date between January 1 and June 30, 2001.

```
EO DAT 01JAN01-30JUN01
```

# Print a Selection List

You can print a selection list at any time by entering **EPRINT** in the Command field, which sends the output to your ISPF listing data set.

**Note:** You can also print a selection list by entering **TSO EPRINT** in the Command field.

# Chapter 6: Operating Information

There are several processing and operating considerations regarding CA Endevor Quick Edit. Some features of CA Endevor Quick Edit operate in the same manner as the CA Endevor SCM ISPF dialog. These features are mentioned here to reinforce the information. Other features of CA Endevor Quick Edit operate differently than the CA Endevor SCM ISPF dialog. These differences are noted in this section.

This section contains the following topics:



## Element Locking

CA Endevor Quick Edit puts a *lock* on an element when it is being edited or generated. This lock is placed at both the specified Environment and the source Environment (if the element is taken from up the map). Therefore, other CA Endevor SCM actions against the element, such as Signout may be prohibited while you are editing that element. You can, however, use any of the display functions (such as browse or change history) against the element while it is being edited.

## Change Regression

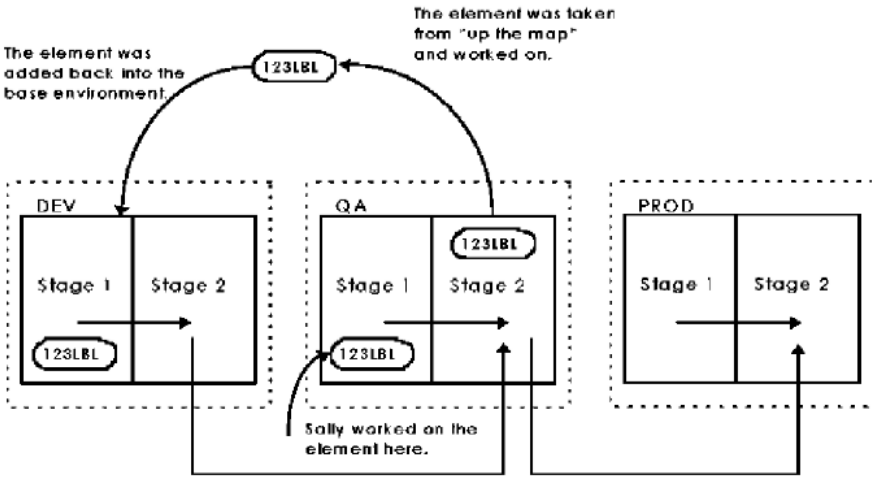
In CA Endevor SCM, you can always move from Stage 1 to Stage 2 in any Environment, regardless of whether that particular route has been defined as part of your map. However, changes made to an element returned from *up the map* can override changes made to that same element in an *in-between* Stage. When you select an element that is up the map, be careful that you do not to regress changes.

### Example: Element Selected for Update from Up the Map

In this example, suppose you perform an Edit action on element 123LBL, which exists at QA Stage 2. You work on it and it is placed back into DEV Stage 1, which is the specified Environment entry Stage according to the Edit request. However, suppose also that another user (Sally) has worked on the same element in QA Stage 1 and has already moved it from there to QA Stage 2. As element 123LBL moves up the map to QA Stage 2, the changes you made will override the changes Sally made.

The following illustrates the defined map using this route:

```
DEV Stage 1→Stage 2→QA Stage 2→PROD Stage 2
```



# How to Avoid Change Regression

To avoid overriding code changes made by other developers in CA Endevor SCM, you can use the CA Endevor Parallel Development Option, if your site is licensed for this option. Otherwise, we recommend you enable the following features to avoid change regression:

**Regression Notification**

In parallel development situations where many individuals work on the same module concurrently, change regression occurs when one individual unintentionally negates (rather than incorporates) the changes made by another individual. When unchecked, regression can be a major cause of production failures.

During move action processing, CA Endevor SCM performs a regression check and notifies you when regression has occurred, allowing you to quickly pinpoint and correct the situation before it adversely affects the production Environment. If REQ ELM JUMP ACKNOWLEDGEMENT=Y on the System definition for the element that is the target of the Move action and if you set the Action Move Action Option on the Action Options panel to Acknowledge Elm Jump=N, then users cannot move elements in a jump situations. For more information, see Move an Element.

**Signin, Signout**

In order to avoid possible regression during parallel development, CA Endevor SCM provides signin and signout security at the element level. This optional capability is enabled at the System level. When the facility is enabled, elements are signed out when they are added to the specified Environment after the completion of a Create or Edit action. While other users can retrieve copies of those signed out elements, they cannot update those copies within CA Endevor SCM without explicitly overriding the original user's signout. Only authorized users can exercise the explicit override feature.

**Before Edit Synchronization Checks**

CA Endevor Quick Edit has functionality that helps identify and resolve possible synchronization problems prior to the move of an element within CA Endevor SCM inventory. When an element is selected for the Edit action, a sync check is performed to determine If the element selected for editing is synchronized with the element that is next in the map. If the elements are out-of-sync, a caution panel is displayed to notify the user. The panel lets the user continue or cancel the edit request.

# Processor Groups

CA Endevor SCM uses JCL streams called Processors to create executable forms of source code, including source modules, object modules, load modules, and listings. There are three kinds of Processors:

- Generate Processors – Execute automatically when an element is added to (for a Create or Edit action) or generated in the specified Environment entry Stage in CA Endevor Quick Edit. Typically, the Generate Processor creates an executable form of the element, together with any associated outputs (such as listings).
- Move Processors – Move elements from one Stage in the lifecycle to another. Move Processors generally copy all the output previously created for the element, or recreate those outputs in the target Stage.
- Delete Processors – Execute automatically when an element is deleted or moved in CA Endevor Quick Edit. You can bypass this automatic delete for move requests in standard CA Endevor SCM, but this option is not available in CA Endevor Quick Edit. Generally, the Delete Processor deletes any output that was created by the corresponding Generate Processor.

Processors are combined into Processor Groups. A Processor Group consists of one generate, one move, and one Delete Processor, as well as the symbolic overrides for the Processors' JCL. A default Processor Group is associated to each element Type.

**Note:** For more information about Processors, see the Extended Processors Guide.

# Element Registration

Element Registration is an optional feature of CA Endevor SCM that enables your CA Endevor SCM administrator to restrict the use of duplicate element names at the Subsystem level across all Systems or within a specific System. In addition, duplicate element names can be restricted at the Processor Group level across all Systems or within a specific System.

**SubSystem Level Restriction on Duplicate Element Names**

The use of duplicate element names at the Subsystem level can be restricted on a System-by-System basis or across all Systems.

- **Across All Systems at SubSystem Level –** When enabled, this option restricts the use of the same element name no matter its Type across all Systems. Elements with the same element-name (no matter the Type) can only exist if one maps to the other.

A conflict is found when an attempt is made to add or create an element and another element with the same name exists in another unmapped System/Subsystem. The severity level of this option can be set as follows for conflict situations :

- E – The action is terminated and a message is issued.
- C – The action adds or creates the duplicate element, after displaying a caution that gives you the option to terminate the action.
- W – The action adds or creates the duplicate element, after displaying a warning that gives you the option to terminate the action.

**Important:** This option overrules any element registration settings for a specific System set at the System definition level. However, this option does **not** overrule any restrictions at the Processor Group level.

**Note:** To have effect, this option must be set by the CA Endevor SCM administrator in ENCOPTBL using the option REGISTER_ACROSS_SYSTEMS. By default, this option is turned off.

- **Within a Specific System at the SubSystem Level –** Restricts duplicate element names across Subsystems within a System.

  A conflict is found when an attempt is made to add or create an element and another element with the same name exists within another Subsystem under the same System. The severity level of this option can be set as follows for conflict situations.

  - E (Error) – The action is terminated and an error message is issued.
  - C (Caution) – The action adds or creates the duplicate element, after displaying a caution that gives you the option to terminate the action.
  - W (Warning) – The action adds or creates the duplicate element, after displaying a warning that gives you the option to terminate the action.

  **Note:** To have effect, this option must be set by the CA Endevor SCM administrator in the System definition using the parameters Duplicate Element Name Check and Message Severity Lvl. By default, this option is turned off.

  **Note:** The System Definition panel displays the parameter values in the Duplicate Element Name Check and Msg Severity Lvl fields.

**Processor Group Level Restriction on Duplicate Element Names**

The use of duplicate element names at the Processor Group level can be restricted on a System-by-System basis or across all Systems.

- **Across All Systems at the Processor Group Level –** When enabled, this option restricts duplicate element names from existing, even when the element is a different Type, if the Processor output Type is the same within the same System or another System.

A conflict occurs if an attempt is made to add or create an element and an element with the same name and Processor output Type exists in the same System or another System, even if the elements are of different Types.

The severity level of this option can be set as follows for conflict situations :

- E – The action is terminated and a message is issued.
- C – The action adds or creates the duplicate element, after displaying a caution that gives you the option to terminate the action.
- W – The action adds or creates the duplicate element, after displaying a warning that gives you the option to terminate the action.

**Important:** This option overrules any element registration settings for a specific System set at the System definition level. However, this option does **not** overrule any restrictions at the Processor Group level.

**Note:** To have effect, this option must be set by the CA Endevor SCM administrator in ENCOPTBL using the option ELM_REG_CHK_OUTPTYPE_ACROSS_SYSTEMS. By default, this option is turned off.

- **Within a Specific System at the Processor Group Level –** When enabled, this option restricts duplicate element names from existing, even when the element is a different Type, if the Processor output Type is the same within the same System.

  A conflict occurs if an attempt is made to add or create an element and an element with the same name and Processor output Type exists in the same System, even if the elements are of different Types. The severity level of this option can be set as follows for conflict situations.

  - E (Error) – The action is terminated and an error message is issued.
  - C (Caution) – The action adds or creates the duplicate element, after displaying a caution that gives you the option to terminate the action.
  - W (Warning) – The action adds or creates the duplicate element, after displaying a warning that gives you the option to terminate the action.

  **Note:** To have effect, this option must be set by the CA Endevor SCM administrator in the System definition using the parameters Duplicate Proc O/P Type Check and Message Severity Lvl. By default, this option is turned off.

  **Note:** The System Definition panel displays the parameter values in the Duplicate Proc O/P Type Check and Msg Severity Lvl fields.

# How CCIDs and Comments are Processed

A System's definition may require that you specify a CCID for any element action against any element associated with that System. CA Endevor Quick Edit provides the level of CCID and comment support that is indicated on the base System record. CA Endevor Quick Edit handles CCID and comment support as follows:

- Edit action only
  - Checks CCIDs and comments before the element is copied to the external data set.
  - Does **not** update the RETRIEVE CCID or comment for the element when it is copied to the external data set.
- Create, Edit, Move, Delete, and Signin actions – Updates the Last Action CCID and Last Action Comment when source management is performed and when the Generate Processor is executed.

# How Sign Out Processing Works

CA Endevor Quick Edit performs CA Endevor SCM signout processing for an element if Signin/Signout processing is activated for the System associated with the element. However, CA Endevor Quick Edit handles signout processing differently than standard CA Endevor SCM:

- Create or Edit actions – When you save a new element or updates to an element in an ISPF edit session, the new element or new level of the element is placed in the specified Environment of the entry Stage and is signed out to you.
- Edit actions – Signout checking is done before the element is copied to the external data set. CA Endevor Quick Edit verifies that the element is not signed out. If the element is signed out to another user and the OVERRIDE SIGNOUT option on the CA Endevor Quick-Edit panel is set to Y on this Edit request, CA Endevor Quick Edit verifies that you are authorized to override the signout. If you are not authorized, you receive an error message.
- Generate action – When an element is generated, CA Endevor Quick Edit copies the element back to the entry Stage of the specified Environment, provided it is not already there, and generates it. After it is generated, the element at the entry Stage is signed out to you.

  Signout checking is done before the element is copied back to the entry Stage of the specified Environment. If the element is signed out to another user and the OVERRIDE SIGNOUT option on the CA Endevor Quick-Edit panel is set to Y, CA Endevor Quick Edit verifies that you are authorized to override the signout. If you are not authorized, you receive an error message.

- Fetch situations for Edit or Generate actions – If an element is fetched from a Stage up the map (because it was not found at the Stage specified in the action request), the signout of the fetched element is affected by the site's Defaults table setting for the parameter SOFETCH. SOFETCH specifies whether the element that is fetched should be signed out to you, if not already signed out to someone else.
  - If SOFETCH=Y, when fetch processing occurs, the fetched element will be signed out to you *only* if it is *not* already signed out to someone else.
  - If SOFETCH=N, the fetched element will *not* be signed out.
  - In either case, the element that is put in the entry Stage *will be* signed out to you.
  - A fetched element that is signed out to someone else cannot be signed out to you, so the OVERRIDE SIGNOUT option on the CA Endevor Quick-Edit panel has no affect on a fetched element.

# Security Checks

CA Endevor Quick Edit uses the CA Endevor SCM security to verify that a user is authorized to perform the requested actions against an element. The following security checks are performed:

- When the element is copied to the external data set from CA Endevor SCM, the user ID is queried as follows:

  Does the user have Retrieve authority for the element at the inventory location at which the element was found?

- When the user selects the Browse, History, Changes, or Master options, the user ID is queried as follows:

  Does the user have Display authority for the element at the inventory location at which the element was found?

- When the Override Signout field is set to Y and the element is signed out to someone else, the user ID is queried as follows:

  Does the user have Override Signout authority for the element at the inventory location at which the element was found?

- Before Quick Edit copies the element to the external data set for the Edit command. If the element exists at the entry Stage, the user must have Update authority. If the element does not exist at the entry Stage, the user must have Add authority for the element at that Stage, the user ID is queried as follows:

  Does the user have Add or Update authority for the element at the entry Stage?

- When the user selects the Generate Element option, the user ID is queried as follows:

  Does the user have Generate authority for the element at the entry Stage?

**Note:** For the Edit option, security checks are done before CA Endevor Quick Edit copies the element to the external data set. Therefore, you must have the proper Add or Update authority, even if you do not intend to change the element. Because of these security checks, it is recommended that you do not use the Edit option to browse an element. Use the Browse option instead.

# How SMF Records are Created for Edit Actions

For each CA Endevor Quick Edit Create, Edit, Generate, Move, and Delete action executed, CA Endevor SCM can write out an appropriate System Management Facility (SMF) action record at the end of action processing. The SMF action record option must be enabled in your site's Defaults table. CA Endevor Quick Edit creates action records for ISPF edit sessions as follows:

- CA Endevor Quick Edit calls exit 3 (post action processing) and creates an SMF record when you use the End or Cancel command to end an edit session.
- The SMF Activity report (CONRPT42) will only show the add or update information for the final level of an Edit session.
- CA Endevor Quick Edit does *not* create SMF records each time you perform a Save request within an Edit session. The Save command does not invoke exit 3 or create an SMF record. If you issue one or more Save requests during an Edit session, each save creates a new level without invoking exit 3 or creating an SMF record. The SMF report will *not* contain details for the element levels created by saves prior to the last save of the Edit session. The SMF report will not show any activity, if the final save is aborted, for example by a time-out.

  For example, suppose you use CA Endevor Quick Edit to create a new element, you save it, change the element, save it again, and then save it followed by the End (or Cancel) command. CA Endevor Quick Edit recognizes that only one action has taken place and Exit 3 is only called at the end of the action. Only one SMF record is created and it relates only to the 102 level. There is no history for the 100 and 101 levels in the SMF report.
- If you use the Cancel command to cancel a Quick Edit session, exit 3 is invoked and the SMF record is created, because CA Endevor SCM is still in control.

  However, if you cancel a session by pressing PA1 twice or your session gets timed out, exit 3 is not invoked and the SMF record is not written. (You may be able to recover the session, provided the CA Endevor Quick Edit recover feature was turned on, and you made changes since the last Save.) It is possible then to Edit a CA Endevor SCM element, save some changes, and then cancel the session by pressing PA1 twice to leave a version in CA Endevor SCM without a matching SMF record, and bypass any exit 3 processing.

# Element Record Format

During an ISPF edit session, a temporary data set is allocated to hold the element for editing. The record length format of the data set is determined by the element RECFM parameter defined for the element Type. This parameter specifies whether the temporary CA Endevor Quick Edit ISPF edit data set's record length format is fixed, variable, or not defined. If the value is not defined, the element RECFM is determined by the input data set record lengths as follows:

- The data set is allocated as variable if the element already exists and the element records have varying lengths.
- The data set is allocated as fixed if the element already exists and all the element records are the same length.

Regardless of the Type definition's element RECFM setting, the data set is always allocated as fixed if a Quick Edit Create command is executed to create a new element. When a data set is allocated as fixed length, the record length is the source length defined for the Type.

When the data is saved in an ISPF edit session, the record length of the record in a variable length file is preserved if you specified Preserve VB record length = Y on the CA Endevor Quick-Edit Option panel. If Preserve VB record length = N was specified, trailing spaces are removed when variable length files are saved.

**Note:** You can set the element RECFM parameter in foreground on the Type Definition panel using the ELE RECFM field. In batch, you can use the ELEMENT RECFM IS clause on the SCL statement Define Type.

# Chapter 7: Troubleshooting

This section contains the following topics:



## Source Management Fails on Edit Session End

**Symptom:**

When I entered the End command in an ISPF Edit session, I got an error message indicating that a source management failure occurred as CA Endevor Quick Edit was writing the element to CA Endevor SCM, but the Edit session remained open. How do I make sure that any changes I made in the Edit session are saved?

**Solution:**

Do the following:

1. Use the Edit CREATE command to save the element in an external data set.
2. Enter the Cancel command to terminate the Edit session.
3. After you correct the problem, you can edit the element again. Use the Edit session Copy command to replace the element displayed with the element saved in Step 1. For more information, see Copy from an External Data Set (see page 31).

## Generate Processor Fails on Edit Session End

**Symptom:**

When I issued the End command in an ISPF Edit session, CA Endevor Quick Edit displayed a message data set. The message indicates the Generate Processor was not invoked. When I finished reading the message, CA Endevor Quick Edit redisplays either the CA Endevor Quick-Edit Option panel or the Element Selection List depending on which panel I used to invoke the Edit command. The ISPF Edit services were not reinvoked.

**Solution:**

Do the following:

Use the EDIT option to verify that the element is correct. If necessary, you can use the GENERATE ELEMENT option to regenerate the current level of the element.

# Appendix A: CA Endevor Quick-Edit Option Menu

This section contains the following topics:

CA Endevor Quick-Edit Option Panel Features (see page 91)

## CA Endevor Quick-Edit Option Panel Features

The CA Endevor Quick-Edit Option panel appears when you access CA Endevor Quick Edit from ISPF. This one panel displays the most commonly used CA Endevor SCM features. All work in CA Endevor Quick Edit begins on this panel.

### Example: CA Endevor Quick-Edit Option panel

A sample CA Endevor Quick-Edit Option panel is shown next:

```
----------------------- CA Endevor Quick-Edit Option ------------------------
Command ===> ____________________________________________________________________


 Dialog Commands:       U User Menu
   D Dialog Defaults   AO Action Options     P Packages   PD Parallel Dev
 Element Options:
   blank Element list  B Browse  CR Create   E Edit  C Changes SI Signin
       G Generate      # Delete   M Masters  O Move  S Summary  H History

  LC List Components   LL List Listing       LO List Outputs    LI List Inputs

Location:                          List Options:
  ENVIRONMENT.. DEV                  APPLY LIST FILTERS.......... N (Y/N)
  SYSTEM....... NDVR                 BUILD USING MAP............. Y (Y/N)
  SUBSYSTEM.... ________             RETURN FIRST FOUND.......... Y (Y/N)
  ELEMENT...... __________           DISPLAY ENV/SYS/SUBSYS LIST. N (Y/N)
  TYPE......... ________
Action Options:
  CCID.............. ___________
  Comment........... ________________________________________
  Processor Group... ________
  Override Signout.. N (Y/N)         Preserve VB record length .. Y (Y/N)

 F1=HELP      F2=SPLIT     F3=End       F4=RETURN    F5=RFIND     F6=RCHANGE
 F7=UP        F8=DOWN      F9=SWAP     F10=LEFT     F11=RIGHT    F12=RETRIEVE
```

You can enter the following Types of commands from the CA Endevor Quick-Edit Option panel:

**Dialog Commands –** These commands affect the dialog environment. You can change the default dialog defaults and action options that affect action processing. For more information see, Set Dialog Defaults (see page 17) and Change Action Options (see page 25).

The following additional options are accessible from the CA Endevor Quick-Edit Option panel, but are not discussed in this guide:

- P Packages – The CA Endevor SCM package feature lets you group actions together in a package and require that the package be approved before it is executed. For more information, see the *User Guide* or *Packages Guide*.
- PD Parallel Dev – The CA Endevor Parallel Development option enables you to compare the content of elements, if you are licensed to use this option. This option facilities concurrent development and the resolution of out-of-sync elements. For more information, see the *Parallel Development Guide*.
- U User Menu – The User Options Menu can be customized by your CA Endevor SCM administrator to include user-defined functions. By default, it lets you build and submit report JCL in foreground or run ACM queries, if your site is licensed for the CA Endevor Automated Configuration Option. For more information, see the *Reports Guide* and the *Automated Configuration Guide*.

**Element Options –** These commands let you perform an action on a CA Endevor SCM element or view the element, its components, or information about the element or its components.

The Location, Action Options, and List Options fields let you refine your Element Option requests as follows:

**Location fields –** The location fields specify the element name and inventory location of the element you want to select for an element command. You do not specify the Stage location, because the Stage is assumed to be Stage 1 or the entry stage defined in the C1DEFLTS table. This is the location at which CA Endevor Quick Edit *begins* the search for the element.

**ENVIRONMENT**

Specifies the Environment where CA Endevor Quick Edit *begins* searching for the element. This is the *specified Environment*. Enter a one- to eight-character Environment name, leave the field blank, or use a name mask. If you leave this field blank or use a name mask, an Environment Selection List is returned, and then you must select an Environment in order to continue.

**SYSTEM**

Specifies the System associated to the element. Enter a one- to eight-character System name, leave the field blank, or use a name mask. If you leave this field blank or use a name mask, selection lists appear as follows, depending on the setting of the List Options field DISPLAY ENV/SYS/SUBSYS LIST on this panel:

- If the DISPLAY ENV/SYS/SUBSYS LIST field is set to Y, a System Selection List is returned. You must select a system from this list in order to continue.
- If the DISPLAY ENV/SYS/SUBSYS LIST field is set to N, CA Endevor Quick Edit returns an Element Selection List.
- If you select the CREATE option, the System Selection List is returned no matter what value is set in the DISPLAY ENV/SYS/SUBSYS LIST field.

**SUBSYSTEM**

Specifies the Subsystem associated to the element. Enter a one- to eight-character Subsystem name, leave the field blank, or use a name mask. If you leave this field blank or use a name mask, selection lists appear as follows, depending on the setting of the List Options field DISPLAY ENV/SYS/SUBSYS LIST on this panel:

- If the DISPLAY ENV/SYS/SUBSYS LIST field is set to Y, a Subsystem Selection List is returned. You must select a subsystem from this list in order to continue.
- If the DISPLAY ENV/SYS/SUBSYS LIST field is set to N, CA Endevor Quick Edit returns an Element Selection List.
- If you select the CREATE option, the Subsystem Selection List is returned no matter what value is set in the DISPLAY ENV/SYS/SUBSYS LIST field.

**ELEMENT**

Specifies the name of the element. Enter a one- to ten-character element name, leave the field blank, or use a name mask. An explicit element name is required for the Create option. If you leave the field blank or use a name mask, the Element Selection List is returned. You must select an element from this list in order to continue.

**TYPE**

Specifies the Type associated with the element. Enter a one- to eight-character element Type, leave the field blank, or use a name mask. If you leave this field blank or use a name mask, either the function you requested is performed (if there is only one element involved) or an Element Selection List is returned (if there is more than one element involved). A Type Selection List is returned only when you select the Create option.

**Action Options fields –** The Action Option fields define options that are specific to your action request.

**Note:** For action options that affect action processing, see Change Action Options (see page 25).

**CCID**

Specifies the Change Control Identifier (CCID) associated with this request. Enter a 1- to 12-character value that conforms to CCID naming conventions. A System's definition may require that you specify a CCID for any element action against any element associated with that System. If a CCID is required at the System level and you do not enter a CCID, an Action Prompt panel will open where you can add the CCID.

**Comment**

Specifies the comment associated with this request. Enter a 1- to 40-character value that does not include embedded single quotation marks. A System's definition may require that you specify a comment for any element action against any element associated with that System. If a comment is required at the System level and you do not enter a comment, an Action Prompt panel will open where you can add the comment.

**Processor Group**

Specifies the Processor Group to be associated with the element. If you enter an explicit Processor Group name, that Processor Group must exist. If you use name masking, a Processor Group Selection List is returned. If you do not specify a Processor Group, CA Endevor SCM determines the appropriate Processor Group to be used.

**Note:** For more information about Processor Groups, see the Processor Groups (see page 82) in the chapter "Operating Information."

**Override Signout**

Specifies whether you want to edit or generate the element when it is signed out to a user other than yourself. Valid values:

**Y –** Override the current signout and allow access to the element. In a fetch situation (for Edit or Generate), when override signout is needed, the signout of the element that was fetched will not change to you even if SOFETCH=Y. However, the element will be signed out to you in the entry stage in which the element is put.

**N –** Do not override the current signout. This is the default.

**Preserve VB record length**

Specifies whether the ISPF editor will preserve the record length of the record in a variable length file, when the data is saved in an ISPF edit session. This option applies when the file is saved to its base data set in reverse delta format. Valid values:

Y— Preserve trailing spaces when saving variable length files.

N— Remove trailing spaces when saving variable length files.

**List Options fields –** The first three List Option fields limit the elements presented in the Element Edit Selection List. The last field in this section determines whether system and subsystem selection lists will be available. The list option fields are described next.

**APPLY LIST FILTERS**

If you set the list option Apply List Filters to Y, then the Apply List Filters panel opens and shows the following filter options:

**Where CCID EQ**

Specify a CCID to limit the list to those elements whose current, last action, generate, or retrieve CCID match the CCID specified here. You can use name masking in this field. You can further limit the list by eliminating matches for any of the following categories: current, last action, generate, or retrieve.

**Where User ID**

Specify a user ID to limit the list to those elements whose current, last action, generate, or retrieve user ID match the user ID specified here. You can use name masking in this field. You can further limit the list by eliminating matches for any of the following categories: current, last action, generate, or retrieve.

**Where Processor Group EQ**

Specify a processor group name to limit the list to those elements to which the specified processor group is assigned. You can use name masking in this field.

**BUILD USING MAP**

Specifies whether the environment map will be searched when building a list of elements. Values are:

**Y**—Search the map for all occurrences of the element. This is the default.

**N**—Do not search the map.

**RETURN FIRST FOUND**

Specifies whether searching the map will stop after the first occurrence of the element is found. Values are:

**Y**—Return the first matching element found. This is the default.

**N**—Search the map for all occurrences of matching elements and return a list.

**DISPLAY ENV/SYS/SUBSYS LIST**

Specifies whether the Environment, System, and Subsystem selection lists will appear when the inventory location is not explictly specified. Valid values follow:

**Y** - Display Environment, System, and Subsystem selection lists. You must select from the selection lists until the specification is complete. Only when the location information is complete, is an element selection list displayed.

**N** - The default. An element selection list is returned based on the value in the Build Using Map option.

- *If Build Using Map=Y*, then the element selection list lists all the matching elements in all matching Environments, Systems and Subsystems beginning in the specified Environment to the end of the map. All Environments, Systems, and Subsystems that match explicit or name-masked values are listed.
- *If Build Using Map=N*, then the element selection list lists all the matching elements in all Environments, Systems and Subsystems. All Environments, Systems, and Subsystems that match explicit or name-masked values are listed.
  - *If you specify the E or G for a specific element on the element selection list,* a dialog will open that asks you to specify the Edit Target Location or the Generate Target Location. On this screen, you can manually specify the element target location data. If you leave the fields blank or namemasked when you press Enter, you will be prompted for a specific target Environment, System and Subsystem name.
  - *If you select the Create option when DISPLAY ENV/SYS/SUBSYS LIST=N is specified*, the Environment, System, and Subsystem selection lists are returned as if DISPLAY ENV/SYS/SUBSYS LIST=Y.

For more information about selection lists, see Select Inventory Locations from Selection Lists (see page 69).

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