

IBM Software Configuration and
Library Manager Administrator Toolkit

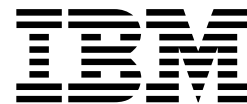


User's Guide

Version 2 Release 1



IBM Software Configuration and
Library Manager Administrator Toolkit



User's Guide

Version 2 Release 1

Note: Before using this information and the product it supports, be sure to read the general information under Notices.

First Edition (December 2005)

This edition applies to Version 2 Release 1 IBM® Software Configuration and Library Manager Administrator Toolkit (product number 5697-J19) and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this book

This book provides instructions for installing and using IBM® Software Configuration and Library Manager (SCLM) Administrator Toolkit.

This book is designed to help SCLM project administrators and installation personnel perform these tasks:

- Define new SCLM projects and modify existing projects
- Perform required SCLM language and architecture definitions; maintain VSAM files, and import software assets into an SCLM project
- Maintain IBM Enhanced Access Control for SCLM for z/OS® (EAC) data set profiles, profile access files, settings, and applications
- List and review Enhanced Access Control for SCLM violations
- Diagnose and recover from SCLM Administrator Toolkit problems
- Use SCLM Administrator Toolkit with other products comprising IBM's SCLM Suite.

Always check the SCLM Administrator Toolkit Library page for the most current version of this publication:

<http://www.ibm.com/software/awdtools/sclmsuite/admintoolkit>

This book is a companion to the *IBM SCLM Administrator Toolkit: Installation and Customization Guide*, GC31-6787. See that manual for information about installing and configuring SCLM Administrator Toolkit.

Who should read this book

This book is intended for those persons wanting to learn about and use SCLM Administrator Toolkit to administer SCLM. This book assumes a working knowledge of:

- The z/OS operating system
- IBM Eclipse SDK (IES) Version 3.0 or higher
- ISPF
- SCLM
- EAC
- SMP/E
- RACF®, for those users that will administer Enhanced Access Control for SCLM for z/OS

Conventions used in this book

This book uses the following highlighting conventions:

- **Boldface type** indicates commands or user interface controls such as names of fields, folder, icons, or menu choices.
- `Monospace type` indicates examples of text that you enter exactly as shown.
- *Italic type* indicates variables that you should replace with a value. It is also used to indicate book titles and to emphasize significant words.

The following labels identify significant elements within this book:

- **Definition:** is used to identify and define terminology unique to this product.
- **Example:** is used to identify example code or scenarios.
- **In this chapter:** is used to identify the significant subsections within each chapter.
- **Recommendation:** is used to provide guidance when more than one option is available.
- **Related reading:** is used to refer you to other publications that contain relevant information.
- **Restriction:** is used to identify a restriction or limitation with this product or an associated procedure.

Terminology used in this book

In this book, Software Configuration and Library Manager (SCLM) Administrator Toolkit is referred to as "SCLM Administrator Toolkit." Where the meaning is clear, the product may be referred to simply as the Toolkit, IBM Enhanced Access Control for SCLM for z/OS is referred to as "Enhanced Access Control for SCLM," or in message text or where space is limited, simply as "EAC." IBM Breeze for SCLM for z/OS is referred to as "Breeze."

Service updates and support information

To find service updates and support information, including software FixPaks, PTFs, Frequently Asked Question (FAQs), technical notes, troubleshooting information, and downloads, refer to the following Web page:

<http://www.ibm.com/software/awdtools/sclmsuite/admintoolkit>

Using LookAt to obtain message explanations

LookAt is an online facility that displays explanations for most messages that you encounter, as well as for some system abends and codes. You can access LookAt:

- From the Internet at:
www.ibm.com/eserver/zseries/zos/bkserv/lookat/
- From anywhere in z/OS where you can access a TSO/E command line (for example, a TSO/E prompt, ISPF, or z/OS UNIX System Services running OMVS). To use LookAt as a TSO/E command, LookAt must be installed on your host system. Obtain the LookAt code for TSO/E from a disk on your z/OS Collection (SK3T-4269) or from the LookAt ftp site:
[ftp.software.ibm.com/ps/products/ibmreader/tools/lookat/ZOS/](ftp://software.ibm.com/ps/products/ibmreader/tools/lookat/ZOS/)
- From your Palm™ VIIx personal data assistant (PDA). To use LookAt from your Palm VIIx PDA, LookAt must be installed on the PDA. Obtain the LookAt code from a disk on your z/OS Collection (SK3T-4269) or from the LookAt ftp site:
[ftp.software.ibm.com/ps/products/ibmreader/tools/lookat/PALM/](ftp://software.ibm.com/ps/products/ibmreader/tools/lookat/PALM/)

Where to find information

The SCLM Suite Web page and web pages for the component products of the SCLM Suite provide current product documentation that you can view, print, and download.

To locate publications with the most up-to-date information, refer to the following Web pages:

<http://www-3.ibm.com/software/awdtools/sclmsuite/sclm/library>

IBM Redbooks® that cover the SCLM Suite are available from the following Web page:

<http://publib-b.boulder.ibm.com/Redbooks.nsf/Redbooks?SearchView&Query=sclm>

The documentation for the SCLM Administrator Toolkit is found at the following web page:

<http://www.ibm.com/software/awdtools/sclmsuite/admintoolkit>

Accessibility features

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use a software product successfully. The major accessibility features in SCLM Administrator Toolkit enable users to:

- Use assistive technologies such as screen readers and screen magnifier software. Consult the assistive technology documentation for specific information when using it to access z/OS interfaces.
- Customize display attributes such as color, contrast, and font size.
- Operate specific or equivalent features using only the keyboard. Refer to the following publications for information about accessing ISPF interfaces:
 - *z/OS ISPF User's Guide, Volume 1, SC34-4822*
 - *z/OS TSO/E Primer, SA22-7787*
 - *z/OS TSO/E User's Guide, SA22-7794*

These guides describe how to use ISPF, including the use of keyboard shortcuts or function keys (PF keys), include the default settings for the PF keys, and explain how to modify their functions.

Navigating in a workstation panel

When you use the Tab key to navigate through a workstation panel, as you move from field to field, one of the letters in each of the descriptions is underlined. This provides a keyboard shortcut to the field in question. This behavior does not occur when using the mouse to select a field on the panel.

Copying and pasting while using the workstation interface

If you want to copy information from a text field or paste information into a text field, place your cursor in the field in question. To copy, select the text to be copied, right-click in the text field, and select **Copy** from the pop-up menu. To paste information into a text field, place your cursor into the field in question, right-click, and select **Paste** from the pop-up menu. **Ctrl+C** and **Ctrl+A**, respectively, copy selected text or all text to the clipboard for your use. **Ctrl+V** pastes the text to a place you select.

How to send your comments

Your feedback is important in helping to provide the most accurate and high-quality information. If you have any comments about this book or any other SCLM

Administrator Toolkit documentation, print and fill out the reader comment form located at the back of this book. You can use the following methods to return the form:

- Give it to your local IBM branch office or IBM representative.
- Send it to the address printed on the reader comment form.
- Send your comments by e-mail to comments@us.ibm.com.

Before you begin

Before you can begin to use SCLM Administrator Toolkit, customization of the host component as described in the *IBM SCLM Administrator Toolkit: Installation and Customization Guide* must be completed. This work normally is performed by an enterprise's Systems Programmer. To use the client workstation component, each workstation component must be customized as described in that Guide.

What's new in Version 2.1

SCLM Administrator Toolkit Version 2.1 provides the following new or improved functionality:

- A Remote Migration Wizard is available from the workstation and assists you in migrating workstation-based files into an SCLM project and placing them under SCLM control. Once launched, the Remote Migration Wizard copies the remote assets you selected into the target SCLM-managed library, updates an accounting file, and displays a report that details the results of the migration.
- Support for copybooks permits you to assign reusable elements of a project definition to copybooks where they can be used by other projects.
- When importing an SCLM project, the product discovers existing group/type data sets and automatically adds them to the project.
- Custom user macros can now be included within your project definition.
- The Language Definition Wizard has been enhanced by replacing the free-form editor with intelligent Wizard panels. In addition, context sensitive fields throughout the Wizard maintain the consistency of the definition. The information supplied using the Language Definition Wizard is more easily made available to other Wizards for their use.
- New VSAM tasks are distributed with the project. Additional default groups and types have also been added.
- A Quick Navigation facility has been added to the ISPF interface to improve the speed and flexibility of navigating through the host components.
- Performance for large projects is improved.
- A set of ISPF panels assists you in downloading and installing the workstation client.
- At the workstation, in addition to using **COPY** and **PASTE** from a pop-up menu, you may now use **Ctrl+C** and **Ctrl+A**, respectively, to copy selected text or all text to the clipboard. **Ctrl+V** pastes the text to a place you select.
- Two new preferences to assist you in understanding the size of your log files and controlling their size have been provided. Information can be found in the *Software Configuration and Library Manager (SCLM) Administrator Toolkit: Installation and Customization Guide*.
- Editing of the UNIX System Services shell scripts can be performed using a batch job. You may, however, continue to perform manual customization if you prefer.
- Other improvements have added to enhance the product's ease of use and performance.

Part 1. Introduction

This part contains an overview of IBM Software Configuration and Library Manager (SCLM) Administrator Toolkit.

Chapter 1. About the SCLM Administrator Toolkit

IBM's SCLM is a program that provides software configuration and library management for the z/OS platform. Using the SCLM Administrator Toolkit, you can address the complexity of setting up an SCLM project initially, performing day-to-day project maintenance, and managing access control from a workstation. It provides the simplicity and functionality you need at an attractive cost.

Because SCLM Administrator Toolkit provides both a GUI and an ISPF interface, you can work in the environment in which you're most comfortable. While SCLM Administrator Toolkit functions run primarily in the foreground, the product supports both batch and online execution for project creation, project cloning, and VSAM file maintenance. You can choose immediate response when you require it, or can defer processing to a more convenient time. You specify where these functions are to run from the Window pull-down on the workstation by specifying **Preferences > SCLM Admin Toolkit**. When using ISPF, you can specify this information by selecting the **Settings** option on the SCLM Main Menu.

You can get started easily with SCLM Administrator Toolkit by invoking the SCLM Project Wizard, either from a workstation or from an ISPF host session, to create a new project or modify an existing one. When creating a new project, the fields in the Project Wizard will be populated with default values. When modifying an existing project, the fields contain that project's defined values.

Using the Project Wizard, you can define the elements that comprise your project. As you enter data into the Project Wizard, either at the workstation or using ISPF, that data is saved at the host. Thus, at any time, you can choose to stop work before you have fully defined the project. SCLM Administrator Toolkit saves your work so that you can pick it up in a later session.

When defining a group using the workstation interface, you can drag and drop boxes around your display, building a network of linked boxes much like an organization chart. Each box represents an SCLM group. Once you have completed your definition, SCLM Administrator Toolkit generates default authorization codes and PROMOTE definitions, which you can modify if you so choose. A process to add or modify groups is also available at the host using ISPF panels.

Using the Project Wizard, you can configure any user exits you may require, including the Breeze user exits, if you have installed Breeze. You can add language types, or you can modify them using the Language Definition Wizard.

Other functions provided by the SCLM Administrator Toolkit include:

- The ability to update and run your VSAM tasks and perform VSAM file maintenance
- The ability to create architecture definitions manually or by importing them from existing JCL or an existing Load Module, guided by the Architecture Definition Wizard
- The ability to easily clone an existing project and, if you so desire, its data

You can update and manage SCLM projects that have not been created by SCLM Administrator Toolkit, provided that these projects use simple SCLM macros and the project definitions are not contained within macros as might be done, for example, to support conditional project construction.

Support for Enhanced Access Control for SCLM Administration

Enhanced Access Control for SCLM is a program that enhances RACF security. The SCLM Administrator Toolkit assists you in administering Enhanced Access Control for SCLM by:

- Maintaining existing RACF Data Set Profiles, Enhanced Access Control for SCLM Rules Files, Enhanced Access Control for SCLM Profile Access Rules, and Enhanced Access Control for SCLM Applications
- Displaying a list of Enhanced Access Control for SCLM Violations

EAC administration tasks are performed from the workstation. For additional information about the Enhanced Access Control for SCLM administration tasks supported by SCLM Administrator Toolkit, see Part 3, “Administering EAC,” on page 87.

Hardware and software requirements

The sections that follow provide an overview of the hardware and software requirements to run SCLM Administrator Toolkit. Current and complete information, including any required APARs and PTFs is found in the *SCLM Administrator Toolkit Program Directory*.

Note: When using the Linux and UNIX ports, SCLM Administrator Toolkit is an X-Client Application. It may be sensitive to the X-Server being used if this is not the X-Server located on the system.

Hardware requirements

Required hardware is any hardware environment that supports the required software as described in “Software requirements”.

Software requirements

The software required to run SCLM Administrator Toolkit is as follows:

- XML Toolkit for z/OS V1.7
- J2RE V1.4.2 IBM J9
- z/OS V1.4.2 or later
- IBM SMP/E for z/OS V3.2.0 or later

Note: IBM Eclipse SDK (IES) 3.0 or higher is required to run SCLM Administrator Toolkit. If you do not already have IBM Eclipse SDK installed, it is installed as part of the SCLM Administrator Toolkit installation process. Remote Systems Explorer (RSE) must be at level 6.3.1.

Part 2. Administering SCLM

This part provides instructions for performing the tasks required to administer SCLM. For information about administering IBM Enhanced Access Control for SCLM, see Part 3, “Administering EAC,” on page 87.

If SCLM Administrator Toolkit has not yet been installed and configured for your site, refer to the *SCLM Administrator Toolkit Installation and Customization Guide* for information on installing the host and workstation components of the product and performing the required customization.

Note: Before you can begin to use SCLM Administrator Toolkit, customization of the host component as described in the *SCLM Administrator Toolkit: Installation and Customization Guide* must be completed. This work normally is performed by an enterprise’s systems programmer. To use the client workstation component, each workstation component must be customized as described in that Guide.

Chapter 2. Starting an SCLM Administrator Toolkit Session

In order to administer your existing SCLM projects or create a new project, follow the directions below.

Important: If you are working with an existing project that was created or has been migrated into SCLM Administrator Toolkit, you should be aware that all project assembler source is regenerated. That is, the original source is rewritten, and all parts of the project, including copybooks, must be in data sets to which you have write access. If you do not want the original source to be modified, you should clone the project before accessing it from SCLM Administrator Toolkit and work with the clone. Using SCLM Administrator Toolkit in this way preserves the original project code and also permits you to review the changes made by the Toolkit.

From the workstation

Log onto SCLM Administrator Toolkit and follow the steps below. Do not start multiple instances of SCLM Administrator Toolkit simultaneously from the same user ID, since unpredictable results can occur.

1. Under Windows[®], log onto the product from the Start menu: **Start > Programs > IBM SCLM Administrator Toolkit**. Alternatively, open a DOS window to the directory where you have installed SCLM Administrator Toolkit. At the command prompt enter **sclmadmintoolkit.bat**.
2. In the UNIX[®] or Linux client environments, ensure you are running under the X Window system and the DISPLAY environment variable is set. Change directories to the eclipse directory by entering **cd eclipse**. From a command prompt, enter **sclmadmintoolkit.sh**.

Note: Using **sclmadmintoolkit.sh** is the only recommended way to begin your use of SCLM Administrator Toolkit. Do not execute Eclipse.

3. Enter your logon ID and password when prompted. The first time you use the product, you should place a check next to Save ID on the logon pop-up. You may optionally want to place a check next to Save Password, which makes it unnecessary to reenter your password once you have logged onto the system. If you have saved your ID or password and need to reset one or both:
 - a. From the Window pull-down, select **Preferences > Remote Systems > Passwords**.
 - b. From the list that displays, select the system on which you want to add, change, or remove password information and press **OK**.

4. The product typically will open in the SCLM Administration perspective. If the product opens in other than the SCLM Administration perspective, switch to the SCLM Administration Perspective by clicking the SCLM Administrator Toolkit icon at the far left side of your workspace, or from the Window pull-down, click **Open Perspective > SCLM Admin Toolkit**.

The SCLM Administrator Toolkit Icon:



A pop-up menu may again request your logon ID and password for the host system. When your logon has been accepted, your host session begins. You can now create a project or modify an existing project.

5. In the Remote Systems Navigator, which can be seen from the Toolkit Perspective main window, click on the name of the host where the SCLM project you want to administer resides.
6. After your credentials have been validated and accepted, SCLM Administrator Toolkit generates a list of existing SCLM projects including any alternate projects, and displays these in the Navigator tree.
7. To create a new project, right-click on the **SCLM Admin Toolkit** connection in the Navigator tree and select **New > SCLM Project** from the pop-up menu.
8. If you have previously defined a project or multiple projects, a list of these existing projects displays in the Navigator tree. If you have defined a filter as described in “Filtering objects in the Remote Systems Navigator tree”, this will be a filtered list. Each existing project displays a blue box in front of its name. If the project is an incomplete project, the blue box will have a broken line through it. If the project is corrupt, the blue box will display a red X in it. To work with an existing project, right-click that project in the Remote Systems View. Selecting **Open Project** from the pop-up menu places you in the project wizard for that project.

If you have selected an existing project to work with, SCLM Administrator Toolkit displays the Reset SCLM Project dialog on which you can choose to reset your SCLM project. Responding **Yes** to this dialog causes your project to be reparsed from the project source code (that is, your XML source is regenerated).

9. You can delete or rebuild the project by right-clicking the project’s name and selecting the appropriate choice from the pop-up menu. To perform other tasks for this project, select that task from the list provided in the SCLM pull-down menu or pop-up menu.

Note: The SCLM pull-down menu is disabled if you do not have a project open in the main window. If you are working with an open project, but that project has never been successfully built or rebuilt, the pull-down menu is enabled, but you can choose to rebuild or delete the project only. When you are working with a project that has been successfully built or rebuilt, all SCLM pull-down menu options will be available to you.

Filtering objects in the Remote Systems Navigator tree

You can filter the list of objects presented to you in the Navigator tree. The filters you define are host-specific. That is, if you create a filter on host A, that filter will apply only to host A and not to host B.

When you first install SCLM Administrator Toolkit, the project filter is set to an asterisk (*). All projects appear in your Navigator tree. To change the filter, at any

time you can right-click **Project Filter** in the Navigator Tree, then click **Change** in the pop-up menu that displays. This causes SCLM Administrator Toolkit to display the Change System Filter menu on which you can add or change project filters. You can also right-click on a filter listed in the Filter Strings list box on this menu to see additional options you can take against a specific filter.

Note: A project filter is case-sensitive.

About the workstation client menu bar

IBM Eclipse SDK (IES) 3.0 or higher is required to run SCLM Administrator Toolkit. You may have several products installed that run under Eclipse that will use various Eclipse or product-specific selections on the menu bar.

When you install the SCLM Administrator Toolkit client, selections specific to the Toolkit are added to the Eclipse menu bar. When using SCLM Administrator Toolkit, *only* the following menu bar selections apply:

- **SCLM:** The SCLM pull-down is added to the Eclipse menu bar. Using this SCLM pull-down, you can rebuild, delete, or clone an existing project, or initiate the Architecture Definition Wizard, the Migration Wizard, or the VSAM Maintenance Wizard.
- **Window:** You can use all of the available selections under the Eclipse Window pull-down. The following selections are of particular interest when using SCLM Administrator Toolkit:
 - **Open Perspective:** You can specify **Window > Open Perspective > SCLM Administrator Toolkit** to open the SCLM Administrator Toolkit perspective.
 - **Preferences:** You can use **Window > Preferences** to set preferences for the EAC Manager, Remote Systems, and SCLM Admin Toolkit. Information on setting these preferences is found in the *IBM SCLM Administrator Toolkit: Installation and Customization Guide*.

Other available Eclipse options should not be used to perform SCLM Administrator Toolkit tasks. For instance, you should follow the directions in this manual to create a new project. Do *not* use the **File > New > Project** pull-down available from the Eclipse menu bar.

From an ISPF session

Log onto ISPF at the host. When you initially log onto TSO to use SCLM Administrator Toolkit, your user profile should have been modified to specify an adequate maximum size for your TSO region under RACF. Typically, this profile modification will have been made for you by your site's systems programmer when setting up SCLM Administrator Toolkit. For the XML toolkit V1R7, your TSO maximum region size should be 60000.

On the ISPF command line, type **10** to display the SCLM Main Menu. To begin to use the SCLM Administrator Toolkit, type **8** on the ISPF command line to display the SCLM Administrator Toolkit Project Administration Main Menu. From this menu, you can enter one of the following options on the command line:

- 1 **Settings:** Permits you to set default values for the project.
- 2 **Create:** Permits you to create a new SCLM project. To create a new project, enter the project name of up to 8 characters in length, and, if desired, an alternate name, also of up to 8 characters, on the lines provided. Then enter **2** in the Options field.
- 3 **List:** Displays a list of SCLM projects. By placing the appropriate letter on the line in front of a project, you can take one of the actions described in the next

section, Actions you can take. You can filter the list of projects that SCLM Administrator Toolkit displays by using an asterisk as a wild card as part of the Project Name or Alternate Name field on the Main Menu.

If you have selected an existing project to work with, SCLM Administrator Toolkit asks whether you want to reset your SCLM project. Responding **Yes** causes your project to be reparsed from the project source code (that is, your XML source is regenerated) and any settings that have been defined are overwritten.

- 4 **FTP:** Permits you to download the workstation client component after you have retrieved the product from the distribution medium to your host system.
- X **Exit:** Saves your work and ends your SCLM Administrator Toolkit session. You can also use PF3 to perform this action.

Notes:

1. If you are working in ISPF split screen mode, you may not work on the same SCLM project in both SCLM Administrator Toolkit windows.
2. If you type **OUTPUT** on the Option line of an ISPF product panel, SCLM Administrator Toolkit displays the output of the last script you have run. This command may be useful to you when troubleshooting.

Actions you can take

Using SCLM Administrator Toolkit, you can:

Create a new project

SCLM Administrator Toolkit places you in the Project Wizard, with the Wizard's panels populated with SCLM Administrator Toolkit's default values. See Chapter 3, "Using the Project Wizard to Create or Modify a Project," on page 13.

Modify the project

SCLM Administrator Toolkit places you in the Project Wizard, with the Wizard's panels populated with the current project definition. See Chapter 3, "Using the Project Wizard to Create or Modify a Project," on page 13.

Create a Language Definition

SCLM Administrator Toolkit places you in the Language Definition Wizard. See Chapter 6, "Using the Language Definition Wizard," on page 47.

Delete the project

SCLM Administrator Toolkit determines whether the project or the project and its associated data are to be deleted and takes appropriate action. See Chapter 7, "Deleting a Project or Other SCLM Objects," on page 67.

Clone the project

SCLM Administrator Toolkit places you in the project cloning view. See Chapter 8, "Cloning an Existing Project," on page 71.

Rebuild the project

SCLM Administrator Toolkit reassembles and relinks the project definition. If the project has alternates, these will also be rebuilt. To rebuild a project, complete the tasks to modify a project and select **Rebuild**.

Migrate assets into the project

SCLM Administrator Toolkit places you in the Migration Wizard to permit the migration of host-based software assets into an SCLM-controlled project. See Chapter 9, "Migrating Software Assets into your SCLM Project," on page 73.

Migrate workstation-based assets into the project

SCLM Administrator Toolkit places you in the Remote Migration Wizard to permit the migration of workstation-based software assets into an SCLM-controlled project. See Chapter 10, “Migrating Remote Software Assets into your SCLM Project,” on page 75.

Perform VSAM file maintenance

SCLM Administrator Toolkit assists you to perform VSAM file maintenance. See Chapter 11, “Maintaining the Project’s VSAM Files,” on page 77.

Create an Architecture Definition

SCLM Administrator Toolkit places you in the Architecture Definition Wizard. See Chapter 12, “Using the Architecture Definition Wizard,” on page 79.

Reparse the project

SCLM Administrator Toolkit regenerates the XML code associated with this project.

Viewing a log of commands executed at the host

From the workstation, you can use the Tasks list to review error and warning conditions as well as logs of the commands that have executed at the host system. The Tasks list is displayed at the client workstation at the bottom of the Main window, under a tab called **Tasks**. Each entry provides:

- An icon indicating whether this is an error, a warning, or an informational entry. Any errors or warnings appear in the Tasks View ahead of any informational entries.
- The date and time when the entry was created, as well as the name of the command that was executing
- The name of the log file, its folder, and the location of the log entry within the log

You can use the Tasks list to navigate to each entry in the list, either by double-clicking the entry or by right-clicking the entry and choosing **Go To** from the pop-up menu that is displayed. If the log is already open in an editor window, clicking on the entry will cause the editor to navigate to the entry’s location in the log.

To delete an entry from the log, select it from the SCLM Tasks View, then press the **Delete** key. Alternatively, right-click the entry and select **Delete** from the pop-up menu. This causes the selected entry to be removed from the Tasks View and its corresponding text to be deleted.

Two preferences are provided for you to control the size of your log files. For information about these preferences, see the *Software Configuration and Library Manager (SCLM) Administrator Toolkit: Installation and Customization Guide*.

By default the view displays up to 100 visible items. You can change this value by clicking on the Filter icon at the top right of the line that contains the Tasks tab. On the pop-up Filters dialog that is displayed, change the value for the field **Limit Visible Items to**:

The Filter icon:



Chapter 3. Using the Project Wizard to Create or Modify a Project

This chapter will help you get started using the SCLM Administrator Toolkit Project Wizard to create or modify a project. Before starting an SCLM Administrator Toolkit session from the workstation client or from ISPF, be sure you have completed the steps to install and customize the product as documented in the *IBM Software Configuration and Library Manager (SCLM) Administrator Toolkit: Installation and Customization Guide*.

From the workstation

If you are using the workstation interface:

1. Start your workstation session by clicking **Start > All Programs > IBM SCLM Administrator Toolkit** to open the product.
2. Click the host on which you want to perform administration tasks
3. Enter your z/OS user ID and password for that host
4. After your credentials have been validated and accepted:
 - To create a new project, right-click on the **SCLM Admin Toolkit** connection in the Navigator tree in the leftmost pane and select **New>Project** from the pop-up menu.
 - To modify an existing project, click its name in the Remote Systems Explorer view. SCLM Administrator Toolkit retrieves the project's settings from the host.

From an ISPF session

If you are using ISPF, you can enter option **10**, followed by option **8**, on successive ISPF panel Command lines. This displays to you, in order:

- The SCLM Main Menu
- The SCLM Administrator Toolkit Main Menu

To create a new project, on the SCLM Administrator Toolkit Main Menu, type option **2** on the Command line and press **Enter**. SCLM Administrator Toolkit places you in the first panel of the Project Wizard.

To modify an existing project, type option **3** on the Command line and press **Enter**. SCLM Administrator Toolkit generates and displays a list of existing SCLM projects from which you can select the one to modify.

To shortcut this process, type option **10.8.2** or option **10.8.3**, respectively, on the ISPF Command line and press **Enter** to create or modify a project.

As you enter data into the Wizard's panels, the values you enter will be saved at the host system, so that if you choose to end a session before completing your work, any definitions or modifications are saved and are available to you when you resume your work.

Working with the Project Wizard

The Project Wizard guides you through the steps of defining your SCLM project. The chapters that follow describe using the Wizard from the workstation (Chapter 4, “Using the Project Wizard from the Workstation to Create or Modify a Project,” on page 15) or from an ISPF session (Chapter 5, “Using the Project Wizard from an ISPF Session to Create or Modify a Project,” on page 31).

You can perform some steps of the Wizard using the workstation and other steps of the Wizard using ISPF at the host system; but if you create or modify a project using the SCLM Administrator Toolkit and subsequently modify that project outside of the Toolkit, you cannot automatically merge the changes.

However, if the latest version of the project is the one you worked on outside of the Toolkit, you can capture that version as the Toolkit version by reparsing the project the next time you open SCLM Administrator Toolkit and before you make additional changes to the project using the Toolkit. If you are using the workstation client, you will be advised that the Toolkit version is not the most current version of the project. You will be asked whether you want to reset the project, to which you should respond **Yes**.

Alternatively, you can save the changes you made outside of the Toolkit by manually updating the Toolkit version before you next rebuild it.

Chapter 4. Using the Project Wizard from the Workstation to Create or Modify a Project

This chapter describes the use of the Project Wizard when working at a workstation client. For information about using the Project Wizard from an ISPF session, see Chapter 5, "Using the Project Wizard from an ISPF Session to Create or Modify a Project," on page 31.

Navigating through the workstation interface

This chapter assumes that you have logged onto SCLM Administrator Toolkit as described in Chapter 3, "Using the Project Wizard to Create or Modify a Project," on page 13. At the start of a session, the Project Wizard's fields are populated by the SCLM Administrator Toolkit's default values, or, if you are modifying an existing project, that project's previously-defined values. By selecting the appropriate tabs at the bottom of each Project Wizard page, you can move between the various pages of the Wizard until you have completed your project definition or modification. The pages you use are the same for both project creation and project modification. As you define various aspects of your project, you can review the associated XML source code by clicking the **Source** tab, found at the bottom of each Project Wizard page. You must *not* edit this XML source outside of SCLM Administrator Toolkit.

Creating a new SCLM project -- the work flow

Once you have started SCLM Administrator Toolkit, you will perform the following tasks to create a new SCLM project:

- Right-click **SCLM Admin Toolkit** in the Navigator tree and select **New SCLM Project**.
- During the customization of your client workstation, you may have defined default Types for your profile using the SCLM Administrator Toolkit Preferences. To review the way in which this was accomplished, see "Defining default Types and setting their DCB values" on page 16.
- Name the project and define the project management working data sets; see "Defining default data sets for the project" on page 17 and "Defining project settings" on page 18.
- Define your control data sets; see "Defining control data sets" on page 19.
- Select the Types you want to include in your project; see "Adding or removing Types" on page 21.
- Optionally, create authorization groups and authorization codes; see "Adding or removing authorization groups and authorization codes" on page 23.
- Define groups for your project and the promotion hierarchy; see "Adding or deleting groups" on page 23.
- Select the group/Type combinations to be allocated; see "Specifying group/Type allocations" on page 24.
- Define or select language definitions; Chapter 6, "Using the Language Definition Wizard," on page 47.
- Select any user exits you will require; see "Specifying user exit information" on page 26.

- Save and build your project; see “Building or rebuilding your project” on page 29.

At any time during the project creation or editing process, you may choose to save your project or quit your work. To save at any time, click the **Save** icon. When you want to quit work, SCLM Administrator Toolkit displays the Save Resource dialog, on which you can choose whether or not to save your changes before closing the session.

If you try to save a project and receive a message indicating that the Save failed at the host, you can correct the problem and then click the **Save** icon again. One cause of such a message is an instance where you may have worked on the project at the host system and did not close the project before starting to work at the workstation. In this case, closing the project on the host system should allow you to save your work from the workstation.

When you build or rebuild a project and the save fails on the host, SCLM Administrator Toolkit discontinues the build or rebuild.

Note: A Preferences page in Remote Systems Explorer permits you to control file cache size and clear the cache. If you do so while you have an open project, you will impact your ability to correctly save your project. Thus, you must not clear the cache while you have projects open in SCLM Administrator Toolkit.

Working with an existing project

Once you have started to define a project, its name appears in the project list in the Remote Systems Navigator tree. Projects you have started to define can be classified as complete, complete and parsed, incomplete, or corrupt. The state of a project is reflected in the state of the blue icon that precedes the project’s name in the Navigator tree. A project can be:

- Complete
- Incomplete -- some additional work is required to complete this project definition.
- Corrupted -- Some of the project definitions contain errors.
- Parsed -- if the XML code for a project has been generated.

To work with an existing project, click its name in the Navigator tree. The Project Wizard displays, with fields populated by the values you have previously entered.

Defining default Types and setting their DCB values

SCLM Administrator Toolkit provides a number of fully-defined default Types which you can choose to include in your project as is. You can use the Default Types Preference page to modify the Type definition for these types or to define new Types. You may already have worked with the product’s default Types when customizing the workstation client. To access the Default Types Preference page, expand the SCLM Admin Toolkit item in the Preferences Navigator Tree by selecting the following from the Window pull-down: **Window > Preferences > SCLM Admin Toolkit > Default Types Preference Page**. To add a default Type to your project, on the Preferences page, select the Type to be added from the list of default Types and click the **Add** button. To edit an existing default Type, click the **Edit** button. SCLM Administrator Toolkit displays the Type Dialog on which you can specify or edit the selected Type information:

1. A name of up to 8 characters and a description for the Type. (If you are editing an existing Type, its name is filled in this field.)
2. The average number of records contained in the top-level data set of this Type. This mandatory value, together with the number of members value and the DCB,

is used to calculate the space required for the PDS or PDS-E at the top of the promotion tree.

3. The number of members contained in the top-level Type data set. This mandatory value, together with the average number of records value and the DCB, is used to calculate the space required for the PDS or PDS-E at the top of the promotion tree.
4. An extended Type name of up to 8 characters that can be used as an alternate Type if it is necessary to resolve include dependencies.
5. Reuse Days, which specifies the number of days a package can be reused. Reuse Days should be specified when the Packfile checkbox is selected.

If a Type has been defined as using package backup:

1. Click the Package Backup check box to specify that this Type of file is to be backed up during a promote.
2. Click the Backout ISAPack check box to specify that this architecture definition will be used to drive the packages that are permitted to be backed out. This flag can be specified only for architecture definition (ARCHDEF) Types.
3. Click the Packfile box to specify that this Type is to hold the package detail files.

Note: Backup and Packfile are mutually exclusive.

Specify the following default DCB information for the Type:

- The default DCB record format. Valid formats are FB, FBA, VB, VBA, FBM, VBM, or U.
- The default DCB block size. Valid value is an integer from 32 — 32760
- The default DCB logical record length. Valid value is an integer from 32 — 32756.

Note: When you add a new Type to your project, you should ensure that:

- If RECFM=U, LRECL must be equal to 0. BLKSIZE must not be equal to 0, and must be less than or equal to 32760.
- If RECFM=VBx, LRECL must not be equal to 0. BLKSIZE must be equal to 0, or must be greater than LRECL + 4 and less than or equal to 32760.
- If RECFM=FBx, LRECL must not be equal to 0. BLKSIZE must be equal to 0, or must be an exact multiple of LRECL and less than or equal to 32760.

When you have completed your entries on this page, click **OK**. At any time, you can return to this page to modify your entries, to remove a default Type from your profile, or to restore the product's default settings.

Defining default data sets for the project

When you right-click **SCLM Admin Toolkit** and select **New Project**, SCLM Administrator Toolkit presents you with the Default Data Sets dialog. On this panel, you can specify:

- The format of your project's data sets, either PDS or PDS-E. PDS-E is the default. When you are modifying a project, the value you enter here will affect only newly created library data sets. Existing data sets will remain unchanged.
- Fully qualified data set names for each Type of data set you want to include in your project. Click **Browse** to display the default data sets. You can change their names if you wish. The project definition data sets (*projectname.projdefs.**) contain administration JCL, PROCs, CLISTs, SOURCE, OBJ, LIST, LINKLIST, and Work files. Typically, the format for the data set name is *projname.groupname.typename*, where *projname* is the name of your project, *groupname* is a name you will specify for this data set group, and *typename* is the name of the type of data this data set

will contain. The associated SCLM variables are @@FLMPRJ, @@FLMGRP, and @@FLMTYP, respectively.

- Fully qualified data set names for each SYSLIB data set you want to include in your project. The SYSLIB data sets hold standard IBM macros as well as any language definitions you may create. You must define at least one SYSLIB data set. Clicking **Browse** displays the data set's name. This name is set to the default value, which you can change if you wish.

Note: When entering the SYSLIB data list, the very first SYSLIB must be the source DSN. For example, if my main project source is `<hilev>.PROJDEFS.SOURCE`, then my SYSLIB list must have `<hilev>.PROJDEFS.SOURCE` first, followed by whatever other libraries are needed for the project.

Defining project settings

On the Wizard's Project Settings page, the values you are asked to enter include:

- The name, of up to 8 characters in length, of the new project. If this is an existing project, its name appears in the Project Name or Alternate Name text boxes.
- Whether it is an alternate project, and, if so, the alternate project's name. The alternate project name may not exceed 8 characters in length.
- The DASD Unit where the project's data sets will reside. The default is SYSALLDA.
- The Virtual Input/Output (VIO) unit to be used to store temporary data sets. The default is VIO.
- The maximum number of records permitted for VIO allocation. The default is 5000.
- The maximum number of lines per page for all SCLM reports. The minimum value is 60.
- Whether translator option overrides are allowed. Check the box to specify that developers can override translator options for any of the languages by using the PARM statement in the architecture members. If you do not permit translator overrides, SCLM uses only those translator options you specify in the language definition for the translators. .
- Whether VSAM record level sharing (RLS) is available. Check the box to specify that RLS can be used.

If your project will be translated to a language other than English, you will be able to specify these additional settings parameters:

- You may select one of the following values from the pull-down box for LANGUAGE=

EN (the default)	Messages and assembler listing headings appear in mixed upper case and lower case English
DE	Messages appear in German. Assembler listing headings are printed in mixed upper and lower case English.
ES	Messages appear in Spanish. Assembler listing headings are printed in mixed upper and lower case English.
JP	Messages appear in Japanese. Assembler listing headings are printed in upper case English.

- You may select one of the following values from the pull-down box for CODEPAGE=

1140 (the default)	USA, Canada, Netherlands, Portugal, Brazil, Australia, New Zealand
1141	Austria, Germany
1142	Denmark, Norway
1143	Finland, Sweden
1144	Italy
1145	Spain, Latin America (Spanish)
1146	United Kingdom
1147	France
1148	International 1
939	Japanese
933	Korean
935	Simplified Chinese
937	Traditional Chinese

- If your project will contain double-byte characters, select **DBCS=Y**. The default is **DBCS=N**.

To define or edit the default data set information for the project, click the **Default Data Sets** button.

Recommendations and suggestions

You will want to complete the project definition tasks above before you migrate assets into your project and create architecture definitions for your project. Additionally, you will want to migrate assets into your project prior to creating architecture definitions.

Defining control data sets

Use the control data sets page to assign fully-qualified data set names to the project's control data sets. You can also use this page to specify whether your project will have alternate control data sets. If you want alternate control data sets, click the appropriate radio button to indicate that the data set names you are providing are alternate control data set names and assign an identifier of up to 8 characters for the alternate control datasets. Then click **Add** to display the Control Data Sets dialog.

Alternate control data sets provide alternate control for individual groups. Specifying alternate control data sets provides information used by the SCLM FLMALTC macro to override certain options on the FLMCNTRL macro for specific groups. For example, each group can control independently how many versions are saved, where to keep its accounting data, etc., by using alternate control data sets. Specifications apply only to the groups using them. You can specify multiple alternate control data sets. Their specification is optional.

On the Control Data Sets dialog, assign fully qualified names for the primary or alternate control data sets. Also, specify the following information:

- In the optional Data Set Name text field, specify the data set naming convention for the project
- In the text boxes provided, specify a fully-qualified name for each control data set.
- Select the allocation units for the control data sets. In the boxes provided, specify the primary and secondary allocation in terms of the selected allocation unit. The default for the primary allocation is 2 cylinders and for the secondary allocation, 4 cylinders.

When you have completed your set of control data set or alternate control data set definitions, click **OK** to add the set to the list of any previously-defined sets that appears in the Control Data Sets Information list box on the Control Data Sets page.

To remove a set of control data sets from this list box, highlight the set, then click **Remove**. To edit a set of control data sets, highlight the set's name in the list box, then click **Edit**.

Each project must have at least one primary accounting data set. This data set contains information about application programs in the project. The secondary accounting data set is optional and is used as a backup for your primary accounting data set. The data set name you specify must be the same as the name of the VSAM cluster you want to use.

The export accounting data set is optional unless you plan to use the import and export functions. The data set name you specify must be the same as the name of the VSAM cluster you want to use. It must not have the same name as either the primary or secondary accounting data set.

Audit control data sets contain information about changes to SCLM-controlled members that are located in groups being audited. Audit control data sets must be created before you can use SCLM's audit function. The high level qualifier of the audit control data sets must be an entry in a VSAM catalog. If you will specify on the Group/Type Dialog that auditing is to be used, you must have at least one primary audit control data set. The secondary audit control data set is optional and is used as a backup for your primary audit data set. When specifying the parameters for the primary and secondary audit control data sets, you may not use SCLM variables; that is @@FLM***.

The Version PDS name identifies the partitioned data set where version data and SCLM variables are stored. If you will specify on the Group/Type Dialog that versioning is to be used, you must specify a value in the Version PDS Name field on this dialog. This dialog also permits you to specify the number of versions to keep in the version partitioned data set. If you specify 0, all versions associated with a member will be retained. If you specify a value of 2 or more, each time a member is saved or promoted, the latest copy of the version is stored and the earliest copy is discarded. Any audit records that were associated with the version are retained but will no longer indicate that a version of the member exists. If you specify a value of 2 or more, allocate a separate VERPDS for each group that has versioning enabled. This value may not be specified for alternate control data sets. The value in this field can be overridden by the value you may specify in the Number of Versions field on the Group/Type dialog.

Some additional considerations and restrictions

When defining the project's control data sets using the macros FLMCNTRL (primary control data sets) and FLMALTC (alternate control data sets), ensure that:

- Each occurrence of an FLMALTC macro has at least one ALTC parameter on an FLMGROUP (group definition) macro pointing to it.

- FLMCNTRL and FLMALTC macros do not use SCLM variables when specifying the ACCT (primary accounting data set) and ACCT2 (secondary accounting data set) parameters.
- FLMCNTRL and FLMALTC macros do not use SCLM variables when specifying the VERS (primary versioning data set) and VERS2 (secondary versioning data set) parameters.
- FLMCNTRL and FLMALTC macros use only @@FLMPRJ, @@FLMGRP, and @@FLMTYP when specifying the DSNAME parameter. If the DSNAME parameter is specified, it must include @@FLMTYP.
- FLMCNTRL and FLMALTC macros use only @@FLMPRJ, @@FLMGRP, and @@FLMUID when specifying the EXPACCT parameter.
- FLMCNTRL and FLMALTC macros use only @@FLMPRJ, @@FLMGRP, @@FLMTYP, and @@FLMDSN when specifying the VERPDS parameter. If @@FLMDSN is used, it must appear in the first 8 characters of the specification.

Adding or removing Types

The Types page permits you to specify the Types that will be included in your project, and define the characteristics of those Types. Typically, a Type names the kind of data a given data set contains—for example, LOAD, SOURCE, or JCL. Type is normally the third qualifier in a project library's fully-qualified data set name. Your project must contain at least one Type. Otherwise, it cannot be built. Additionally, if you have specified a Type at a lower level of the hierarchy, that Type must persist all the way to the top of the hierarchy.

On this page you can add a Type or multiple Types to your list of default Types; or add a Type or multiple Types to your project, as follows:

- To move a default Type into your project, click its name in the Default Types list box and then the right-pointing arrow (>) to move it to the Selected Types list.
- To move all of the Types from the Default Types list box to the Selected Types list, click the double arrow (>>).
- To move multiple types from the Default Types list box to the Selected Types list box, hold down the **Ctrl** key to select the Types you want to move, then click the right-pointing arrow (>).

You can remove a Type or multiple Types from your project as follows:

- To remove a Type from your project, select its name in the Selected Types list box and click the left-pointing arrow (<).
- To remove multiple types from the Selected Types list box to the Default Types list box, hold down the **Ctrl** key to select the Types you want to move, then click the left-pointing arrow (<)
- To remove all of the Selected Types, click the double left-pointing arrow (<<).

When you decide to remove a Type or Types from your project:

- The Wizard asks you to confirm the removal of the Type. If you select the **No** button, no action is taken.
- If you select the **Yes** button, then the Wizard asks whether you want to also delete the data associated with this Type. If you select **No**, then only the Type is deleted. If you select **Yes**, then the Type and any associated data sets for this Type are deleted.

Note that this behavior differs when you take similar actions using the ISPF interface. When using the ISPF interface at the host, you are asked to confirm the deletion of the object and the deletion of associated data only from the Group/Type panel.

To define a new Type, click the **Add** button. Or, to modify an existing Type, you can define or edit its characteristics by clicking its name and the **Edit** button. Either of these actions displays the Types Dialog.

In the Types Dialog, specify or edit:

1. A name of up to 8 characters and a description for the Type. (If you are editing an existing Type, its name is filled in this field.)
2. Optionally, a description of the Type
3. An extended Type name of up to 8 characters that can be used as an alternate Type if it is necessary to resolve include dependencies.
4. Data set allocation information. You can specify the allocation units to be used, and the primary and secondary quantity of the allocation units to be allocated. Alternatively, you can have SCLM Administrator Toolkit calculate the data set allocation required by placing a check in the appropriate box and specifying the following:
 - The average number of records contained in the top-level data set of this Type. This mandatory value, together with the number of members value and the DCB, is used to calculate the space required for the PDS or PDS-E at the top of the promotion tree.
 - The number of members contained in the top-level Type data set. This mandatory value, together with the average number of records value and the DCB, is used to calculate the space required for the PDS or PDS-E at the top of the promotion tree.
5. Reuse Days, which specifies the number of days a package can be reused. Reuse Days should be specified when the Packfile checkbox is selected.

If a Type has been defined as using package backup:

1. Click the Package Backup check box to specify that this Type of file is to be backed up during a promote.
2. Click the Backout ISAPack check box to specify that this architecture definition will be used to drive the packages that are permitted to be backed out. This flag can be specified only for architecture definition (ARCHDEF) Types.
3. Click the Packfile box to specify that this Type is to hold the package detail files.
Note: Backup and Packfile are mutually exclusive.

Specify the following default DCB information for the Type:

- The default DCB record format. Valid formats are FB, FBA, VB, VBA, FBM, VBM, or U.
- The default DCB block size. Valid value is an integer from 32 — 32760
- The default DCB logical record length. Valid value is an integer from 32 — 32756.

Note: When you add a new Type to your project, you should ensure that:

- If RECFM=U, LRECL must be equal to 0. BLKSIZE must not be equal to 0, and must be less than or equal to 32760.
- If RECFM=VBx, LRECL must not be equal to 0. BLKSIZE must be equal to 0, or must be greater than LRECL + 4 and less than or equal to 32760.
- If RECFM=FBx, LRECL must not be equal to 0. BLKSIZE must be equal to 0, or must be an exact multiple of LRECL and less than or equal to 32760.

Adding or removing authorization groups and authorization codes

To access the Authorizations Page, select the Authorizations tab from the bottom of a page in the Project Wizard. You can use the Authorizations page to:

- Add or remove an authorization group or authorization code
- Assign an authorization code or codes to an authorization group or remove them from the group
- View the previously defined authorization codes belonging to a given authorization group

To add an authorization group or authorization code, enter its name, of up to 8 characters in length, in the appropriate text box at the top of the page and press the **Add** button. If you have entered a new authorization code after an authorization group has been defined on this page, it is assumed that the new authorization code belongs to (is a dependent of) the authorization group whose name is currently highlighted in the Authorization Groups list box.

To remove an authorization group or authorization code from the project, click its name in the appropriate list box. Then click the **Remove** button. If you remove an authorization group that has dependent authorization codes, those authorization codes are also removed from the project.

To view all of the previously-defined authorization codes you have assigned to a given authorization group, click that group in the Authorization Groups list box. All of the authorization codes you have assigned to this group are displayed in the Authorization Codes list box.

You must ensure that there are no loops when you define your authorization groups and authorization codes. An example of what to avoid is the case where authorization group AGRP1 contains authorization codes A, B, C, AGRP2, and authorization group AGRP2 contains authorization codes A, B, D, AGRP1. This specification is invalid.

Adding or deleting groups

Selecting the Group tab from the bottom of a page in the Project Wizard displays the Groups page.

A group is equivalent to a node within a project hierarchy. For example, in a code development project, Development, Test, and Ship can each be considered a group. Data sets having the same midlevel qualifier in their fully qualified names can be considered as belonging to the same group. Rules that govern your ability to move or copy data between groups are specified by the authorization codes associated with a group. Your project must contain at least one group. Otherwise, it cannot be built.

All groups except the top-most group in a project hierarchy must promote to another group. All groups specified as Development must be specified as a key group. The topmost group in a hierarchy must also be specified as a key group.

When defining promotion from group to group, there can be no loops. Thus, for example, you cannot define a promote sequence that has group A promoting to group B which in turn promotes back to group A. Doing so will cause a project build or rebuild to fail.

To add a new group, on the Groups page, enter a name for the group of up to 8 characters. The name of the group must be unique for this project and must be valid for a data set qualifier. Then click **Add Group** to add this to your project.

SCLM Administrator Toolkit now displays a box, the name of which is the name of the group you specified. You can continue to add boxes by naming them and clicking **Add Group**, then dragging and dropping them around the blank area of the page. Each box represents an SCLM group. As you place each box on the blank panel or 'canvas', you can link each new box to an existing box or boxes, in the same way as you might create an organization chart in a drawing package. If you should drag a group off the visible area of the panel, you can use the panel's scroll bars to view it.

To link a group to its promote group, first right-click the group, then right-click the group to which members of the first group will be promoted. SCLM Administrator Toolkit inserts a line showing the relationship between the groups.

To remove a group from your project, click the group, then **Remove**.

- The Wizard asks you to confirm the deletion of the group. If you select the **No** button, no action is taken.
- If you select the **Yes** button, then the Wizard asks whether you want to also delete the data associated with this group. If you select **No**, then only the group is deleted. If you select **Yes**, then the group and any associated data sets for this group are deleted.

Note that this behavior differs when you take similar actions using the ISPF interface. When using the ISPF interface at the host, you are asked to confirm the deletion of the object and the deletion of associated data only from the Group/Type panel.

To define the attributes for a group, double-click it to display the Group Dialog. On this dialog, for the group you have chosen:

1. Select the name of the group to which members of this group will be promoted from the drop down box provided.
2. Specify a name of up to 8 characters for the data set that defines an alternate set of control options to be used for this group.
3. Specify a name of up to 8 characters for the Package Backup Group. You must have defined package backup for the current group in order to specify this option.
4. Check the Member Restore check box to specify that, for this backup group, member restore is in effect. If you check Member Restore, SCLM will restore individual members rather than an entire package. You must have defined package backup for the current group in order to specify this option.
5. Check the Key check box to specify that the group you are defining is a key group. If you identify a group as a key group, data moved to this group is erased from the group from which it was promoted. If you do not identify this group as a key group, then data moved to this group is copied from the group from which it was promoted.
6. Select the authorization codes to be associated with this group by moving them from the Available list to the Selected list.

Specifying group/Type allocations

Use the Group/Type page to select from the group/Type combinations in your project, those for which you want to change existing allocations. To move a group/Type to the Group/Type Allocations list box, click its name and then the right-pointing arrow (>). To override the default allocations for all of the group/Type combinations, click the right-pointing double arrow (>>).

To remove a group/Type combination from the Group/Type Allocations list, select its name and the left-pointing arrow (<). To remove all of the combinations from the Group/Type Allocations list, click the double left-pointing arrow (<<).

- The Project Wizard asks you to confirm the removal of a group/Type from your project. If you select the **No** button, no action is taken.
- If you select the **Yes** button, then the Wizard asks whether you want to also delete the data associated with this group/Type. If you select **No**, then only the group/Type is deleted. If you select **Yes**, then the group/Type combination and any associated data sets are deleted.

Note that this behavior differs when you take similar actions using the ISPF interface. When using the ISPF interface at the host, you are asked to confirm the deletion of the object and the deletion of associated data only from the Group/Type panel and you are not permitted the opportunity to confirm deletion from either the Types panel or Groups panel.

Place a check in the Sort by Type checkbox to reorder the group/Type combinations in both list boxes by Type.

Once a group/Type combination is in the Allocations list, to override its defaults, click its name, then the **Edit** button. SCLM Administrator Toolkit displays the Group/Type Dialog.

On the Group/Type Dialog, the text box at the top of the page displays the name of the group/Type combination for which you are overriding default allocation values. On the dialog:

1. Specify the allocation units, selecting from those that are listed in the drop-down box.
2. Specify the number of primary and secondary allocation units.
3. Specify the record format, block size, and logical record length.
4. Specify the storage class, data class, management class, and volume label.
 - The storage class is a collection of storage attributes that identify performance goals and availability requirements, defined by the storage administrator, and used to select a device that can meet those goals and requirements. When a storage administrator assigns a storage class to a new data set, the data set becomes an SMS-managed data set.
 - The data class is an SMS class that contains the attributes related to the allocation of a data set, such as LRECL, RECFM, and SPACE.
 - The management class is a named collection of management attributes describing the retention and backup characteristics for a group of data sets.
 - The volume label identifies storage space on DASD, tape, or optical devices.
5. Place a check mark in the appropriate box to specify whether auditing is active for this group/Type. If you specify that auditing is active, you must have specified a name for the audit data set on the Control Data Sets dialog. If you specified that auditing is active, you can now define information for version data sets, including
 - Whether check sum is in effect
 - The number of versions to be retained. When the number you have specified is reached, the latest version is kept and the earliest version is discarded. The value in this field will override the value you specified in the Versions to Retain field on the Control Data Sets dialog.
 - The sequence number type which may be STANDARD, STD, COBOL, or NONE. NONE is the default.

If you will use versioning, you must have specified a Version PDS Name on the Control Data Sets dialog.

Adding or deleting language definitions

To add a language definition to or delete one from your project, use the Language Definition Wizard. For information, see Chapter 6, “Using the Language Definition Wizard,” on page 47, the section titled “From the workstation” on page 47.

Specifying user exit information

Use the User Exits page to perform the following tasks:

1. To specify that the Breeze product is installed and you wish to configure Breeze User Exits, place a check in the appropriate check box. If you place a check in the check box, the name of the data set containing the Breeze User Exits is displayed for you. You can change this information by overtyping it.
2. Select from the list of Default User Exits those exits that will be included in your project. To select a single exit, click its name and then click the single arrow (>) to move it to the Selected User Exits list box. To select all of the Default exits, simply click the double arrow (>>). You can select multiple Default Exits by holding down the **Ctrl** key and clicking only those exits you want to move to the Selected list box, then clicking the single arrow (>).
3. Once you have moved all of the exits you want to work with to the Selected User Exits list box, you can configure them by first clicking the exit's name and then the **Edit** button. Doing so causes SCLM Administrator Toolkit to display the User Exits dialog. Using the User Exits dialog, you can configure an individual exit by
 - a. Specifying the module name where the exit code is stored
 - b. Specifying the Load Data Set name that contains the module
 - c. Selecting the Exit invocation method—linked, attached, invoked by TSO, or called through ISPF services
 - d. Entering the option list to be passed to the user exit routine. You can specify a maximum of 255 characters, including delimiters, for the options. Enclose the option string in parentheses or single quotes.

To remove an exit from the Selected list box, click its name, then the left-pointing single arrow (<). Move all of the exits out of the Selected box by clicking the left-pointing double arrow (<<). You can remove multiple exits by holding down the **Ctrl** key and clicking only those exits you want to remove from the Selected list box, then clicking the left-pointing single arrow (<).

Support for user macros, copybooks, and comments

When you use SCLM Administrator Toolkit to open an SCLM project that was created outside of the Toolkit, the source code is parsed to generate an XML representation (project definition markup language or PDML) of the project. The parsing process maintains the original source structure for copybooks and user macros. When the project is rebuilt using SCLM Administrator Toolkit, the original source structure is reconstituted. The modifications made within SCLM Administrator Toolkit will be made in the appropriate location within these source files.

User macros

User macros are custom macros that have been developed by personnel such as SCLM administrators or programmers. They are designed to override parameters in the various FLMxxxxx macros or to feed information to them. When a user macro is

associated with an FLMxxxxx macro, the user macro's parameters replace specific FLMxxxxx parameters when the SCLM project definition source is assembled.

If your project contains user macros that are present in the PDML, an additional tab, **User Macros**, appears in the list of tabs that is displayed at the bottom of each SCLM Suite Administrator Workbench panel. Clicking on this tab displays a list of the top-level user macros that appear in the PDML. Using the appropriate buttons, you can **Edit** a user macro that exists in the project or you can **Add** or **Remove** a user macro from the project. Note that you can add a user macro to a project only when that same user macro is already associated with the project. Only existing user macros, that is, macros that have already been parsed, may be added to the project or edited.

Selecting a user macro from the list on the **User Macros** panel and pressing the **Remove** button removes the selected user macro from your project.

Pressing the **Add** or **Edit** button displays the User Macro Wizard. On the first wizard panel, **Add User Macro**, a list of user macros that are available to be added to a project or edited is displayed.

Pressing the **Next** button displays a dialog that permits you to update parameter values for the macro you selected. The **User Macro Parameters** dialog will always display the name of the user macro and the names of the data set and member that contain the user macro. Other fields that appear on the panel are variable depending on the values that already exist in the user macro. Note that you can edit only the top-level user macro. FLMxxxxx macros that are children of a user macro may be edited only by editing the top-level user macro. When you have completed your work, press **Finish** to complete the addition or edit of the selected macro.

You can see the effects of changes to a user macro by reparsing your project.

Refactoring a project and creating a copybook

Building or rebuilding your project results in the creation of Assembler source. That source may contain macros and copy statements that you want to expand, review, or save offline from the project in a specified dataset and member. Refactoring your built Assembler source gives you the opportunity to do so.

A tab labeled **Refactor** appears in the list of tabs that is displayed at the bottom of each SCLM Administrator Toolkit panel. Clicking on this tab results in the project Assembler source being displayed in an LPEX Editor window.

Note: If text appears in an LPEX Editor window, you can edit that text at any time.

In this window, you can select one or more pieces of text using your mouse. If the text you selected contains either a macro or a COPY statement, SCLM Administrator Toolkit permits you to take some actions, depending on the content of the selected text. Note the following:

- You can select multiple macros and COPY statements in the same execution
- You cannot select the macros FLMABEG and FLMAEND
- If the first line of your selection is a comment, the selection is expanded to include the next macro in the text

Working with a copybook

You can assign reusable elements of a project definition to copybooks for use in other projects. If the source you selected contains a COPY statement, the **FORWARD** button in your SCLM Administrator Toolkit window becomes active. Use the **FORWARD** button to drill down on the selected COPY statement. Note that, even if

your selection contains more than one COPY statement, you can drill down on only one such statement at a time.

Clicking **FORWARD** expands the copybook to insert the copybook's contents within the refactoring window. If you have nested COPY statements, you can expand these, one at a time, using **FORWARD**. As you drill down, pressing the **BACK** button takes you back one level in your nesting structure. Note that **REBUILD** and **UNDO** can be selected only when you are working with the top-level COPY statement, and are not valid when drilling down. Additionally, **REBUILD** and **UNDO** are available to you only after you have made modifications to your selection.

If the text you selected contains any part of a macro, the text you selected is expanded to include the entire macro down to the first line that is encountered that does not contain a continuation character. Once you have expanded your source, you may perform various options on it:

- You can save the source at any time by clicking the Save button. You may choose to perform one or multiple expansions of your source before saving.
- Once you have selected some source and it has been expanded, the **Create Copybook** button becomes active. Clicking on that button causes SCLM Administrator Toolkit to display the Copybook Output Selection dialog. On that dialog, you can write the selected source to a destination of your choice, effectively creating a new COPY member. To do so, click the **Get List of SYSLIBS** button to:
 - Select the SYSLIB to which the source will be written. The list of SYSLIBS from which you can select contains only those SYSLIBS you have previously defined.
 - Select from a displayed list the member name within the chosen SYSLIB to which to write the source. Alternatively, you can create a new member in the SYSLIB to hold the source.

When you have selected the appropriate SYSLIB and selected or created an appropriate member in which to store the selected source, click **OK**. At that time:

- SCLM Administrator Toolkit writes out the new or changed member
- Inserts a COPY statement into the original source that is displayed in the refactoring window.

Once you have completed refactoring your source...

After you have made the desired changes to your displayed source, you have the choice of

- Pressing the **UNDO** button. Pressing **UNDO** restores the original source to its previous condition. However, pressing **UNDO** does *not* delete the newly-created copybook. You must take overt action to delete it.
- Pressing **REBUILD** to rebuild your project. Once you have pressed **REBUILD**, SCLM Administrator Toolkit rebuilds the project. Once the project source is rebuilt, you can no longer use **UNDO** to return the source to its original condition.

If you have modified any source while in the LPEX editor, you can save your modifications directly using the **SAVE** button. If you attempt to exit the editing session before you have either saved your work or rebuilt your project, you will be asked to confirm or cancel your actions.

Comments within your source

Any full-line user comments contained in the project source will be retained. User comments cannot be included in macros, but can be inserted ahead of a macro in standard comment form. SCLM Administrator Toolkit does not support partial-line comments. A comment must comprise a full line.

Building or rebuilding your project

Once you have defined or modified those objects comprising your project, you can review the created XML source code by pressing the **Source** tab at the bottom of a Project Wizard panel. If you are satisfied with your entries, you are ready to build your project. Before initiating the build, you must ensure that your project contains at least one Type and one group. Otherwise, your build will fail. A build consists of reparsing the source, then creating or rebuilding the source and a load module.

Note: You must build or rebuild your project at least once before you can continue to use the functions of the product documented later in this manual.

To build or rebuild your project:

1. In the Navigator tree at the left side of your workspace, right-click on the name of your project.
2. From the pop-up list that SCLM Administrator Toolkit displays, click **Rebuild Project**.

If you are building or rebuilding a project and an error occurs, a file called `error.number.tar` is created. Save this file and call your support person. You can also review the contents of the file by entering **TAR** on the UNIX System Services command line.

Data set allocation

Data sets are allocated only when you build or rebuild a project. Each required data set is checked to ensure that it exists. If it does, SCLM Administrator Toolkit takes no action. If the data set does not exist, then the program definition markup language (PDML) parameters are used to allocate the data set.

You cannot reallocate an existing data set to increase its size. Rather, you must work outside of the Toolkit to reallocate and reload the contents of a group/Type data set. Then you must reparse the project to update the DCB information.

Deleting a project

You will find information on deleting a project in the chapter entitled Chapter 7, "Deleting a Project or Other SCLM Objects," on page 67.

Chapter 5. Using the Project Wizard from an ISPF Session to Create or Modify a Project

This chapter describes the creation of a new project or the modification of an existing project using the Project Wizard from an ISPF host session. For information about using the Project Wizard from a workstation, see Chapter 4, "Using the Project Wizard from the Workstation to Create or Modify a Project," on page 15.

Start working with your project from the Project Administration Main Menu by specifying an appropriate option on the Option line.

Table 1. Options from the SCLM Administrator Toolkit Main Menu

Option	Action
1	Define project settings. Choose this option to create job card information, specify whether jobs will run in batch or online, and, optionally, update the default Types for your project.
2	Create a New SCLM Project. Choose this option to initiate the Project Wizard, where you can define your project.
3	List SCLM Projects. Choose this option to display a list of existing SCLM projects. From this list, you can edit, delete, or clone a project, or initiate various other project functions such as architecture definition, asset migration, or VSAM file maintenance.
4	Download GUI. Choose this option to download the client component to a workstation. See the <i>IBM SCLM Administrator Toolkit: Installation and Customization Guide</i> for more information.
X	Exit SCLM Administrator Toolkit.

At the start of a session, the Project Wizard's fields are populated by the SCLM Administrator Toolkit's default values if you are creating a new project, or by the values specific to a previously-defined project, if you are modifying a project.

Navigating the ISPF interface

When creating or editing a project, you can navigate through the ISPF interface in several ways.

1. You can use the SCLM Project Quick Menu to move from function to function in the order you select from this menu. The Quick Menu is displayed to you:
 - Immediately after you press **Enter** on the Settings panel when creating a new project.
 - When you choose the **E** option on the Project List panel to edit an existing project.
 - When you press **PF4 - Qmenu** on those panels where this option is displayed in your PF key list.

Note: When you are creating a project initially, some project definition functions should be completed before moving to other functions. See "Recommendations and suggestions" on page 33.

The Quick Menu is also available from a pull-down on those ISPF panels that display the option in the PF key list.

2. Alternatively, you can move forward sequentially from panel to panel through the Project Wizard using the **Enter** key and backward using **PF3**. This permits you to define your project using the panel order controlled by the Project Wizard.
3. Some project functions can be accessed from the Project List panel by specifying the appropriate line command next to a project's name.

Note: If you type **OUTPUT** on the Option line of an SCLM Administrator Toolkit ISPF panel, the output of the last script you have run is displayed..

Defining project administration settings

Select Option 1 on the Main Menu to define project administration settings. On the Project Wizard's Settings panel:

- Specify whether or not to run jobs in batch. To indicate that jobs are to be run in batch, specify **B** on the line provided. Otherwise specify **F** to run in the foreground.
Use the space provided to type in the appropriate JCL to run these jobs.
- Specify whether to update the default types for your profile. Your profile has a number of default types defined for it. If you specify **U** on the Options line, SCLM Administrator Toolkit displays the Default Types panel. On this panel, you can edit or view the Types for your profile, delete Types from your profile, or define new Types. See Defining default Types for your profile, below.

Creating a new SCLM project -- the work flow

Select Option 2 on the Main Menu to use the Project Wizard to create a new project. Creating a new project comprises the tasks that follow. Note that, as soon as you have started creating a project, project information is created and stored. Even if you should quit your work before the project is fully defined, and you wish to continue work on the project, you must access that project from the Project List panel. Do not use the Create Project function to continue.

- Defining default Types for your profile; see "Defining default Types for your profile" on page 33.
- Defining the default data sets for a project; see "Defining default data sets for the project" on page 34.
- Defining project settings; see "Defining project settings" on page 35.
- Defining the project's control or alternate control data sets; see "Defining project control data sets" on page 36.
- Selecting the Types that are relevant for the project from the list of default Types; see "Selecting Types for your project" on page 38.
- Defining the group hierarchy; see "Working with groups" on page 39, "Creating or modifying a group" on page 39, "Defining authorization groups and authorization codes" on page 40, and "Creating or modifying an authorization group" on page 40. The use of authorization groups and authorization codes is optional.
- Deciding which group/Type data sets should be allocated and performing the allocation; see "Allocating group/Type combinations" on page 41 and "Overriding default allocations" on page 41.
- Configuring user exits; see "Specifying User Exit information" on page 42.

- Creating or importing language definitions; see Chapter 6, “Using the Language Definition Wizard,” on page 47.
- Migrating assets into the SCLM project; see Chapter 9, “Migrating Software Assets into your SCLM Project,” on page 73.
- Creating architecture definitions; see Chapter 12, “Using the Architecture Definition Wizard,” on page 79.

Recommendations and suggestions

When creating a project, you will want to ensure that you have migrated any required software assets (a data set member or group of members to be placed under SCLM control) into the project prior to creating architecture definitions.

Defining default Types for your profile

Use the Default Types panel to view, edit, or delete default Types for your profile. You can view a Type’s default definition by specifying **V** on the line preceding a Type. You can edit a Type’s default definition by specifying **E**. Press **Enter** to process your choices. In either case, the Project Wizard displays an ISPF Edit panel, with information about the Type you selected filled in. Note that you can update this information only if you accessed this panel using an Edit (**E**) request.

You can also use the Default Types panel to delete a Type or multiple Types from your profile by specifying **D** in front of the Type or Types to be deleted. Once you have confirmed your choice to delete a Type or Types, SCLM Administrator Toolkit removes these from the list of Types associated with your profile.

Adding a new default Type

From the Default Types or Selected Types panels, you can add a new default Type by specifying **N** on the Options line. The Project Wizard displays the SCLM Types panel, on which you specify:

- A name of up to 8 characters in length for the new Type
- A description of the Type
- The default DCB information:
 - The default DCB record format. Valid formats are FB, FBA, VB, VBA, FBM, VBM, or U.
 - The default DCB block size. Valid value is an integer from 32 — 32760
 - The default DCB logical record length. Valid value is an integer from 32 — 32756.

Note: When you add a new Type, you should ensure that:

- If RECFM=U, LRECL must be equal to 0. BLKSIZE must not be equal to 0, and must be less than or equal to 32760.
- If RECFM=VBx, LRECL must not be equal to 0. BLKSIZE must be equal to 0, or must be greater than LRECL + 4 and less than or equal to 32760.
- If RECFM=FBx, LRECL must not be equal to 0. BLKSIZE must be equal to 0, or must be an exact multiple of LRECL and less than or equal to 32760.

After each execution of the Edit SCLM Type panel to define a new Type or edit an existing type, pressing PF3 saves your work and completes the Type definition process.

Defining default data sets for the project

Once you have filled in a project name and alternate project name, if any, on the Main Menu and selected Option 2, SCLM Administrator Toolkit presents you with the Default Data Sets panel. On this panel, you can specify:

- Whether project data sets will be in PDS or PDS-E format
- Fully qualified data set names for each Type of data set you want to include in your project
- Fully qualified data set names for each SYSLIB data set you want to include in your project. The SYSLIB data sets hold standard IBM macros as well as any language definitions you may create. You must define at least one SYSLIB data set. Clicking **Browse** displays the data set's name. This name is set to the default value, which you can change if you wish.

Note: When entering the SYSLIB data list, the very first SYSLIB must be the source DSN. For example, if my main project source is `<hilev>.PROJDEFS.SOURCE`, then my SYSLIB list must have `<hilev>.PROJDEFS.SOURCE` first, followed by whatever other libraries are needed for the project.

When defining your project's default data sets, you will also be asked to specify:

- Your language preference, for example, English or Spanish
- The code page you want to use
- Whether or not the project will use double byte characters

Working with the project list to edit your project or initiate wizards

Selecting Option 3 on the Main Menu presents you with the Project List panel. This panel lists the project name, alternate project name, if any, and the state and status of the projects. Not every project will have an alternate project.

You can filter the list of projects presented to you on the Project List panel by filling in a project name or a partial name and asterisk as a wild card to limit the number of projects displayed on the Project list panel.

When the project list displays, you can specify appropriate codes on the Cmd line preceding each project to initiate SCLM Administrator Toolkit actions.

The State column can have one of these values:

- **Incomplete** -- some additional work is required to complete this project definition.
- **Corrupted** -- Some of the project definitions contain errors.

If a project is complete, the State column is blank.

If the XML code for a project has been generated, **Parsed** appears in the Status column.

From the Project List panel, you can take the following actions:

- If you specify an **A** on the line preceding a project's name, SCLM Administrator Toolkit displays the Architecture Definition wizard. See Chapter 12, "Using the Architecture Definition Wizard," on page 79.
- If you specify a **C** on the line preceding a project's name, SCLM Administrator Toolkit displays the Clone Project panel. See Chapter 8, "Cloning an Existing Project," on page 71.

- If you specify a **D** on the line preceding a project's name, SCLM Administrator Toolkit will delete your project after confirmation from you. See Chapter 7, "Deleting a Project or Other SCLM Objects," on page 67.
- If you specify an **E** on the line preceding a project's name, SCLM Administrator Toolkit displays the Project Editor.
- If you specify an **M** on the line preceding a project's name, SCLM Administrator Toolkit displays the Migrate Assets panel. See Chapter 9, "Migrating Software Assets into your SCLM Project," on page 73.
- If you specify a **P** on the line preceding a project's name, SCLM Administrator Toolkit reparses your project after confirmation from you.
- If you specify a **V** on the line preceding a project's name, displays the VSAM Tasks panel. See Chapter 11, "Maintaining the Project's VSAM Files," on page 77.

Defining project settings

On the Wizard's Project Settings page, the values you are asked to specify include:

- The name, of up to 8 characters in length, of the project
- Whether it is an alternate project, and, if so, the alternate project's name. The alternate project name may not exceed 8 characters in length.
- The DASD Unit where the project's data sets will reside. The default is SYSALLDA.
- The Virtual Input/Output (VIO) unit to be used to store temporary data sets. The default is VIO.
- The maximum number of records permitted for VIO allocation. The default is 5000.
- The maximum number of lines per page for all SCLM reports. The minimum value is 60.
- Whether translator option overrides are allowed. Place an **S** or a slash (/) on the line to specify that developers can override translator options for any of the languages by using the PARM statement in the architecture members. If you do not permit translator overrides, SCLM uses only those translator options you specify in the language definition for the translators. .
- Whether VSAM record level sharing (RLS) is available. Place an **S** or a slash (/) on the line to specify that RLS can be used.

If your project will be translated to a language other than English, you will be able to specify these additional settings parameters:

- You may specify one of the following values for LANGUAGE=

EN (the default)	Messages and assembler listing headings appear in mixed upper case and lower case English
DE	Messages appear in German. Assembler listing headings are printed in mixed upper and lower case English.
ES	Messages appear in Spanish. Assembler listing headings are printed in mixed upper and lower case English.
JP	Messages appear in Japanese. Assembler listing headings are printed in upper case English.

- You may specify one of the following values for CODEPAGE=

1140 (the default)	USA, Canada, Netherlands, Portugal, Brazil, Australia, New Zealand
1141	Austria, Germany
1142	Denmark, Norway
1143	Finland, Sweden
1144	Italy
1145	Spain, Latin America (Spanish)
1146	United Kingdom
1147	France
1148	International 1
939	Japanese
933	Korean
935	Simplified Chinese
937	Traditional Chinese

- If your project will contain double-byte characters, specify **DBCS=Y**. The default is **DBCS=N**.

To define or edit the default data set information for the project, click the **Default Data Sets** button.

After you have completed work on this panel, press **Enter** to display the Define Project Control Data Sets panel.

Defining project control data sets

The Project Wizard now displays a panel on which you can define the accounting, auditing, and versioning data sets and allocate space for them. Specify a data set name for each of the data sets you want to include in your project. The fully-qualified data set name must follow the rules for PDS or PDS-E data sets.

Optionally specifying a data set name on this panel identifies the data set naming convention for the project. The name you specify may be up to 8 characters in length.

Each project must have at least one primary accounting data set. This data set contains information about application programs in the project. The secondary accounting data set is optional and is used as a backup for your primary accounting data set. The data set name you specify must be the same as the name of the VSAM cluster you want to use.

The export accounting data set is optional unless you plan to use the import and export functions. The data set name you specify must be the same as the name of the VSAM cluster you want to use. It must not have the same name as either the primary or secondary accounting data set.

If you have selected auditing and versioning on the Project Settings panel, you will have the opportunity to define audit control data sets. Audit control data sets contain information about changes to SCLM-controlled members that are located in groups being audited. Audit control data sets must be created before you can use SCLM's audit function. The high level qualifier of the audit control data sets must be an entry in a VSAM catalog. If you have specified that auditing is to be used, you must have at

least one primary audit control data set. The secondary audit control data set is optional and is used as a backup for your primary audit data set. When specifying the parameters for the primary and secondary audit control data sets, you may not use SCLM variables; that is @@FLM***.

The Version PDS name identifies the partitioned data set where version data and SCLM variables are stored.

Pressing **Enter** on the Project Control Data Sets panel displays the Alternate Control Data Sets panel.

Defining alternate control data sets

On the Alternate Control Data Sets panel, specify a data set name for each of the data sets you want to include in your project and allocate space for them. The fully-qualified data set name must follow the rules for PDS or PDS-E data sets.

Alternate control data sets provide alternate control for individual groups. Specifying alternate control data sets provides information used by the SCLM FLMALTC macro to override certain options on the FLMCNTRL macro for specific groups. For example, each group can control independently how many versions are saved, where to keep its accounting data, etc., by using alternate control data sets. Specifications apply only to the groups using them. You can specify multiple alternate control data sets. Their specification is optional.

If you are defining alternate control data sets, you must specify an identifier, which may be up to 8 characters in length. The rules for naming control data sets above also apply to the naming of alternate control data sets.

Use this panel to view, edit, or delete alternate control data sets for your project. You can view an alternate control data set's definition by specifying **V** on the line preceding its name, or edit its definition by specifying **E**. Press **Enter** to process your choices. In either case, the Project Wizard redisplay the Alternate Control Data Sets panel in edit mode with information filled in. Note that you can update this information only if you accessed this panel using an Edit (**E**) request.

You can also use the alternate control data sets panel to delete an alternate control data set or multiple data sets from your project by specifying **D** in front of the alternate control data sets to be deleted.

To define a new alternate control data set, specify **N** on the Options line.

Some additional considerations and restrictions

When defining the project's control data sets using the macros FLMCNTRL (primary control data sets) and FLMALTC (alternate control data sets, ensure that):

- Each occurrence of an FLMALTC macro has at least one ALTC parameter on an FLMGROUP (group definition) macro pointing to it.
- FLMCNTRL and FLMALTC macros do not use SCLM variables when specifying the ACCT (primary accounting data set) and ACCT2 (secondary accounting data set) parameters.
- FLMCNTRL and FLMALTC macros use only @@FLMPRJ, @@FLMGRP, and @@FLMTYP when specifying the DSNAME parameter. If the DSNAME parameter is specified, it must include @@FLMTYP.
- FLMCNTRL and FLMALTC macros use only @@FLMPRJ, @@FLMGRP, and @@FLMUID when specifying the EXPACCT parameter.

- FLMCNTRL and FLMALTC macros use only @@FLMPRJ, @@FLMGRP, @@FLMTYP, and @@FLMDSN when specifying the VERPDS parameter. If @@FLMDSN is used, it must appear in the first 8 characters of the specification.

Selecting Types for your project

Pressing **Enter** on the Alternate Control Data Sets panel displays the Selected Types (FLMTYPE) panel. The Selected Types panel lists the Types you have defined in your profile. If you are modifying an existing project, the list on this panel shows the Types you have defined or selected for your project. Parameters for these Types will be filled in if you have previously entered them. Your project must contain at least one Type. Otherwise, it cannot be built.

Use this panel to view, edit, or delete Types for your project. You can view a Type's definition by specifying **V** on the line preceding a Type. You can edit a Type's definition by specifying **E**. Press **Enter** to process your choices. In either case, the Project Wizard displays an ISPF Edit panel with information about the Type you selected filled in. Note that you can update this information only if you accessed this panel using an Edit (**E**) request.

You can also use the Select Types panel to delete a Type or multiple Types from your project by specifying **D** in front of the Types to be deleted. SCLM Administrator Toolkit removes these from the list of Types for your project. Note that you are not asked to confirm the deletion of a Type from your project until you start to work with the Group/Type panel.

To define a new Type, specify **N** on the Options line. To add a default Type to this panel, specify **A** on the Options line.

For those Types you want to include in your project, you can provide the following information:

1. Specify the number of members contained in the top-level Type data set. This mandatory value, together with the average number of records value and the DCB, is used to calculate the space required for the PDS or PDS-E at the top of the promotion tree.
2. Specify the average number of records contained in the top-level data set of this Type. This mandatory value, together with the number of members value and the DCB, is used to calculate the space required for the PDS or PDS-E at the top of the promotion tree.
3. If you have specified that your project will use package backup:
 - a. Place a slash (/) in the Package Backup column to specify that this Type of file is to be backed up during a promote.
 - b. For architecture definition Types, place a slash (/) in the Flags Packfile column to specify that this architecture definition will be used to drive the packages that are permitted to be backed out.
For other Types, place a slash (/) in the Flags Packfile column to specify that this Type is to hold the package detail files.
 - c. Specify a number on the Reuse Limits line to indicate the number of days for which a backup can be performed. This field can only be specified if you have placed a slash in the Packfile column for this Type.

Note: Backup and Packfile are mutually exclusive.

Defining a new Type

If you specified **N** on the Option line of the Selected Types panel, SCLM Administrator Toolkit displays the SCLM Type panel. To understand the information required on the Selected Types panel, see “Adding a new default Type” on page 33.

Working with groups

A group is equivalent to a node within a project hierarchy. For example, in a code development project, Development, Test, and Ship can each be considered a group. Data sets having the same midlevel qualifier in their fully-qualified names can be considered as belonging to the same group. Rules that govern your ability to move or copy data between groups are specified by the authorization codes associated with a group. Use the Group List panel to view, edit, or delete a group from your project. You can also use this panel to create a new group. Your project must contain at least one group. Otherwise, it cannot be built.

You can view an existing group by specifying **V** on the line preceding its name. You can edit a group by specifying **E**. Press **Enter** to process your choices. In either case, the Project Wizard displays the Group Specification panel. Note that you can update this information only if you accessed this panel using an Edit (**E**) request.

You can also use the Group List panel to delete a group or groups from your project by specifying **D** on the appropriate line(s). SCLM Administrator Toolkit removes these from the list of groups for your project. Note that you are not asked to confirm the deletion of a group from your project until you start to work with the Group/Type panel.

To create a new group for your project, specify **N** on the Options line.

Creating or modifying a group

Use the Group Specification panel to view, edit, or create a group. On this panel, you can specify or modify the following fields:

1. If this is an existing group that you are modifying, the group name appears in the Group field. If you are creating a new group, specify a name of up to 8 characters in the Group field. The name must be unique for this project and must be valid for a data set qualifier.
2. Specify a name of up to 8 characters for the Promote Group. This is the group to which members of the current group are copied or moved. To see a list of available Promote Groups from which you can select the group to be used, enter **P** on the Option line of this panel.

All groups, except the top-most group in a project hierarchy, must promote to another group. All groups specified as Development must be specified as a key group. The topmost group in a hierarchy must also be specified as a key group.

When defining promotion from group to group, there can be no loops. Thus, for example, you cannot define a promote sequence that has group A promoting to group B which in turn promotes back to group A. Doing so will cause a project build or rebuild to fail.

3. Specify a name of up to 8 characters for the data set that defines an alternate set of control options to be used for this group.
4. Specify a name of up to 8 characters for the Package Backup Group. You must have defined package backup for the current group in order to specify this option.
5. Place a slash (/) on the Member Restore line to specify that, for this backup group, member restore is in effect. If you specify Member Restore, SCLM will restore

individual members rather than an entire package. You must have defined package backup for the current group in order to specify this option.

6. Place a slash (/) on the Key line to specify that the group you are defining is a key group. If you identify a group as a key group, data moved to this group is erased from the group from which it was promoted. If you do not identify this group as a key group, then data moved to this group is copied from the group from which it was promoted.
7. Type in the authorization codes to be associated with this group.

When you have completed this panel for a group you are defining or modifying, press **Enter**.

Defining authorization groups and authorization codes

If you have specified on the Project Settings panel that authorization groups will be used, SCLM Administrator Toolkit displays the Authorization Group List panel. Use this panel to view, edit, or delete authorization groups for your project. You can view an authorization group by specifying **V** on the line preceding its name. You can edit a group by specifying **E**. Press **Enter** to process your choices. In either case, the Project Wizard displays the Authorization Group Authorization Code Specification panel. Note that you can update this information only if you accessed this panel using an Edit (**E**) request.

You can also use the Authorization Group List panel to delete an authorization group or groups from your project by specifying **D** on the appropriate line(s). Once you have confirmed your choice to delete an authorization group or groups, SCLM Administrator Toolkit removes these from the list of authorization groups for your project.

To create a new authorization group for your project, place a slash (/) on the appropriate line.

Creating or modifying an authorization group

If you have chosen to modify an existing authorization group, the name of that authorization group will appear on the Authorization Group line of the Authorization Group Authorization Code Specification panel. Use this panel to specify as many unique authorization codes as you choose. The authorization code names can be up to 8 characters in length.

If you have chosen to create a new authorization group, specify a name of up to 8 characters on the line labeled Authorization Group. Then specify as many unique authorization codes as you choose. The authorization code names can be up to 8 characters in length.

You must ensure that there are no loops when you define your authorization groups and authorization codes. An example of what to avoid is the case where authorization group AGRP1 contains authorization codes A, B, C, AGRP2, and authorization group AGRP2 contains authorization codes A, B, D, AGRP1. This specification is invalid.

When you are satisfied with your work, press **Enter** to create, edit, or view another authorization group.

Allocating group/Type combinations

After you have defined your groups, you will have an opportunity to allocate space or override the default allocations for your group/Type combinations. Press **Enter** on the Group List panel to display the Group/Type Allocations panel. To allocate a group/Type combination, place an **E** in the Cmd column. Doing so displays the Group/Type Parameters panel for this group/Type combination. Placing a **V** in the Cmd column displays the Group/Type Parameters panel, but you cannot edit the information that is displayed. To add a new group/Type allocation, specify **A** on the Options line. To delete an existing group/Type from the list, specify **D** in the Cmd column.

At the point in time where you have decided to remove a group/Type from your project, SCLM Administrator Toolkit displays a Confirmation panel. This panel asks whether you want to confirm the deletion of the specified group/Type and any group/Type combinations that promote to it. You must respond positively to this Confirmation panel to have the delete take effect. On this Confirmation panel, you can choose to delete any data associated with the group/Types you are deleting by placing an **S** or slash (/) on the appropriate line. Note that this behavior differs when you take similar actions using the workstation interface. When using the workstation, you are asked to confirm the deletion of the object and the deletion of associated data from the Group, Type, and Group/Type dialogs.

By default, more space is allocated at the top of a given hierarchy, with less space allocated to the lower nodes, since SCLM only draws down to lower nodes what is absolutely necessary to accomplish the task. Unless overridden, the topmost group/Type data sets' space allocation is based on the information you provided in the Edit SCLM Type entry panel, with space allocated to permit growth to twice the initial size. The group/Type data sets lower in the hierarchy are allocated a small initial space, with room to grow to twice the initial size of the topmost equivalent group/Type data set. You can specify that a given group/Type data set is not to be allocated by leaving its Allocate column blank.

Overriding default allocations

Use the Group/Type Parameters panel to override default allocations for a group/Type.

On this panel:

1. Specify the allocation units, selecting from those listed on the panel.
2. Specify the number of primary and secondary allocation units.
3. Specify the record format, record length, and block size for the project data sets.
4. Specify the storage class, data class, management class, and volume label.
 - The storage class is a collection of storage attributes that identify performance goals and availability requirements, defined by the storage administrator, and used to select a device that can meet those goals and requirements. When a storage administrator assigns a storage class to a new data set, the data set becomes an SMS-managed data set.
 - The data class is an SMS class that contains the attributes related to the allocation of a data set, such as LRECL, RECFM, and SPACE.
 - The management class is a named collection of management attributes describing the retention and backup characteristics for a group of data sets.
 - The volume label identifies storage space on DASD, tape, or optical devices.
5. Place a slash (/) on the appropriate lines to specify:

- Whether versioning is active for this group/Type by indicating that a Version Data Set is to be allocated. If you specify that versioning is active, then an Audit Data Set is automatically specified for you by SCLM Administrator Toolkit.
 - Whether auditing is active for this group/Type. If you checked Version Data Sets to indicate that versioning is active, then Audit Data Sets are automatically specified by SCLM Administrator Toolkit.
6. Place a slash (/) on the Check Sum line to indicate that checksum verification is to be performed upon retrieval of an SCLM version.
 7. Specify the number of versions to be retained. When the number you have specified is reached, the latest version is kept and the earliest version is discarded.
 8. Specify the sequence number type which may be STANDARD, STD, COBOL, or NONE. NONE is the default.

Specifying User Exit information

Pressing **Enter** on the Group/Type Parameters panel takes you to the Selected User Exit panel. Use the Selected User Exit panel to select user exits to work with. If Breeze is installed, the name of the data set containing the Breeze user exits is displayed at the top of the panel. Specify **A** on the Option line to add default user exits to this Selected User Exits panel. Specify **B** on the Option line to add the Breeze user exits.

On this panel, you can specify **E** on the Cmd line to edit information about an exit. Specify **V** to view information about an exit, or **D** to delete an exit. Once you have filled in the Cmd lines for the exits you want to work with, press **Enter**. For each exit you want to configure, SCLM Administrator Toolkit displays the User Exit Detail Specification panel. On this panel:

1. Specify the module name where the exit code is stored
2. Specify the Load Data Set name that contains the module
3. Select the Exit invocation method—linked, attached, invoked by TSO, or called through ISPF services
4. Specify the option list to be passed to the user exit routine. You can specify a maximum of 256 characters, including delimiters, for the options. Enclose the option string in parentheses or single quotes.

When you have completed this panel for a given exit, press **Enter**. The panel is displayed sequentially for each exit you chose to configure on the User Exit panel.

Creating language definitions

Pressing **Enter** on the Selected User Exits panel or the User Exit Detail Specification panel takes you to the Language Definition Wizard so that you can create Language Definitions. See Chapter 6, “Using the Language Definition Wizard,” on page 47.

Completing the project definition and building the project

Once you have completed language definition activities, you have viewed all of the panels that comprise the project you wanted to define or modify. You can return to any of the panels in the project definition and modify them if you wish. Once all of your desired modifications have been made, SCLM Administrator Toolkit displays the Build Project panel. There, you can choose to view the source code for your project or immediately perform the build.

If you choose to view the project source, SCLM Administrator Toolkit displays it for you. If you choose to perform the build, SCLM Administrator Toolkit performs any requested data set deletions or allocations, and assembles and link edits the project definition. If you type **OUTPUT** on the Option line, SCLM Administrator Toolkit displays the output of the last script you have run.

If the build ran successfully, the project is now ready for use. If the SCLM Administrator Toolkit displayed any errors, you will need to identify and correct the problems before attempting the rebuild again.

Once the project has been successfully built, the SCLM Administrator Toolkit returns you to the project list.

Considerations when rebuilding a project

If you are placing an existing project under control of the Toolkit, or if the Toolkit determines that the project source has changed outside the Toolkit, or if such a change condition cannot be determined, then that project's group/Type data sets are parsed into the project with blank values. Using ISPF, after the project is brought under the control of the Toolkit, you can set **STATS OFF** for the project source member to force a reparse. At that time, you will need to respecify the DCB information for these data sets.

If you are building or rebuilding a project and an error occurs, a file called *error.number.tar* is created. Save this file and call your support person. You can also review the contents of the file by entering **TAR** on the UNIX System Services command line.

Data set allocation

Data sets are allocated only when you build or rebuild a project. Each required data set is checked to ensure that it exists. If it does, SCLM Administrator Toolkit takes no action. If the data set does not exist, then the program definition markup language (PDML) parameters are used to allocate the data set.

You cannot reallocate an existing data set to increase its size. Rather, you must work outside of the Toolkit to reallocate and reload the contents of a group/Type data set. Then you must reparse the project to update the DCB information.

Support for user macros, copybooks, and comments

When you use SCLM Administrator Toolkit to open an SCLM project that was created outside of the Toolkit, the source code is parsed to generate an XML representation (project definition markup language or PDML) of the project. The parsing process maintains the original source structure for copybooks and user macros. When the project is rebuilt using SCLM Administrator Toolkit, the original source structure is reconstituted. The modifications made within SCLM Administrator Toolkit will be made in the appropriate location within these source files.

Working with user macros

If your project contains user macros that are present in the PDML, an additional item, **User Macros**, appears on the Quick Menu list. Selecting this option displays a list of the top-level user macros that appear in the PDML. Using the appropriate values, you can Edit (**E**) a user macro that exists in the project or you can add (**A**) or remove (**D**) a user macro from the project.

User macros are custom macros that have been developed by personnel such as SCLM administrators or programmers. They are designed to override parameters in the various FLMxxxx macros or to feed information to them. When a user macro is associated with an FLMxxxx macro, the user macro's parameters replace specific FLMxxxx parameters when the SCLM project definition source is assembled.

Using the **D** command removes the selected user macro from your project.

Selecting **A** or **E** command displays the User Macro wizard. The **Add User Macro** wizard panel displays a list of user macros that are available to be added to a project or edited. Note that you can add a user macro to a project only when that same user macro is already associated with the project. Only existing user macros, that is, macros that have already been parsed, may be added to the project or edited.

You can now update parameter values for the macro you selected. The **User Macro Parameters** panel will always display the name of the macro and the names of the data set and member that contain the user macro. Other fields that appear on the panel are variable depending on the values that already exist in the user macro. Note that you can edit only the top-level user macro. FLMxxxx macros that are children of a user macro may be edited only by editing the top-level user macro.

When you have completed your work on the User Macro Parameters panel, pressing **PF3** completes your activities.

You can quickly see the effect of changes to a user macro by reparsing your project.

Working with a copybook

You can assign reusable elements of a project definition to a copybook for use in other projects. To do this, from the **SCLM Project Administration Project List Panel**, place a **B -- Copybook Support** on the line preceding the name of a project that contains one or more COPY statements. This project must have been parsed prior to using copybook support. Typing **B** on the Cmd line causes the source code for this project to be displayed in an editor window.

You can now use editor commands to select and save the code you want in a separate data set and member. You can expand any COPY statements by placing an **S** on the Cmd line next to the statement(s) to be expanded. You can continue to expand nested COPY statements by following this process on each successive panel.

You can select all or portions of the copybook's source code by placing the letters **CC** on the lines that begin and end a block of lines to be copied. The selected lines are copied to another member that you specify and not inside the current copybook. The original block of lines is also preserved within the current member. Saving this source code to a separate member permits the code to easily be reused by other projects.

You can also move a block of source code by using the **MM** line command to delete the code from the current member and move it to a member you specify. After the execution of the **MM** command, the string COPY <member_name> replaces the deleted code in the current member, where <member_name> is the name of the member to which the code was moved. .

Comments

Any full-line user comments contained in the project source will be retained. User comments cannot be included in macros, but can be inserted ahead of a macro in standard comment form. SCLM Administrator Toolkit does not support end of line comments. A comment must comprise a full line.

Deleting a project

You will find information on deleting a project in the chapter entitled Chapter 7, "Deleting a Project or Other SCLM Objects," on page 67.

Chapter 6. Using the Language Definition Wizard

In the course of defining a new SCLM project or modifying an existing project, you may wish to add a new language definition or modify an existing definition. To do so, use the SCLM Administrator Toolkit-provided Language Definition Wizard.

During the initial language definition and at any time after you have defined the new language, you can modify its definition by accessing the Language Definition Wizard and making and saving any changes. Having completed the language definition, you can return to the Project Wizard to complete your project definition or modification.

When creating a language definition, note that, while you may have nested COPY statements that refer to other copybooks, and these copybooks may have further COPY statements, the entire language definition and all its parts *must* be pointed to by a single copy member.

Note: When reviewing and possibly changing a generated language definition, you must ensure that you do not change any statements preceded by the eyecatcher ---AUZ--- having a notation that indicates Don't Modify Next *nnn* Lines.

From the workstation

Selecting the **Language Definition** tab at the bottom of a panel display takes you to the Language Definition Wizard. SCLM associates a language with each member to define the way in which that member will be processed during an edit, build, or promote. The language definition determines the parser to be invoked when a member is created or updated, and the translator to be invoked during a build.

On the Wizard panels, the name of the SCLM macro that contains the keywords you will specify is listed in parentheses. To find out more about these SCLM macros, refer to the *IBM z/OS ISPF SCLM : Reference Manual*.

Proceed through the pages of the Wizard by completing each page and then pressing **Next**. When you have completed your work, press **Finish** to save your work and exit the Wizard. At any time before finishing your work, you can press the **Back** button to return to a previous page of the Wizard.

Getting started with the Language Definition Wizard

When you select the Language Definition tab at the bottom of your SCLM Administrator Toolkit display, a page opens that contains a line for each language definition that is currently defined for your project. The display box shows the logical name for the language definition in the Name column. This is the name you specify using the Language field of this Wizard and is the name used by the FLMLANGL macro to identify the definition. The physical name by which this language is identified is shown in the Copybook column in the display box. This field displays a member name where the language definition resides. This member resides in the data set you have defined as SYSLIB1 on the Default Data Sets panel.

Use the Language Definition Wizard to add a new language definition, or edit or remove an existing language definition. To add a new language definition, click **Add**. SCLM Administrator Toolkit displays the Language Definition Wizard. To edit an existing language definition, click its name in the display box, then click **Edit** to display the Language Definition Wizard. To remove a language definition, click its name in the display box, then click **Remove**.

Language Definition Wizard--selecting the method of creation

The Language Definition Wizard assists you in creating a language definition from an existing language definition data set or existing language definition JCL, or by creating one using a text editor to provide the required language definition parameters. When you open the Wizard, you will be presented with a set of radio buttons that request that you specify the method you will use to create the new definition. If you will create your new definition using an existing data set or existing JCL member as a model, you can type the name of the data set and member containing the model in the text box provided. Alternatively, you can browse for them. To browse, you must provide a qualifier, which, together with an asterisk, displays a list of data sets that meet this search criterion. This text box is not active if you want to create a language definition using a text editor to provide the required parameters.

Your path through the Wizard will be the same for Create from a data set, Create from JCL, or Create by providing parameters, with the exception of this data set specification entry. Click **Next** to continue.

Defining language identifiers and creating rebuild groups

Clicking **Next** displays the page of the Wizard on which you can define a language to SCLM by specifying the name of the language and processing characteristics using the keywords supported by SCLM macro FLMLANGL. Specify:

- A name of up to 8 characters for this language definition
- A member name (copybook name) of up to 8 characters where the language definition will reside. This member resides in the data set you have defined as SYSLIB1 on the Default Data Sets dialog.
- A version name of up to 8 characters for this language. If you change this keyword, all source members under this language will be rebuilt.
- A value (buffer size) representing the memory required to hold the expected number of \$list_info records SCLM allocates for a parse, verify, build, copy, or purge translator. The translator returns dependency information in the allocated memory.
- A value indicating the maximum number of source members that can be present in any input list presented to the translator. If you specify 0, then there is no limit on the number of source members.
- A name identifying the Type that is substituted into the @@FLMCRF variable for include set definitions. This variable can be used in the list of Types to be searched for includes.
- A name of up to 8 characters that is a Type name that can be used to allocate a hierarchical view. This hierarchical view is typically used by the translator to resolve references to SCLM hierarchy members. This parameter will not take effect unless an FLMALLOC macro having IOTYPE=I and KEYREF=SREF is used for the language. The parameter is ignored during a build if a CC, Generic, or LEC architecture definition is used to build the source member.
- Whether or not the System Library is to be checked to determine whether an include is to be tracked, and if so, when. Checking may occur at either parse or build time, or not at all.
- Whether or not compool output is required.
- Whether or not System Library data sets are to be allocated for IOTYPE I
- Whether or not the member parsed in this language is an architecture member.

- The minimum allowable scope. SCLM compares this parameter with the mode specified as input to build and promote functions to allow or disallow processing. The input mode must be of equal or greater value than the language scope. Valid scope values, in ascending order, are:
 - LIMITED
 - NORMAL, the default
 - SUBUNIT
 - EXTENDED
- Whether this language can be assigned to editable members
- Whether dependents of this member are to be rebuilt when some outputs from the translator for this member were not saved.

The display box at the bottom of this panel displays the Rebuild Groups as defined by SCLM macro FLMLRBLD. The FLMLRBLD macro causes members with a particular language to be rebuilt whenever they are promoted into particular groups. Using the buttons at the bottom of this display box, you can **Add** a new rebuild group, or **Edit** or **Remove** an existing rebuild group from the list.

Clicking **Add** or **Edit** causes SCLM Administrator Toolkit to display the Rebuild dialog. On this dialog, you can move one or multiple groups from a list of available groups to a list of selected groups, and vice versa, using the arrows provided.

Providing Include and SYSLIB parameters

Clicking **Next** displays the page of the Wizard on which you can view a list of existing Include Set and System Library definitions. You can add objects to these lists or remove objects from them. Clicking the **Add** button under either display box places your cursor on a new line in the box on which you can type information for each column. Selecting a row and clicking **Remove** removes that row from the display box.

Clicking **Add** under the Include Set Definitions display box permits you to define:

- The name of an include set. An include set name can only be used once per language definition.
- A list of Types that contain the includes for the include set. Two SCLM variables, @@FLMTYP and @@FLMETP, can be used in this Types list.
- Whether (Y) or not (N) SCLM is to process the includes of an included member when the language of the included member differs from that of the source member; that is, whether or not language boundaries are crossed.

Clicking **Add** under the System Library Definitions display box permits you to define:

- The name of a partitioned data set that contains macros or includes from outside the project. The data set name must meet MVS data set naming requirements.
- The name of an include set on an FLMINCLS macro (as in the list at the top of the panel).
- The serial number of a direct access volume on which the data set is located.

Defining translator parameters

Click **Next** to display the Translator Parameters panel. This Wizard panel assists you in defining your translator and allocating data sets for use by the translator.

In the Translator Definition area of this panel, you can provide the following information:

- The function, listed in the drop-down box, that this translator will provide. Valid values are:
 - Parse** to gather statistics and dependencies
 - Verify** to perform validation
 - Build** to assemble, compile, link, or otherwise process a member so that the outputs have different formats than the inputs
 - Copy** invoked when a Promote copies an SCLM-controlled member to the next higher group in the hierarchy
 - Purge** to purge data that is related to an SCLM-controlled member, but the data is not under SCLM control
- The call name, which is a name of up to 16 characters for this translator. This name appears in SCLM messages along with translator return codes. The name may contain blanks if you enclose the entire name in single quotes.
- The method by which the translator is called: **ATTACH**, **LINK**, **TSOLNK**, or **ISPLNK**
- The name of the program, listed in the drop-down box, that will be invoked by the translator. Normally, this program would be a parser, compiler, assembler, or user-supplied routine. If you selected a call method of **ATTACH**, **LINK**, or **TSOLNK**, this is the name of a REXX Exec or CLIST, or the entry point to a load module. If you selected **ISPLNK**, this value must be **SELECT**.
- The step label, which identifies the job step label for this translator.
- An acceptable return code from the translator. This is a positive integer or zero. If the translator returns a return code value greater than the value you specify, the process has failed and no accounting information is saved in the hierarchy.
- An integer from 0 through 3, selected from a drop-down box, that indicates the parameter order to the translator. The default is 1. These integers have the following meaning:
 - 0 No parameters are to be passed
 - 1 Option list is to be passed
 - 2 ddname substitution list is to be passed
 - 3 Option list is to be passed followed by the ddname substitution list
- A keyword to be used in architecture members to specify additional options for this translator.
- A 'no-save-external' indicator, which is a return code value indicating whether any translator outputs targeted to an external data set were saved. This parameter is valid only for **BUILD** translators. If the return code is other than zero, the build processor determines that external outputs were not saved.
- A maximum good return code indicator, used in conjunction with the input list parameter to indicate the maximum good return code value for each member in the input list.
- Whether or not the input members for this translator reside in SCLM-controlled partitioned data sets. If this checkbox is checked, this statement is true. If this checkbox is not checked, the default varies according to the translator's function type. If you specify multiple translators for this language definition, this value must be the same for all of them.
- Whether or not the translator supports input list processing.
- Whether or not developers can override default translator options.

- The translator version, which is a value of up to 8 characters that is stored in the account record for each output member saved from the translators.
- A ddname for the task library. This ddname is associated with one or more data sets that contain the translator load module. This value is only valid when the call method is **ATTACH**.
- A data set name of up to 44 characters in length, for the data set containing the translator load module (COMPILE parameter) or REXX Exec being invoked. This parameter is not required with the translator load module that resides in the system concatenation.
- Whether or not the input members for this translator reside in SCLM-controlled partitioned data sets. If this checkbox is checked, this statement is true. If this checkbox is not checked, the default varies according to the translator's function type. If you specify multiple translators for this language definition, this value must be the same for all of them.
- A list of options, separated by commas, that you enter in the text box. This options list is passed to the program whose name you specified in the COMPILE parameter. The maximum length of the list, including delimiters, is 255 characters. The options you pass must be acceptable to the program. Delimit the list with single quotes or parentheses. The options can also contain variables to provide dynamic information to the COMPILE program. The @@FLMMBR and @@FLMTYPE variables will be replaced with the name of the member and type of the last SINC, INCL, or INCLD statement in the architecture definition. If a source member is being built, the variable will be replaced with the name of the source member.

Once you have completed this area of the Wizard panel, you can select the **FLMTCND** button to display the Condition dialog (see “The Condition dialog”). If the function of this translator is build, you can also select the **FLMTOPTS** button to display the Options dialog (see “The Options dialog” on page 52).

The Allocations area of this panel displays:

- The IOTYPE, which can be **A, I, L, N, O, P, S, U,** and **W**.
- The ddname to be used for the specified IOTYPE for this allocation definition.

You can **Add** or **Edit** allocations by clicking the appropriate button below the display box. This results in displaying the Allocation dialog (see “The Data Set Allocation dialog” on page 52). You can also remove an allocation from the list using the **Remove** button.

The Condition dialog, the Options dialog, and the Allocation dialog each return you to this Translator Parameters panel. When you have completed the Translator Parameters panel, click **Next** to finish your work on this language definition.

The Condition dialog

Use the Condition dialog to specify whether a Build translator is to be run or skipped based upon the group at which the build takes place and return codes from previous Build translators in the same language definition. You can specify:

- Whether the conditions you specify are valid for all groups, only the groups you select from the display box, or only the groups you do not select from the display box
- The name of the translator to be run, as selected from the pull-down box
- The value of the return code that must be matched to make the condition true
- Whether the translator is to be run or skipped when the condition evaluates true

The Options dialog

The Options dialog is applicable only to Build translators and permits you to specify one or more option lists that are used to vary the options passed to a Build translator. Valid entries on this dialog are:

- The text of the options to be passed
- Whether the criteria you specify are valid for all groups, only the groups you select from the display box, or only the groups you do not select from the display box
- Whether this options list is to replace an existing options list, or whether it is to be appended to an existing options list

You cannot edit the Options Parameters text box in Options Dialog (FLMTOPTS). This text box will display the parameters of the currently selected options set, if any. When you click **Add**, a separate popup will appear to permit you to enter options parameters. When you click **OK** on this popup, the options set will be created.

The Data Set Allocation dialog

Use the Data Set Allocation dialog to allocate permanent or temporary data sets used by the translators. The top portion of the dialog permits you to specify allocation parameters for the translator. Use this portion of the dialog to:

- Select from the pull-down list the IOTYPE for this allocation. Valid IOTYPES are **A, I, L, N, O, P, S, U,** and **W**.
- Specify the ddname to be used for this allocation.
- Specify a reference to a keyword in the build map or architecture definition. This keyword is used by other parameters in this macro.
- Specify the disposition to be used for this allocation on a JCL DD statement. Valid values are **OLD, SHR, MOD,** or **NEW**. If Disposition is not specified, it defaults to an appropriate value for the IOTYPE parameter.
- Select from the pull-down list the default SCLM Type for this allocation.
- Specify the default member name for the output member.
- Specify the record format, which may be **F, FA, FM, FB, FBA, FBM, V, VA, VM, VB, VBA, VBM,** and **U**.
- Specify the block size of the data set. This parameter is valid for IOTYPES **W, O, P,** and **S**.
- Specify the logical record length of the data set (numeric). This value is valid for IOTYPES **W, O, P,** and **S**. The default is 80.
- Specify the number of records to be allocated (numeric). This value is valid for IOTYPES **W, O, P,** and **S**. The default is 500.
- Specify the number of directory blocks allocated to a partitioned data set. The default is 1. If the data set is not partitioned, the default is 0. SCLM ignores nonzero values except when the data set is partitioned.
- Specify the language to be used when you want the build output of one language definition to be verified, built, copied, or purged in another language definition.
- Select from the drop-down box the name of an FLMINCLS macro in the language definition that lists the types to be allocated. This parameter is only valid for IOTYPE **I**. If INCLS is not specified, the default include set is used to determine the types for allocation.
- Select from the Print drop-down box a value to determine whether you will copy the contents of a sequential data set to the SCLM listings data set

(userid.BUILD.LISTxx). This parameter is only valid for data sets allocated with IOTYPE **W**, **S**, or **O**. The valid values are:

- **N** indicating that the contents of the temporary sequential data set are not to be copied to the listings data set.
 - **Y** indicating that the contents of the temporary sequential data set are to be copied to the listings data set.
 - **I** indicating that the contents of the temporary sequential data set are to be copied to the listings data set. SCLM will open and close the temporary data set before invoking the translator.
- Specify whether a temporary partitioned data set is to be allocated as a **PDS** or **PDSE**. This parameter is valid only for IOTYPE **P**.
 - Specify a ddname that is to be allocated to a member of a temporary PDS created by SCLM. The **MEMBER** parameter is valid only for data sets allocated as IOTYPE **P**. You may use the SCLM variables **@@FLMONM** or **@@FLMMBR** in this text box to represent the member name.
 - Specify a return code value that will be set by a translator that, if matched, indicates that SCLM is not to store (save) a translator's output in this data set. This parameter is valid only for IOTYPES **O** and **P**.
 - Place a check in the Catalog checkbox to indicate that this data set is to be catalogued. If you check this box, SCLM temporarily allocates cataloged data sets with a predefined high-level qualifier, the TSO-prefix, and deletes the data set after all translators complete their functions.
 - In the DINIT checkbox, specify that SCLM is to create a member in a temporary data set that has been allocated with IOTYPE **P**. If you check the DINIT checkbox, the member that was created is initialized with a single record containing the string DUMMY FILE. If the IOTYPE is other than **P**, a check in this checkbox will be ignored. The member that is created will have the same name as the build map created if the translator is successful, unless you have specified another name using the **MEMBER** parameter. In the latter case, the value you specified in the **MEMBER** parameter will be used to determine the name of the member to be initialized.
 - In the MALLOC checkbox, identify the case where the translator will generate a sequential output data set having a specific data set name and the data set cannot be allocated to a ddname before the translator is invoked. This parameter is valid only for IOTYPES **O** and **A**. If you check the MALLOC checkbox, you must also:
 - Define an **FLMCPYLB** macro that identifies the name of the data set to be allocated
 - Specify a value for the **KEYREF** parameter on the **FLMALLOC** macro
 - Leave the **ddname** parameter blank
 - Specify that SCLM is to delete all data sets referenced by this **FLMALLOC** macro when SCLM has finished processing them. If you check this **ALLCDEL** checkbox, you must also check the **MALLOC** checkbox.
 - Specify that the data set is always to be allocated using **VIO**. If you do not check the **VIO** checkbox, the data set will always be allocated without **VIO**.

Use the Copylib portion on the lower portion of the Allocation dialog to allocate a data set to a ddname. You can **Add** or **Remove** copy library definitions for copy libraries to be associated with this allocation. The **FLMCPYLB** macro lists a ddname for this allocation (optional) and the name of a data set to be allocated by this allocation. If you specify more than one copy library, SCLM concatenates the data sets in the order they are specified. Data set names can contain the following variables:

- **@@FLMDBQ**

- @@FLMSRF
- @@FLMPRJ
- @@FLMALT
- @@FLMUID
- @@FLMGRP
- @@FLMGRB
- @@FLMMBR
- @@FLMTYP
- @@FLMDSN

The specified data set name, or the data set name that results after substitution occurs for any SCLM variables, must meet all of the requirements of MVS data set names. That is, you may specify a data set name of up to 54 characters, including periods and parentheses, when a member name is specified, or a name of up to 44 characters when no member name is specified.

Note: You can move the FLMALLOC and FLMCPYLB entries up or down in the list of macros prior to a translator's performing DD substitution.

Finish language definition

On the final page of the Wizard, a display box shows the translators that have been defined for this language definition. You can move translators **Up** or **Down** in the displayed list by clicking the appropriate button. Similarly, you can **Add** translators to the list, or **Edit** or **Remove** existing translators from the list. When you have completed your work with the current language definition, click **Finish** to save your work.

From an ISPF session

Start your language definition by navigating through the ISPF interface panel by panel, or by selecting Option 9 on the ISPF Quick Menu. The Language Definition Listing opens to display a list of existing language definitions for the project.

Working with the Language Definition Listing

The Language Definition Listing panel displays a line for each language definition that is currently defined for your project. The listing shows the logical name for the language definition, which is the name you specify when you create the definition. This name is the name used by the FLMLANGL macro to identify the definition. The physical name by which this language is identified is shown in the Copybook column. This field displays a member name where the language definition resides. This member resides in the data set you have defined as SYSLIB1 on the Default Data Sets panel.

Entering **W** on the line preceding a language definition's name permits you to use the Language Definition Wizard to edit the definition.

You can also use the Language Definition Listing panel to delete a language definition or multiple definitions from your project by entering **D** in front of the definitions to be deleted. Once you have confirmed your choice to delete a definition or definitions, SCLM Administrator Toolkit removes these from the list of language definitions associated with your project.

To create a new language definition, enter **N** on the Option line of the Language Definition Listing. This will open the Language Definition Wizard to assist you with language definition creation.

Working with the Language Definition Wizard

Specifying **N** on the Language Definition Listing opens the Language Definition Wizard. (The wizard will also open when you specify **W** next to an existing language definition on the Language Definition Listing. In this case, SCLM Administrator Toolkit skips the first panel of the wizard and takes you to the second wizard panel with information about the existing definition filled in for you.)

On the first panel of the Language Definition Wizard, you can specify the way in which you want to create your new language definition. Enter a value on the **Option** line and a name of up to 8 characters in the field Language Definition Member Name.

- Option 1 permits you to create a new language definition from a data set. Specifying option 1 and a name of up to 8 characters for the new language definition, then pressing **Enter**, displays the Create Language Definition from Data Set panel.
- Option 2 permits you to create a new language definition from JCL. Specifying option 2 and a name of up to 8 characters for the new language definition, then pressing **Enter**, displays the Create Language Definition from JCL panel.
- Option 3 permits you to enter required language definition parameters using a text editor.

Creating a language definition from a data set

If you select option 1 from the Language Definition Specification Menu, SCLM Administrator Toolkit displays the Create Language Definition from Data Set panel. On this panel, you can specify the name of the data set and member that contains the model language definition. To browse for a data set, enter a partially qualified name together with an asterisk in the Data Set Name field. SCLM Administrator Toolkit displays a data set list from which you can select the data set you want to work with.

Once you have selected a data set to work with, SCLM Administrator Toolkit displays a list of its members. Select the one you want by typing an **S** or a slash (/) on the line in front of the member name. The data set member you selected is displayed in the Language Definition Editor. Make any necessary changes and press **PF3** to save your work and continue in the wizard.

Creating a language definition from JCL

If you selected option 2 from the Language Definition Specification Menu, SCLM Administrator Toolkit displays the Create Language Definition from JCL panel. Enter a data set name in the Data Set Name field. To browse for a data set, enter a partially qualified name together with an asterisk in the Data Set Name field. SCLM Administrator Toolkit displays a data set list from which you can select the data set you want to work with.

Once you have selected a data set to work with, SCLM Administrator Toolkit displays a list of its members. Select the one you want by typing an **S** or a slash (/) on the line in front of the member name. The data set member you selected is displayed in the Language Definition Editor. Make any necessary changes and press **PF3** to save your work and continue in the wizard.

There are some special considerations that must be taken into account when creating a language definition from JCL. See “Considerations when creating a language definition from JCL” on page 63 for further information.

Creating a language definition by providing parameters

If you selected option 3 from the Language Definition Specification Menu, SCLM Administrator Toolkit displays an ISPF editor panel. Type in any required language definition parameters. Press PF3 to save your work and continue in the wizard.

Defining language identifiers and rebuild groups

On the Provide Language Definition Parameters panel of the Wizard, you will define a language to SCLM by specifying the name of the language and processing characteristics using the keywords supported by SCLM macro FLMLANGL. Specify:

- A name of up to 8 characters for this language definition
- A member name (copybook name) of up to 8 characters where the language definition will reside. This member resides in the data set you have defined as SYSLIB1 on the Default Data Sets dialog.
- A version name of up to 8 characters for this language. If you change this keyword, all source members under this language will be rebuilt.
- A value (buffer size) representing the memory required to hold the expected number of \$list_info records SCLM allocates for a parse, verify, build, copy, or purge translator. The translator returns dependency information in the allocated memory.
- A value indicating the maximum number of source members that can be present in any input list presented to the translator. If you specify 0, then there is no limit on the number of source members.
- A name identifying the Type that is substituted into the @@FLMCRF variable for include set definitions. This variable can be used in the list of Types to be searched for includes.
- A name of up to 8 characters that is a Type name that can be used to allocate a hierarchical view. This hierarchical view is typically used by the translator to resolve references to SCLM hierarchy members. This parameter will not take effect unless an FLMALLOC macro having IOTYPE=I and KEYREF=SREF is used for the language. The parameter is ignored during a build if a CC, Generic, or LEC architecture definition is used to build the source member.
- Whether or not the System Library is to be checked to determine whether an include is to be tracked, and if so, when. Checking may occur at either parse or build time, or not at all.
- Whether or not compool output is required.
- Whether or not System Library data sets are to be allocated for IOTYPE I
- Whether or not the member parsed in this language is an architecture member.
- The minimum allowable scope. SCLM compares this parameter with the mode specified as input to build and promote functions to allow or disallow processing. The input mode must be of equal or greater value than the language scope. Valid scope values, in ascending order, are:
 - LIMITED
 - NORMAL, the default
 - SUBUNIT
 - EXTENDED

- Whether this language can be assigned to editable members
- Whether dependents of this member are to be rebuilt when some outputs from the translator for this member were not saved.

The display list at the bottom of this panel displays the Rebuild Groups as defined by SCLM macro FLMLRBLD. The FLMLRBLD macro causes members with a particular language to be rebuilt whenever they are promoted into particular groups. Using the appropriate line commands or option commands, you can **Add** a new rebuild group, or **Edit** or **Remove** an existing rebuild group from the list.

Adding or editing rebuild groups

Entering **Add** or **Edit** causes SCLM Administrator Toolkit to display the Rebuild Groups panel. On this panel, you can select some or all of the available rebuild groups to be added to the rebuild group list on the previous wizard panel. To select individual rebuild groups, type an **S** or slash (/) in that group's Cmd line. To select all of the rebuild groups, or to deselect all of the groups, type **A** or **D**, respectively, on the Option line. Pressing **Enter** on this panel returns you to the Provide Language Definition Parameters panel. Pressing **Enter** on that panel moves you to the next panel of the Language Definition Wizard.

Providing Include set definitions

Pressing **Enter** displays the page of the Wizard on which you can view a list of existing Include Set Definitions. You can add new definitions to the list by typing **N** on the Option line. This adds a blank line to the panel on which you can specify a new include set. You can remove a definition from the list by typing **D** on the definition's Cmd line.

The Include Set Definition requires that you specify:

- A name for the include set. An include set name can only be used once per language definition.
- A list of Types that contain the includes for the include set. Two SCLM variables, @@FLMTYP and @@FLMETP, can be used in this Types list.
- Whether or not SCLM is to process the includes of an included member when the language of the included member differs from that of the source member; that is, whether or not language boundaries are crossed.

When you are through with your work, press **Enter** to move to the next wizard panel.

Providing system library definitions

Pressing **Enter** on the System Library Definitions panel opens the System Library Definitions panel on which you can define, for each data set:

- The name of the partitioned data set that contains macros or includes from outside the project. The data set name must meet MVS data set naming requirements.
- The name of an include set on an FLMINCLS macro
- The serial number of a direct access volume on which the data set is located

You can delete a data set from the list by typing **D** on the Cmd line preceding its name. To add a line to the panel on which you can enter information for another data set, type **N** on the Option line. When you have completed your work on this panel, press **Enter** to move to the next wizard panel.

Reviewing existing translators and creating new translators

Pressing **Enter** on the System Library Definitions panel opens the Translators Summary panel. This panel lists the names of any translators that have already been defined for the project (if this is an existing project) and specifies each translator's function. Valid functions are Parse, Verify, Build, Copy, and Purge. The purpose of each of these functions is described in the next section. On this summary panel, you can delete or edit an existing translator by typing **D** or **E**, respectively, on the Cmd line preceding its name. To create a new translator, type **N** on the Option line.

Note: All of the panels described below, when completed, will return you to this Translators Summary panel. Pressing Enter on this panel completes your work on a language definition.

Specify translator definition parameters

If you specified **E** or **N** on the Translator Summary panel, the Translator Definition panel opens. If you are editing an existing translator, its values are displayed in the appropriate fields on this panel. This Wizard panel assists you in defining your translator and allocating data sets for use by the translator.

You can provide the following information:

- The function that this translator will provide. Valid values are:
 - Parse** to gather statistics and dependencies
 - Verify** to perform validation
 - Build** to assemble, compile, link, or otherwise process a member so that the outputs have different formats than the inputs
 - Copy** invoked when a Promote copies an SCLM-controlled member to the next higher group in the hierarchy
 - Purge** to purge data that is related to an SCLM-controlled member, but the data is not under SCLM control
- The call name, which is a name of up to 16 characters for this translator. This name appears in SCLM messages along with translator return codes. The name may contain blanks if you enclose the entire name in single quotes.
- The method by which the translator is called: **ATTACH**, **LINK**, **TSOLNK**, or **ISPLNK**
- The name of the program that will be invoked by the translator. Normally, this program would be a parser, compiler, assembler, or user-supplied routine. If you selected a call method of **ATTACH**, **LINK**, or **TSOLNK**, this is the name of a REXX Exec or CLIST, or the entry point to a load module. If you selected **ISPLNK**, this value must be **SELECT**.
- The step label, which identifies the job step label for this translator.
- An acceptable return code from the translator. This is a positive integer or zero. If the translator returns a return code value greater than the value you specify, the process has failed and no accounting information is saved in the hierarchy.
- An integer from 0 through 3 that indicates the parameter order to the translator. The default is 1. These integers have the following meaning:
 - **0** No parameters are to be passed
 - **1** Option list is to be passed
 - **2** ddname substitution list is to be passed

— 3 Option list is to be passed followed by the ddname substitution list

- A keyword to be used in architecture members to specify additional options for this translator.
- A ddname for the task library. This ddname is associated with one or more data sets that contain the translator load module. This value is only valid when the call method is **ATTACH**.
- A 'no-save-external' indicator, which is a return code value indicating whether any translator outputs targeted to an external data set were saved. This parameter is valid only for BUILD translators. If the return code is other than zero, the build processor determines that external outputs were not saved.
- A maximum good return code indicator, used in conjunction with the input list parameter to indicate the maximum good return code value for each member in the input list.
- Whether or not the input members for this translator reside in SCLM-controlled partitioned data sets. If this checkbox is checked, this statement is true. If this checkbox is not checked, the default varies according to the translator's function type. If you specify multiple translators for this language definition, this value must be the same for all of them.
- Whether or not the translator supports input list processing.
- Whether or not developers can override default translator options.
- The translator version, which is a value of up to 8 characters that is stored in the account record for each output member saved from the translators.
- A data set name of up to 44 characters in length, for the data set containing the translator load module (COMPILE parameter) or REXX Exec being invoked. This parameter is not required with the translator load module that resides in the system concatenation.
- A list of options, separated by commas, that you enter in the text box. This options list is passed to the program whose name you specified in the COMPILE parameter. The maximum length of the list, including delimiters, is 255 characters. The options you pass must be acceptable to the program. Delimit the list with single quotes or parentheses. The options can also contain variables to provide dynamic information to the COMPILE program. The @@FLMMBR and @@FLMTYPE variables will be replaced with the name of the member and type of the last SINC, INCL, or INCLD statement in the architecture definition. If a source member is being built, the variable will be replaced with the name of the source member.

Once you have completed the Wizard panel, you can choose to perform one or more additional wizard functions, one at a time.

- Type **A** on the Option line to provide information about translator allocations (SCLM macro FLMALLOC). See "Specifying translator allocations".
- If the function of this translator is BUILD, type **C** on the Option line to provide information for conditions (SCLM macro FLMTCOND). See "The Conditions panel" on page 62.
- If the function of this translator is BUILD, type **O** on the Option line to provide options information (SCLM macro FLMTOPTS). See "The Options panel" on page 62.

Specifying translator allocations

If you specified **A** on the Option line of the Translator Definition panel, the Translator Allocations panel opens. On this panel, you can specify:

- The IOTYPE, which can be **A, I, L, N, O, P, S, U,** and **W**.
- The ddname to be used for the specified IOTYPE for this allocation definition.

You can create a **New** translator allocation or **Edit** an existing allocation by typing **N** on the Option line or **E** on the Cmd line of an existing allocation, respectively. This results in displaying the Allocation Definition panel (see). You can also remove an allocation from the list by typing **D** on the Cmd line next to it.

The Allocation Definition panel

Use the Allocation Definition panel to allocate permanent or temporary data sets used by the translators. On this panel, you can:

- Specify the IOTYPE for this allocation. Valid IOTYPES are **A, I, L, N, O, P, S, U,** and **W**.
- Specify the ddname to be used for this allocation.
- Specify a reference to a keyword in the build map or architecture definition. This keyword is used by other parameters in this macro.
- Specify the disposition to be used for this allocation on a JCL DD statement. Valid values are **OLD, SHR, MOD,** or **NEW**. If Disposition is not specified, it defaults to an appropriate value for the IOTYPE parameter.
- Specify the default SCLM Type for this allocation.
- Specify the default member name for the output member.
- Specify the record format, which may be **F, FA, FM, FB, FBA, FBM, V, VA, VM, VB, VBA, VBM,** and **U**.
- Specify the block size of the data set. This parameter is valid for IOTYPES **W, O, P,** and **S**.
- Specify the logical record length of the data set (numeric). This value is valid for IOTYPES **W, O, P,** and **S**. The default is 80.
- Specify the number of records to be allocated (numeric). This value is valid for IOTYPES **W, O, P,** and **S**. The default is 500.
- Specify the number of directory blocks allocated to a partitioned data set. The default is 1. If the data set is not partitioned, the default is 0. SCLM ignores nonzero values except when the data set is partitioned.
- Specify the language to be used when you want the build output of one language definition to be verified, built, copied, or purged in another language definition.
- Specify the name of an FLMINCLS macro in the language definition that lists the types to be allocated. This parameter is only valid for IOTYPE **I**. If INCLS is not specified, the default include set is used to determine the types for allocation.
- Specify a value to determine whether you will copy the contents of a sequential data set to the SCLM listings data set (userid.BUILD.LISTxx). This parameter is only valid for data sets allocated with IOTYPE **W, S,** or **O**. The valid values are:
 - **N** indicating that the contents of the temporary sequential data set are not to be copied to the listings data set.
 - **Y** indicating that the contents of the temporary sequential data set are to be copied to the listings data set.
 - **I** indicating that the contents of the temporary sequential data set are to be copied to the listings data set. SCLM will open and close the temporary data set before invoking the translator.
- Specify whether a temporary partitioned data set is to be allocated as a **PDS** or **PDSE**. This parameter is valid only for IOTYPE **P**.

- Specify a ddname that is to be allocated to a member of a temporary PDS created by SCLM. The MEMBER parameter is valid only for data sets allocated as IOTYPE P. You may use the SCLM variables @@FLMONM or @@FLMMBR in this text box to represent the member name.
- Specify a return code value that will be set by a translator that, if matched, indicates that SCLM is not to store a translator's output in this data set. This parameter is valid only for IOTYPEs O and P.
- For Catalog, specify whether or not this data set is to be catalogued. If you specify Y, SCLM temporarily allocates cataloged data sets with a predefined high-level qualifier, the TSO-prefix, and deletes the data set after all translators complete their functions.
- For DINIT, specify whether or not SCLM is to create a member in a temporary data set that has been allocated with IOTYPE P. If you specify Y, the member that was created is initialized with a single record containing the string DUMMY FILE. If the IOTYPE is other than P, this specification is ignored. The member that is created will have the same name as the build map created if the translator is successful, unless you have specified another name using the MEMBER parameter. In the latter case, the value you specified in the MEMBER parameter will be used to determine the name of the member to be initialized.
- For MALLOC, specifying Y identifies the case where the translator will generate a sequential output data set having a specific data set name and the data set cannot be allocated to a ddname before the translator is invoked. This parameter is valid only for IOTYPEs O and A. If you specify Y, you must also:
 - Define an FLMCPYLB macro that identifies the name of the data set to be allocated
 - Specify a value for the KEYREF parameter on the FLMALLOC macro
 - Leave the ddname parameter blank
- For ALLCDEL, if you specify Y, SCLM is to delete all data sets referenced by this FLMALLOC macro when SCLM has finished processing them. If you specify Y, you must also specify Y for MALLOC.
- For VIO, if you specify Y, then the data set is always to be allocated using VIO. If you do not specify Y, the data set will always be allocated without VIO.

If you want to specify copy library definitions, type C on the Option line of this panel to continue.

Providing copy library definitions

Use the Copy Library Definitions panel to allocate a data set to a ddname. You can create **New** definitions or **Delete** existing definitions for copy libraries to be associated with this allocation. The FLMCPYLB macro lists a ddname for this allocation (optional) and the name of a data set to be allocated by this allocation. If you specify more than one copy library, SCLM concatenates the data sets in the order they are specified. Data set names can contain the following variables:

- @@FLMDBQ
- @@FLMSRF
- @@FLMPRJ
- @@FLMALT
- @@FLMUID
- @@FLMGRP
- @@FLMGRB
- @@FLMMBR

- @@FLMTYP
- @@FLMDSN

The specified data set name, or the data set name that results after substitution occurs for any SCLM variables, must meet all of the requirements of MVS data set names. That is, you may specify a data set name of up to 54 characters, including periods and parentheses, when a member name is specified, or a name of up to 44 characters when no member name is specified.

The Conditions panel

Use the Conditions panel to specify whether a BUILD translator is to be run or skipped based upon the group at which the build takes place and return codes from previous BUILD translators in the same language definition. You can specify:

- Group criteria. Specifying the appropriate criterion determines whether the conditions you specify are valid for all groups, are valid only for the groups that are listed on the panel, or are valid only for the groups that are not listed on the panel.
- Whether the translator is to be run or skipped when the condition evaluates true
- The name of the translator to be run or skipped when the condition evaluates true
- The relations list, which is in the form (s1,r1,v1) or ((s1,r1,v1),...,(sn,rn,vn)). is the translator label for a previous FLMTRNSL macro of a BUILD translator in the same language definition. ri is a standard relation such as EQ, NE, LT, and so forth. vi is an unsigned integer with a maximum value of 999999999. For additional information, see the discussion of the FLMTCOND macro in the *IBM SCLM for z/OS: Reference Manual*.
- The value of the return code that must be matched to make the condition true

On this panel, you can:

- Delete translators from the list by specifying **D** on the Cmd line next to the translator to be deleted
- Add another relation by typing **A** on the Option line. In this case, a blank line is added to the list of translators on the panel so that you can fill in the translator name, relation, and return code value.
- Select a group or groups to be added to the list of groups which are affected by the Group Criteria specified on the panel. When you specify **G** on the Option line, the Select Groups Criteria panel displays. On this panel, you can select those to be added to the list of affected groups.

The Options panel

The Options panel is applicable only to BUILD translators. It provides a list of option sets that can be used to vary the options passed to a BUILD translator. On this panel, you can:

- Add or edit an option set by typing **A** on the Option line or by typing **E** on the Cmd line of an existing option set. In either of these cases, the Option Parameters panel opens.
- Typing **D** on the Cmd line of an existing option set to delete it.

Providing options for an options set

The Options Parameters panel permits you to specify one or more option lists that are used to vary the options passed to a BUILD translator. Valid entries on this panel are:

- The text of the options to be passed
- Whether the options you specify are valid for all groups, are valid only for the groups that you selected on the panel, or are valid only for the groups that you did not select on the panel.
- Whether this options list is to replace an existing options list, or whether it is to be appended to an existing options list

Use the **S** line command to select the groups to be included or excluded.

Considerations when creating a language definition from JCL

When creating language definitions from JCL, whether from the workstation or using the ISPF interface, you should select a job that meets the following criteria, or you may copy and modify an existing job to meet these criteria. Each step that executes a program in a job will create a FLMTRNSL step in the language definition. Since certain parameters cannot be determined from the JCL, the generated language definition may require some hand tailoring before the JCL can be used successfully in your SCLM project. These criteria are:

- The job should only compile or link a single program, otherwise the generated language definition will require excessive tailoring.
- Jobs may execute PROCs - either inline or from a PROC library.

The job is modified as follows and copied into <PROJECT>.PROJDEFS.JCL:

- Change the job name to user id + 'A'.
- Add TYPRUN=SCAN to the JOB statement.

The job is submitted and the output retrieved to parse the JCL into a language definition using the actual data set names and other parameters that were substituted during the TYPRUN=SCAN operation.

When converting a job into a language definition, SCLM Administrator Toolkit uses the following rules:

1. A FLMLANGL macro is generated.
2. A FLMTRNSL macro is generated for the parser.
3. For each step executing a program, an FLMTRNSL macro is generated.
4. For each dataset allocated to SYSLIB, FLMSYSLB and FLMCPYLB are generated.
5. An FLMINCLS is generated for each.
6. The type of FLMALLOC depends on the DDNAME and the program being executed.
7. Where parameters cannot be determined, AUZ????? is placed in the source.

Note: the generated language definition will need hand tailoring.

The next sections contain a sample job and the pre-tailoring language definition that was generated.

Sample Job:

```
//MDDECRB JOB 01,
//          'CHRIS BAILEY',
//          CLASS=A,
//          MSGCLASS=8,
//          NOTIFY=&SYSUID,
//          USER=,GROUP=,PASSWORD=
//*
//* COPYRIGHT (C) 2002, ROCKET SOFTWARE, INC.. ALL RIGHTS RESERVED.
//*
//*
//ASMNRENT PROC MEM=' ',
//          OBJ='MDTECRB.PROJDEFS.OBJ',
//          SOURCE='MDTECRB.PROJDEFS.SOURCE'
//ASM      EXEC PGM=ASMA90,
//          REGION=2048K,
//          PARM='LINECOUNT(52),OPTABLE(ESA),TEST'
//SYSLIB   DD DSN=SYS1.MACLIB,
//          DISP=SHR
//          DD DSN=SYS1.AMODGEN,
//          DISP=SHR
//          DD DSN=CEE.SCEEMAC,
//          DISP=SHR
//          DD DSN=ISP.SISPMACS,
//          DISP=SHR
//          DD DSN=&SOURCE,
//          DISP=SHR
//SYSIN    DD DSN=&SOURCE(&MEM),
//          DISP=SHR
//SYSUT1   DD DSN=&SYSUT1,
//          UNIT=(SYSDA,SEP=SYSLIB),
//          SPACE=(CYL,(10,5))
//SYSPUNCH DD DSN=&OBJ(&MEM),
//          DISP=SHR
//SYSPRINT DD SYSOUT=*
//SYSLIN   DD DSN=&OBJ(&MEM),
//          DISP=SHR
//          PEND
//*
//MDTECRB EXEC ASMNRENT,MEM=MDTECRB
//*
```

Generated language definition:

```
FLMLANGL LANG=ASM,
          ALCSYSLB=Y,
          BUFSIZE=1000,
          CANEDIT=Y,
          CHKSYSLB=IGNORE,
          VERSION=JCL2LDML
ASM      FLMSYSLB SYS1.MACLIB
        FLMSYSLB SYS1.AMODGEN
        FLMSYSLB CEE.SCEEMAC
        FLMSYSLB ISP.SISPMACS
        FLMSYSLB MDTECRB.PROJDEFS.SOURCE
        FLMINCLS TYPES=(@FLMTYP,
          @FLMETP),
          CROSLANG=Y
AUZINCO1 FLMINCLS TYPES=(@FLMTYP,
          @FLMETP),
          CROSLANG=Y
        FLMTRNSL          CALLNAM='AUZ?????',
          FUNCTN=PARSE,
          COMPILE=FLMLPGEN,
          OPTIONS=(SOURCEDD=SOURCE,
          PARSEDSN='@FLMDSN',
          PARSEMEM=@FLMMBR,
          STATINFO=@FLMSTP,
          LISTINFO=@FLMLIS,
          LISTSIZE=@FLMSIZ),
          PORDER=1
        FLMALLOC          IOTYPE=A,
          DDNAME=SOURCE
        FLMCPYLB @FLMDSN(@FLMMBR)
        FLMTRNSL          CALLNAM='ASMA90',
          FUNCTN=BUILD,
          COMPILE=ASMA90,
          GOODRC=0,
          OPTIONS='LINECOUNT(52),OPTABLE(ESA),TEST',
          PORDER=1
        FLMALLOC          IOTYPE=I,
          DDNAME=AUZ?????,
          KEYREF=SINC,
          INCLS=AUZINCO1
        FLMALLOC          IOTYPE=I,
          DDNAME=SYSLIB,
          DISP=SHR,
          KEYREF=SINC
        FLMCPYLB SYS1.MACLIB
        FLMCPYLB SYS1.AMODGEN
        FLMCPYLB CEE.SCEEMAC
        FLMCPYLB ISP.SISPMACS
        FLMCPYLB MDTECRB.PROJDEFS.SOURCE
        FLMALLOC          IOTYPE=S,
          DDNAME=SYSIN,
          KEYREF=SINC,
          RECNUM=20000
        FLMALLOC          IOTYPE=W,
          DDNAME=SYSUT1,
          RECNUM=20000
        FLMALLOC          IOTYPE=O,
          DDNAME=SYSPUNCH,
          DFLTTYP=OBJ,
          KEYREF=OBJ,
          RECNUM=20000
```

```
          FLMALLOC          IOTYPE=0,
          DDNAME=SYSPRINT,
          DFLTTYP=LIST,
          KEYREF=LIST,
          PRINT=Y,
          RECNUM=20000
FLMALLOC          IOTYPE=0,
          DDNAME=SYSLIN,
          DFLTTYP=OBJ,
          KEYREF=OBJ,
          RECNUM=20000
```

Chapter 7. Deleting a Project or Other SCLM Objects

As you use SCLM Administrator Toolkit, adding or modifying an SCLM project or other SCLM objects, you will have the opportunity to delete project or profile objects or the project itself. A complete discussion of deleting these objects is provided in various chapters of this book. This chapter provides a summary of the processes required to delete various SCLM objects.

From the workstation

This unit describes methods for using the workstation interface to delete a project or other SCLM objects.

Deleting a project

From the SCLM pull-down in your workspace:

1. Click **Delete Project** in the pull-down menu.
2. SCLM Administrator Toolkit displays a pop-up requesting that you confirm the delete. From the pop-up that is displayed, you can select either or both of the following choices, or neither:
 - Place a check in the checkbox **Also delete SCLM Project data** if you want to delete all of the SCLM data sets used to store programs managed by this SCLM project
 - Place a check in the checkbox **Also delete PROJDEFS datasets** if you want to delete all of the PROJDEFS datasets associated with this SCLM project. You can look at the contents of the PROJDEFS datasets by using the SCLM Project Editor to view the Default Datasets dialog.
3. Click **Yes** to confirm deletion of the project, and to take action on any additional choices you made. Click **No** to cancel the deletion.

You can also choose to delete a project by right-clicking its name in the Navigator tree and then selecting **Delete Project** from the pop-up menu. In this case, you cannot choose to delete the associated data. From the pop-up that displays, click **Yes** to confirm deletion of the project. Click **No** to cancel the deletion.

Deleting a Type

To delete a Type from your profile:

1. Access the Default Types Preference page by selecting the **Window** pull-down in your SCLM workspace. From the pull-down, select **Preferences > SCLM Admin Toolkit > Default Types Preference Page**.
2. Click the name of the Type you want to remove in the Default Types list box and press the **Remove** button.

To delete a Type from your project:

1. Access the Types page by clicking the **Types** tab at the bottom of any Project Wizard panel.
2. Click the name of the Type you want to remove from your project by clicking its name in the Selected Types list box.

3. Click the left-pointing arrow (<) to move the selected Type to the Default Types list box. This removes the selected Type from your project, but does not delete it from the list of default Types available to be used in a project. When you choose to remove a Type from your project:
 - The Project Wizard asks you to confirm the deletion of the Type. If you select the **No** button, no action is taken.
 - If you select the **Yes** button, then the Wizard asks whether you want to also delete the data associated with this Type. If you select **No**, then only the Type is deleted. If you select **Yes**, then the Type and any associated data sets for this Type are deleted.

Deleting an authorization group or authorization code

To delete an authorization group or authorization code from your project:

1. Access the Authorizations page by clicking the **Authorizations** tab at the bottom of any Project Wizard page.
2. Click the names of the authorization codes or authorization groups to be removed in either the Authorization Group or Authorization Code list box.
3. Click **Remove**. If you remove an authorization group, any dependent authorization codes are also removed.

Deleting a group

To delete a group from your project:

1. Access the Groups page by clicking the **Groups** tab at the bottom of any Project Wizard page.
2. Click the group's icon, then click **Remove**.
3. When you choose to remove a group from your project:
 - The Project Wizard asks you to confirm the deletion of the group. If you select the **No** button, no action is taken.
 - If you select the **Yes** button, then the Wizard asks whether you want to also delete the data associated with this group. If you select **No**, then only the group is deleted. If you select **Yes**, then the group and any associated data sets for this group are deleted.

If you delete a group that has groups in the project hierarchy that are subordinate to it, these groups are also removed.

Deleting a language definition

To remove a language definition from your project:

1. Access the Language Definition Wizard by clicking the **Language Definition** tab from any Project Wizard page.
2. From the list of existing language definitions that the Language Definition Wizard displays, click the name or names of those to be removed, then click the **Remove** button.

From an ISPF session

This unit describes methods for using the ISPF interface to delete a project or other SCLM objects.

Deleting a project

To delete a project:

1. From the SCLM Administrator Toolkit Project Administration Main Menu, specify option **3** — List on the Command line.
2. SCLM Administrator Toolkit displays the Project List.
3. Place a **D** on the line next to the project or projects to be deleted and press **Enter**.
4. You will be now be asked to confirm the deletion. In addition to confirming the deletion, you may also select one, both, or neither of the following choices:
 - Place a slash (/) on the appropriate line to select **Also delete SCLM Project data** if you want to delete all of the SCLM data sets used to store programs managed by this SCLM project
 - Place a slash (/) on the appropriate line to select **Also delete PROJDEFS datasets** if you want to delete all of the PROJDEFS datasets associated with this SCLM project. You can look at the contents of the PROJDEFS datasets by using the SCLM Project Editor to view the Default Datasets dialog.
5. Press **PF3** to process the deletion and to take action on any of the additional choices you made.

Deleting a Type

To delete a Type from your profile:

1. Access the Edit Default Type List panel.
2. Place a **D** on the line preceding the Type or Types you want to delete and press **Enter**.

To delete a Type from your project:

1. Access the Select Types panel.
2. Place a **D** on the line preceding the Type or Types you want to delete and press **Enter**.

Deleting an authorization group or authorization code

To delete an authorization group or groups from your project:

1. Access the Authorization Group List panel.
2. Place a **D** on the line preceding the authorization group or groups you want to delete and press **Enter**. This action deletes the specified authorization groups and any dependent authorization codes from your project.

Deleting a group

To delete a group or groups from your project:

1. Access the Group List panel.
2. Place a **D** on the line preceding the group or groups you want to delete and press **Enter**. Note that, if you delete a group that has groups in the project hierarchy that are subordinate to it, these groups are also deleted.

Deleting a language definition

From the SCLM Administrator Toolkit Language Definition Wizard Main Menu:

1. Type option **1** — List on the Command line. The wizard displays the Language Definition List panel.
2. Place a **D** on the line or lines preceding the names of the language definitions you want to delete and press **Enter**.

Chapter 8. Cloning an Existing Project

This chapter describes the process to clone an existing project. Before a project can be cloned using the SCLM Administrator Toolkit, it must first be parsed by the Toolkit.

When cloning a project, all references in the project that match the project name are replaced by the new project name. If you are generating an alternate project, all fields that refer to the project member name are replaced by the new alternate name. When cloning a project and including the project data, all project data sets with the exception of accounting, auditing, settings, and versioning data sets, are copied. During the creation of the necessary scripts to perform the copy, SCLM Administrator Toolkit checks to ensure that the target data set name is different from the source. If a copy operation attempts to copy a data set to itself, the project settings are cloned, but the data will not be cloned.

From the workstation

From the SCLM pull-down at the top of your workspace, click **Clone SCLM Project**. SCLM Administrator Toolkit displays the Clone SCLM Project dialog with the name of the project that you are cloning filled into the Cloning Project Name text box. The value in this box cannot be modified.

1. In the New Project Name text box of this dialog, specify a name of up to 8 characters for the new project.
2. If this is an alternate project, place a check in the appropriate check box and specify a name for the alternate project in the New Alternate Name text box.
3. To include data from this project in the cloned project, place a check in the appropriate check box. This will cause the group/Type data sets associated with the base project to be included with the cloned project.
4. To complete your work and save the cloned project, press **OK**. To cancel your work without saving the cloned project, press **Cancel**.

From an ISPF session

To clone a project:

1. From the SCLM Administrator Toolkit Project Administration Main Menu, specify option **3** — List on the Command line.
2. SCLM Administrator Toolkit displays the Project List.
3. Place a **C** on the line next to the project or projects to be cloned and press **Enter**.
4. Specify a name of up to 8 characters for either the new project or the alternate project, if this is an alternate.
5. If you want to include project data from the cloned project in the clone, type a slash (/) on the Do you wish to include data with clone? line. This will cause the group/Type data sets associated with the base project to be included with the cloned project.
6. Press **Enter** to save your responses. SCLM Administrator Toolkit places you in the Project Wizard, with values populated from the source project.

Chapter 9. Migrating Software Assets into your SCLM Project

Use SCLM Administrator Toolkit's Migration Wizard to migrate a data set member or group of members into your SCLM project and place them under SCLM control. As data is entered in the wizard, the values are saved on the host system, so that if you end the wizard session before all data is entered, you can resume your work in another session.

The Migration Wizard copies the selected assets into the target SCLM-managed library, updates the accounting file, and displays the migration report.

If you want to migrate UNIX- or workstation-based assets into an SCLM project, see Chapter 10, "Migrating Remote Software Assets into your SCLM Project," on page 75 for information on how to do so.

From the workstation

On the first panel of the Migration Wizard, specify the name of the data set that contains the member or members you want to migrate into your SCLM project. SCLM Administrator Toolkit displays a list of the data set's members, from which you can select the member or members to be migrated. Once you have made your selection, specify:

1. A name of up to 8 characters to identify the group into which the members you selected will be migrated
2. The Type into which the members you identified will be migrated
3. The language of the members
4. A change code of up to 8 characters to be added to the information obtained by parsing the members
5. An authorization code of up to 8 characters in length
6. The date and time to be assigned to all migrated members. The default is the current date and time. If you specify a value for the date, then you must also specify a value for the time.

From a drop-down list box, select the processing mode which may be:

- Conditional
Migrate processing stops if an error occurs
- Unconditional
Migrate processing continues regardless of any errors
- Forced
A new account record is created for the specified member or members regardless of previous status

Once you are satisfied with your entries, clicking **Finish** saves your work and exits the wizard.

From an ISPF session

To migrate assets into a project,

1. From the SCLM Administrator Toolkit Project Administration Main Menu, specify option **3** — List on the Command line.
2. SCLM Administrator Toolkit displays the Project List.
3. Place an **M** on the line next to the project or projects to be migrated and press **Enter** to display the Migrate Assets into Project panel. On this panel, specify:
 - a. The name of the data set from which assets are to be migrated
 - b. The name of the member from which assets are to be migrated

You may use an asterisk as a wild card to locate the appropriate data set and member. SCLM Administrator Toolkit now displays the Migration Options for Selected Members panel. On that panel: enter the following information in the fields provided:

1. A name of up to 8 characters to identify the group into which the members you selected will be migrated
2. The Type into which the members you identified will be migrated
3. The language of the members
4. An authorization code of up to 8 characters in length
5. A change code of up to 8 characters to be added to the information obtained by parsing the members
6. The mode for the migration:
 - Conditional
Migrate processing stops if an error occurs
 - Unconditional
Migrate processing continues regardless of any errors
 - Forced
A new account record is created for the specified member or members regardless of previous status
7. The date and time to be assigned to all migrated members

Chapter 10. Migrating Remote Software Assets into your SCLM Project

The Remote Migration Wizard assists you in migrating workstation-based files into an SCLM project and placing them under SCLM control. (If the files you want to migrate are host-based data sets, you will want to use the Migration Wizard instead of this Remote Migration Wizard. See Chapter 9, "Migrating Software Assets into your SCLM Project," on page 73.) The Remote Migration Wizard is available only from the workstation. Once launched, it copies the remote assets you selected into the target SCLM-managed library, updates the accounting file, and displays the migration report.

Before you can use the Remote Migration Wizard, several customization activities will need to be performed. These are documented in the *SCLM Administrator Toolkit: Installation and Customization Guide*, in the section entitled "Customization required to use the Remote Migration Wizard."

Using the Remote Migration Wizard

Follow these steps to use the Remote Migration Wizard to migrate workstation-based assets into an SCLM-controlled project.

1. From either the Package Explorer view or the Navigator view, select the project, packages, folders, or files that you want to migrate. You can select multiple items by holding down the **CTRL** key while selecting the objects you want to migrate.
2. Launch the Remote Migration Wizard by clicking the right mouse button to display a pop-up menu. From that menu, select **Team > Migrate to SCLM** to launch the Remote Migration Wizard.
3. Click **Next** to continue.
4. On the first page of the Wizard:
 - a. Select the host connection that will be the target of your migration from connections you have previously defined. Once you have done so, SCLM Administrator Toolkit will retrieve a list of SCLM projects from the selected host system.
 - b. Select the SCLM project from the list of previously-defined projects into which the selected folders and files will be migrated.
 - c. If you want to migrate the selected objects into an alternate project, you must also select that alternate project's name from a list of previously-defined alternate project names.
5. On the next page of the Wizard:
 - a. Select the SCLM group from the list of previously-defined groups into which you will migrate the files.
 - b. Select the authorization code for the migration from the list of previously-defined authorization codes.
 - c. Optionally type a change code for the migration.
 - d. Select the mode for the migration: Conditional, Unconditional, or Forced:
 - If you specify **Conditional**, migrate processing stops if an error occurs.

- If you specify **Unconditional**, migrate processing continues regardless of any errors.
 - If you specify **Forced**, a new account record is created for the specified member or members regardless of previous status.
- e. Select the method for specifying the date and time to be assigned to all migrated members.
- If you specify **Use the file system date and time**, the date and time are obtained from the local or remote file system.
 - If you specify **Use SCLM default date and time**, the date and time are obtained from SCLM at the time of the migration.
 - If you specify **Enter a date and time**, the values you specify in the text entry boxes are used.
- f. Click **Next** to continue.
6. On the next page of the Wizard:
- a. For each unique file extension being migrated, select an SCLM Type and SCLM language to be associated with the file from those you have previously defined for the project .
 - b. Click **Next** to start the migration and view the migration report.

After you have viewed the migration report and are satisfied with the migration, click **Finish** to exit the Wizard. If you need to make changes to your migration, clicking **Back** will take you back through the Wizard pages so that you can modify your entries.

Chapter 11. Maintaining the Project's VSAM Files

This chapter describes the procedures to maintain your project's VSAM files. You may already have defined procedures or tasks, or you may need to create new tasks. When creating your VSAM maintenance REXX scripts, you must include a comment with the string **VSAMTASK** <description> somewhere in the script; for example:

```
/* VSAMTASK: Copy sequential backup data set to Primary Accounting data set */
```

The project's REXX code used for VSAM maintenance is stored in the ISPSLIB library members. The JCL generated for new VSAM tasks is stored in the project's JCL library. The example statement above displays those scripts from the ISPSLIB library and the project JCL library that follow this convention and makes them available for your use.

From the workstation

From the SCLM pull-down at the top of your workspace, click **VSAM Maintenance Wizard**. SCLM Administrator Toolkit displays the VSAM Maintenance Wizard dialog

- If you choose to edit, delete, or run a VSAM task, SCLM Administrator Toolkit displays a list of existing tasks. Click the appropriate radio button and then click **Next**. The Wizard displays a list of tasks from which you select the task to be run, edited, or deleted. To process your choice and exit the Wizard, press **Finish**.
- To create a new task, enter its name and description in the text boxes provided and press **Next**. The Wizard displays a panel on which you can define the task. When you have completed your definition, press **Finish** to save the task and exit the Wizard.

From an ISPF session

To perform VSAM file maintenance:

1. From the SCLM Administrator Toolkit Project Administration Main Menu, specify option **3** — List on the Command line.
2. SCLM Administrator Toolkit displays the Project List.
3. Place a **V** on the line next to the project or projects for which VSAM file maintenance is to be performed and press **Enter**.
4. SCLM Administrator Toolkit displays a panel showing the currently-defined VSAM file maintenance tasks and their descriptions. To create a new task, enter **N** on the Option line. Then press **Enter**. SCLM Administrator Toolkit opens a panel on which you can specify a name for the new task.
5. To modify an existing task, enter an **E** on the line in front of the task. SCLM Administrator Toolkit displays the task in an editor so that you can make any required modifications.
6. To delete an existing task, enter a **D** on the line in front of the task. SCLM Administrator Toolkit deletes the task from the list.
7. To run an existing task, enter an **R** on the line in front of the task.

Typing **OUTPUT** on the Option line displays the output of the last script you have run.

Chapter 12. Using the Architecture Definition Wizard

SCLM uses architecture definitions to control the build and promotion processes. SCLM Administrator Toolkit recognizes four kinds of architecture definitions:

- *High Level Architecture Definitions.* These are used to subset an application into sub-applications. When used in a build or promote operation, all referenced architecture members are built or promoted.
- *Linkage Editor Control Architecture Definitions.* These are used to control the linking of objects into load modules.
- *Compilation Control Architecture Definitions.* These are used to control the compilation of source objects into object code or even load modules. They are typically used when you want to compile a module using slightly different options and parameters than those defined in a language definition.
- *Generic Architecture Definitions.* These are used to process members that do not generate object modules.

Only a Linkage Editor Control definition can be sourced from an existing load module, while generic, compilation control, and linkage editor control definitions can be sourced from JCL.

Note: While the process of creating an architecture definition from a load module or JCL is designed to produce results that are close to final, you may need to do some tailoring to achieve the final result.

The Architecture Definition Wizard allows you to create architecture definitions (ARCHDEFs) by hand or by importing them from an existing load module or existing JCL. Before generating architecture definitions for a new project, you should ensure that the source members have been migrated into the project prior to generating the ARCHDEFs.

From the workstation

You can use the Architecture Wizard to create a new definition or modify an existing definition. To display the Architecture Definition Wizard, from the SCLM pull-down at the top of your workspace, click **Architecture Definition Wizard**.

Modifying an existing architecture definition

To modify an existing architecture definition:

1. On the first page of the wizard, specify the architecture definition group and Type.
2. Click the **List Architecture Definitions** radio button. From the display of existing ARCHDEFs, select the one you want to edit.
3. The wizard displays a list of existing ARCHDEF from which you can select one to edit.
4. In the wizard's Editor window, edit the ARCHDEF you selected, and press **Finish** to save your changes.

Creating a new architecture definition

To create a new architecture definition:

1. On the first page of the wizard, specify the architecture definition group and Type.
2. Click the **Create New Architecture Definition** radio button.
3. On the next wizard panel, specify a name of up to 8 characters in length for your new definition. Select the ARCHDEF type from the drop-down list box:

- High Level

If you selected a High Level ARCHDEF, you can only create one using a text editor. The Linkage Editor Language ID and SCLM Load Library text boxes display default values. You can change these by overtyping them. Clicking **Next** displays the Architecture Definition Editor, where you can enter the text of the ARCHDEF you are creating. When you are satisfied with your work, click **Finish** to save your new ARCHDEF.

- Link Edit Control

A Link Edit Control ARCHDEF can be created from existing load module(s), existing JCL, or by using a text editor. If you choose to enter a definition using a text editor, clicking **Next** displays the Architecture Definition Editor, where you can enter the text of the ARCHDEF you are creating. When you are satisfied with your work, click **Finish** to save your new ARCHDEF.

If you will create your new ARCHDEF from Existing load module(s) or existing JCL (by clicking the appropriate radio button):

- a. Specify the data set name where the model load module or JCL can be found. You can browse for the data set by clicking the **Browse** button
- b. Once you have selected the data set, a list of members appears in the drop-down list box. Select the member that contains the model you want to use. Default values are supplied for the Language ID and Load Library Type. Overtyping these to change them.
- c. Clicking **Next** displays the text of the member you have selected in the ARCHDEF editor. Modify the model text.
- d. When you are satisfied with your work, click **Finish** to save the new Architecture Definition.

There are some considerations that should be taken into account when creating an architecture definition from JCL. For information, see “Considerations when creating a language definition from JCL” on page 63.

- Compilation Control or Generic

A Compilation Control or Generic ARCHDEF can be created either from existing JCL or by using a text editor. If you choose to enter one using a text editor, clicking **Next** displays the Architecture Definition Editor, where you can enter the text of the ARCHDEF you are creating. When you are satisfied with your work, click **Finish** to save your new ARCHDEF.

If you will create your new ARCHDEF from existing JCL (by clicking the appropriate radio button):

- a. Specify the data set name where the model load module or JCL can be found. You can browse for the data set by clicking the **Browse** button.
- b. Once you have selected the data set, a list of members appears in the drop-down list box. Select the member that contains the model you want to use. Default values are supplied for the Language ID and Load Library Type. Overtyping these to change them.

- c. Clicking **Next** displays the text of the member you have selected in the ARCHDEF editor. Modify the model text.
- d. When you are satisfied with your work, click **Finish** to save the new Architecture Definition.

From an ISPF session

You can create a new architecture definition or modify an existing definition using the Architecture Definition Wizard. To access the wizard:

1. From the SCLM Administrator Toolkit Project Administration Main Menu, specify option **3** — List on the Command line.
2. SCLM Administrator Toolkit displays the Project List.
3. Place an **A** on the line next to the project or projects for which you wish to create an architecture definition and press **Enter**.

Creating an architecture definition

To create an architecture definition using the wizard:

1. In the project list, place an **A** on the line next to the project or projects for which you wish to create an architecture definition and press **Enter**.
2. On the Architecture Definition Wizard panel, specify **2** on the line provided. Option 2 permits you to create a new architecture definition for the SCLM group and Type you specify in the Architecture Definition Group and Architecture Definition Type fields. These fields identify the group and Type to which this architecture definition will belong, or the group and Type for which this definition will be listed
 - To view a list of groups from which you can select a group, **G** on the Option line.
 - To view a list of Types from which you can select a Type, specify **T** on the Option line.
3. SCLM Administrator Toolkit displays the Architecture Definition Specification panel. On this panel, specify:
 - A name for the new architecture definition
 - The kind of architecture definition you are creating: high-level, linkage editor control, compilation control, or generic.
 - The linkage editor language ID. The default, **LE370**, is filled in for you. You can change this value by overtyping it.
 - The SCLM output Type, a name of up to 8 characters for the Type that will hold the SCLM output. The default is **LOAD** or **OBJ** depending on the kind of architecture definition you are creating.
 - The SCLM list Type, a name of up to 8 characters for the Type that will hold the listings.
 - The architecture definition language, a name of up to 8 characters for the language that will be specified when the architecture definition is created. Any language for which a language definition exists in the project may be used.
4. When you press **Enter**, SCLM Administrator Toolkit displays a panel on which you can specify how you will create the new ARCHDEF by typing a value on the line provided for ARCHDEF type options:

- If you select **Option 1, Create from Existing Load Module**, SCLM Administrator Toolkit displays a panel on which you can enter or browse for the name of the data set and member that contains the model load module(s). You can browse for the data set name by specifying at least one partial qualifier using the asterisk as a wild card.
Once you have specified a valid data set name, a list of members is displayed. Select a member from the list or enter the member name directly. You can change the contents of the Member field by overtyping it.
You can add source Types available to be used for your architecture definition to this panel by specifying **A** on the Option line.
- If you select **Option 2, Create from Existing JCL**, SCLM Administrator Toolkit displays a panel on which you can enter or browse for the name of the data set and member that contains the model JCL. You can browse for the data set name by specifying at least one partial qualifier using the asterisk as a wild card.
Once you have specified a valid data set name, a list of members is displayed. Select a member from the list or enter the member name directly. You can change the contents of the Member field by overtyping it.
- If you select **Option 3, Create within a text editor**, SCLM Administrator Toolkit displays an ISPF Editor page on which you can enter your new ARCHDEF.

Working with the Architecture Definition Listing

If you select **option 1**, SCLM Administrator Toolkit displays the Architecture Definition List panel. Use this panel to view, edit, or delete architecture definitions from your project. You can view an architecture definition by entering **V** on the line preceding its name. You can edit an architecture definition by entering **E**. Press **Enter** to process your choices.

In either case, the Architecture Definition Wizard displays an ISPF edit panel with the architecture definition you selected filled in. Note that you can update this information only if you accessed this panel using an Edit (**E**) request.

You can also use the Architecture Definition Listing panel to delete an architecture definition or multiple definitions from your project by entering **D** on the line preceding those definitions to be deleted. Once you have confirmed your choice to delete a definition or definitions, SCLM Administrator Toolkit removes these from the list of architecture definitions associated with your project.

Entering an architecture definition within a text editor

If you select option 2, SCLM Administrator Toolkit displays an ISPF editor panel. Type in your new architecture definition. Press **PF3** to save your work and exit architecture definition.

Creating an architecture definition from load modules

If you select option 3 from the Architecture Definition Specification Menu, SCLM Administrator Toolkit displays the Create Architecture Definition from Load Modules panel. On this panel, you can enter the name of the data set and member that contain the model architecture definition. To browse for a data set, specify a partially qualified name together with an asterisk in the Enter Source Data Set field. SCLM Administrator Toolkit displays a data set list from which you can select the data set you want to work with.

Enter the name of a member from this data set in the Enter source member field. If you want to browse for a member name, specify a partially qualified name together with an asterisk. When the list of members is displayed, select those you want by typing an **S** or a slash (/) on the line in front of the member.

On this panel, you are also asked to enter:

- The Linkage Editor Language ID. The default, LE370, is filled in for you. To change the information, simply overwrite it.
- The SCLM Load Library Type. The default, LOAD, is filled in for you. To change the information, simply overwrite it.

The load modules you selected are displayed in the Architecture Definition Editor. Make any necessary changes and save your work

Creating an architecture definition from JCL

If you select option 4 from the Architecture Definition Specification Menu, SCLM Administrator Toolkit displays the Create Architecture Definition from JCL panel. To browse for a JCL data set, specify a partially qualified name together with an asterisk in the Enter Source Data Set field. SCLM Administrator Toolkit displays a data set list from which you can select the data set you want to work with.

Enter the name of a JCL member from this data set in the Enter source member field. If you want to browse for a member name, specify a partially qualified name together with an asterisk.

On this panel, you are also asked to enter:

- The Linkage Editor Language ID. The default, LE370, is filled in for you. To change the information, simply overwrite it.
- The SCLM Load Library Type. The default, LOAD, is filled in for you. To change the information, simply overwrite it.

The JCL member or members you selected are displayed in the Architecture Definition Editor. Make any necessary changes and save your work. There are some considerations that should be taken into account when creating an architecture definition from JCL. For information, see “Considerations when creating a language definition from JCL” on page 63.

Considerations when creating an architecture definition from JCL

When creating architecture definitions from JCL you should select a job that meets the following criteria, or copy and modify the selected job to meet the criteria. Since the architecture definition identified the constituents of a built object, only the first step that executes a program that matches the desired architecture definition kind will be used in generating the architecture definition. If you have a job that links a number of load modules, for example, you will need to split the job into multiple jobs for translation into architecture definitions. The processing will vary based on the kind of architecture definition being generated. The criteria are:

- A JOB statement should span three lines; for example:

```
//JOBNAME JOB 01,  
// 'Text',  
// CLASS=A,  
// MSGCLASS=8
```

- The job should only compile or link a single program, otherwise the generated architecture definition will require excessive tailoring.

- Jobs may execute PROCs -- either inline or from a PROC library.

The job is modified as follows and copied into <PROJECT>.PROJDEFS.JCL:

- Change the job name to user id + 'A'.
- Add TYPRUN=SCAN to the JOB statement.

The job is submitted and the output retrieved to parse the JCL into an architecture definition using the actual data set names and other parameters that were substituted during the TYPRUN=SCAN operation.

The rules depend on the architecture definition being generated. For a Compilation Control architecture definition, the following statements are generated:

- INCL
- OBJ
- LIST
- PARM
- SINC
- OUTx

For a Linkage Editor Control architecture definition, the following statements are generated:

- INCLD
- LOAD
- LMAP
- PARM
- CMD

Following are two sample jobs and the pre-tailoring architecture definition that was generated from each:

Sample job 1:

```
//AUZCOBCM JOB 01,
//          'NAME',
//          CLASS=A,
//          MSGCLASS=X,
//          NOTIFY=&SYSUID,
//          USER=,GROUP=,PASSWORD=
//*
//*
//COMPILE EXEC PGM=IGYCRCTL,
//          PARM=(XREF,LIB,APOST,NODYNAM,LIST,NONUMBER,NOSEQ)
//SYSLIN DD DSN=ADMIN02.DEV1.OBJ(SPIKE001),DISP=SHR
//SYSLIB DD DSN=ADMIN02.DEV1.COPYBOOK,DISP=SHR
//          DD DSN=ADMIN02.STG1.COPYBOOK,DISP=SHR
//          DD DSN=ADMIN02.TEST.COPYBOOK,DISP=SHR
//          DD DSN=ADMIN02.PROD.COPYBOOK,DISP=SHR
//SYSIN DD DSN=ADMIN02.DEV1.COBOL(SPIKE001),DISP=SHR
//SYSUT1 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SYSUT2 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SYSUT3 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SYSUT4 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SYSUT5 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SYSUT6 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SYSUT7 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SYSPUNCH DD DUMMY
//SYSPRINT DD SYSOUT=*
//SYSTEM DD DUMMY
//*
```

Generated architecture definition:

```
* GENERATED BY JCL2ARCHDEF
*
OBJ SPIKE001 OBJ
LIST SPIKE001 LIST
SINC SPIKE001 OBJ
PARM XREF,
PARM LIB,
PARM APOST,
PARM NODYNAM,
PARM LIST,
PARM NONUMBER,
PARM NOSEQ
```

Sample job 2:

```
//LINK JOB 01,
//      'NAME',
//      CLASS=A,
//      MSGCLASS=X,
//      NOTIFY=&SYSUID,
//      USER=,GROUP=,PASSWORD=
//*
//* COPYRIGHT (C) 2002, ROCKET SOFTWARE, INC. ALL RIGHTS RESERVED.
//*
//* //MDTECRB EXEC PGM=IEWL
//SYSLIB DD DSN=CEE.SCEESPC,
//        DISP=SHR
//        DD DSN=CEE.SCEELKED,
//        DISP=SHR
//MODLIB DD DSN=MDTECRB.PROJDEFS.OBJ,
//        DISP=SHR
//SYSLMOD DD DSN=MDTECRB.PROJDEFS.LOAD(MDTECRB),
//        DISP=SHR
//SYSUT1 DD DSN=$$SYSUT1,
//        UNIT=VIO,
//        SPACE=(1024,(50,25)),
//        DISP=(NEW,DELETE,DELETE)
//SYSPRINT DD SYSOUT=*
//SYSLIN DD *
//        INCLUDE MODLIB(MDTECRB)
//        NAME MDTECRB(R)
//*
```

Generated architecture definition:

```
* GENERATED BY JCL2ARCHDEF
*
LKED LE370
LOAD MDTECRB LOADLIB
LMAP MDTECRB LKEDLIST
INCLD MDTECRB ASM
LOAD MDTECRB LOADLIB
```

Part 3. Administering EAC

This part describes the facilities that SCLM Administrator Toolkit provides to assist you in administering IBM Enhanced Access Control for SCLM and provides instructions for performing the administration tasks the product supports. For information about administering Software Configuration and Library Manager (SCLM) Administrator Toolkit, see Part 2, "Administering SCLM," on page 5.

If SCLM Administrator Toolkit has not yet been installed and configured for your site, refer to the *IBM SCLM Administrator Toolkit: Installation and Customization Guide* for information on installing the host and workstation components of the product and performing the required customization.

Note: Before you can begin to use SCLM Administrator Toolkit, customization of the host component as described in the *IBM SCLM Administrator Toolkit: Installation and Customization Guide* must be completed. This work normally is performed by an enterprise's systems programmer. To use the client workstation component, each workstation component must be customized as described in that Guide.

<p><i>Important:</i> In order to perform the activities involved in administering Enhanced Access Control for SCLM resources using SCLM Administrator Toolkit, you must have RACF SPECIAL authority.</p>
--

Chapter 13. Getting Started with Enhanced Access Control for SCLM Administration

In order to perform the activities involved in administering Enhanced Access Control for SCLM resources using SCLM Administrator Toolkit, you must have RACF SPECIAL authority. EAC administration tasks are performed from the workstation.

When you open an SCLM Administrator Toolkit session, you will see Enhanced Access Control for SCLM in the Remote Systems Navigator pane at the left side of your workspace. When you click to open Enhanced Access Control for SCLM, it expands to display **All EAC Resources**. The Enhanced Access Control for SCLM resources with which you can work are:

- RACF Data Set Profiles
- Enhanced Access Control for SCLM Profiles
- Enhanced Access Control for SCLM Applications
- Enhanced Access Control for SCLM Violations

Before you can use the Enhanced Access Control for SCLM functions of SCLM Administrator Toolkit, you *must* define at least one Rule File outside of SCLM Administrator Toolkit. Each EAC Manager instance may have a default Rule File, which you specify using Preferences as described in the next section, “Defining Rule Files”. Specifying a Rule File you have defined to be the default causes the selected Rule File to be used for all subsequent actions that occur while you are in this view.

Defining Rule Files

Follow these steps to define your Enhanced Access Control for SCLM Rule File defaults to SCLM Administrator Toolkit.

- In the SCLM Administrator Toolkit perspective, from the Window pull-down, select **Preferences > EAC Manager**. SCLM Administrator Toolkit displays a panel on which you can associate a Rule File with a specific instance of Enhanced Access Control for SCLM. The table that is displayed each time you go to the Preferences displays already-defined systems together with their associated default Rule Files.
- To remove an existing System/Rule File association from the table, click its row in the table. Then click the **Remove** button.
- To add a System/Rule File association:
 1. Click the **Add** button to add a blank row to the table.
 2. Click the cell in the System column to select the system you want to work with from the drop-down list that is displayed.
 3. Enter the name of the Rule File you want to associate with this system in the Rules DSN column.
 4. Optionally, add a description of the association in the Description column.
 5. Press **Enter** to save your work.
- Click **OK** to complete your EAC Preferences definition or **Cancel** to exit without committing your work.

Filtering objects displayed in the Enhanced Access Control for SCLM Navigator Tree

You can filter the objects that SCLM Administrator Toolkit presents to you in the Remote Systems Navigator tree. For information on how to do so, see “Filtering objects in the Remote Systems Navigator tree” on page 8.

Chapter 14. Maintaining RACF Data Set Profiles

Before you can create a new RACF Data Set Profile or maintain an existing Profile, you must have created any necessary groups and users outside of the SCLM Administrator Toolkit. In order to perform the activities involved in administering Enhanced Access Control for SCLM resources using SCLM Administrator Toolkit, you must have RACF SPECIAL authority.

Start SCLM Administrator Toolkit and expand the **EAC Manager > All EAC Resources**. Expand **RACF Data Set Profiles** to display a list of existing RACF data set profiles in the Navigator tree. From the Navigator tree, you can:

- **Create a profile.** Right-click **RACF Data Set Profiles**, then select **New** from the pop-up menu, or right-click **EAC Manager**, then select **RACF Data Set Profiles** from the pop-up menu.
- **Edit a Profile.** Right-click a profile name in the Navigator tree, then select **Edit** from the pop-up menu. This option causes the selected profile to be displayed with any modifiable fields displayed next to an action indicator. You can modify any such entry, and, if appropriate, add or delete the entry and any subordinate entries. Once you have made your changes, pressing **Enter** and confirming the changes causes the RACF Database to be updated with the modified profile. The List of RACF Data Set Profiles is redisplayed, showing that the profile in question has been modified. Any modified values are displayed as part of the list. If you choose to cancel the modification, the list is redisplayed exactly as it was initially.
- **View an existing profile.** Right-click a profile name in the Navigator tree, then select **View** from the pop-up menu.
- **Delete the profile.** Right-click a profile name in the Navigator tree, then select **Delete** from the pop-up menu.

Creating a RACF data set profile

To create a new RACF data set profile:

1. Right-click **RACF Data Set Profiles**, then select **New > RACF Data Set Profile** from the pop-up menu. SCLM Administrator Toolkit displays the first page of the RACF Data Set Profile Wizard. On this page, you can specify:
 - A RACF data set profile name
 - Whether or not a generic data set refresh will be performed to update any SETROPTS changes resulting from information provided in this wizard; that is, whether the command SETROPTS GENERIC(DATASET) REFRESH will be performed after the update. Note that, if you select this option, the refresh that is performed will also include any changes you have made outside of SCLM Administrator Toolkit since the last refresh or the last system IPL.
 - Whether or not users will be permitted to access the data set RACF-protected by this profile even though their access authority is insufficient to do so. If you choose to permit this access, the user that is attempting the access receives a warning message and the user ID specified in the Notify text box on this panel is notified of the access.
 - Whether or not z/OS data management physically erases the DASD data set extents if the data set protected by this RACF data set profile is deleted.
 - The universal access authority for the data set. All RACF-protected data sets have a universal access authority specified for them. This is the level of access

granted to all users or groups, except for those users or groups specifically named in the data set's access list as having a different level of access. For example, if a data set's universal access were READ, and a user in the access list had UPDATE authority, that user would continue to have UPDATE authority for the data set. Universal access authority may be:

- **NONE** -- permits no data set access.
 - **READ** -- permits read access to the data set
 - **UPDATE** -- permits both read and write access to the data set
 - **CONTROL** -- permits read and write access to the data set, including VSAM improved control interval processing
 - **ALTER** -- permits read, write, delete, rename, move, and scratch access to the data set
- Your access authority to the data set, which may be:
 - **NONE** -- permits no data set access.
 - **READ** -- permits read access to the data set
 - **UPDATE** -- permits both read and write access to the data set
 - **CONTROL** -- permits read and write access to the data set, including VSAM improved control interval processing
 - **ALTER**-- permits read, write, delete, rename, move, and scratch access to the data set

If you are not the owner of the data set, you must request that the ID specified in the Owner field issue a PERMIT command to give you access to the data set.

- The user ID or group that is the owner of the data set profile. If you created the data set and RACF-protected it, but did not specify an owner, you are considered to be the owner of the data set profile, and can modify the profile.
 - The user ID or group that is to be notified by RACF if access to the data set is denied
 - The user ID or group that is the owner of the RACF-protected data set to which this data set profile applies
 - The name of the group under which the profile was created
 - The profile type, which may be **Model**, **Tape**, or **Generic**
 - The unit type on which this data set resides
 - For VSAM data sets, the volume on which the catalog resides
 - The security retention period
 - The security level, which is a name that is associated with the numeric value that is found in the LEVEL field for the data set. Your installation can define its own security levels. The security level that you enter in the text box on this Wizard page specifies the minimum level that is required to access a data set protected by this profile.
 - The security label, which is a name that represents an association between a particular security level and a set of zero or more security categories. Your installation can define its own security labels. The security label that you enter in the text box on this Wizard page specifies the minimum that is required to access a data set protected by this profile.
2. When you have completed the information above, press **Next** to display the next page of the RACF Data Set Profile Wizard. On this page, specify the following:

- A name that represents the security category needed to access the data sets protected by this profile. Your installation can define its own security categories. To add a category to the profile, specify its name in the text box and click the **Add** button. To remove a category from the profile, click its name in the display box and then the **Remove** button.
 - The type of auditing that will occur for data set access requested to the data sets protected by this profile. You can select one of the following auditing types:
 - **ALL** -- indicating that all types of access attempts are to be recorded
 - **FAILURES** -- indicating that any failed access attempts are to be recorded
 - **SUCSESSES** -- indicating that any successful access attempts are to be recorded
 - **NONE** -- indicating that no recording is to occur
 - The type of access requests that are to be recorded for this auditing type. You may select **READ, UPDATE, CONTROL, ALTER, or NONE**.
Once you have selected an auditing type and associated access type from the pull-down boxes, clicking **Add** adds these to your profile. To remove an auditing type/access type combination from the profile, click its name in the display box, then the **Remove** button.
3. When you have completed the information above, press **Next** to display the last page of the RACF Data Set Profile Wizard. This page permits you to construct an access list. The access list permits you to allow or deny specify user IDs or groups access to the protected data set that differs from the universal access you have specified for the data set. On this page, specify the following
- The type of access to be granted to the user ID or group that you will specify in the text entry boxes that follow. From this pull-down box, you
 - may select **READ, UPDATE, CONTROL, ALTER, or NONE**.
 - The user ID or group name that is to be added to the access list for this access type. To add a new user ID or group name, specify its name in the User text box and click **Add**. To remove a user ID or group name from the access list, select its name from the display box and click **Remove**.
 - The use of a conditional access list. A conditional access list is an access list in the data set profile that specifies an additional condition that must be satisfied in order to grant access to the user ID or group specified in the User field. If you place a check in this box, you must then specify a key and value in the text entry boxes that follow.
 - A key and associated value to serve as additional conditions for access for the user specified in the User text entry box. To enter a new key and associated value, select the key from the Key pull-down box, enter information as follows in the Value text entry box, and click the **Add** button. To remove a Key/Value combination from the display box, click its name, then the **Remove** button. The keys and associated values are as follows:
 - If you select the **PROGRAM** key, you must specify the name of the program the user must be running in order to access this data set in the Value text entry box.
 - If you select the **LU NAME** key, you must specify the partner logical unit name or APPC port through which the user must enter the system in the Value text entry box.
 - If you select the **CONSOLE** key, you must specify the system console ID from which the request must be sent in the Value text entry box.

- If you select the **TERMINAL** key, you must specify the terminal ID of the terminal through which the user must enter the system in the Value text entry box.

When you have completed the fields on this panel, click **Finish** to complete the definition of your RACF data set profile.

Editing a RACF data set profile

To edit an existing RACF data set profile, right-click a profile name in the Navigator tree, then select **Edit** from the pop-up menu. This option causes SCLM Administrator Toolkit to display the first panel of the RACF Data Set Profile Wizard with information for the selected profile filled in the text fields. You can modify any modifiable fields as you proceed through the Wizard. Once you have made your changes, pressing **Finish** causes the RACF Database to be updated with the modified profile.

Viewing a RACF data set profile

To view a RACF data set profile, right-click a profile name in the Navigator tree, then select **View** from the pop-up menu. This option causes SCLM Administrator Toolkit to display the RACF Data Set Profile Wizard. Information for the selected profile is displayed in the Wizard exactly as it would if it were going to be modified. However, the fields are not modifiable.

Deleting a RACF data set profile

To delete a RACF data set profile, right-click a profile name in the Navigator tree, then select **Delete** from the pop-up menu. This option causes the selected RACF data set profile to be deleted following confirmation from you.

Chapter 15. Maintaining Enhanced Access Control for SCLM Profiles

In order to perform the activities involved in administering Enhanced Access Control for SCLM resources using SCLM Administrator Toolkit, you must have RACF SPECIAL authority.

Start SCLM Administrator Toolkit and expand the **EAC Manager > All EAC Resources**. Expand **Profiles** to display a list of existing Enhanced Access Control for SCLM profiles in the Navigator tree. From the Navigator tree, you can:

- **Create a profile.** Right-click **Profiles**, then select **New >Profile** from the pop-up menu, or right-click **EAC Manager** and select **New > EAC Profile** from the pop-up menu.
- **Edit a Profile.** Right-click a profile name in the Navigator tree, then select **Edit** from the pop-up menu. This option causes the selected profile to be displayed.
- **View an existing profile.** Right-click a profile name in the Navigator tree, then select **View** from the pop-up menu.
- **Delete the profile.** Right-click a profile name in the Navigator tree, then select **Delete** from the pop-up menu.

Creating a new Enhanced Access Control for SCLM profile

To create a new Enhanced Access Control for SCLM profile:

1. Right-click **Profiles**, then select **New > Profile** from the pop-up menu. SCLM Administrator Toolkit displays the Enhanced Access Control for SCLM Profile dialog.
2. On this dialog, specify the following:
 - The fully-qualified name of an Enhanced Access Control for SCLM profile data set. You can use wild cards to specify the data set name(s)
 - A text description of this profile.
3. In the Application/Function section of this dialog, SCLM Administrator Toolkit displays a list of Application/Function pairs that have been defined for this profile. If you would like to add an application/function pair to this set, click the **Add** button. This displays the Application Selection dialog from which you can select one or more application/function pairs to be added to the Enhanced Access Control for SCLM profile you are working with.
4. To edit the user ID/access combinations associated with this profile, click **Edit**. This displays the Application Selection dialog with the information for the application/function combination you want to edit filled in on that panel.
5. If you would like to remove an application/function pair from association with this profile, click its name in the Application/Function list box. Then click **Remove**.

Using the Application Selection Dialog

If you have chosen to add or edit an application/function combination associated with a profile, pressing the appropriate button displays the Application Selection Dialog.

The User Access section of this dialog displays the user ID and access combinations associated with this application/function pair you have selected. you can add or remove users from this profile, as well as specify user access.

- To add a user, enter the user's name of up to 8 characters in the text box, select the user's access from the drop-down list box, and click **Add User**.
- To remove a user, select the user's name from the User list box and press **Remove User**.
- To alter a user's access, you must first remove the user with the access type you want to change, then add the user back with the changed access type..

The types of user access available from the drop-down box follow:

- **Alter** permits read, write, delete, rename, move, and scratch access to the data set
- **Control** permits read and write access to the data set, including VSAM improved control interval processing
- **None** permits no data set access.
- **Read** permits read access to the data set
- **Update** permits both read and write access to the data set

When you have completed your tasks on this panel, click **OK** to save your work.

Editing an Enhanced Access Control for SCLM profile

To edit an existing Enhanced Access Control for SCLM profile, expand **EAC Manager > All EAC Resources > Profiles**. Right-click its name of the profile you want to edit in the Navigator tree. If you selected **Edit EAC Profile**, SCLM Administrator Toolkit displays the EAC Profile Dialog with the previously-defined values for the profile you selected filled in. Follow the steps shown in "Creating a RACF data set profile" on page 91 to make the required changes to this profile. Click **OK** to save your work.

Viewing an Enhanced Access Control for SCLM profile

To view an Enhanced Access Control for SCLM profile, right-click a profile name in the Navigator tree, then select **View** from the pop-up menu. This option causes SCLM Administrator Toolkit to display the Enhanced Access Control for SCLM Profile dialog. Information for the selected profile is displayed in this dialog exactly as it would if it were going to be modified. However, the fields are not modifiable.

Deleting an Enhanced Access Control for SCLM profile

To delete an Enhanced Access Control for SCLM profile, right-click a profile name in the Navigator tree, then select **Delete** from the pop-up menu. This option causes the selected profile to be deleted following confirmation from you.

Chapter 16. Maintaining Enhanced Access Control for SCLM Applications

In order to perform the activities involved in administering Enhanced Access Control for SCLM resources using SCLM Administrator Toolkit, you must have RACF SPECIAL authority.

Start SCLM Administrator Toolkit and expand the **EAC Manager > All EAC Resources**. Expand **Applications** to display a list of existing Enhanced Access Control for SCLM profiles in the Navigator tree. From the Navigator tree, you can:

- **Create an application.** Right-click **Applications**, then select **New > Application** from the pop-up menu, or right-click **EAC Manager** and select **New > EAC Application** from the pop-up menu..
- **Edit an Application.** Right-click an application name in the Navigator tree, then select **Edit** from the pop-up menu.
- **View an existing application.** Right-click an application name in the Navigator tree, then select **View** from the pop-up menu.
- **Delete the application.** Right-click an application in the Navigator tree, then select **Delete** from the pop-up menu.

Creating a new application

To create a new application:

1. Right-click **Applications**, then select **New > Application** from the pop-up menu. SCLM Administrator Toolkit displays the EAC Application dialog.
2. On this dialog, specify the following:
 - The application's name
 - The name of a function to be associated with this application
 - Optionally, a text description of this application/function pair.
3. In the High/Low Program Pairs section of this dialog:
 - To add a high/low program pair, specify the names of the high and low programs in the text boxes provided. Press **Add Programs** when you are done.
 - To remove an existing high/low program pair, click its name in the list box, then click **Remove Programs**.
4. When you have completed your tasks on this panel, click **OK** to save your work.

Editing an application

To edit an existing Enhanced Access Control for SCLM application, expand **EAC Manager > All EAC Resources > Applications**. Right-click its name of the application you want to edit in the Navigator tree. SCLM Administrator Toolkit displays the EAC Application Dialog with the previously-defined values for the application you selected filled in. Follow the steps shown in to make the required changes to this application. Click **OK** to save your work.

Viewing an Enhanced Access Control for SCLM application

To view an Enhanced Access Control for SCLM application, right-click its name in the Navigator tree, then select **View** from the pop-up menu. This option causes SCLM Administrator Toolkit to display the EAC Application dialog. Information for the selected application is displayed in this dialog exactly as it would if it were going to be modified. However, the fields are not modifiable.

Deleting an Enhanced Access Control for SCLM application

To delete an Enhanced Access Control for SCLM application, right-click its name in the Navigator tree, then select **Delete** from the pop-up menu. This option causes the selected application to be deleted following confirmation from you.

Chapter 17. Reviewing Enhanced Access Control for SCLM Violations

SCLM Administrator Toolkit assists you in maintaining the security of your installation by building and displaying a list of Enhanced Access Control for SCLM violations for your review. In order to perform the activities involved in administering Enhanced Access Control for SCLM resources using SCLM Administrator Toolkit, you must have RACF SPECIAL authority.

To review a list of Enhanced Access Control for SCLM violations and take appropriate action:

1. Start the Violations Wizard by double-clicking **Violations** in the Remote Systems Navigator, or right-click **Violations** in the Navigator, then select **View** from the pop-up menu.
2. From the list of violations displayed by SCLM Administrator Toolkit, select the one you want to work with and press **Next**.
3. The Validation Wizard displays page 1 of the Validation Detail dialog, showing information about the violation you suggested. After reviewing the information, press **Next**.
4. The Validation Wizard displays page 2 of the Validation Detail dialog. When you have reviewed this page, press **Finish**.

The Validation Detail panels provide you with the following information:

- The profile definition (fully qualified data set name) that Enhanced Access Control for SCLM selected to validate a user's ability to access a given resource. This profile matches either the name of the data set against which the user requested access, or the generic profile definition that matches the one used by RACF to validate access requests.
- The application definition that Enhanced Access Control for SCLM used to validate a user's ability to access a given resource.
- The function that Enhanced Access Control for SCLM used to validate a user's ability to access a given resource.
- The user ID or RACF group list entry that Enhanced Access Control for SCLM used to validate a user's ability to access a given resource. This field can contain one of the following values:
 - The RACF user ID of the user associated with the access request
 - GRPLIST, indicating that one or more of the user's RACF current connect groups was matched in the profile access rules
 - *, indicating that the profile access rule * (indicating all users) was matched
 - blank, indicating that a match of the user ID or RACF current connect group was not found in the profile access rules, or that validation failed before matching was performed
- The reason for the violation
- The name of the entity for which access was requested and validation was failed. This name may be a data set name or a profile definition.
- The date and time the access request was made
- The user ID that requested access

- The name of the RACF current connect group associated with the access request
- The privilege that was required by RACF in order to allow the access request
- The access privilege returned to RACF by Enhanced Access Control for SCLM. Typically, the Access Granted field will be for a lesser degree of access than the Access Required field, thus creating the violation.
- The execution program environment at the time that the access request was made. This field shows the programs in control when the data set access was attempted. This field contains a top-down list of programs that were executing, as well as indicators showing the high and low programs.

Part 4. Appendixes

Appendix A. Messages and Codes

This appendix documents the messages and codes that may be displayed during the operation of SCLM Administrator Toolkit, together with actions that may be taken by the system, as well as actions that you may need to take.

All messages generated by SCLM Administrator Toolkit have a severity code printed as the last character of the message ID. The severity codes are described in the following table:

Table 2. Error message severity codes

Severity Code	Description
I	Information only. No user action required.
W	Warning message. Results may not be as expected.
E	Error message. Some may be user-correctable; read the User Response to determine the course of action.
S	Severe error. Some may be user-correctable; read the User Response to determine the course of action.

Error Writing File. There may not be enough temporary disk space. Try using `-is:tempdir` to use a temporary directory on a partition with more disk space.

Severity: Warning

Explanation: The SCLM Administrator Toolkit installation program needs a temporary area on disk with a sufficient amount of space.

System Action: Processing stops.

User Response: Specify the installation directory as follows:

```
mmmmmmmm -is:tempdir "directory-path"
```

where:

- `mmmmmmmm` is the name of an installer such as `AUZLNGTK.bin` or `AUZWIN32.exe`, and
- `directory-path` represents the path to the temporary directory, for example, `/tmp/AUZ`.

error.number.tar

Explanation: During file build or rebuild, if an error occurs, a file called `error.number.tar` is created.

System Action: Processing stops.

User Response: Save the file and notify support.

AUZ002E Invalid Selection -- Please enter a Valid Option or X to Exit

Explanation: You have entered an option that is invalid on this panel

System Action: Processing stops.

User Response: Enter an option that is valid for this panel.

AUZ003E Invalid Value -- Please enter a "B" if you would like to run jobs in batch mode or "F" to run jobs in foreground mode.

Explanation: You have entered an option that is invalid on this panel

System Action: Processing stops.

User Response: Enter either B or F.

AUZ004E Invalid Value -- You must enter a "Y" or "N".

Explanation: You have entered an option that is invalid on this panel

System Action: Processing stops.

User Response: Enter Y or N.

AUZ006E Invalid Selection

Explanation: You have entered an option that is invalid on this panel

System Action: Processing stops.

User Response: Enter an option that is valid for this panel.

AUZ007E Invalid Value

Explanation: You have entered a value that is invalid on this panel

System Action: Processing stops.

User Response: Enter a value that is valid for this panel.

AUZ008E Project XML member not found or corrupted.

Explanation: You have requested to work on a project for which the XML member is either unknown or corrupt.

System Action: Processing stops.

User Response: Review your project specifications and the log file to determine what the problem may be.

AUZ009E ISPF error: *description*

Explanation: You have made an ISPF error as described in the message.

System Action: Processing stops.

User Response: Correct the error.

AUZ010E Error running script

Explanation: No results file was found after script has been run.

System Action: Processing stops.

User Response: Ensure you have specified the correct path to the script or that the script is in the appropriate directory. Correct the error and rerun.

AUZ011E Can't open the file from *identifier*

Explanation: You may have insufficient authority to create the file or possibly your disk is full.

System Action: Processing stops.

User Response: Review your permissions with your systems programmer.

AUZ012I Project was built successfully

Explanation: The project has been built successfully.

System Action: Processing stops.

User Response: No response is required.

AUZ013I Project was created successfully

Explanation: The project has been created successfully.

System Action: Processing stops.

User Response: No response is required.

AUZ014E Tag "library" not found in language definition

Explanation: When building a language definition using ISPF panels for data entry, you have not included a library name.

System Action: Processing stops.

User Response: Return to the language definition panels and fill in the required field.

AUZ015E Tag "member" not found in language definition

Explanation: When building a language definition using ISPF panels for data entry, you have not included a member name.

System Action: Processing stops.

User Response: Return to the language definition panels and fill in the required field.

AUZ016E An unrecognized error occurred

Explanation: An error occurred that SCLM Administrator Toolkit cannot identify.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ017E Can't parse the project

Explanation: An error occurred that prevents SCLM Administrator Toolkit from parsing the project.

System Action: Processing stops.

User Response: Correct the error and try again to parse the project.

AUZ018E Project already exists

Explanation: You are attempting to create a project having the same name as a project that already exists.

System Action: Processing stops.

User Response: If the project name you entered is correct, display the Project List and continue to work on the project in question. If you meant to create a new project, select another name for it.

AUZ019E Wrong command

Explanation: You have entered a command that is not available for use on this panel. Refer to the panel for those commands that are acceptable.

System Action: Processing stops.

User Response: Correct the error and retry.

AUZ020E Invalid value. Type Data Set Name

Explanation: A value you have entered for the data set name is invalid. Type a wild card in the field to see a list of available data sets. Remember that you must supply at least one qualifier with the wild card.

System Action: Processing stops.

User Response: Correct the error and retry.

AUZ021E Source Types not defined

Explanation: You have not provided values for required parameters of the Types you selected to include in your project.

System Action: Processing stops.

User Response: Correct the error and retry.

AUZ022E Data Set or Member not defined

Explanation: The data set or member is not defined.

System Action: Processing stops.

User Response: Correct the error and retry.

AUZ023E Group Name not defined

Explanation: You are attempting to use a Group that you have not previously defined.

System Action: Processing stops.

User Response: Correct the error and retry. If you misspelled the name of the Group, reenter the Group name. If you meant to enter the Group name you

specified, return to the Groups panel and define this group before proceeding.

AUZ024E Type Name not defined

Explanation: You are attempting to use a Type that you have not previously defined.

System Action: Processing stops.

User Response: Correct the error and retry. If you misspelled the name of the Type, reenter the name. If you meant to enter the Type name you specified, return to the Types panel and define this Type before proceeding.

AUZ025E Alternate Control Information not defined

Explanation: You have not defined the identifier for the alternate control data sets for this project.

System Action: Processing stops.

User Response: Correct the error and retry.

AUZ026E Primary Accounting Data Set not defined

Explanation: You have not defined the required Primary Accounting data set for this project.

System Action: Processing stops.

User Response: Correct the error and retry.

AUZ027E JCL Data Set not found in project XML

Explanation: There was no JCL data set in the project's generated XML.

System Action: Processing stops.

User Response: Define this data set using the Default Data Sets panel.

AUZ028E This Group not defined

Explanation: You are referring to a group that is not defined.

System Action: Processing stops.

User Response: Define the required group.

AUZ029E This Type not defined

Explanation: You are referring to a Type that is not defined.

System Action: Processing stops.

User Response: Define the required Type.

AUZ030E **Group into which to migrate members not defined**

Explanation: You have specified that members are to be migrated into a group which you have not yet defined.

System Action: Processing stops.

User Response: Define the required group.

AUZ031E **Type into which to migrate members not defined**

Explanation: You have specified that members are to be migrated into a Type which you have not yet defined.

System Action: Processing stops.

User Response: Define the required Type.

AUZ032E **Language not defined**

Explanation: A language definition is required for the project

System Action: Processing stops.

User Response: Create the required language definition.

AUZ033E **Authorization code not defined**

Explanation: An authorization code required for the project is not defined.

System Action: Processing stops.

User Response: Define the required authorization code.

AUZ034E **Change code not defined**

Explanation: A change code required for the project is not defined.

System Action: Processing stops.

User Response: Define the required change code.

AUZ035E **Mode not defined**

Explanation: The processing mode is not defined.

System Action: Processing stops.

User Response: Define the required mode.

AUZ036E **Group not defined**

Explanation: You are referring to a group that is not defined.

System Action: Processing stops.

User Response: Define the required group.

AUZ037E **Type not defined**

Explanation: You are referring to a Type that is not defined.

System Action: Processing stops.

User Response: Define the required Type.

AUZ038E **Wrong selection**

Explanation: The option you entered is not correct for this function.

System Action: Processing stops.

User Response: Make another selection before proceeding.

AUZ039E **Group *groupname* is not defined in the project**

Explanation: You are referring to a group that is not defined.

System Action: Processing stops.

User Response: Define the required group.

AUZ040E **User exit module name not defined**

Explanation: You have not defined the required field called Module Name for this exit.

System Action: Processing stops.

User Response: Define the user exit module name.

AUZ040E **Data set to load from not defined**

Explanation: You have not defined the required data set from which you are attempting to load data.

System Action: Processing stops.

User Response: Define the required load data set.

AUZ042E **Exit Invocation Method not defined**

Explanation: You have not defined the required Invocation Method.

System Action: Processing stops.

User Response: Define the exit invocation method.

AUZ043E **Cannot delete VSAM task from skeleton.**

Explanation: You can delete only customized tasks from the list, but not predefined tasks.

System Action: Processing stops.

User Response: Ensure the task you are attempting to delete is a customized task.

AUZ044I **VSAM task *taskname* successfully deleted**

Explanation: Confirmation message that a VSAM task you wanted to delete has been deleted.

System Action: Processing stops.

User Response: No user action is required.

AUZ045E **Cannot create Architecture Definition**

Explanation: The architecture definition you were attempting to create could not be created.

System Action: Processing stops.

User Response: Check the log for more information about the error or contact your site's support personnel.

AUZ046E **Cannot create Architecture Definition from JCL**

Explanation: The architecture definition you were attempting to create could not be created.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ047E **Cannot complete the migration**

Explanation: The migration of assets into your project could not be completed.

System Action: Processing stops.

User Response: Check the log for more information about the error or contact your site's support personnel.

AUZ048E **Temporary Archdef file does not exist**

Explanation: The architecture definition file you referred to does not exist.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ049E **Cannot create temporary file**

Explanation: The system is unable to create a temporary file.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ050E **File tailoring open returned a file tailoring already in progress condition**

Explanation: The file to be tailored could not be opened because tailoring was already in progress.

System Action: Processing stops.

User Response: Review the ISPF User's Guides for information about this issue.

AUZ051E **File tailoring open returned the output file already in use condition**

Explanation: File tailoring could not progress because the output file was already open and in use.

System Action: Processing stops.

User Response: Review the ISPF User's Guides for information about this issue.

AUZ052E **File tailoring open returned the skeletal file or output file not allocated condition**

Explanation: File tailoring could not progress because the required skeleton or output file was not allocated.

System Action: Processing stops.

User Response: Allocate the required file. Review the ISPF User's Guides for information about this issue.

AUZ053E **File tailoring open returned a severe error condition**

Explanation: File tailoring could not progress.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ054E **File tailoring open returned an unknown code--severe error**

Explanation: File tailoring could not progress.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ055E File tailoring close returned a file not open condition -- severe error

Explanation: File tailoring could not progress.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ056E File tailoring close returned an output file in use condition

Explanation: The file which you are attempting to close is in use.

System Action: Processing stops.

User Response: Review the ISPF User's Guides for information about this issue and retry.

AUZ057E File tailoring close returned the skeletal file or output file not allocated condition

Explanation: The skeleton file or output file is not allocated.

System Action: Processing stops.

User Response: Review the ISPF User's Guides for information about this issue.

AUZ058E File tailoring close returned a severe error

Explanation: File tailoring could not progress.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ059E File tailoring close returned an unknown code -- severe error

Explanation: File tailoring could not progress.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ060E File tailoring close returned an output member exists in the output library and NOREPL was specified

Explanation: An output member of this name already exists and you have specified that it should not be replaced.

System Action: Processing stops.

User Response: Verify that you do not want to replace the output member currently in the output library and consider whether NOREPL is what you want to specify. Alternatively, determine whether the name of the current output file is correct.

AUZ061E File tailoring include returned a skeleton does not exist condition

Explanation: File tailoring could not progress because the skeleton file to be included does not exist.

System Action: Processing stops.

User Response: Review the ISPF User's Guides for information about this issue.

AUZ062E File tailoring include returned a skeleton in use ---ENQ failed condition

Explanation: File tailoring could not progress because the skeleton file to be included was in use by another program.

System Action: Processing stops.

User Response: Review the ISPF User's Guides for information about this issue.

AUZ063E File tailoring include returned a data truncation or skeleton library or output file not allocated condition.

Explanation: File tailoring could not progress.

System Action: Processing stops.

User Response: Review the ISPF User's Guides for information about this issue.

AUZ064E File tailoring include returned a severe error condition

Explanation: File tailoring could not progress.

System Action: Processing stops.

User Response: Review the ISPF User's Guides for information about this issue.

AUZ065E File tailoring include returned an unknown condition -- severe error

Explanation: File tailoring could not progress.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ066E **Allocation Error -- An error was encountered allocating the ISPF DD -- Process not completed**

Explanation: The program cannot read or allocate the ISPF data set.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ067E **Allocation Error -- An error was encountered reading the ISPF DD -- Process not completed**

Explanation: The program cannot read or allocate the ISPF data set.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ070E **Cannot resolve the DSN mask**

Explanation: The product cannot resolve a DSN mask error.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ071E **Cannot open a result file**

Explanation: No results file was found after script has been run.

System Action: Processing stops.

User Response: Ensure you have specified the correct path to the script or that the script is in the appropriate directory. Correct the error and rerun.

AUZ072E **Cannot get list of Architecture Definitions**

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ073E **Cannot delete Project *projectname***

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ074I **Project *projectname alternate projectnames* successfully deleted**

Explanation: SCLM Administrator Toolkit successfully deleted the named project.

System Action: Processing stops.

User Response: No user action is required.

AUZ075I **Project *projectname* successfully cloned**

Explanation: SCLM Administrator Toolkit successfully cloned the named project.

System Action: Processing stops.

User Response: No user action is required.

AUZ076E **Cannot clone Project *projectname***

Explanation: SCLM Administrator Toolkit is unable to clone the named project.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ077E **Cannot get list of projects**

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ078E **Cannot run VSAM task**

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ079E **Cannot get list of VSAM tasks**

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ080E Cannot create XML from existing project

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ081E Cannot create LDML from language definition source

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ082E Cannot create source of Language Definition from LDML

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ083E Cannot create language definition from JCL

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ084E Cannot Build Project

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ085E Cannot Create Project

Explanation: An error occurred when running the script.

System Action: Processing stops.

User Response: Check the log for more information about the error.

AUZ086I No projects match filter *filter*

Explanation: There are no projects in the Project List that match the filter you have specified.

System Action: Processing stops.

User Response: To obtain a list of other projects, specify a different filter. Otherwise, no user action is required.

AUZ087E Group *groupname* is not low level group of project

Explanation: The named group is not at the lowest level of the project hierarchy. Architecture definition is allowed only for low level groups.

System Action: Processing stops.

User Response: Correct the problem.

AUZ088E Type *typename* is not defined in the project

Explanation: The named Type has not been defined in the project. You can define this Type on the Types panel.

System Action: Processing stops.

User Response: Define the Type before attempting to build the architecture definition.

AUZ089E Type *typename* has wrong attributes

Explanation: The named Type has been defined with incorrect attributes for the Type.

System Action: Processing stops.

User Response: Respecify the attributes for this Type. An architecture definition can be created only for types having RECFM=FB and LRECL=80.

AUZ090E RECFM is not defined

Explanation: You have not defined this record format.

System Action: Processing stops.

User Response: Define the record format.

AUZ091E BLKSIZE is not defined

Explanation: You have not defined this block size.

System Action: Processing stops.

User Response: Define the block size.

AUZ092E LRECL is not defined

Explanation: You have not defined this logical record length.

System Action: Processing stops.

User Response: Define the logical record length.

AUZ093E Type Name is not valid

Explanation: The name you have assigned to this Type is not valid for this Type.

System Action: Processing stops.

User Response: Respecify the Type name.

AUZ094E RECFM is not valid

Explanation: The record format you have assigned to this Type is not valid for this Type.

System Action: Processing stops.

User Response: Respecify the record format.

AUZ095E BLKSIZE is not valid

Explanation: The block size you have assigned to this Type is not valid for this Type.

System Action: Processing stops.

User Response: Respecify the block size.

AUZ096E LRECL is not valid

Explanation: The logical record length you have assigned to this Type is not valid for this Type.

System Action: Processing stops.

User Response: Respecify the logical record length.

AUZ097E Type Name is not valid

Explanation: The name you have assigned to this Type is not valid for this Type.

System Action: Processing stops.

User Response: Respecify the Type name.

AUZ098E Alternate Name of *typename* Type is not valid

Explanation: The alternate name you have assigned to this Type is not valid.

System Action: Processing stops.

User Response: Respecify the Alternate Type name.

AUZ099E No of Members of *typename* Type is not valid

Explanation: The value you have specified for the Number of Members field for this Type is not valid.

System Action: Processing stops.

User Response: Respecify the Number of Members.

AUZ100E Average Number of Records of *typename* Type is not valid

Explanation: The value you have specified for the Average Number of Records field for this Type is not valid.

System Action: Processing stops.

User Response: Respecify the Average Number of Records.

AUZ101E At least one group and one type should exist in the project to build it successfully

Explanation: To build a project, you must have defined at least one group and one Type for it.

System Action: Processing stops.

User Response: Add a group, Type, or both to the project if necessary.

AUZ102E Number of members of *typename* Type not defined

Explanation: The Number of Members parameter for this Type is not defined.

System Action: Processing stops.

User Response: Define the Number of Members parameter.

AUZ103E Average Number of Records of *typename* Type not defined

Explanation: The Average Number of Records parameter for this Type is not defined.

System Action: Processing stops.

User Response: Define the Average Number of Records parameter.

**AUZ104E Package Backup condition of *typename*
Type not defined**

Explanation: The Package Backup parameter for this Type is not defined.

System Action: Processing stops.

User Response: Define the Package Backup parameter.

**AUZ105E Flags Packfile condition of *typename*
Type not defined**

Explanation: The Flags Packfile parameter for this Type is not defined.

System Action: Processing stops.

User Response: Define the Flags Packfile parameter.

**AUZ106E Backout IsaPack condition of *typename*
Type not defined**

Explanation: The Backout IsaPack parameter for this Type is not defined.

System Action: Processing stops.

User Response: Define the Backout IsaPack parameter.

**AUZ107E Backout IsaPack condition of *typename*
Type is not valid**

Explanation: The Backout IsaPack parameter for this Type is not valid.

System Action: Processing stops.

User Response: Respecify the Backout IsaPack parameter within required limits.

**AUZ108E Package Backup condition of *typename*
Type is not valid**

Explanation: The Package Backup parameter for this Type is not valid.

System Action: Processing stops.

User Response: Respecify the Package Backup parameter within required limits.

**AUZ109E Flags Packfile condition of *typename*
Type is not valid**

Explanation: The Flags Packfile parameter for this Type is not valid.

System Action: Processing stops.

User Response: Respecify the Flags Packfile parameter within required limits.

**AUZ110E Reuse limits of *typename* Type not
defined**

Explanation: The Reuse Limits parameter for this Type is not defined.

System Action: Processing stops.

User Response: Define the Reuse Limits parameter.

**AUZ111E Reuse Limits condition of *typename*
Type is not valid**

Explanation: The Reuse Limits parameter for this Type is not valid.

System Action: Processing stops.

User Response: Respecify the Reuse Limits parameter within required limits.

**AUZ112E The topmost group already exists in
the project**

Explanation: You have already defined this group as the topmost group within this project.

System Action: Processing stops.

User Response: Redefine this group.

**AUZ113E Project must have the only topmost
group**

Explanation: Only one group can not have a promotion group. That is the group at the top of the tree.

System Action: Processing stops.

User Response: Ensure that only one group does not have a promote group, and that this group is at the top of the tree.

AUZ114E Promote group must exist

Explanation: You must define a group as a promote group in this project.

System Action: Processing stops.

User Response: Define a group in this project as the promoter group

**AUZ115E The group with the same name
already exists in the project**

Explanation: You have defined two groups in the project with the same name.

System Action: Processing stops.

User Response: Rename one of the groups.

AUZ116E The topmost group should be the key

Explanation: You have not specified the Key parameter for the topmost group in your hierarchy.

System Action: Processing stops.

User Response: Specify the topmost group in your project hierarchy as the key group.

AUZ117E Development group *groupname* should be the key

Explanation: The group named in the message should be the key group.

System Action: Processing stops.

User Response: Redefine this group to be the key group.

AUZ118E You have a loop in promotions for group *groupname*

Explanation: When defining promotion from group to group, there can be no loops. You cannot define a promote sequence that has group A promoting to group B which in turn promotes back to group A.

System Action: Processing stops.

User Response: Redefine your Promote sequence.

AUZ119E An FLMALTC macro must have at least one FLMGROUP ALTC parameter pointing to it

Explanation: When defining an alternate control group, you must ensure that each occurrence of an FLMALTC macro has at least one ALTC parameter on an FLMGROUP (group definition) macro pointing to it.

System Action: Processing stops.

User Response: Redefine a group definition macro to point to the alternate control group.

AUZ120E FLMCNTRL macros can only use @@FLMPRJ, @@FLMGRP, @@FLMTYP in the DSNAME parm. If it is specified, DSNAME must include @@FLMTYP.

Explanation: When defining control data sets, the DSNAME parameter can use only the variables @@FLMPRJ, @@FLMGRP, @@FLMTYP.

System Action: Processing stops.

User Response: Redefine the FLMCNTRL macro.

AUZ121E FLMALTC macros can only use @@FLMPRJ, @@FLMGRP, @@FLMTYP in the DSNAME parm.

If it is specified, DSNAME must include @@FLMTYP.

Explanation: When defining control data sets, the DSNAME parameter can use only the variables @@FLMPRJ, @@FLMGRP, @@FLMTYP.

System Action: Processing stops.

User Response: Redefine the FLMALTC macro.

AUZ122E FLMCNTRL macros can only use @@FLMPRJ, @@FLMGRP, @@FLMUID in the EXPACCT parm.

Explanation: When defining control data sets, the EXPACCT parameter can use only the variables @@FLMPRJ, @@FLMGRP, @@FLMUID.

System Action: Processing stops.

User Response: Redefine the FLMCNTRL macro.

AUZ123E FLMALTC macros can only use @@FLMPRJ, @@FLMGRP, @@FLMUID in the EXPACCT parm.

Explanation: When defining control data sets, the EXPACCT parameter can use only the variables @@FLMPRJ, @@FLMGRP, @@FLMUID.

System Action: Processing stops.

User Response: Redefine the FLMALTC macro.

AUZ124E FLMCNTRL macros can only use @@FLMPRJ, @@FLMGRP, @@FLMTYP, @@FLMDSN in the VERPDS parm. If @@FLMDSN is used, it must be specified in the first 8 characters.

Explanation: When defining control data sets, the VERPDS parameter can use only the variables @@FLMPRJ, @@FLMGRP, @@FLMTYP and @@FLMDSN.

System Action: Processing stops.

User Response: Redefine the FLMCNTRL macro.

AUZ125E FLMALTC macros can only use @@FLMPRJ, @@FLMGRP, @@FLMTYP, @@FLMDSN in the VERPDS parm. If @@FLMDSN is used, it must be specified in the first 8 characters.

Explanation: When defining alternate control data sets, the VERPDS parameter can use only the variables @@FLMPRJ, @@FLMGRP, @@FLMTYP and @@FLMDSN.

System Action: Processing stops.

User Response: Redefine the FLMALTC macro.

AUZ126E **FLMCNTRL macros cannot use SCLM variables in ACCT and ACCT2 parms.**

Explanation: When defining control data sets, SCLM variables cannot be used when defining ACCT and ACCT2 parameters.

System Action: Processing stops.

User Response: Redefine the FLMCNTRL macro.

AUZ127E **FLMALTC macros cannot use SCLM variables in ACCT and ACCT2 parms.**

Explanation: When defining alternate control data sets, SCLM variables cannot be used when defining ACCT and ACCT2 parameters.

System Action: Processing stops.

User Response: Redefine the FLMALTC macro.

AUZ128E **FLMCNTRL macros cannot use SCLM variables in VERS and VERS2 parms.**

Explanation: When defining control data sets, SCLM variables cannot be used when defining VERS and VERS2 parameters.

System Action: Processing stops.

User Response: Redefine the FLMCNTRL macro.

AUZ129E **FLMALTC macros cannot use SCLM variables in VERS and VERS2 parms.**

Explanation: When defining alternate control data sets, SCLM variables cannot be used when defining VERS and VERS2 parameters.

System Action: Processing stops.

User Response: Redefine the FLMALTC macro.

AUZ130E **If PACKFILE=Y then *typename* should have RECFM=FB and LRECL=130**

Explanation: If the specification of the PACKFILE parameter is Yes, then the named Type should have a record format of fixed block and a logical record length of 130.

System Action: Processing stops.

User Response: Respecify values for the named Type.

AUZ131E **If RECFM=U, LRECL must be 0**

Explanation: If the record format is unblocked, logical record length must be 0.

System Action: Processing stops.

User Response: Respecify the values.

AUZ132E **If RECFM=U, BLKSIZE must not be 0 or <= 32760**

Explanation: If the record format is unblocked, block size must not be 0 and must be less than or equal to 32760.

System Action: Processing stops.

User Response: Respecify the values.

AUZ133E **If RECFM=VBx, LRECL must not be 0**

Explanation: If the record format is variable blocked, logical record length must not be 0.

System Action: Processing stops.

User Response: Respecify the values.

AUZ134E **If RECFM=VBx, BLKSIZE must be 0 or >= LRECL +4 and <= 32760**

Explanation: If the record format is variable blocked, block size must either be 0 or must be greater than or equal to logical record length plus 4 and less than or equal to 32760.

System Action: Processing stops.

User Response: Respecify the values.

AUZ135E **If RECFM=FBx, LRECL must not be 0**

Explanation: If the record format is fixed block, logical record length must not be 0.

System Action: Processing stops.

User Response: Respecify the values.

AUZ136E **If RECFM=FBx, BLKSIZE must be 0 or an exact multiple of LRECL and <= 32760**

Explanation: If the record format is fixed blocked, block size must either be 0 or must be an exact multiple of the logical record length and less than or equal to 32760.

System Action: Processing stops.

User Response: Respecify the values.

AUZ137I **Project *projectname* successfully parsed**

Explanation: The project whose name appears in the message has been successfully parsed --XML has been generated for this project.

System Action: Processing stops.

User Response: No action is required.

AUZ138E **Authorization group *authgroup_name* has authorization code loop.**

Explanation: An example of a loop that must be avoided is the case where authorization group AGRP1 contains authorization codes A, B, C, AGRP2, and authorization group AGRP2 contains authorization codes A, B, D, AGRP1. This specification is invalid.

System Action: Processing stops.

User Response: Correct the authorization group specification.

AUZ139E **Authorization code loop exists.**

Explanation: An example of a loop that must be avoided is the case where authorization group AGRP1 contains authorization codes A, B, C, AGRP2, and authorization group AGRP2 contains authorization codes A, B, D, AGRP1. This specification is invalid.

System Action: Processing stops.

User Response: Correct the authorization code specification.

AUZ140E **DASD unit not defined**

Explanation: You have not specified a DASD unit.

System Action: Processing stops.

User Response: Define the DASD unit.

AUZ141E **DASD unit invalid value**

Explanation: The DASD unit specification you entered is invalid.

System Action: Processing stops.

User Response: Correct the specification.

AUZ142E **VIO unit not defined**

Explanation: You have not specified a Virtual Input/Output (VIO) unit.

System Action: Processing stops.

User Response: Define the VIO unit.

AUZ143E **VIO unit invalid value**

Explanation: The VIO unit specification you entered is invalid.

System Action: Processing stops.

User Response: Correct the specification.

AUZ144E **Max VIO Records not defined**

Explanation: You have not specified the maximum number of records permitted for VIO allocation.

System Action: Processing stops.

User Response: Define the parameter Max VIO Records.

AUZ145E **Max VIO Records invalid value -- must be numeric**

Explanation: The specification you entered for Max VIO Records is invalid. Ensure the value is numeric.

System Action: Processing stops.

User Response: Correct the specification.

AUZ146E **Max lines per report page not defined**

Explanation: You have not specified the maximum number of lines to be written to a report page.

System Action: Processing stops.

User Response: Define the parameter Max Lines per Report Page.

AUZ147E **Max lines per report page invalid value -- must be numeric**

Explanation: The specification you entered for Max lines per report page is invalid. Ensure the value is numeric.

System Action: Processing stops.

User Response: Correct the specification.

AUZ148E **Max lines per report page should be greater than or equal to 35**

Explanation: The specification you entered for Max lines per report page should be greater than or equal to 35.

System Action: Processing stops.

User Response: Correct the specification.

AUZ149E Promotion group *promote_groupname* for group *groupname* must exist

Explanation: The named promote group does not exist.

System Action: Processing stops.

User Response: Define the missing promote group.

AUZ150E The Type *typename* wasn't used in Group-Type combination

Explanation: You have not used the named Type in any Group/Type combination.

System Action: Processing stops.

User Response: Respecify the Group/Type if necessary.

AUZ151E The Group *groupname* wasn't used in Group-Type combination

Explanation: You have not used the named Group in any Group/Type combination.

System Action: Processing stops.

User Response: Respecify the Group/Type if necessary.

AUZ152E The Type *typename* is not defined in the project

Explanation: You have not defined the named Type for this project.

System Action: Processing stops.

User Response: Respecify or select the Type if necessary.

AUZ153E The Group *groupname* is not defined in the project

Explanation: You have not defined the named group for this project.

System Action: Processing stops.

User Response: Respecify or select the group if necessary.

AUZ154E A member with the same name already exists in the project

Explanation: You are attempting to define a new member having the same name as an existing member.

System Action: Processing stops.

User Response: Correct the error.

AUZ155E Invalid Script Log File

Explanation: A script was not running at the time the error occurred, resulting in an invalid script log file.

System Action: Processing stops.

User Response: No action is required.

AUZ156E Invalid Script Result File

Explanation: A script was not running at the time the error occurred, resulting in an invalid script results file.

System Action: Processing stops.

User Response: No action is required.

AUZ157E Invalid unit selection

Explanation: You have selected a DASD unit that is not available or not valid.

System Action: Processing stops.

User Response: Correct the error.

AUZ158E Allocation Units are not defined

Explanation: You have not specified the allocation unit to be used. Select from those listed on the panel.

System Action: Processing stops.

User Response: Correct the error.

AUZ159E Initial Allocation is not defined

Explanation: You have not specified the value to be used for the initial allocation.

System Action: Processing stops.

User Response: Correct the error.

AUZ160E Must be numeric

Explanation: You are attempting to enter a non-numeric value in a field that must be numeric.

System Action: Processing stops.

User Response: Correct the error.

AUZ161E Value out of range

Explanation: The value you have entered in this field is either too small or too large.

System Action: Processing stops.

User Response: Correct the error.

AUZ162E Secondary Allocation is not defined

Explanation: You have not specified the value to be used for the secondary allocation.

System Action: Processing stops.

User Response: Correct the error.

AUZ163E Audit Data Set must be selected

Explanation: Selecting an Auditing Data Set is mandatory based on your other selections on this panel.

System Action: Processing stops.

User Response: Correct the error.

AUZ164E Number of versions is not defined

Explanation: You have specified versioning is to be active but have not specified the number of versions to be retained.

System Action: Processing stops.

User Response: Correct the error.

AUZ165I Migrate completed successfully

Explanation: You have successfully migrated assets into your project.

System Action: Processing stops.

User Response: No user action is required.

AUZ166I Architecture Definition was created successfully

Explanation: You have successfully created an architecture definition.

System Action: Processing stops.

User Response: No user action is required.

AUZ167E Cannot run script

Explanation: The script you required to be run failed to run.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ168E Error code *error code* was returned.

Explanation: An unknown error has occurred.

System Action: Processing stops.

User Response: Review the output and the error log or contact your site's support personnel.

AUZ169E Cannot be Versioning

Explanation: You cannot select versioning because you have not specified versioning when defining your project.

System Action: Processing stops.

User Response: Correct the problem and rerun.

AUZ170E Error occurred

Explanation: An unknown error has occurred.

System Action: Processing stops.

User Response: Review the output and the error log or contact your site's support personnel.

AUZ171E The Type with the same name is already defined

Explanation: You are attempting to define a new Type having the same name as a Type that is already defined.

System Action: Processing stops.

User Response: Rename the Type you are defining.

AUZ172E SCLM Output Type not defined.

Explanation: You have not provided the required parameter definitions for the Output Type.

System Action: Processing stops.

User Response: From the Default Types panel or Selected Types panel, provide any missing information for the Output Type.

AUZ173E SCLM List Type not defined.

Explanation: You have not provided the required parameter definitions for the List Type.

System Action: Processing stops.

User Response: From the Default Types panel or Selected Types panel, provide any missing information for the List Type.

AUZ174E Architecture Definition Language *language* isn't defined in project

Explanation: You are attempting to use an invalid language in your architecture definition.

System Action: Processing stops.

User Response: Use the Language Definition Wizard to define the language you want to use in this Architecture Definition.

AUZ175E **Architecture Definition Language not defined**

Explanation: You have left the language definition field for this architecture definition empty.

System Action: Processing stops.

User Response: Supply a valid language in your architecture definition.

AUZ176E **The Type with the same name already exists in the project**

Explanation: You are attempting to move a default Type into your project that has the same name as a Type that is already defined in the project.

System Action: Processing stops.

User Response: Determine whether you are moving a duplicate default Type into the project and decide whether to do so. Alternatively, rename the Type you have selected.

AUZ177E **Error returned after chmod command ISPLINK error** *description*

Explanation: An error has occurred in your environment or as the result of an incorrect install process. The error description is presented in the message.

System Action: Processing stops.

User Response: Use SLOG or OUTPUT commands to review the problem. You can add the current directory to the path or add the directory where setup.sh installed to the path instead to see if this will fix the problem. Correct the error if possible or contact your site's support personnel.

AUZ178E **Error returned when running the script ISPLINK error** *description*

Explanation: An error has occurred in your environment or as the result of an incorrect install process. The error description is presented in the message.

System Action: Processing stops.

User Response: Correct the error if possible or contact your site's support personnel.

AUZ179E **XML contains errors. Use ERROROUT command to see details.**

Explanation: The project's XML code has errors.

System Action: Processing stops.

User Response: Use the XML ERROROUT command to review the errors. Correct the errors and rerun if possible, or contact your site's support personnel.

AUZ180E **Project does not use group authorization**

Explanation: You are attempting to use a feature that is only available if you configure the Group Authorization function.

System Action: Processing stops.

User Response: If this is a function you want to use, you must first configure authorization groups for your project.

AUZ181E **An Alternate Control data set with same name already exists in the project**

Explanation: You are attempting to define an alternate control data set having the same name as one that is already defined in the project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ182E **A language definition name is required**

Explanation: You must supply the name of an existing language definition to proceed.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ183E **A copybook name is required.**

Explanation: You must supply the name of an existing copybook to proceed.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ184E **Must be numeric**

Explanation: The value you have entered must be numeric.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ185E **Must be "PARSE", or "BUILD" or "IGNORE"**

Explanation: The only valid values that can be entered in this field are **PARSE**, **BUILD**, or **IGNORE**.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ186E Include Set name is required

Explanation: You must supply an include set name to proceed. This name can only be used once per each language definition.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ187E Include Set type is required

Explanation: You must supply a Type or list of Types for the include set that contain the includes for the include set. Two SCLM variables, @@FLMTYP and @@FLMETP, can be used in this Types list.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ188E Include Set Cross lang must be "Y" or "N"

Explanation: The only valid value in this field is Y or N. Specifies whether (Y) or not (N) SCLM is to process the includes of an included member when the language of the included member differs from that of the source member; that is, whether or not language boundaries are crossed.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ189E A Data Set name is required

Explanation: You must supply a data set name to proceed. This is the name of the partitioned data set that contains macros or includes from outside the project. The data set name must meet MVS data set naming requirements.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ190E The Include name is required

Explanation: You must supply the name of an include set on an FLMINCLS macro.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ191E The Volume Serial is required

Explanation: You must supply the serial number of a direct access volume on which the data set is located.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ192E Must be "PARSE", "VERIFY", "BUILD", "COPY", or "PURGE"

Explanation: The only valid values that can be entered in this field are PARSE, VERIFY, BUILD, COPY, or PURGE.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ193E The Call Name is required

Explanation: You must supply a name of up to 16 characters for this translator.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ194E The Call method must be "ATTACH", "LINK", "TSOLINK", or "ISPLINK".

Explanation: The call method you specify may only be one of the named methods in the message.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ195E Compile is not valid

Explanation: This compile is invalid.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ196E Param order is not valid

Explanation: The order in which you have specified the parameters is not valid.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ197E A task library can be defined only when using the "ATTACH" call method

Explanation: You have defined a task library when the call method is not ATTACH.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ198E For function "PARSE" and "BUILD", PDS data must be "Y"

Explanation: You have specified either the PARSE or BUILD function, and so the only valid value for PDS is Y.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ199E This command is allowed only for "BUILD" function

Explanation: You have specified a function other than the BUILD function, and the command you have specified is valid only when using BUILD.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ200I Job submitted successfully. Check JOBLOG for result.

Explanation: The job was successfully submitted.

System Action: None

User Response: No action is required.

AUZ201E IO Type must be "A", "I", "L", "N", "O", "p", "S", "U", or "W" function

Explanation: You have specified an I/O Type other than one of those specified in the message. The I/O Type you specified is not valid in this circumstance.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ202E For selected IO Type, this Field not allowed

Explanation: You have specified a field that is not valid for the I/O Type you have specified.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ203E The Type *typename* does not have space allocation information

Explanation: You have not provided allocation information for the Type identified in the message.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ204E The group-Type combination *groupname-typename* does not have space allocation information

Explanation: You have not provided allocation information for the group-Type combination identified in the message.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ205E Disposition must be "OLD", "SHR", "MOD", or "NEW"

Explanation: You have provided a value for Disposition that is not one of the four valid named values.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ206E For IO Type "I" Keyword Ref must be "SINC", "SREF", or "CREF"

Explanation: You have provided a value for the I/O type I keyword reference that is not one of the valid named values.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ207E For IO Type "O" Keyword Ref must be "LIST", "LMAP", "LOAD", "OBJ", or "OUT1-OUT9"

Explanation: You have provided a value for the I/O type O keyword reference that is not one of the valid named values.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ208E For IO Type "P" Keyword Ref must be "LIST", "LMAP", "LOAD", "OBJ", or "OUT1-OUT9"

Explanation: You have provided a value for the P keyword reference that is not one of the valid named values.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ209E For IO Type "S" Keyword Ref must be "INCL" or "SINC"

Explanation: You have provided a value for the I/O type S keyword reference that is not one of the valid named values.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ210E Not all space allocation parameters defined for this type

Explanation: You have not defined all of the required allocation parameters for the specified Type.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ211E Backout group must exist

Explanation: You have not defined the required backout group before performing this function.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ212E If Type PACKFILE=Y group must be backout

Explanation: If you have specified the Type as PACKFILE, then the group must be specified as BACKOUT.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ213E One of default data sets is not defined

Explanation: You have not defined all of the required parameters for a default data set.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ214E The Architecture Definition name is required

Explanation: You have not specified a name for the architecture definition. A name is required.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ215E IP Address or Host Name of workstation is required

Explanation: The workstation's IP address or host name must be known to SCLM Administrator Toolkit.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ216E A user ID is required

Explanation: You must supply an acceptable user ID to SCLM Administrator Toolkit.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ217E This parameter_value must be edited from the top level user macro macro_name associated with this macro_name macro

Explanation: You are attempting to edit a value in a user macro directly. You can edit this value only by editing the top level user macro identified in the message.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ218E Project does not use User Macros

Explanation: There are no user macros associated with this project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ219E Name of macro is required

Explanation: You must supply an acceptable value to SCLM Administrator Toolkit.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ220E You must parse the project first

Explanation: You are attempting to perform an action that cannot be performed until you have parsed your project within SCLM Administrator Toolkit.

System Action: Processing stops.

User Response: Parse the project. Then continue with your previous action.

AUZ221E Invalid resource file format

Explanation: The format of your resource file is invalid.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ222E Invalid resource file

Explanation: You have supplied an invalid resource file.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ223E Wrong version of resource file

Explanation: You have identified a resource file that is the wrong version for the project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ224E Wrong project name

Explanation: You have identified a project name that is the wrong version for the project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ224E Wrong alternate name

Explanation: You have identified an alternate project name that is the wrong version for the project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ225E Wrong alternate name

Explanation: You have identified an alternate project name that is the wrong version for the project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ226E Data set does not exist

Explanation: You have entered the name of a nonexistent data set.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ227E Member does not exist

Explanation: You have entered the name of a nonexistent member.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ228E No data set names found

Explanation: The product is unable to find any data set names to display.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ229E No selected members

Explanation: You have not selected a member from the displayed list.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ230E Invalid value - you cannot choose a member from the source data set because the source data set does not exist.

Explanation: You have tried to select a member from a nonexistent data set.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ231E Unable to add Breeze exits because at least one of them already selected.

Explanation: The action you want to take to add Breeze exits cannot be accomplished because a Breeze exit has already been selected.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ232E You must delete all four Breeze exits concurrently.

Explanation: All Breeze exits must be deleted concurrently.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ233E **Invalid selection - you cannot select two or more items**

Explanation: You cannot select two or more items.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ234E **Language not defined in project**

Explanation: The language you have identified has not been defined in the project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ235E **Authorization code for selected group not defined in project**

Explanation: The authorization code you have identified has not been defined in the project for the group you have selected.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ236E **Invalid format or value**

Explanation: The information you entered is incorrect in either its format or value.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ237E **Authorization group with the same name already exists**

Explanation: You are attempting to define an authorization group having a name that is identical to the name of an authorization group that already exists.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ238E **Source library not defined**

Explanation: The source library you want to use is not defined.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ239E **Source data set *name* not found**

Explanation: The product could not locate the source data set named in the message.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ240E **Source member *name* not found**

Explanation: The product could not locate the source member named in the message.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ241E **Unable to add Data Set to Sys Lib**

Explanation: The data set you identified could not be added to the system library.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ243E **Source member not defined**

Explanation: The member you have specified is not defined for the project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ244E **Architecture Definition Type not defined**

Explanation: The architecture definition Type you have specified is not defined for the project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ245E **Invalid Value - You must enter ?PARSE", "BUILD", or "IGNORE"**

Explanation: The only acceptable values to be entered are "PARSE", "BUILD", or "IGNORE".

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ246E **A language definition with the same name already exists in the project**

Explanation: You are specifying a name for a language definition that already exists in the project.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ247E This name already exists in the list

Explanation: An object you are attempting to add to a list has the same name as an object already in the list.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ248E Data Set is required

Explanation: You must specify a data set name.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ249E Member is required

Explanation: You must specify a member name.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ1000E No contributions found for this action

Explanation: Internal error.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ250E Name of parameter s required

Explanation: You must specify a parameter name.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ251E Value of parameter is required

Explanation: You must specify a value for the named parameter.

System Action: Processing stops.

User Response: Correct the error and rerun.

AUZ1001E Cannot instantiate a Menu Action class: *description*

Explanation: An internal error has occurred and is described to you.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ1002E Error detected in *location*

Explanation: An internal error has occurred at the location specified in the message.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ1003E EAC exception: *message*

Explanation: The Enhanced Access Control for SCLM exception indicated by the message text of this message has occurred.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ1004E Default EAC Rule File not found.

Explanation: You must specify a default rule file.

System Action: Processing stops.

User Response: Go to the Window pull-down, select **Preferences > EAC Manager**, and specify a default rule file.

AUZ1005W Connection timed out. Host processes may still be active.

Explanation: A command or file transfer operation has not completed within a reasonable time and the workstation program has stopped waiting. Host-side processes may still be running on behalf of the request and were not cancelled.

System Action: Processing stops.

User Response: Verify the status of the operation before initiating further work on the project.

AUZ1006E *message*

Explanation: An internal error as described in the message has occurred.

System Action: Processing stops.

User Response: Contact your site's support personnel.

AUZ1007W Only a simple filter can be used for the project filter - for example, CCC*

Explanation: When you are defining a filter to be used to filter the project list that will be displayed to you at the workstation, you may not specify a complex filter; that is, a filter with more than one term.

System Action: Processing stops.

User Response: Reformulate your filter to have only one term.

AUZ1008E Error obtaining command results

Explanation: An I/O error occurred getting results back from the host system.

System Action: Processing stops.

User Response: Retry. If the error reoccurs, call your support personnel.

AUZ1009E Error: RSE temp files project not found

Explanation: SCLM Administrator Toolkit depends on the RSE subsystem to establish a project for temp files (RemoteSystemTempFiles).

System Action: Processing stops.

User Response: Contact your support personnel.

AUZ1010E Not connected to mainframe yet.

Explanation: While trying to create a folder in RSE RemoteSystemTempFiles project, the MVS userid could not be resolved since the user is not connected to the mainframe.

System Action: Processing stops.

User Response: Ensure you are connected to the host and retry.

AUZ1011E Error: Can't create AUZ temporary folder.

Explanation: While trying to create a temporary folder in RSE RemoteSystemTempFiles project, an error occurred.

System Action: Processing stops.

User Response: Ensure you have required permissions or call your support personnel.

AUZ1012E Only one active EAC rule data set allowed per system. Please remove existing mapping and retry.

Explanation: Indicates that you have selected a system to which you want to add a rule file that already has an EAC rule file associated with it in EAC Manager preferences.

System Action: Processing stops.

User Response: To associate the system with the given EAC rule file, set the System name back to <Select> status, then choose another system.

AUZ1013E Invalid rule data set name.

Explanation: The name you have selected for your EAC rule file does not follow MVS data set naming conventions.

System Action: Processing stops.

User Response: Ensure your data set name follows MVS data set naming conventions. Please respecify the data set name.

**AUZ5000S Usage: *project* PROJECT DEFINITION
<project_name> <alternate_name>
<member_name> <output_file>
<input_file> library_pds_1
[library_pds_2-10] [trace_level=
<trace_level>]**

Explanation: An error has occurred when parsing the project.

System Action: Parsing of the project stops.

User Response: Call IBM technical support.

**AUZ5001S Invalid Markup Language Type
<markup language type>**

Explanation: An error has occurred when parsing the project.

System Action: Parsing of the project stops.

User Response: Call IBM technical support.

**AUZ5002S Usage: <filename>COPYBOOK
<name> <alternate> <member>
<output_file> nest=<nesting_level>
library_pds_1 [library_pds_2-10]
[trace_level= <trace_level>]**

Explanation: An error has occurred when parsing the project.

System Action: Parsing of the project stops.

User Response: Call IBM technical support.

AUZ5003S Nesting level too large recursive copies?

Explanation: An error has occurred when parsing the project.

System Action: Parsing of the project stops.

User Response: Call IBM technical support.

AUZ5004S Nesting level must be specified

Explanation: An error has occurred when parsing the project.

System Action: Parsing of the project stops.

User Response: Call IBM technical support.

AUZ5005E **Unable to open output file** *filename,*
errno=error number

Explanation: An error has occurred when parsing the project.

System Action: Parsing of the project stops.

User Response: Correct the problem.

AUZ5006E **Unable to open input file** *filename,*
errno=error number

Explanation: An error has occurred when parsing the project.

System Action: Parsing of the project stops.

User Response: Correct the problem.

AUZ5007I *variable message indicating command*
being run to parse copybook

System Action: The program continues.

User Response: No action is required.

AUZ5050E **NOT FOUND** *errno=error number*

Explanation: An error has occurred when parsing the project.

System Action: Parsing of the project stops.

User Response: Correct the problem. A possible correction is to correct the default data set specification.

AUZ5104S **IF statements cannot be nested deeper**
than 15 levels

Explanation: IF statements may not be nested more than 15 levels deep. More than 15 levels of IF statements were found in the JCL being parsed.

System Action: IF statements nested deeper than 15 levels are ignored.

User Response: Correct the problem by reducing the level of the JCL IF statements.

AUZ5105E **Invalid ELSE statement**

Explanation: An ELSE statement was encountered outside of an IF statement, or two ELSE statements were found in a single IF structure.

System Action: The ELSE statement is ignored.

User Response: Correct the IF structure in the JCL.

AUZ5106E **Invalid ENDIF statement**

Explanation: An ENDIF statement was encountered outside of an IF structure.

System Action: The ENDIF statement is ignored.

User Response: Correct the IF structure in the JCL.

AUZ5220E **Nested IF statements not supported**

Explanation: A JCL IF structure containing other IF statements was found.

System Action: The inner IF structures are ignored.

User Response: Flatten the IF structure to remove nested JCL IF statements.

AUZ5221E **IF condition ignored when COND**
parameter used inside an ELSE

Explanation: Translation steps inside of the ELSE portion of a JCL IF statement cannot be converted to Language Definition XML if they have a COND= parameter.

System Action: The IF statement relational test is ignored; the COND= condition is used in the generated Language Definition XML.

User Response: Restructure the JCL so that it does not use both an IF statement and a COND= parameter in translator steps inside the ELSE clause.

AUZ5222E **Unsupported relational-expression in**
IF statement

Explanation: An IF statement relational-expression was more complicated than what can be supported in the SCLM macro language.

System Action: The IF statement is ignored.

User Response: Simplify the IF expression to use only the OR relational test.

AUZ5223E **Only IF tests of RC are supported**

Explanation: SCLM macros support only tests of the return code (RC). A test that involved another relational-expression keyword, for example, ABEND, ABENDCC, or RUN, was found.

System Action: The IF statement is ignored.

User Response: Modify the JCL to use tests only of the RC.

AUZ8100S Unauthorized to run AUZREACRM

Explanation: You do not have sufficient authority to run this program.

System Action: Processing stops.

User Response: Ensure that your RACF authority is RACF SPECIAL.

AUZ8101S Invalid Parameters

Explanation: The parameters supplied are invalid.

System Action: Processing stops.

User Response: Call IBM Support.

**AUZ8102E Unable to reserve EAC Rule File
(Exclusive)**

Explanation: The Rule File you specified may be in use and cannot be reserved to your use exclusively.

System Action: Program ignores this request.

User Response: Retry later. If problem persists, call IBM support.

**AUZ8103E Unable to reserve EAC Rule File
(Shared)**

Explanation: The Rule File you want to use is unavailable.

System Action: Program ignores this request.

User Response: Retry later. If problem persists, call IBM support.

AUZ8104S Unable to load HSSGDBUF

Explanation: HSSGDBUF may not be in the link list or in the same library as AUZEACRM.

System Action: Program ignores this request.

User Response: Contact your site's support personnel. Your system programmer should ensure that HSSGDBUF is in LINKLIST or in the same library as AUZEACRM.

AUZ8105S Error obtaining Violation Buffer

Explanation: The Violation Buffer is unavailable.

System Action: Program stops.

User Response: Call IBM support.

AUZ8106E *application not found*

Explanation: You have attempted to run an application that does not exist or cannot be found.

System Action: Program ignores this request.

User Response: Request an application that exists.

AUZ8107S Unable to open EAC Rule File

Explanation: You have specified an incorrect or nonexistent Rule File.

System Action: Program ignores this request.

User Response: Ensure that you specified a correct Rule File.

Appendix B. UNIX System Services Messages

This appendix documents the USS messages that may be displayed during the operation of SCLM Administrator Toolkit, together with actions that may be taken by the system, as well as actions that you may need to take.

All messages generated by SCLM Administrator Toolkit have a severity code printed as the last character of the message ID. The severity codes are described in the following table:

Table 3. Error message severity codes

Severity Code	Description
I	Information only. No user action required.
W	Warning message. Results may not be as expected.
E	Error message. Some may be user-correctable; read the User Response to determine the course of action.
S	Severe error. Some may be user-correctable; read the User Response to determine the course of action.

AUZ3014E (auzvsxlt) could not allocate the lstrnph data set *data_set_name*

Explanation: Missing VSAM translation data set

System Action: Processing stops.

User Response: Run job AUZXLVSM in AUZ.SAUZSAMP to allocate the data set.

AUZ3015E (auzvsxlt) Function keyword must be one of IMPORT, MIGRATE, FINDLONG or TRANSLATE

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3016E (auzvsxlt) could not allocate the lstrans data set *data_set_name*

Explanation: Missing VSAM translation data set

System Action: Processing stops.

User Response: Run job AUZXLVSM in AUZ.SAUZSAMP to allocate data set

AUZ3018E Batch submit error: rc= *return_code*

Explanation: Unable to submit batch job

System Action: Processing stops.

User Response: Contact system programmer

AUZ3020W Check results

Explanation: A requested job was run.

System Action: Processing stops.

User Response: Result of job requires manual review.

AUZ3021E Error adding RACF Data Set Profile, rc= *return_code*

Explanation: Unable to add RACF data set profile.

System Action: Processing stops.

User Response: Review log for further information.

AUZ3022E Error parsing language definition variable [rc=*return_code*]

Explanation: Error encountered in language definition

System Action: Processing stops.

User Response: Review log for further information

AUZ3023E **Error writing** *variable: rc= return_code*

Explanation: Cannot write output file.

System Action: Processing stops.

User Response: Verify /tmp/USERID has free space

AUZ3024E **Error writing auzgtarl rc file: rc=**
return_code

Explanation: Can't write output file.

System Action: Processing stops.

User Response: Verify /tmp/USERID has free space

AUZ3025I **Exception**

Explanation: Settings data set doesn't exist or timestamps don't exist for settings and/or source.

System Action: Processing stops.

User Response: None

AUZ3027E **Failed**

Explanation: Either get project or parse project failed.

System Action: Processing stops.

User Response: Review log for further information

AUZ3029E **Failed - see listing data sets for errors**

Explanation: Project definition assembly failed.

System Action: Processing stops.

User Response: Review listing and repair project source

AUZ3031E **Failed - see output listings rc=**
return_code

Explanation: Project definition assembly failed.

System Action: Processing stops.

User Response: Review listing and repair project source

AUZ3032E **Invalid parameters to auzeacrm. rc=**
return_code

Explanation: Internal error.

System Action: Processing stops.

User Response: Call support

AUZ3035I **No load dsn's found for** *variable*

Explanation: No compiled SCLM projects found.

System Action: Processing stops.

User Response: None

AUZ3036I **No load or settings members found.**

Explanation: No SCLM projects found.

System Action: Processing stops.

User Response: None

AUZ3037I **No settings dsn's found for** *variable*

Explanation: No project metadata found.

System Action: Processing stops.

User Response: None

AUZ3039E **Problem reading** *variable : rc=*
return_code

Explanation: Internal error.

System Action: Processing stops.

User Response: Call support

AUZ3044E **Split_source.rexx error rc=** *variable*

Explanation: Error occurred during rebuilding.

System Action: Processing stops.

User Response: Review log for further information.

AUZ3046I **Success**

Explanation: Operation succeeded.

System Action: Processing stops.

User Response: None

AUZ3047E **Auzvsxlt didn't return a file** *variable*
rc=255

Explanation: Internal error.

System Action: Processing stops.

User Response: Call support

AUZ3048E **Auzvsxlt didn't return a file containing the short name *name* rc=255**

Explanation: Internal error.

System Action: Processing stops.

User Response: Call support

AUZ3049E **Unable to allocate *data_set_name* [rc=*return_code*]**

Explanation: Could not allocate target data set.

System Action: Processing stops.

User Response: Review log for further information

AUZ3050E **Unable to allocate *data_set_name* rc=*return_code***

Explanation: Could not allocate target data set.

User Response: Review log for further information

System Action: Processing stops.

AUZ3051E **Unable to allocate sysin rc=*return_code***

Explanation: Internal error.

System Action: Processing stops.

User Response: Call support

AUZ3052E **Unable to allocate temporary vsam init data set**

Explanation: Could not allocate target data set.

System Action: Processing stops.

User Response: Review log for further information

AUZ3053E **Unable to delete *name* [rc=*return_code*]**

Explanation: Could not delete target data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3054E **Unable to IEBCOPY *PDS_name* rc=*return_code***

Explanation: Could not copy target PDS

System Action: Processing stops.

User Response: Review log for further information

AUZ3055E **Unauthorized. Need RACF Special authority for EAC access. rc=*return_code***

Explanation: User is not authorized for operation

System Action: Processing stops.

User Response: Refer to RACF administrator

AUZ3057W **Warnings or errors during compress**

Explanation: Problems may have occurred during compress

System Action: Processing stops.

User Response: Review log for further information

AUZ3058E **Xalan error rc=*return_code***

Explanation: Probable internal error

System Action: Processing stops.

User Response: Call support

AUZ3059E **Allocation error on temporary dsn rc=*return_code***

Explanation: Could not allocate target dsn

System Action: Processing stops.

User Response: Review log for further information

AUZ3060E **Allocation error on temporary rexx dsn rc=*return_code***

Explanation: Could not allocate target dsn

System Action: Processing stops.

User Response: Review log for further information

AUZ3061E **Allocation error on temporary submit dsn rc=*return_code***

Explanation: Could not allocate target dsn

System Action: Processing stops.

User Response: Review log for further information

AUZ3062E **Allocation failed: rc=*return_code***

Explanation: A project assembly allocation failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3063E **Allocation failed: rc=** *return_code***for:**
data_set_name

Explanation: Allocation of data set failed during parse

System Action: Processing stops.

User Response: Review log for further information

AUZ3064E **Allocation of temp transaction file**
failed rc= *return_code*

Explanation: Allocation of target data set failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3065E **Allocation script build error rc=**
return_code

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3066E **Allocation script execute error rc=**
return_code

Explanation: Script to allocate project data sets failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3067E **Amblist failed**

Explanation: The amblist utility has failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3068E **Amblist failed: rc=** *return_code*

Explanation: The amblist utility has failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3070E **pd2.xsl script failed rc=** *return_code*

Explanation: Assembler source creation failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3072E **Assembly failed: rc=** *return_code*

Explanation: Project source assembly failed

System Action: Processing stops.

User Response: Correct source error and retry

AUZ3101E **Bad lmdinit on:** *variable*

Explanation: Could not obtain list of data sets

System Action: Processing stops.

User Response: Refer log to system programmer; call support if necessary

AUZ3102W **Bad lmdlist on:** *variable*

Explanation: No data sets matched the specified search criteria

System Action: Processing stops.

User Response: Refer log to system programmer; call support if necessary

AUZ3103W **Bad lminit on** *variable* *return_code*
variable *variable*

Explanation: Unable to open data set to set timestamp

System Action: Processing stops.

User Response: None

AUZ3104E **Bad lminit on:** *variable*

Explanation: Unable to open data set

System Action: Processing stops.

User Response: Refer log to system programmer; call support if necessary

AUZ3105E **Bad lmmist in auzmigr:**
variable(variable)

Explanation: Unable to obtain member list

System Action: Processing stops.

User Response: Refer log to system programmer; call support if necessary

AUZ3106E **Bad lmmist on:** *variable*

Explanation: Unable to obtain member list

System Action: Processing stops.

User Response: Refer log to system programmer; call support if necessary

AUZ3107E **Bad Immlist:** *variable(variable)*

Explanation: Unable to obtain member list

System Action: Processing stops.

User Response: Refer log to system programmer; call support if necessary

AUZ3108I **Bad Immstats on** *variable rc=*
return_code

Explanation: Unable to obtain statistics for target data set

System Action: Processing stops.

User Response: None

AUZ3110W **Bad Imopen:** *variable*

Explanation: Unable to open data set for member list

System Action: Processing stops.

User Response: Review log for further information

AUZ3111E **Bad oput**

Explanation: Copy from MVS failed

System Action: Processing stops.

User Response: Review log with system programmer; call support if necessary

AUZ3113E **Build LEC awk script failed**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3115E **Can't find jcl library for project**
project_name

Explanation: The PROJDEFS.JCL library is not cataloged

System Action: Processing stops.

User Response: Rebuild project and retry

AUZ3116E **Can't open** *variable*

Explanation: Cannot obtain required member list for hierarchy determination

System Action: Processing stops.

User Response: Review log with system programmer; call support if necessary

AUZ3117E **Can't resolve** *variable rc= return_code*

Explanation: Internal error

System Action: Processing stops.

System Action: Processing stops.

User Response: Call support

AUZ3118E **Cannot copy** *variable rc= return_code*

Explanation: Cannot copy VSAM maintenance task to JCL library

System Action: Processing stops.

User Response: Review log with system programmer; call support if necessary

AUZ3119E **Cannot make jcl dir in /tmp/user_id**
rc=return_code

Explanation: Could not create directory in /tmp/USERID

System Action: Processing stops.

User Response: Check free space in /tmp/ directory

AUZ3120E **Cannot make skelib dir in**
/tmp/user_id rc= return_code

Explanation: Could not create directory in /tmp/USERID

System Action: Processing stops.

User Response: Check free space in /tmp/ directory

AUZ3121E **Catalog error - likely volume**
offline:variable

Explanation: Required MVS catalogs appear to be inaccessible

System Action: Processing stops.

User Response: Reconnect user catalog

AUZ3122E **cloneData failed** *rc= return_code*

Explanation: Clone of group type data sets failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3125E Copy of IEBCOPY output failed rc=
return_code

Explanation: Could not create file in /tmp/USERID

System Action: Processing stops.

User Response: Check free space in /tmp/

AUZ3126E copy of architecture definition failed
rc= *return_code*

Explanation: Unable to copy architecture definition to MVS data set

System Action: Processing stops.

User Response: Review log with system programmer;
call support if necessary

AUZ3127E Copy of command to
/tmp/user_idfailed rc= *return_code*

Explanation: Could not create file in /tmp/USERID

System Action: Processing stops.

User Response: Check free space in /tmp/

AUZ3128E Copy of jcl failed rc= *return_code*

Explanation: Could not create file in /tmp/USERID

System Action: Processing stops.

User Response: Check free space in /tmp/

AUZ3129E Copy of temp transaction file failed
rc= *return_code*

Explanation: Could not copy file to MVS data set

System Action: Processing stops.

User Response: Review log with system programmer;
call support if necessary

AUZ3130E Copy of transaction output failed rc=
return_code

Explanation: Could not create file in /tmp/USERID

System Action: Processing stops.

User Response: Check free space in /tmp/

AUZ3131E Copy of TYPRUN=SCAN submit JCL
failed rc= *return_code*

Explanation: Unable to copy file to MVS data set

System Action: Processing stops.

User Response: Review log with system programmer;
call support if necessary

AUZ3133E Copy error into member: rc=
return_code

Explanation: Unable to copy file to MVS data set

System Action: Processing stops.

User Response: Review log with system programmer;
call support if necessary

AUZ3138E Delete error rc= *return_code*

Explanation: Unable to delete MVS data set member

System Action: Processing stops.

User Response: Review log for further information

AUZ3139E Delete project PROJDEFS.SETTINGS
failed rc= *return_code*

Explanation: Unable to delete MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3140E Delete script build error
rc=*return_code*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3141E Delete script execute error rc=
return_code

Explanation: Script to delete project data sets failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3142I DELGROUP messages file is empty

Explanation: The DELGROUP SCLM service had no
messages

System Action: Processing stops.

User Response: None

AUZ3143I DELGROUP report file is empty

Explanation: The DELGROUP SCLM service report file
is empty

System Action: Processing stops.

User Response: None

AUZ3148E **dlracfdsp failed rc= return_code**

Explanation: Unable to delete RACF data set profile

System Action: Processing stops.

User Response: Review log for further information

AUZ3151E **SCLM DSMASK has more than (8) segments**

Explanation: Unable to decode SCLM data set mask

System Action: Processing stops.

User Response: Call support

AUZ3152W **DSINFO error on name rc= return_code**

Explanation: Unable to determine data set attributes

System Action: Processing stops.

User Response: Enter attributes manually

AUZ3154E **eactrans failed rc= return_code**

Explanation: An EAC transaction failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3156E **Error allocating data_set rc= return_code**

Explanation: Unable to allocate settings dsn

System Action: Processing stops.

User Response: Review log for further information

AUZ3157E **Error allocating clone dsn for copy rc= return_code**

Explanation: Unable to allocate MVS data set

System Action: Processing stops.

User Response: Review log with system programmer; call support if necessary

AUZ3158E **Error allocating command temp file rc= return_code**

Explanation: Unable to allocate MVS data set

System Action: Processing stops.

User Response: Review log with system programmer; call support if necessary

AUZ3159E **Error copying member from data_set rc= return_code**

Explanation: Unable to copy member to migrate from source data set to SCLM hierarchy

System Action: Processing stops.

User Response: Review log for further information

AUZ3160E **Error copying file_name to name(name) rc= return_code**

Explanation: Unable to copy a long file name to SCLM hierarchy

System Action: Processing stops.

User Response: Review log for further information

AUZ3161E **Error copying amblist output rc= return_code**

Explanation: Cannot create file in /tmp/USERID

System Action: Processing stops.

User Response: Check free space in /tmp/

AUZ3162E **Error copying into archdef library : rc= return_code**

Explanation: Could not copy to MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3163E **Error copying PDML from PROJDEFS.SETTINGS rc= return_code**

Explanation: Cannot create file in /tmp/USERID

System Action: Processing stops.

User Response: Check free space in /tmp/

AUZ3165E **Error copying PDML to data_set_name rc= return_code**

Explanation: Could not copy to MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3166E **Error copying rexx script to submit data set** rc= *return_code*

Explanation: Could not copy MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3167E **Error copying temporary JCL** rc= *return_code*

Explanation: Could not copy file to MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3168E **Error copying to data_set(member)** rc= *return_code*

Explanation: Could not update MVS member

System Action: Processing stops.

User Response: Review log for further information

AUZ3169E **Error copying to temporary rexx dsn** rc= *return_code*

Explanation: Could not copy file to MVS data set

User Response: Review log for further information

System Action: Processing stops.

AUZ3170E **Error in auzvsxlt obtaining short name for name** rc= *return_code*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3171E **Error copying from data_set (return_code(member))** rc=*return_code*

Explanation: Could not copy file to /tmp/USERID

System Action: Processing stops.

User Response: Check free space in /tmp/

AUZ3172E **Error in transfer type:** *variable*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3173E **Error initializing:** *data_set_name*

Explanation: Unable to initialize new VSAM data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3174E **Error loading FLMATVERs** rc= *return_code*

Explanation: Unable to build FLMATVER macros for project

System Action: Processing stops.

User Response: Call support

AUZ3175E **Error obtaining short name forname** rc= *return_code*

Explanation: An internal error occurred obtaining short name

System Action: Processing stops.

User Response: Call support

AUZ3177E **Error opening:** *data_set* rc= *return_code*

Explanation: Unable to open source or target data set for migration

System Action: Processing stops.

User Response: Review log for further information

AUZ3178E **Error reading file_name** rc= *return_code*

Explanation: Unable to read specified file

System Action: Processing stops.

User Response: Review log for further information

AUZ3180E **Error reading fileList:** rc= *return_code*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3181E **Error reading groupFile:** rc= *return_code*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3182E **Error reading loadFile: rc=** *return_code*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3183E **Error reading result file from**
AUZVSXLT: rc= *return_code*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3184E **Error reading skelFile: rc=** *return_code*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3185E **Error running AUZ variable**
substitution rc= *return_code*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3186E **Error saving skeleton PDML to**
PROJDEFS.SETTINGS rc=
return_code

Explanation: Could not copy member to MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3187E **Error submitting name(name) rc=**
return_code

Explanation: Could not submit job

System Action: Processing stops.

User Response: Review log with system programmer;
call support if necessary

AUZ3188E **Error writing FLM command file rc=**
return_code

Explanation: Cannot write to MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3189E **Error writing gtmemts result file: rc=**
return_code

Explanation: Cannot write to /tmp/USERID

System Action: Processing stops.

User Response: Verify /tmp/USERID has free space

AUZ3190E **Error: project definition member not**
found: return_code

Explanation: A copybook member was not found

System Action: Processing stops.

User Response: Correct PROJDEFS.SOURCE and retry

AUZ3191E **Exception from FLMCMD**
DELGROUP command rc= *return_code*

Explanation: Unable to remove a project group

System Action: Processing stops.

User Response: If issue is not RACF related, call support

AUZ3192E **Exception from FLMCMD MIGRATE**
command rc= *return_code*

Explanation: Unable to migrate one or more members

System Action: Processing stops.

User Response: Review migrate report for further
information

AUZ3193E **extract_clone script error**
rc=*return_code*

Explanation: Probable internal error

System Action: Processing stops.

User Response: Call support

AUZ3194E **extract_dsn error rc=** *return_code*

Explanation: Probable internal error

System Action: Processing stops.

User Response: Call support

AUZ3196E **extract_dsn.xsl error rc=** *return_code*

Explanation: Probable internal error

System Action: Processing stops.

User Response: Call support

AUZ3197E **extract_runmode.xml error rc=**
return_code

Explanation: Probable internal error

System Action: Processing stops.

User Response: Call support

AUZ3198E **Failed to delete** *return_code*

Explanation: Unable to delete project

System Action: Processing stops.

User Response: Review log for further information

AUZ3199E **flmatver_build awk error rc=**
return_code

Explanation: Error during XML tag construction for
FLMATVER macros

System Action: Processing stops.

User Response: Call support

AUZ3200E **groupFile is empty or missing**

Explanation: Unable to obtain groups in hierarchy

User Response: Review log for further information

AUZ3202E **gtdsnattrib error rc=** *return_code*

Explanation: Error obtaining data set DCB attributes

System Action: Processing stops.

User Response: Review log for further information

AUZ3206E **gtprij error rc=** *return_code*

Explanation: Project open processing failed

System Action: Processing stops.

User Response: Review log for further information

AUZ3209E **gtprijmemlst failed - groupfile=name**

Explanation: Unable to obtain concatenated member list
for given group in hierarchy

System Action: Processing stops.

User Response: Review log for further information

AUZ3212E **gtracfdsp failed rc=** *return_code*

Explanation: Unable to obtain a RACF data set profile

System Action: Processing stops.

User Response: Review log for further information

AUZ3214E **gtracfdsp.awk failed, rc=** *return_code*

Explanation: Unable to build command file for RACF
data set profiles

System Action: Processing stops.

User Response: Review log for further information

AUZ3215E **gtracfdsplst failed rc=** *return_code*

Explanation: Unable to run RACF search command

System Action: Processing stops.

User Response: Refer to RACF administrator

AUZ3217E **iconv error: rc=** *return_code*

Explanation: Possible corrupted source or
PROJDEFS.SETTINGS member

System Action: Processing stops.

User Response: Call support

AUZ3218E **Invalid pdparse argument**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3222E **jcl-lib not defined**

Explanation: Project JCL library is not allocated or is not
accessible

System Action: Processing stops.

User Response: Rebuild project

AUZ3223E **jcl2archdef failed rc=** *return_code*

Explanation: JCL to architecture definition parser error

System Action: Processing stops.

User Response: Review log for further information; call
support if necessary

AUZ3226E **jclparse failed rc=** *return_code*

Explanation: JCL generic parser failed

System Action: Processing stops.

User Response: Review log for further information; call support if necessary

AUZ3228E **Link failed: rc=** *return_code*

Explanation: SCLM project linkage step failed

System Action: Processing stops.

User Response: Review log for further information; call support if necessary

AUZ3229E **Linkmap dsn not defined**

Explanation: Linker map output data set not defined

System Action: Processing stops.

User Response: Rebuild project

AUZ3230E **List dsn not defined**

Explanation: Assembler listing output data set not defined

System Action: Processing stops.

User Response: Rebuild project

AUZ3231E **Iminit error on clone dsn rc=**
return_code

Explanation: Unable to open a data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3232E **Iminit error on target dsn: name rc=**
return_code

Explanation: Unable to open copy target MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3233E **Load dsn not defined**

Explanation: PROJDEFS.LOAD data set is not defined

System Action: Processing stops.

User Response: Rebuild project

AUZ3234E **MAKE_JOB Java service error rc=**
return_code

Explanation: Probable internal error

System Action: Processing stops.

User Response: Review log for further information; call support if necessary

AUZ3235E **manage_transaction.xml error rc=**
return_code

Explanation: Probable internal error

System Action: Processing stops.

User Response: Call support

AUZ3236E **merge_atver.xml error rc=** *return_code*

Explanation: Probable internal error

System Action: Processing stops.

User Response: Call support

AUZ3239E **Mini-migrate failed rc=** *return_code*

Explanation: SCLM migrate function failed

System Action: Processing stops.

User Response: See SCLM migrate report

AUZ3240E **Missing PDML in** *name(name)*

Explanation: The PROJDEFS.SETTINGS data set is missing or not accessible

System Action: Processing stops.

User Response: Review log for further information

AUZ3242E **Must be in TSO environment**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3244I **No SCLM load dsn's found for** *name*

Explanation: There are no PROJDEF.LOAD data sets

System Action: Processing stops.

User Response: None

AUZ3245W **No data sets met the filter:** *filter*

Explanation: No data sets were found using the given filter

System Action: Processing stops.

User Response: Supply a different filter

AUZ3246E **No members in: *data_set***

Explanation: No members were found in the given data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3247I **No PDML exists yet for this project**

Explanation: The PROJDEFS.SETTINGS data set does not exist or is inaccessible

System Action: Processing stops.

User Response: None

AUZ3248W **No project data sets match filter: *filter***

Explanation: No project were found matching the given filter

System Action: Processing stops.

User Response: Change filter

AUZ3249E **No PROJECT.SETTINGS dsn found**

Explanation: The PROJDEFS.SETTINGS data set does not exist or is inaccessible

System Action: Processing stops.

User Response: None

AUZ3251E **Object dsn not defined**

Explanation: Probable internal error

System Action: Processing stops.

User Response: Rebuild project and retry; call support if necessary

AUZ3252E **oget error on clone dsn rc= *return_code***

Explanation: Unable to copy to cloned MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3253E **outfile alloc failed rc= *return_code***

Explanation: Problem allocating EAC MVS output data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3254I **Parse not required**

Explanation: PROJDEFS.SETTINGS metadata is newer than PROJDEFS.SOURCE

System Action: Processing stops.

User Response: None

AUZ3255I **Parse required**

Explanation: PROJDEFS.SETTINGS metadata is older than PROJDEFS.SOURCE and should be refreshed by reparse

System Action: Processing stops.

User Response: None

AUZ3256I **Parse required - a project copybook does not have stats**

Explanation: Statistics are missing for one or more copybooks in project

System Action: Processing stops.

User Response: None

AUZ3258E **pdparse error rc= *return_code***

Explanation: An error occurred during project parse

System Action: Processing stops.

User Response: Review log for further information

AUZ3260E **pdse tag not defined**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3261E **Problem cloning data, rc= *return_code***

Explanation: An error occurred during group type data cloning

System Action: Processing stops.

User Response: Review log for further information

AUZ3262E **Problem getting list of data sets in new project, *return_code***

Explanation: Probable internal error

System Action: Processing stops.

User Response: Review log for further information; call support if necessary

AUZ3263E **Problem getting list of data sets in old project, rc=return_code**

Explanation: Probable internal error

System Action: Processing stops.

User Response: Review log for further information; call support if necessary

AUZ3264E **Problem making @@AUZ substitutions rc= return_code**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3265E **Problem reading name : rc= return_code**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3266E **Problem writing new PROJDEFS.SETTINGS member, rc= return_code**

Explanation: Unable to update MVS data set

System Action: Processing stops.

User Response: Possible out of space problem; review log for further information

AUZ3267E **Project source dsn does not exist**

Explanation: Could not find project source data set during project open

System Action: Processing stops.

User Response: Correct project source data set name

AUZ3268I **Project source does not have stats**

Explanation: Project source member does not have ISPF statistics

System Action: Processing stops.

User Response: None

AUZ3271E **racftrans.awk failed rc= return_code**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3274E **restore_settings error rc= return_code**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3276E **restore_settings.xml error rc= return_code**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3277E **EAC rulefile alloc failed rc= return_code**

Explanation: Unable to open EAC rulefile

System Action: Processing stops.

User Response: Verify EAC rulefile selected

AUZ3278E **save_settings error rc= return_code**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3280E **save_settings.xml error rc= return_code**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3281W **Script runner completed rc= return_code - please review output for actual return code**

Explanation: VSAM maintenance script has run or been submitted

System Action: Processing stops.

User Response: Review job output or log for further information

AUZ3282E **SETROPTS failed rc= return_code**

Explanation: SETROPTS command failed

System Action: Processing stops.

User Response: Refer to RACF administrator

AUZ3283E **Unable to obtain
PROJDEFS.SETTINGS member rc=
return_code**

Explanation: Error in oput processing for
PROJDEFS.SETTINGS member

System Action: Processing stops.

User Response: Review log for further information

AUZ3284I **PROJDEFS.SETTINGS PDML does
not have stats**

Explanation: PROJDEFS.SETTINGS data set does not
have ISPF statistics

System Action: Processing stops.

User Response: None

AUZ3285E **settingsType not defined**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3286E **skeleton_pdml.xml error rc=
return_code**

Explanation: Internal error; building skeleton PDML
failed

System Action: Processing stops.

User Response: Call support

AUZ3287E **Source dsn not defined**

Explanation: Source MVS data set missing or not
accessible

System Action: Processing stops.

User Response: Correct source dsn

AUZ3288E **source member not defined**

Explanation: Source MVS data set member missing or
not accessible

System Action: Processing stops.

User Response: Correct source dsn members

AUZ3289E **source(name) or member(name) not
defined**

Explanation: During project open, missing source data
set or member

System Action: Processing stops.

User Response: Correct data set or member and retry

AUZ3292E **split_source error rc= return_code**

Explanation: Failure during source splitting phase of
rebuild

System Action: Processing stops.

User Response: Review log for further information

AUZ3295I **Submitted successfully**

Explanation: Job was successfully submitted

System Action: Processing stops.

User Response: Monitor for job completion and review
output

AUZ3296E **sysin allocation failed: rc= return_code**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3298E **sysin record copy failed : rc=
return_code**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3299E **syslib allocation failed: rc= return_code**

Explanation: Unable to open syslib data set for amblst

System Action: Processing stops.

User Response: Review log for further information

AUZ3300E **syslib1 not defined**

Explanation: Unable to open syslib data set for migrate
or architecture definition building

System Action: Processing stops.

User Response: Correct and retry

AUZ3301E **syslibs not defined**

Explanation: No syslibs were found at project open

System Action: Processing stops.

User Response: Define syslibs

AUZ3302E **sysprint allocation failed:**
rc=return_code

Explanation: Unable to allocate sysprint data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3304E **sysut3 allocation failed : rc=**
return_code

Explanation: Unable to allocate sysut3 data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3305E **sysut4 allocation failed : rc=**
return_code

Explanation: Unable to allocate sysut4 data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3307E **tranfile alloc failed rc=** *return_code*

Explanation: Unable to allocate RACF transaction file

System Action: Processing stops.

User Response: Review log for further information

AUZ3308E **Unable to clone project due to**
unchanged dsn

Explanation: Duplicate name detected

System Action: Processing stops.

User Response: Change project name to generate unique data set name

AUZ3309E **Unable to find AUZ_MVS_ISPSLIB**
env variable

Explanation: Missing environment variable detected

System Action: Processing stops.

User Response: Review setup.sh

AUZ3310E **Unable to find**
AUZ_MVS_REXX_LOADLIB env
variable

Explanation: Missing environment variable detected

System Action: Processing stops.

User Response: Review setup.sh

AUZ3313E **vsam_tasks awk error rc=** *return_code*

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3314W **Warning or error running script rc=**
return_code

Explanation: Error detected in VSAM maintenance script

System Action: Processing stops.

User Response: Correct source and rerun

AUZ3315W **Warnings or errors during**
DELGROUP rc= *return_code*

Explanation: SCLM DELGROUP service had warning failed

System Action: Processing stops.

User Response: Review DELGROUP report

AUZ3316W **Warnings or errors during migrate rc=**
return_code

Explanation: SCLM MIGRATE service warning or error

System Action: Processing stops.

User Response: Review MIGRATE report

AUZ3317W **Warnings or errors during mmigrate**
rc= *return_code*

Explanation: SCLM mini-MIGRATE service warning or error

System Action: Processing stops.

User Response: Review mini-MIGRATE report

AUZ3318E **Copy to output data set failed:** *name*

Explanation: Unable to write to output MVS data set

System Action: Processing stops.

User Response: Review log for further information

AUZ3319E **LS ERROR ==> *variable***

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3323E **Can't create /tmp/*name*directory**

Explanation: Could not create directory in /tmp/

System Action: Processing stops.

User Response: Check free space in /tmp/

AUZ3325I **Customizing complete.**

Explanation: Customization completed

System Action: Processing stops.

User Response: None

AUZ3327E **Bad return from translating long name to shortname *variable***

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3328E **You must have at least one syslib data set.**

Explanation: Unable to find syslib data sets for project

System Action: Processing stops.

User Response: Correct and rerun

AUZ3329E **Too many parameters**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3330E **Assembler failure**

Explanation: Assembly failure during project open

System Action: Processing stops.

User Response: Correct project and rerun

AUZ3331E **Assembly listing parse failure**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3332E **pdparse output file, *name*, doesn't exist**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3334E **Error no value found for AUZ_MVS_TRANSLATE_FILENAME_BASE**

Explanation: Required environment variable missing

System Action: Processing stops.

User Response: Review setup.sh

AUZ3335E **Required module FLMLSTRN could not be found in *name***

Explanation: Unable to find SCLM longname translation module

System Action: Processing stops.

User Response: Verify OA11426 PTF is installed

AUZ3336E **Internal error: invalid AUZ message code requested**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3337E **SPLIT_SOURCE service failed**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3338E **ASM_PARSE_PREP service failed**

Explanation: Internal error

System Action: Processing stops.

User Response: Call support

AUZ3339E **Invalid characters in source for specified codepage (*variable*)**

Explanation: Unable to successfully decode one or more characters in project source

System Action: Processing stops.

User Response: Verify codepage in project settings and retry

AUZ3340E **Error copying PDML from *name* to *name***

Explanation: Error in cp_pdml

System Action: Processing stops.

User Response: Review log for further information

AUZ3991E **Can't open a socket**

Explanation: Could not open a TCP/IP socket

System Action: Processing stops.

User Response: Review log with system programmer

AUZ3992E **Can't contact java services process**

Explanation: Java services server may not be running

System Action: Processing stops.

User Response: Run check_auz_services.sh to verify Java services process is running. If the process is not found, restart it; if it is found, call support

AUZ3993E **Can't find java services port from environment**

Explanation: Required environment variable not found

System Action: Processing stops.

User Response: Review setup.sh and run AUZCUSTJ in SAUZSAMP if necessary

AUZ3994E **Communication error**

Explanation: A TCP/IP error has occurred

System Action: Processing stops.

User Response: Consult system programmer or call support if necessary

AUZ3995E **Error**

Explanation: Cannot contact Java services server

System Action: Processing stops.

User Response: Run check_auz_services.sh to verify Java services process is running. If the process is not found, restart it; if it is found, call support

AUZ3996E **Can't connect to server socket**

Explanation: Unable to make a connection to a server socket

System Action: Processing stops.

User Response: Verify server is running

AUZ3997E **Can't send() message to Java services**

Explanation: Java services server was contacted but is not listening on port

System Action: Processing stops.

User Response: Contact system programmer or support

AUZ3998E **Can't recv() message from Java services**

Explanation: Java services server was contacted but is not listening on port

System Action: Processing stops.

User Response: Contact system programmer or support

AUZ3999E **Internal error: rc= not found in response**

Explanation: Internal error

System Action: Processing stops.

User Response: Contact support

Appendix C. Accessibility Features of the Workstation Component

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use software products successfully. This appendix describes the most commonly used accessibility features of SCLM Administrator Toolkit. The following sections explain how to use these accessibility features on the Windows platform.

To review a complete list of the accessibility features supported by the Eclipse platform, refer to "Accessibility Features in Eclipse" in the "Concepts" section of the WebSphere Studio Workbench User Guide. To access this user's guide, from SCLM Administrator Toolkit menu bar, select **Help > Help Contents**. Select **Workbench User Guide** from the list of topics that is displayed.

Operating SCLM Administrator Toolkit by using the keyboard

SCLM Administrator Toolkit allows you to use the keyboard in place of the mouse for many functions. The product can be controlled to a large extent using keyboard shortcuts. You can use keys or key combinations to perform operations that can also be accomplished through mouse actions. You can access menu items from the keyboard. You can review a subset of the keyboard shortcuts available to you using the **Window > Keyboard Shortcuts** dialog. When using a pull-down menu, the keyboard equivalent typically appears to the right of the menu item. Some keyboard items also have shortcuts. Typically, the shortcut letter is underlined in the pull-down menu item's command.

Optionally, you can customize the function of your keyboard. Information on how to do so can be found in the "Concepts" section of the WebSphere Studio Workbench User Guide. Access the User Guide and then search on the term *keys*. To customize your keyboard while using SCLM Administrator Toolkit, select **Window > Preferences > Workbench > Keys**.

To navigate through a window or dialog by using the keyboard instead of the mouse, use the following keyboard shortcuts:

Table 4. Navigating through a window or dialog using the keyboard

Action	Shortcut
Access the menu bar in a window	F10 or Alt+shortcut letter
Activate a menu item in the menu bar	Enter
Cycle to editor	Ctrl+F6
Cycle to a view	Ctrl+F7
Cycle to a perspective	Ctrl+F8
Access controls in a dialog	Alt+shortcut letter
Navigate through the menu bar	Right arrow, left arrow, down arrow, up arrow
Move to the next set of controls	Tab or Ctrl+Tab
Move to the previous set of controls	Shift+Tab

Table 4. Navigating through a window or dialog using the keyboard

Action	Shortcut
Move within tables	Tab or right arrow, Shift+Tab or left arrow, down arrow, up arrow
Move within trees	Up arrow, down arrow
Expand a tree node	Right arrow
Collapse a tree node	Left arrow
Move within list boxes	Up arrow, down arrow
Move within drop-down list boxes	Up arrow, down arrow

To perform main tasks in windows by using the keyboard instead of the mouse, use the following keyboard shortcuts:

Table 5. Keyboard shortcuts for windows

Action	Shortcut
Display Help for the field that has the focus	F1
Close the active window	Ctrl+F4 or Alt+F4
Close all windows	Ctrl+Shift+F4
Save	Ctrl+S
Save all	Ctrl+Shift+S
Properties	Alt+Enter
Cut (Does not currently work in every SCLM Administrator Toolkit text field.)	Ctrl+X
Copy (Does not currently work in every SCLM Administrator Toolkit text field. However, placing the cursor in a text field and right-clicking offers the opportunity to select C opy from a pop-up menu.)	Ctrl+C
Paste (Does not currently work in every SCLM Administrator Toolkit text field. However, placing the cursor in a text field and right-clicking offers the opportunity to select P aste from a pop-up menu.)	Ctrl+V
Select all	Ctrl+A
Find/Replace	Ctrl+F
Print	Ctrl+P
Return to previously displayed window (Back)	Alt+left arrow
Move forward to previously displayed window (Forward)	Alt+right arrow
Go to last edit location	Ctrl+Q

Table 5. Keyboard shortcuts for windows

Action	Shortcut
Search. Note that once the pop-up search dialog displays, press Shift+Tab to highlight the tabs in the search dialog and then the right or left arrows to move through the tab set.	Ctrl+H

To perform main tasks in dialogs by using the keyboard instead of the mouse, use the following keyboard shortcuts:

Table 6. Keyboard shortcuts for dialogs

Action	Shortcut
Confirm a dialog	Enter
Cancel a dialog	Esc
Activate a button that has the focus	Spacebar or Enter
Select and deselect check boxes and radio buttons	Spacebar
Navigate forward within a check box and radio button group	Tab
Navigate backward within a check box and radio button group	Shift+Tab
Open drop-down list box menu	Alt+down arrow
Close drop-down list box menu	Esc
Move up and down in combination box menu	Up arrow, down arrow
Activate drop-down list box menu item	Enter
Move within a list box	Up arrow, down arrow
Activate a list box entry	Enter
Move between the pages of a window containing tabs if the tab has the focus	Right arrow, left arrow

Other accessibility features

In addition to the keyboard features described in this section, SCLM Administrator Toolkit permits the use of the following accessibility features provided by the Eclipse platform:

- Screen-reader software and a digital speech synthesizer to hear what is displayed on the screen
- Voice recognition software to enter data and to navigate the user interface
- The ability to magnify what is displayed on the screen in the graphical views
- The ability to modify fonts and colors using the **Window > Preferences** dialog

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Bibliography

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Software Configuration and Library Manager Suite

The documents in this section are those comprising the SCLM library and the libraries of products that are part of the SCLM Suite.

- *z/OS ISPF Software Configuration and Library Manager: Project Manager's and Developer's Guide*, SC34-4817
- *z/OS ISPF Software Configuration and Library Manager: Reference*, SC34-4818
- *Software Configuration and Library Manager Administrator Toolkit: User's Guide*, SC31-6571
- *Software Configuration and Library Manager Administrator Toolkit: Installation and Customization Guide*, GC31-6787
- *Enhanced Access Control for SCLM for z/OS: User's Guide*, SC27-1591
- *IBM Breeze for SCLM : User's Guide*, SC31-8820
- *IBM Cloud 9 for SCLM : User's Guide*, SC31-8846

IBM Interactive System Productivity Facility (ISPF) for z/OS

For information on navigating through ISPF, understanding PF key functions, and working in an ISPF session, refer to the following manuals:

- *ISPF: User's Guide, Volume I*, SC34-4822
- *ISPF: User's Guide, Volume II*, SC34-4823

z/OS TSO/E

The following manuals provide introductory information about TSO/E.

- *z/OS TSO/E: Primer*, SA22-7787
- *z/OS TSO/E: User's Guide*, SA22-7794

z/OS UNIX System Services

Use the UNIX System Services documentation to understand how UNIX System Services operates within the z/OS environment

- *z/OS UNIX System Services : User's Guide*, SA22-7801

Additional Information

You may also want to refer to some of the IBM RedBooks, available online at www.ibm.com. You may find the following useful:

- *IBM RedBook: Hierarchical File System Usage Guide*, SG24-5482

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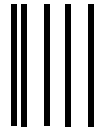
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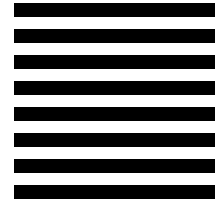
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