Using the Installation Dialog

*Dialog Level: 22 (September 2009)*
Using the Installation Dialog

Dialog Level: 22 (September 2009)

This book replaces the previous edition, SA22-7815-15. Changes or additions to text and illustrations are indicated by a vertical line to the left of the change.

This edition applies to Dialog Level 22, and to ServerPac (program number 5751-CS9), and to all subsequent releases and modifications, until otherwise indicated in new editions.

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About this document

This document explains how to use the CustomPac installation dialog to install a ServerPac order. Included is planning information to help you familiarize yourself with the dialog before you install an order.

The examples in this document highlight the functions of the installation dialog that apply to a ServerPac order. Although the dialog also contains functions to support IBM’s CustomPac offerings, such as SystemPac®, FunctionPac, ProductPac®, RefreshPac, and Selective Follow-on Services (SFS), these functions are not described in this document. If you install a CustomPac offering, refer to the CustomPac Installation Dialog Reference and Messages documents that were shipped with your order in softcopy and hardcopy format.

When you finish reading this document, please let us know how you liked it and whether there is anything in particular we can do to improve it. You can use the postage-paid form for comments at the back of the document, or you can send your comments by e-mail (to mhvrcf@us.ibm.com) or by FAX (see the Edition notice at the beginning of this book for details).

Terms used in this document

Throughout this document, the CustomPac installation dialog is called “the installation dialog,” “the master dialog,” or, simply, “the dialog.” The dialog’s own data sets are sometimes referred to as “the master dialog data sets.”

It is also important that you understand how the following terms are used in this document:

Driving system The system image (hardware and software) that you use to install the target system.

Target system The system software libraries and other data sets that you are installing.

If you are installing a subsystem order (CICS®, DB2®, IMS™, or NCP), or WebSphere® Application Server, the driving system and target system can be the same system.

Marking your progress

Installing an order is a multiple step process through an online dialog. To help you mark your progress through these steps, “sign posts,” such as the following, are displayed throughout this document:
Where to find more information

This document references information in the following documents:

<table>
<thead>
<tr>
<th>Title</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>z/OS DFSMS Access Method Services for Catalogs</td>
<td>SC26-7394</td>
</tr>
<tr>
<td>z/OS DFSMSdfp Storage Administration</td>
<td>SC26-7402</td>
</tr>
<tr>
<td>z/OS DFSMS Managing Catalogs</td>
<td>SC26-7409</td>
</tr>
<tr>
<td>z/OS DFSMS Using Data Sets</td>
<td>SC26-7410</td>
</tr>
<tr>
<td>z/OS ISPF Edit and Edit Macros</td>
<td>SC34-4820</td>
</tr>
<tr>
<td>z/OS ISPF User’s Guide Vol I</td>
<td>SC34-4822</td>
</tr>
<tr>
<td>z/OS ISPF User’s Guide Vol II</td>
<td>SC34-4823</td>
</tr>
<tr>
<td>z/OS MVS JCL User’s Guide</td>
<td>SA22-7598</td>
</tr>
<tr>
<td>z/OS MVS JCL Reference</td>
<td>SA22-7597</td>
</tr>
<tr>
<td>z/OS Planning for Installation</td>
<td>GA22-7504</td>
</tr>
<tr>
<td>ServerPac: Installing Your Order</td>
<td>N/A</td>
</tr>
<tr>
<td>SMP/E Commands</td>
<td>SA22-7771</td>
</tr>
<tr>
<td>SMP/E Messages, Codes, and Diagnosis</td>
<td>GA22-7770</td>
</tr>
<tr>
<td>SMP/E Reference</td>
<td>SA22-7772</td>
</tr>
<tr>
<td>z/OS TSO/E Customization</td>
<td>SA22-7783</td>
</tr>
</tbody>
</table>

Before you begin your ServerPac installation of z/OS® (MVS™ SREL), see z/OS Planning for Installation to do the following things:

- Develop migration and installation plans for z/OS
- Ensure you have the hardware and software required to run the z/OS product set
- Learn coexistence considerations for z/OS
- Learn the levels of non-z/OS IBM® products that run in the z/OS environment

This document contains most of the information you need when you begin to install an order. During one stage of the process (submitting the installation jobs), however, you need to refer to ServerPac: Installing Your Order for specific instructions for your particular order. Unlike a formal publication, ServerPac: Installing Your Order is tailored to match your individual z/OS ServerPac order. When you receive your ServerPac order using the CustomPac installation dialogs,
the RECEIVE job copies the ServerPac: Installing Your Order document in two different formats into the following data sets:

- The PDF format is copied to hlq.ordernum.SCPPLENU(PDFIYO)
- The BookManager® format is copied to hlq.ordernum.INSTGUID.BOOK

You can choose either of the following two ways to download the manual to your workstation.

- Download it directly from 'hlq.ordernum.SCPPLENU(PDFIYO)' to your workstation, or
- First copy the manual from 'hlq.ordernum.SCPPLENU(PDFIYO)' into a sequential data set. Then download the sequential data set in binary format to a workstation into a file named xxxx.PDF.

**Note:** To view the PDF file, use the Adobe® Acrobat Reader 6.0 or higher for the best resolution.

Figure 1 on page 4 shows which document to use at each stage of the installation process.

For complete titles and order numbers of the documents for all products that are part of z/OS, see z/OS Information Roadmap.

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**Using LookAt to look up message explanations**

LookAt is an online facility that lets you look up explanations for most of the IBM messages you encounter, as well as for some system abends and codes. Using LookAt to find information is faster than a conventional search because in most cases LookAt goes directly to the message explanation.

You can use LookAt from these locations to find IBM message explanations for z/OS elements and features, z/VM®, z/VSE™, and Clusters for AIX® and Linux®:

- **The Internet.** You can access IBM message explanations directly from the LookAt Web site at [www.ibm.com/servers/eserver/zseries/zos/bkserv/lookat/](http://www.ibm.com/servers/eserver/zseries/zos/bkserv/lookat/).
- **Your z/OS TSO/E host system.** You can install code on your z/OS systems to access IBM message explanations using LookAt from a TSO/E command line (for example: TSO/E prompt, ISPF, or z/OS UNIX® System Services).
- **Your Microsoft® Windows® workstation.** You can install LookAt directly from the z/OS Collection (SK3T-4269) or the z/OS and Software Products DVD Collection (SK3T-4271) and use it from the resulting Windows graphical user interface (GUI). The command prompt (also known as the DOS > command line) version can still be used from the directory in which you install the Windows version of LookAt.
- **Your wireless handheld device.** You can use the LookAt Mobile Edition from [www.ibm.com/servers/eserver/zseries/zos/bkserv/lookat/lookatm.html](http://www.ibm.com/servers/eserver/zseries/zos/bkserv/lookat/lookatm.html) with a handheld device that has wireless access and an Internet browser.

You can obtain code to install LookAt on your host system or Microsoft Windows workstation from:

- A CD in the z/OS Collection (SK3T-4269).
- The z/OS and Software Products DVD Collection (SK3T-4271).
- The LookAt Web site (click **Download** and then select the platform, release, collection, and location that suit your needs). More information is available in the LOOKAT.ME files available during the download process.
The z/OS Basic Skills Information Center

The z/OS Basic Skills Information Center is a Web-based information resource intended to help users learn the basic concepts of z/OS, the operating system that runs most of the IBM mainframe computers in use today. The Information Center is designed to introduce a new generation of Information Technology professionals to basic concepts and help them prepare for a career as a z/OS professional, such as a z/OS system programmer.

Specifically, the z/OS Basic Skills Information Center is intended to:

• Provide basic education and information about z/OS without charge
• Shorten the time it takes for people to become productive on the mainframe
• Make it easier for new people to learn z/OS.

To access the z/OS Basic Skills Information Center, open your Web browser to the following Web site, which is available to all users (no login required):
http://publib.boulder.ibm.com/infocenter/zos/basics/index.jsp
Summary of changes

Summary of changes
for SA22-7815-16
Dialog level 22 (September 2009)
z/OS Version 1 Release 11

This document contains information previously presented in ServerPac: Using the Installation Dialog, SA22-7815-15, which supports z/OS Version 1 Release 10.

New information:
• Message CPP0605097W has been added.

Changed information
• The order status in “Selecting an order” on page 151 has been updated.
• Message CPP0699002I and message CPP0625016E have been updated.

Changed panels: The following Installation Dialog panels have been changed because the default device type is now 3390-9:
• CPPP625B
• CPPP625D

The following Installation Dialog panel has been changed because the default data set type is zFS.
• CPPP610C

Deleted information:
• None.

You may notice changes in the style and structure of some content in this document—for example, headings that use uppercase for the first letter of initial words only, and procedures that have a different look and format. The changes are ongoing improvements to the consistency and retrievability of information in our documents.

This document contains terminology, maintenance, and editorial changes. Technical changes or additions to the text and illustrations are indicated by a vertical line to the left of the change.

Summary of changes
for SA22-7815-15
Dialog level 21 (September 2008)
z/OS Version 1 Release 10

This document contains information previously presented in ServerPac: Using the Installation Dialog, SA22-7815-14, which supports z/OS Version 1 Release 9.

New information:
• Message CPP0699002I has been added.
• The ServerPac Dialog doesn’t support EAV in the configuration during installation. A note has been added in Chapter 4, “Installing a new order,” on page 35.
Changed information

- When you merge a JES2 or JES3 element with the BCP zones, the SDSF zone is automatically merged with the BCP zones. “Selecting a JES for the configuration” on page 41 has been updated for this change.
- The VERsion command does not apply to the panel CPPP6071. “Displaying an order” on page 151 has been updated for correction.
- “Option 2: Start the dialog from the ISPF primary option menu” on page 21 has been updated because the option of running CPPCISPF from the TSO/E command line has been removed.

Changed panels: The following Installation Dialog panel has been changed:
- CPPP6016

Deleted information:

- The option of running CPPCISPF from the TSO/E command line to start a dialog has been removed.

This document contains terminology, maintenance, and editorial changes, including changes to improve consistency and retrievability.

Summary of changes for SA22-7815-14
Dialog level 20 (September 2007)
z/OS Version 1 Release 9

This document contains information previously presented in ServerPac: Using the Installation Dialog, SA22-7815-13, which supports z/OS Version 1 Release 8.

Changed information:

- “About this document” on page xiii has been updated to reflect that a PDF version of the ‘Installing Your Order’ document is created and packaged with ServerPac orders.

Deleted information:

- “About this document” on page xiii has been updated to reflect that the LIST1403 and LIST3820 formats of the ‘Installing Your Order’ documents are eliminated from ServerPac orders.

This document contains terminology, maintenance, and editorial changes, including changes to improve consistency and retrievability.
Chapter 1. Introducing the installation dialog

Your ServerPac order includes the CustomPac installation dialog, an Interactive System Productivity Facility (ISPF) dialog that you use to install the order.

This chapter presents some important concepts that you should understand before using the dialog to install your order.

Preparing to install your ServerPac order

The information that IBM provides to help you prepare for installation depends on whether you are installing z/OS, a subsystem order (CICS, DB2, IMS, or NCP), or WebSphere Application Server, as follows:

For z/OS orders... Follow the instructions in z/OS Planning for Installation on preparing your system for a ServerPac installation. For example, you must have a driving system that meets certain requirements to perform the installation. z/OS Planning for Installation lists the hardware and software requirements for the driving system and also helps you determine how much DASD to use. Also, check the appropriate software preventive service planning (PSP) buckets for driving system requirements.

For subsystem orders and WebSphere Application Server orders... For the driving system requirements, see z/OS Planning for Installation. For instructions on preparing your system for a ServerPac installation, see the documentation that is provided with your order. Also, check the appropriate software preventive service planning (PSP) buckets for coexistence and fallback service requirements.

See z/OS Planning for Installation for the PTFs that you might need to install on your existing system to allow it to coexist with the new release, and allow you to fall back to the existing system if necessary.

Regardless of whether your order is z/OS or a z/OS-related subsystem product, use the installation dialog described in this book to install the order.

Orders from tape

If you received your order on tape, be sure to review the contents of the ServerPac shipment that you received from IBM before you install your order. Check the packing slip to ensure that you have a complete set of installation tapes and documentation. Also, take note of your order number, which is printed on the cover of ServerPac: Installing Your Order. You will later use this order number as input to the installation dialog.

For first-time users

If you are installing a ServerPac for the first time, you need to install the installation dialog and its associated data sets on your driving system. The dialog data sets are installed by a LOADRIM job that is contained on the first “system and distribution”
For subsequent users
If you have a dialog level below Dialog Level 17 and are about to use Level 17 (or a subsequent level when available) for the first time, you must run the UPDATE job. You need only to run UPDATE once. Instructions for copying UPDATE are provided in “Updating your dialogs” on page 14.

To determine whether you must update the dialog, start the dialog and look at the first panel (CPPPPOLI). If it says “This dialog supports electronic delivery” at the bottom, you do not need to update your dialogs. If your dialog is at Dialog Level 17 or above, the master dialogs will be upgraded if required automatically by the RECEIVE job.

Orders from an FTP server
If you received your order from an FTP server, be sure to review the contents of the ServerPac shipment that you received from IBM before you install your order. Also, take note of the order number, server name, server directory, userid and password, and hash value. This data is located in the Dialog Data file on the ShopzSeries Download page for your order. You will use this information later as input to the installation dialog.

Additional information on electronic delivery of orders can be found in z/OS Planning for Installation, SA23–2206.

For first-time users
If you are installing a ServerPac for the first time, you need to install the installation dialog and its associated data sets on your driving system. The dialog data sets are installed by a LOADRIM job that IBM provides as a file on the FTP server. Instructions for installing the dialog are provided in Chapter 2, “Installing and starting the dialog,” on page 13. For subsequent orders, you do not need to reinstall the dialog.

For subsequent users
If you are going to receive your order from an FTP server and your dialog is at a level below Dialog Level 17, you must first run the EUPDATE job to upgrade your dialogs to the current level. You can download the EUPDATE job to a workstation (for example, using File —> Save As in a browser) or you can also copy it directly from the download FTP site. In either case, you must copy the EUPDATE job to your driving system. You need only to run EUPDATE once. See “Updating your dialogs” on page 14 for instructions on downloading EUPDATE.

To determine whether you must update the dialog, start the dialog and look at the first panel (CPPPPOLI). If it says “This dialog supports electronic delivery” at the bottom, you do not need to update your dialogs. If your dialog is at Dialog Level 17 or above, the master dialogs will be upgraded if required automatically by the RECEIVE job.

Security system considerations
To install the products delivered in ServerPac, you might need to create new definitions for your security system.
Later, during the installation jobs phase of the installation process, you can submit jobs RACFDRV and (for z/OS orders only) RACFTGT. These jobs issue RACF® commands that require your user ID to have the RACF SPECIAL attribute.

These jobs also require that your user ID have ALTER access for the data set high level qualifiers (HLQs) in the order. You will need ALTER access for the following HLQs:
- CPAC
- SYS1 (for z/OS orders)
- Product-specific high-level qualifiers for the products in your order. For a listing of these qualifiers, use the A (ALIAS) option of the dialog after you finish modifying the system layout. For example, ServerPac uses the high-level qualifier “ISP” for the ISPF product data sets. If you change the ISP high-level qualifier to “XYZ” for those data sets, your userid must have ALTER authority for the “XYZ” high-level qualifier.
- System-specific aliases named in the SSA panel.

You will also need UPDATE access for the SSA qualifiers in the driving system’s master catalog. For example, if you use an SSA of “ABC” for the ISPF data sets, and you use the default high-level qualifier, you will need ALTER access to “ABC” and UPDATE access to “ISP”.

Review jobs RACFDRV and (for z/OS orders only) RACFTGT carefully before you submit them. Modify these jobs as necessary to suit your particular installation.

Also, if you decide to use SMS to manage data sets in your order (as described in the CHANGE SMS command in Appendix A, “Primary command reference,” on page 159), the userid that you later use to submit the installation jobs requires at least READ access to the FACILITY class profile for STGADMIN.IGG.DIRCAT, which allows you to direct a catalog request to a specific catalog.

If you use a security product other than RACF, you should consult its documentation and perform the equivalent actions for that product.

---

**Working with your order: an overview of the dialog activities**

Figure 1 on page 4 summarizes the steps for using the dialog to install a ServerPac order. The book for each step is listed under “Use this document ...”.

Run each function in order. That is:
1. Receive an order
2. Install an order
3. Save the order’s configuration.

Following the figure is a summary of these steps.
Receiving your order

Use the dialog to receive your ServerPac order. The dialog generates a job to receive the new order by loading information from a tape, an FTP server, or a file system (local host or attached) to your DASD.

Receiving the order ensures that the following processes occur:
- The dialog is informed that the order is available for customization and installation.
- The IBM-supplied shipped configuration is copied to your DASD.

Installing your order

When you install an order, you receive a shipped configuration, from which you create work and saved configurations.

These configurations are briefly described here, and, in detail, later in this book:
Introduction

- **Shipped**: The IBM-supplied default configuration (tailored to your order).
- **Work**: A working copy of the order configuration that you tailor as you proceed with the dialog. You use the installation dialog to create a copy of the shipped order configuration and, optionally, merge it with a saved configuration.
- **Saved**: A work configuration that was tailored with installation information from a previously installed order. You can have a different saved configuration for each order. For example, assume that you have installed three ServerPac orders and saved each configuration. If you install a fourth ServerPac order, you have three saved configurations from which to select for merging with the work configuration. You are, however, limited to one saved configuration for merging.

**Tip**: You can also use a saved configuration to take a checkpoint while working with an order. After you have selected all the prior options and have no configuration warnings, you can save the configuration with the Save option and use it to recreate the same configuration, even for the same order. You do not need to submit any jobs to enable the option and save the configuration. So, if there are changes you want to try, but are not sure about, save the configuration and go ahead and try them. If the results are unsatisfactory, recreate the configuration using the saved one to get right back to where you were.

Installing a ServerPac order involves the following steps:

- **Create a configuration to tailor.** The shipped order configuration forms the basis of a **work configuration** that you will tailor. If you previously installed a ServerPac or dump-by-data-set SystemPac, and you saved the configuration, you can merge the saved version with the shipped configuration. Whenever possible, the dialog will carry forward the changes that you made the last time, so you will not need to repeat them. The resulting work configuration requires less tailoring than was needed the first time.

- **Tailor the work configuration.** You use a series of dialog panels to:
  - Select the installation type: full system replacement or software upgrade.
  - Define the variables to be used in the installation jobs.
  - Select appropriate names for the SMP/E zones.
  - Change the attributes and placement of data sets in the work configuration to suit your needs.
  - Define your alias-to-catalog relationships.
  - Define your catalogs.

- **Submit installation jobs.** The installation dialog generates a series of jobs that you run on your system to create a new target system or subsystem. The jobs are generated based on the work configuration for your order, but you can edit them through the dialog if you want. Another book, *ServerPac: Installing Your Order* guides you through this part of the process. That book describes the post-installation jobs that you must run, and guides you through your first IPL and verification of the target system.

**Tip:**
- For physical orders, this book is shipped on tape in the SCPPLENU data set. The book format is shipped in INSTGUID.BOOK data set.
- For electronic orders, the SCPPLENU and INSTGUID.BOOK data sets are shipped in the ORDER package. These data sets are loaded to DASD when you receive your order.

- **Save the work configuration and update the inventory.** Save the work configuration, so that you can reuse the data for future orders. Then, use the dialog to update the order inventory.
Installing an order on SMS-managed volumes

To use SMS-managed volumes for your order’s data sets, you must intervene to some extent in the dialog’s process of assigning configuration data sets to logical volumes. If you choose to SMS-manage any data sets, you must understand that logical volumes are the entities that are assigned to SMS storage classes.

To have SMS manage one or more volumes in your configuration, you can use either of two methods:

1. Assign logical volumes for data sets that are to be SMS-managed to storage classes.
   - Decide which SMS storage classes will be used for data sets that are to be managed by SMS.
   - Define the storage classes to SMS.
   - Ensure that your automatic class selection (ACS) routines will allow the chosen storage classes to be used.
   - In the dialog, assign the logical volumes for the data sets to be SMS-managed to the appropriate storage classes.
   - Run the installation jobs, as described in Chapter 11, “Submitting the installation jobs,” on page 135.

   If you also plan to use the dialog’s Create a Recommended System Layout option, you should determine whether to assign data sets to SMS storage classes before using automatic assignment. For example, if you plan to SMS-manage all of the DLIB data sets, the order in which you do this is not important. However, if you plan to SMS-manage some of the target data sets, you should assign these data sets to storage classes first, so that the dialog does not create more volumes than are needed. For restrictions, see the CHANGE SMS command in Appendix A, “Primary command reference,” on page 159.

2. You can allow your ACS routines to assign data sets to storage classes, based on data set names or qualifiers, initially-assigned storage class, or some other means that can be determined through ACS. Again, these storage classes must be defined before the ALLOCDS installation job runs. For information about writing ACS routines, see z/OS DFSMSdfp Storage Administration.

   If you use ACS routines assign data sets to SMS management and you also plan to use the dialog’s Create a Recommended System Layout option, you should consider whether this process would be easier if you instead defined the data sets as SMS-managed in the dialog.

If you plan to share the SMS control data sets (SCDS, ACDS) that you use on your driving system with the target system, you must ensure that these data sets are available to the target system when it is activated. Also, ensure that your ACDS and COMMDS data sets are large enough. If you are migrating from earlier levels of DFSMSdfp™, you might need to enlarge them.

For information about DFSMSdfp compatibility, see the topic, “Translating and Validating in a Sysplex Environment” in z/OS DFSMSdfp Storage Administration and the DFSMS™ migration information in z/OS Planning for Installation. For the space requirements for SMS control data sets, see the topic about calculating the size of storage and active control data sets in z/OS DFSMSdfp Storage Administration.

Saving your order’s configuration

Save the work configuration, so that you can reuse it for future orders.
Using the installation menu

When you select an order to install, the Installation Menu is displayed [Figure 2]. This panel is the starting point for all of the functions that are needed to install your order.

![Figure 2. Panel: Installation Menu]

At the beginning of a ServerPac installation, the only available function is **Create**. Each of the other functions (now marked with asterisks) become available after the previous function is completed.

The Installation Menu provides access to the dialog functions, as follows:

**C**  **Create the work configuration**: Use this option to create a work configuration for the order you are installing. You can choose to merge the order’s shipped configuration with a configuration that you saved from a previous order. The new order, together with the saved configuration, if any, forms the work configuration that you manipulate in subsequent functions of the dialog.

For operating system orders, you are prompted to choose an installation method (full system replacement or a software upgrade) and select a job entry subsystem (JES) for the installation.

For more information, see [Chapter 5, “Creating a work configuration for the order,” on page 39.](#)

**V**  **Specify values for variables**: Installing your order involves generating and submitting batch jobs. In the Variables function, the dialog collects certain data that it uses to tailor the installation jobs. This function allows you to:

- Alter data values for the variables.
- Define your own user variables.

For more information, see [Chapter 6, “Defining installation variables,” on page 57.](#)

**Z**  **Specify SMP/E zone names**: Products and features delivered with your order are shipped using default target and DLIB zone names. The dialog allows you to define the target and DLIB zone names to be used when...
installing your order. IBM recommends that you use different zone names
for each order. For more information, see Chapter 7, “Defining the SMP/E
zone configuration,” on page 67.

IBM also recommends that you use different CSI data set names for each
order. To change the names of the CSI data sets, use the Modify System
Layout function (see Chapter 8, “Modifying the system layout,” on page 71).

M  **Modify the system layout:** This function assigns the data sets in the work
configuration to your installation's DASD volumes. You can assign these
data sets manually, or you can allow the dialog to automatically assign the
data sets in accordance with the recommended system layout described in
z/OS Planning for Installation.

The Modify System Layout function also allows you to merge and modify
data sets in the work configuration. Through the dialog's view and change
facility, you can merge and modify data sets based on a variety of criteria,
including data set size, secondary space allocation, volume placement, link
list placement, and whether SMS is to be used for data set management.
For more information, see Chapter 8, “Modifying the system layout,” on
page 71.

A  **Specify catalogs for high-level qualifiers:** Use this function to specify the
catalogs for each high-level qualifier (HLQ). Data sets shipped with your
order are cataloged in the system's normal order of catalog search when
they are created. Data sets to be cataloged in user catalogs will have
different high-level qualifiers. Aliases for those qualifiers will be created in
the master catalog, referencing the user catalogs. For more information, see
Chapter 9, “Defining HLQ-to-catalog relationships,” on page 119.

SSA  **Specify temporary aliases (SSAs) for catalogs:** Use this function to
define temporary high-level qualifiers (HLQs) for the data sets in your order.
Initially, data set names include temporary HLQs, called system-specific
aliases, or SSAs. Later, during the installation, the temporary HLQs are
removed from the data set names. For more information, see Chapter 10,
“Defining system-specific aliases (SSAs),” on page 127.

I  **Create and submit installation jobs:** The dialog creates installation jobs
based on the options you chose in previous steps of the dialog. Use this
function to submit the jobs and track their execution. For more information,
see Chapter 11, “Submitting the installation jobs,” on page 135.

S  **Save the current work configuration:** During the installation of your order,
you customize the shipped order configuration to suit your needs. To save
yourself from having to repeat this customization for future orders, use this
function to save your changes (see Chapter 12, “Saving the configuration,”
on page 147).

---

**Features of the dialog panels**

This section describes the user interface features of the installation dialog that you
should be familiar with before using it.

**Language support**

The installation dialog is provided in U.S. English and Japanese. If the primary
language specified in your TSO/E profile is neither of these languages, you must
use the TSO/E PROFILE command to set the value of PLANGUAGE to either ENU
for U.S. English, or JPN for Japanese.
To select U.S. English, enter the following command:
PROFILE PLANGUAGE(ENU)

To select Japanese, enter the following command:
PROFILE PLANGUAGE(JPN)

**ISPF edit CAPS setting**

The dialog uses the ISPF editor when you select a job through the S or B line commands. ISPF Edit is called with CAPS set to OFF. This setting preserves your text input in the form in which you enter it (uppercase, lowercase, or mixed case).

If you enter mixed case input in a job, the dialog does not convert your input to uppercase characters. You must ensure that lines that should contain only uppercase characters (like many JCL statements) do not contain lowercase characters. This is easily done with the ISPF Edit UC (Upper Case) line command.

For more information about ISPF Edit, initial macros, CAPS settings, and ISPF Edit line commands, see *z/OS ISPF and Edit Macros*.

**Use of color**

The dialog uses color to identify key information on a panel, as follows:
- Input data is displayed in red. You can change input data by typing over it.
- Column headings are displayed in white and column separators are displayed in blue.
- Synonyms for field names are shown as uppercase letters in the field name, displayed in pink.
- Output data is yellow.

Choose colors that provide good contrast for you. You can change the displayed colors in the ISPF Options settings.

**Panel IDs**

Enter the ISPF PANELID command from any command line to see the panel IDs in the upper left corner. You can find information about the panel and how it works by doing a softcopy search in this book for the panel ID or by looking for it in the index.

**Panel display format**

The sample displays in *Figure 3 on page 10* and *Figure 4 on page 10* show the general format of the dialog’s panel interface.
You can display many of the dialog’s panels in either of two formats, as follows:

- **Terse Mode.** Only one line of information is displayed for each item, as shown in Figure 3. Most panel displays use this mode.
- **Verbose Mode.** Multiple lines of information are displayed for each item, as shown in Figure 4.

Panels that can be displayed in either mode display the commands that allow you to switch between modes.

---

**Figure 3. Panel displayed in terse format**

You can display many of the dialog’s panels in either of two formats, as follows:

- **Terse Mode.** Only one line of information is displayed for each item, as shown in Figure 3. Most panel displays use this mode.
- **Verbose Mode.** Multiple lines of information are displayed for each item, as shown in Figure 4.

Panels that can be displayed in either mode display the commands that allow you to switch between modes.

---

**Figure 4. Panel displayed in verbose format**

**Figure 3** and **Figure 4** show the three significant areas of a panel display:

- **1** → Primary commands
- **2** → Line commands
- **3** → Display areas (column headings and synonyms, and data)

Each of these areas is described in the sections that follow.
Primary commands
Primary commands appear on the dialog panels in area 1. There are several common primary commands that you can use for most panels. Not all commands, however, are available for every panel. Primary commands that are valid for a particular panel are listed in the panel. See Appendix A, “Primary command reference,” on page 159 for a complete description of the primary commands.

? Invokes the help facility, if available, for the current panel. See “Help facility” on page 12 and “HELP” on page 177 for more information.

FIND Searches the field specified on the SET command for a specified character string. If a match is found, the panel entry that contains the character string is displayed at the top of the scrollable area. See FIND on page 175 for a complete description of the FIND command.

LOCATE Searches the field specified on the SET command for a character string that satisfies a specified search argument. If a match is located, the panel entry that contains the character string is displayed at the top of the scrollable area. See LOCATE on page 178 for a complete description of the LOCATE command.

NEXT This command repeats the last FIND or LOCATE command, searching forward. See NEXT on page 180 for a complete description of the NEXT command.

PREVIOUS This command repeats the last FIND or LOCATE command, searching backward. See PREVIOUS on page 183 for a complete description of the PREVIOUS command.

SET Specifies the field to be acted on by the FIND and LOCATE primary commands. See SET on page 184 for a complete description of the SET command.

SORT For panels with sortable fields, the SORT command specifies the field by which the display should be sorted and, optionally, whether the sorted field should be displayed in ascending or descending order. See SORT on page 185 for a complete description of the SORT command.

TERSE The TERSE command displays the panel with only one line of information for each item. See TERSE on page 187 for a complete description of the TERSE command.

VERBOSE The VERBOSE command displays the panel with multiple lines of information for each item. See VERBOSE on page 188 for a complete description of the VERBOSE command.

Line commands
Line commands (shown in area 2) are specific to the panel being displayed. Enter line commands in the S (selection) column in area 3.

Some panels that display lists allow you to use the following line commands: B (browse), S (select), E (edit), I (insert) and D (delete). The effect of each command is generally consistent throughout the dialog, but can vary for some panels. For example, B means “browse” on most panels, with the exception of some panels in which it means “Back-up”. When a command variation exists for a particular panel, this book notes the variation.
In Figure 3 and Figure 4 on page 10, the column for entering line commands is indicated by \[3\]. For panels that do not allow line commands, as in “output only” displays, this column is omitted.

**Help facility**

Many of the dialog panels have a help facility. When you invoke help, you can “scroll” through information. You can set a PF key to ‘HELP’ or ‘?’. Or, you can simply enter HELP or ? at any time to invoke the help facility.

**Diagnostic messages**

For descriptions of messages that can be displayed during error conditions, see Appendix B, “Diagnostic messages,” on page 189.
Chapter 2. Installing and starting the dialog

If you are installing a ServerPac for the first time, you must install the installation dialog on your system; see "Installing the dialogs" on page 17. For subsequent orders, you do not need to reinstall the dialog because IBM ships dialog updates with each order. If you need to update the dialogs, see "Updating your dialogs" on page 14.

Restriction: However, if your order was built using Dialog Level 17 (or, eventually, higher) and your current dialog is at or below Dialog Level 16, you will need to update the dialog before using it. To determine whether you must update the dialog, start the dialog and look at the first panel (CPPPPOLI). If it says, *This dialog supports electronic delivery.* at the bottom, you do not need to update your dialogs. If the panel does not include that sentence, then you do need to update your dialogs. See "Updating your dialogs" on page 14.

Some installation jobs must be run on your target system. If you want to use the dialog to help manage these jobs, there are additional considerations for setting up the dialog on your driving system (see "Allocating and cataloging the dialog data sets").

Summary of tasks

Installing and starting the installation dialog involves the following activities:

1. Plan for where the dialog data sets are to be loaded and cataloged. See "Allocating and cataloging the dialog data sets."

2. If you are installing the dialogs for the first time:
   a. Copy or download the LOADRIM job to your driving system's DASD. See "Installing the dialogs" on page 17.
   b. Run the LOADRIM job to load the dialog data sets onto the driving system's DASD.

   Note: For tape orders only: After installing a new copy of the dialog, you must use the first "system and distribution tape" to run the first RECEIVE job. The first "system and distribution tape" is from the same order used to run the LOADRIM job that installed the dialog. After the first RECEIVE job is run, RECEIVE jobs can be run in any order.

3. If you are updating your dialogs:
   a. Copy or download the UPDATE or EUPDATE job to your driving system's DASD. See "Updating your dialogs" on page 14.
   b. Run the UPDATE or EUPDATE job to load the updated dialog data sets onto your driving system.


This chapter describes these activities, and includes sample jobs for your use.

Allocating and cataloging the dialog data sets

You use the dialog to create the jobs for installing your order. For a z/OS order, you run many of these jobs on your driving system, and the rest on your new target system. For a subsystem order, all jobs are run on the driving system.
Installing and starting the dialog

After IPLing the target system, you can use the dialog on that system to determine which job to submit next, and to display the results of each job.

You will find it much easier to access the dialog from the target system if the data sets you create for the dialog (the master dialog data sets) are cataloged in a user catalog and reside on a volume that is accessible to both the driving system and the target system. Use a unique high-level qualifier for the data sets, so that alias entries in the driving system and target system master catalogs can refer to the user catalog.

Catalog the following data sets in a user catalog. We suggest that ‘Qualifier’ be MASTER to distinguish the master dialogs from the order dialogs:

- CustomPac.Qualifier.SCPPLOAD - Load Modules
- CustomPac.Qualifier.SCPPCENU - Clist/Rexx execs
- CustomPac.Qualifier.SCPPDEENU - CustomPac messages - VSAM
- CustomPac.Qualifier.SCPPDEENU - CustomPac dialog help - VSAM
- CustomPac.Qualifier.SCPPMENU - messages
- CustomPac.Qualifier.SCPPPENU - panels
- CustomPac.Qualifier.SCPPSEENU - skeletons
- CustomPac.Qualifier.SCPPDEENU - tables
- CustomPac.Qualifier.SCPPVENU - order inventory - VSAM

If the dialog’s data sets are to be SMS-managed, assign them to a management class (MGMTCLAS) that does not allow the dialog data sets to be migrated unless the SMS and DFSMSShsm™ environments will be shared between the driving system and target system.

When allocating the dialog data sets, do not convert them to PDSE format. In addition to the SCPPnENU data sets, the following dialog data sets must remain in their original formats (PDS or PS):

<table>
<thead>
<tr>
<th>Dialog data set</th>
<th>Required format</th>
</tr>
</thead>
<tbody>
<tr>
<td>userid.CPPTEMP.x.SCPPWORK</td>
<td>PS (physical sequential)</td>
</tr>
<tr>
<td>hlq.orderid.LOG</td>
<td>PS (physical sequential)</td>
</tr>
<tr>
<td>hlq.orderid.REPORT(MERGE)</td>
<td>PDS (partitioned data set)</td>
</tr>
</tbody>
</table>

The final steps for porting the dialog to the target system are described in ServerPac: Installing Your Order, in the chapter that describes how to IPL the target system.

Updating your dialogs

Use the level of dialogs that is shipped with your order. You can find the level of dialogs for your order on the first page of the ServerPac: Installing Your Order book in the Package Version field. The book is shipped with your order. If you have z/OS V1R9 or later dialogs, look for the dialog level in the upper right hand corner of panel CPPPPPOLI. The first two digits of the Package Version field are the dialog level. These two digits also correspond to the dialog level on the cover page of the ServerPac: Using the Installation Dialogs book.

For orders delivered on tape, IBM provides the dialog update job as member UPDATE in data set SYS1.orderid.DOCLIB, where orderid is the IBM-supplied number for your order. See “Copying the UPDATE job from tape” on page 15.
Installing and starting the dialog

orders delivered electronically, IBM provides the dialog update job as EUPDATE which can be downloaded from an FTP server. See “Downloading the EUPDATE job from an FTP server” on page 16.

In addition, you must convert the SCPPEENU and SCPPHENU data sets for old orders from sequential to VSAM format if you want to either display or install these orders. You can use JCL CPPCVINV to convert VSAM data set for any old orders so that they can be used with the new dialogs.

Copying the UPDATE job from tape

To update the dialogs on your driving system, you must first copy the UPDATE job to your driving system. Perform the following steps:

1. Create a job to copy the UPDATE job from ‘SYS1.orderid.DOCLIB’, where orderid is the IBM-supplied number for your order. The ‘SYS1.orderid.DOCLIB’ data set is the sixth file on the tape. Figure 5 shows a job you can use:

   //EXTRACT JOB <JOB statement info goes here...>
   //*
   //STEP01 EXEC PGM=IEBCOPY
   //*
   //SYSPRINT DD SYSOUT=*  
   //*
   //IDOC   DD DISP=SHR,DSN=SYS1.orderid.DOCLIB,LABEL=(06,SL),
             VOL=SER=tapeser,UNIT=tapeunit
   //O0OC   DD DSN=work.library.jcl, 
             DISP=(NEW,CATLG,DELETE),
             VOL=SER=volser,UNIT=SYSALLDA,  
             SPACE=(9600,(240,30,20))
   //*
   //SYSin   DD *
   COPY INDD=IDOC,OUTDD=O0OC
   *M=UPDATE
   /*

   Figure 5. Copying the UPDATE job from the “system and distribution tape”

2. Modify the following values for your order:

   orderid  Order number, which can be found on the cover of ServerPac: Installing Your Order.

   tapeser  Volume serial for the first “system and distribution tape” shipped with your order, which can be found on the external label and in Chapter 2 of ServerPac: Installing Your Order.

   tapeunit  Generic or esoteric name of the tape device that you will use to read the "system and distribution tape". For example, if you ordered your ServerPac on a 3590 tape cartridge, this is the device you use to read the 3590 tape.

   volser  Volume serial number of the DASD volume on which the DOCLIB data set is to be created. If UNIT specifies an esoteric name for a DASD pool to be used for permanent data sets, you can remove the VOL=SER= parameters of the DD statement instead of supplying this value.

   SYSALLDA  If your installation does not permit the use of SYSALLDA, change this value to an appropriate esoteric or generic name.
Installing and starting the dialog

ODOC       Data set name for the UPDATE job.

3. Run the EXTRACT job.

4. Before running the UPDATE job to update your master dialogs you must customize this job. Make the following modifications:

   CustomPac.Qualifier
   The high-level qualifier of your master dialog data sets.

   volser       The volume serial number of the DASD volume to be used to allocate the master dialog data sets.

   tapeser     The volume serial for the first “system and distribution tape” shipped with your order, which can be found on the external label and in Chapter 2 of ServerPac: Installing Your Order.

   tapeunit    The generic or esoteric name of the tape device that you will use to read the “system and distribution tape”. For example, if you ordered your ServerPac on a 3590 tape cartridge, this is the device you use to read the 3590 tape.

5. Run the UPDATE job.

Downloading the EUPDATE job from an FTP server

To update the dialogs on your driving system, you must first copy the EUPDATE job from an FTP server:

1. Download the EUPDATE job to a workstation (for example, using File --> Save As as in a browser) or copy it directly from the download FTP site. In either case, you must copy the EUPDATE job to your driving system.

2. Before using the EUPDATE job to update your master dialog data sets you must allocate and mount a UNIX file system to contain the destination directory and its files, and customize the job. Replace the JOB statement with a JOB statement that is valid for your installation and supply values for the following:

   SET PATH       Specify the path for the directory in which the CustomPac dialog and order information will be stored.

   CustomPac.Qualifier
   The high-level qualifier of your master dialog data sets.

   volser       The volume serial number of the DASD volume to be used to allocate the master dialog data sets.

3. Run the EUPDATE job.
Installing and starting the dialog

Installing the dialogs

To install the dialogs on your driving system for the first time, you must first copy the LOADRIM job to your driving system. Then, use LOADRIM to load the rest of the dialog data sets onto your driving system's DASD.

Copying the LOADRIM job from tape

For orders delivered on tape, IBM provides the LOADRIM job as member LOADRIM in data set SYS1.orderid.DOCLIB, where orderid is the IBM-supplied number for your order. The SYS1.orderid.DOCLIB data set is the sixth file on the tape, which has a standard label (SL).

Copy LOADRIM from SYS1.orderid.DOCLIB, as follows:
1. Create a job to copy the LOADRIM job to your driving system. Figure 6 shows a job that you can use.

```plaintext
//EXTRACT JOB <JOB statement info goes here...>
//*/
//STEP01 EXEC PGM=IEBCOPY
//*/
//SYSPRINT DD SYSOUT=* 
//*/
//10DD DD DISP=SHR,DSN=SYS1.orderid.DOCLIB,LABEL=(06,SL),
//   VOL=SER=tapeser,UNIT=tapeunit
//0DD DD DSN=work.library.jcl,
//   DISP=(NEW,CATLG,DELETE),
//   VOL=SER=volser,UNIT=SYSALLDA,
//   SPACE=(9600,(240,30,20))
//*/
//SYSIN DD *
//COPY INDD=10DD,OUTDD=0DDC
S M=LOADRIM
/*/ 
```

Figure 6. Copying the LOADRIM job from the “system and distribution tape”

2. Modify the following values for your order:

- **orderid** Order number, which can be found on the cover of ServerPac: Installing Your Order.

- **tapeser** Volume serial for the first “system and distribution tape”, which can be found on the external label and in Chapter 2 of ServerPac: Installing Your Order.

- **tapeunit** Generic or esoteric name of the tape device that you will use to read the “system and distribution tape”. For example, if you ordered your ServerPac on a 3590 tape cartridge, this is the device you use to read the 3590 tape.

- **volser** Volume serial number of the DASD volume on which the DOCLIB data set is to be created. If UNIT specifies an esoteric name for a DASD pool to be used for permanent data sets, you can remove the VOL=SER= parameters of the DD statement instead of supplying this value.

- **SYSALLDA** If your installation does not permit the use of SYSALLDA, change this value to an appropriate esoteric or generic name.

- **ODOC** Data set name for the LOADRIM job.
Installing and starting the dialog

3. Run the EXTRACT job.

4. Before using the LOADRIM job to allocate and load the master dialog data sets, you must customize the job. Replace the JOB statement with a JOB statement that is valid for your installation and supply values for the following:

   **CustomPac.Qualifier**
   High-level qualifier to be used for the master dialog data sets.
   Choose a unique high-level qualifier. IBM recommends that you **not** use an order number as part of **CustomPac.Qualifier**. Also, do not use any SSA qualifier that you plan to use for any data sets that are included in the order. Finally, you should not use SYS1, because you should catalog the data sets in a user catalog to assure portability between systems. For example, you could choose a **CustomPac.Qualifier** like CPAC.MASTER or IBM.INSTALL, but should avoid names like SYS1.CPAC and INSTALL.order_number.

   Each order includes order-related dialog data sets. You will need another unique qualifier for each order’s data sets, which must be different from the one you choose for **CustomPac.Qualifier**.

   **volser**
   Volume serial number of the DASD volume to be used to allocate the master dialog VSAM data sets.

   **tapeser**
   Volume serial for the first “system and distribution tape”, which can be found on the external label and in Chapter 2 of *ServerPac: Installing Your Order*. Specify the same volume serial that you specified for **tapeser** when copying the LOADRIM job in the previous section.

   **tapeunit**
   Generic or esoteric name of the tape device that you will use to read the “system and distribution tape”. For example, if you ordered your ServerPac on a 3590 tape cartridge, this is the device you use to read the 3590 tape.

   **orderid**
   Order number, which can be found on the cover of *ServerPac: Installing Your Order*.

   **SYSDA**
   If your installation does not permit the use of SYSDA, change this value to an appropriate esoteric or generic name for permanent data sets.

5. Run the LOADRIM job.

For complete tape layout information, see Chapter 2 of *ServerPac: Installing Your Order*.

**Downloading the LOADRIM job from an FTP server**

For orders downloaded from an FTP server, IBM provides the LOADRIM job as a file on the FTP server.

1. Download the LOADRIM job to a workstation (for example, using **File --> Save As** as in a browser) or copy it directly from the download FTP site. In either case, you must copy the LOADRIM job to your driving system.
Installing and starting the dialog

2. Before using the LOADRIM job to allocate and load your master dialog data sets you must allocate and mount a UNIX file system to contain the destination directory and its files, and customize the job. Replace the JOB statement with a JOB statement that is valid for your installation and supply values for the following:

**SET PATH**
Specify the path for the directory in which the CustomPac dialog and order information will be stored.

**CustomPac Qualifier**
The high-level qualifier of your master dialog data sets.

**volser**
The volume serial number of the DASD volume to be used to allocate the master dialog data sets.

3. Run the LOADRIM job.

Starting the dialog

After you have installed the installation dialog, you can start it in any of the following ways:

- **Option 1: Use a CLIST with LIBDEF statements** on page 20
- **Option 2: Start the dialog from the ISPF primary option menu** on page 21

**Using the dialog in split screen mode:** You can use ISPF’s split screen mode to run other applications while using the dialog, but the dialog does not support being used in more than one logical session at a time.

Also, the dialog temporarily sets your TSO/E profile to NOPREFIX.

**Ensuring a sufficient region size:** The dialog requires a minimum region size of 9 megabytes (MB). When you log on to TSO/E to use the dialog, ensure that the TSO/E logon panel specifies a value of 9000 or greater in the size field, as shown in the example in Figure 7 on page 20.
Installing and starting the dialog

If this much private area storage is not available below 16 MB, log on with a region size greater than 16 MB (for example, SIZE = 17000). Doing so causes the system to use private area storage above 16 MB.

Allowing for the allocation of additional data sets: When allocating additional data sets to a TSO/E session using CLISTS or LIBDEFs, ensure that you have a sufficiently high value specified for the DYNAMNBR parameter on the EXEC statement in your logon proc. DYNAMNBR defines the number of data sets that can be dynamically allocated at the same time. If this value is too low, the data set allocations will fail. For more information about using DYNAMNBR with logon procs, see the following:

- \texttt{z/OS TSO/E Customization}, SA22-7783
- \texttt{z/OS MVS JCL User's Guide}, SA22-7598
- \texttt{z/OS MVS JCL Reference}, SA22-7597.

Ensure that SCEERUN is in the program search order: When you allocate the dialog's data sets to use the dialog, ensure that the SCEERUN data set is placed in the program search order the system uses for you. If the SCEERUN data set is not in the link list, add it to the following:

- STEPLIB concatenation in your logon proc, ahead of any other libraries that contain PL/I run-time modules (such as PLI.PLIBASE or PLI.PLITASK)
- The JOBLIB concatenation used in installation jobs that use a JOBLIB concatenation ahead of any other libraries that contain PL/I run-time modules (such as PLI.PLIBASE or PLI.PLITASK)
- STEPLIB concatenations used in installation jobs that do not use a JOBLIB concatenation ahead of any other libraries that contain PL/I run-time modules (such as PLI.PLIBASE or PLI.PLITASK).

Option 1: Use a CLIST with LIBDEF statements

Copy and modify the sample member CPPCSAMP in data set SCPPCENU, as shown in Figure 8 on page 21.

Run the CLIST under TSO/E Option 6, as in the following example:

```
exec 'OBRIEN.MD053718.SCPPCENU(CPPCSAMP)'
```
Option 2: Start the dialog from the ISPF primary option menu

To start the dialog from the ISPF primary option menu, modify and copy the CPPCSAMP CLIST from the SCPPCENU data set into a data set that is available in your SYSPROC concatenation. Follow the instructions in "Option 1: Use a CLIST with LIBDEF statements" on page 20 to modify CPPCSAMP. Then, modify an existing ISPF selection panel (for example, ISR@PRIM) to include the following:
Installing and starting the dialog

```plaintext
}BODY
C  CustomPac - Manage and Install CustomPac Orders
}PROC
AZSEL = TRANS(AZCMD,;
......
C,'CMD(%CPPCSAMP)'
......)
```
Chapter 3. Receiving a new order

Required migration step

If you are using a dialog whose Package Version is less than 17.00.00, you must migrate the dialog to Package Version 17.00.00 (or higher) before proceeding. This is a one-time migration action. To determine whether your dialog is at the correct level, look for the dialog level number in the upper right-hand area of panel CPPPPOLI, the first panel displayed when the dialog starts.

If the migration step is required, then:

- If your order was delivered on tape, see "Updating your dialogs" on page 14 for instructions on copying UPDATE to your driving system.
- If you are downloading your order from an FTP server, or copying it directly from the download FTP site, see "Updating your dialogs" on page 14 for instructions on downloading EUPDATE to your driving system.

In addition, the SCPPEENU and SCPPHENU data sets for old orders must be converted from sequential to VSAM format if you wish to either display or install these orders. The sample job in the CPPCVINV member of the SYS1.orderid.DOCLIB data set will convert these data sets.

Beginning the receive process

To begin receiving the order, select option R from the Main Installation panel (Figure 9) and press Enter.

<table>
<thead>
<tr>
<th>CPPPPOLI</th>
<th>IBM Corporation 1990-2007</th>
<th>Option</th>
<th>20.10.31</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTION</td>
<td></td>
<td>R</td>
<td></td>
</tr>
</tbody>
</table>

CustomPac Order Management Menu

- R RECEIVE  - Receive an Order
- I INSTALL  - Install an Order
- D DISPLAY  - Select Orders to Display

Order Number ==>  (Leave blank to list uninstalled orders)

Master dialog data set qualifiers: CPAC_MASTER

This dialog supports electronic delivery.

Figure 9. Panel: Main installation

The dialog displays the Receive an Order panel (Figure 10 on page 24) for you to enter information about the order.
Receiving a new order

In the Receive an Order panel, fill in the fields as follows:

Receive the order from
Enter either S for Server, F for File System, or T for Tape to specify where the ServerPac order resides. Server indicates that the ServerPac order is to be received from an FTP server. Tape indicates that the ServerPac order is to be received from tape. File System indicates that you used the Store and Forward download method (download to workstation) and then uploaded the order to the host Download Filesystem outside the Dialog. The RECEIVE job generated by this option will retrieve the order directly from the Filesystem and not attempt a download.

Order number
Enter your order number, as it was supplied by IBM (two alphabetic characters followed by six numerics). In Figure 10, for example, the order number is MD053718.

To find your order number:
- For tape orders, check the cover of ServerPac: Installing Your Order. If that book is not at hand, you should look at the packing list or the printed label on the first “system and distribution tape” to find the order number.
- For internet orders, the ServerPac: Installing Your Order book is not shipped in hardcopy format; therefore, you can find your order number in the Dialog Data file provided on the ShopzSeries Download Page.

Data set qualifiers
Enter the high-level qualifier (without quotation marks) that you plan to use to allocate the order libraries.

IBM recommends that you include your order number as part of the qualifier to ensure that it is unique. For example, if your order is MD053718, you can specify Data Set Qualifiers ==> STOB4.MD053718.

Do not use the CustomPac.Qualifier.

Consider placing all of the order’s data sets on the same volume as the master dialog data sets to make it easier to port the dialog to
Receiving a new order

the target system. For more information, see “Allocating and cataloging the dialog data sets” on page 13.

Volume serial or STORCLAS
Enter the serial number of the DASD volume that will receive the order data sets or a valid storage class (for SMS managed data sets) to be used to allocate the data sets.

Dialog CLIST record format
Enter VB if you want to use the variable-block versions of the dialog’s CLISTs, which are supplied in the order in both FB and VB formats. FB is the initial default, but any value specified here is saved in the user’s profile (ISPPROF) data set when the Enter key is pressed and becomes the new default value.

When you press Enter, the next panel displayed will be either the:

Download server information panel (Figure 13 on page 27) if Server is specified to receive the order,
Receive an order from the file system panel (Figure 12 on page 26) if File system is specified to receive the order, or
Receive an order from tape panel (Figure 11) if Tape is specified to receive the order.

Receiving an order from tape

If you select the Tape option on the Receive an Order panel, the dialog displays the Receive an Order From Tape panel (Figure 11) for you to enter the information needed to load the order’s data sets from tape.

Figure 11. Panel: Receive an order from tape

In the “Receive an order from tape” panel, fill in the fields as follows:

First system tape volume serial
Enter the volume serial number of the IBM-supplied tape that contains the order-related installation material. This is the tape labeled with the order number and volume serial of the first system.
Receiving a new order

tape in the format MxxxAA, where “xxx” is the order number. The exact label for the “system and distribution tape” can be found in ServerPac: Installing Your Order.

Note: After installing a new copy of the dialog, you must use the first “system and distribution tape” to run the first RECEIVE job. The first “system and distribution tape” is from the same order used to run the LOADRIM job that installed the dialog. After the first RECEIVE job is run, RECEIVE jobs can be run in any order.

Tape unit
Enter the type of the device on which the order tape is to be mounted, or a suitable, locally-defined esoteric unit name.

Press Enter. The panel in Figure 17 on page 31 is displayed. The next several panels are for downloaded orders only, you can skip ahead to the panel shown in “Generating the RECEIVE job” on page 30.

Receiving an order from the file system

If you select the File System option on the Receive an Order panel, the dialog displays the Receive an Order From the File System panel (Figure 12) for you to enter the information needed to load the order's data sets from the file system. This option is used when you have used the Store and Forward download method (download to workstation) and then uploaded the order to the host Download File system outside the Dialog. The RECEIVE job generated by this option retrieves the order directly from the file system and doesn't attempt a download. When using the option to receive an order electronically from a file system you need to make the electronic images local to the host (driving system). The ServerPac installation expects the new directory names be in the format (content and order in lowercase):

/<ordernum>.order
/<ordernum>.content

Where ordernum is the ServerPac order number obtained from the “Required information for ServerPac Dialog” link on the ShopzSeries Download page.

```plaintext
CPPP610G---------- Receive an Order From the File system ------------------
COMMAND =>

Target Directory => /service/very/big/omvs/filesystem/for/eserverpac/zosv1r6/v2
```

Press Enter to continue or End to cancel

Figure 12. Panel: Receive an order from the file system

In the Receive an Order from the File System panel, fill the field as follows:
Receiving a new order

Target directory
Enter the path name of the directory to which the order has been stored locally on your host system.

Press Enter, the Edit JOB Statement panel [Figure 17 on page 31] displays.

Receiving an order from an FTP server

If you select the Server option on the Receive an Order panel, the dialog displays the Download Server Information panel [Figure 13] for you to enter the information needed to load the order’s data sets from the FTP server.

In the Download Server Information panel, fill in the fields as follows:

FTP server's name or address
Enter the name or address of the FTP server from which the order is to be downloaded. This value is required.

The FTP server may be an IBM server or it may be an intermediate server to which the order has been transferred from an IBM server.

Source directory
Enter the name of the directory on the FTP server that contains the order. This value is required.

User ID
Enter a valid user ID to be used to log on to the FTP server. This value is required.

Password
Enter the password for the user ID. This value is required.

Hash value
Enter the hash value to be used for this download. This value is required.

If an intermediate server is used, the hash value must be the same as the one used for transferring the order from the IBM server.

Note: When downloading from an IBM server, it is expected that most users will copy and paste most or all of the data to be entered on this panel from the Dialog Data file provided on the ShopzSeries download page. Data entered on this panel is case sensitive.
Press Enter. The Download File System Information panel (Figure 14) is displayed.

CPPP61OC  Download File System Information
COMMAND =>

Target Directory => /service/very/big/omvs/filesystem/for/eserverpac/zosv1r6/v2

Allocate a new file system data set => NO (Yes or No)

Figure 14. Panel: Download file system information

In the Download File System Information panel, fill in the following fields:

**Target directory**

Enter the path name of the target directory into which the order is to be downloaded. This value is required.

**Allocate a new file system data set**

Enter Yes to allocate a new file system data set or No to use an existing file system data set. This value is required.

If Yes is specified for Allocate a new file system data set, then fill in the following fields:

**Data set name**

Specify a standard data set name for the file system data set.

**Mount point**

Specify the path name of the mount point for the file system data set.

**File system type**

Specify either HFS (for a hierarchical file system) or ZFS (for a zSeries® file system). ZFS is the default.

**Primary space**

You can find the order size in the Dialog Data file provided on the ShopzSeries Download Page. This can be used in the algorithm to determine the space required in the filesystem. You can specify a primary space value of 500 to 99999 cylinders. The default is the minimum value, which is 500 cylinders.

**Guideline:** On a 3390 DASD, 1.4 cylinders are required for each MB(Megabytes). On a 3380 DASD, 1.7 cylinders are required per MB. To assure adequate work space, 500 cylinders should be added to the amount of the space calculated.
Receiving a new order

Example: On a 3390 DASD, an order that required 5GB could be downloaded and processed using a file system that had: 

\[ ((5000 \text{MB}) \times (1.4 \text{ cylinders/MB})) + 500 = 7500 \text{ cylinders}. \]

Secondary space

Specify a secondary space value of 1 to 99999 cylinders, or leave blank if no secondary space is desired.

Guideline: Secondary space is recommended. Specifying space for this file system requires that you perform a calculation and estimate the size of the largest file requiring a workspace within the file system as described above. There is opportunity for error in this calculation, and no way to “know” exactly how much workspace will be required. Your chances of success are “much” better if you specify secondary space.

Volume serial

For a non-SMS-managed data set, specify the volume serial for an online volume. For an SMS-managed data set, leave this field blank.

STORCLAS

For a SMS managed data set, specify a valid storage class to be used to allocate the data set.

Note: If this panel has previously been used to supply information, the fields on the panel are primed with information previously supplied for this order number (if any), the last input from this user ID (if any), or the most recent input available.

Press Enter. The Download Client Information panel [Figure 15] is displayed.

CPPP610D -------------- Download Client Information -------------------------------
COMMAND =>

Do you need to enter commands to pass through a local FTP Firewall? (Yes or No)
(For further information, review the discussion of the CLIENT (SMPCNT DD) data set in the SMP/E Commands manual.)
===> NO

Specify your Java home directory
(e.g. /usr/lpp/java/J1.4/ or leave blank if you are using ICSF)
===> /usr/lpp/java/J1.6

Press Enter to continue or End to cancel

Figure 15. Panel: Download Client Information

On the Download Client Information panel, you need to specify two pieces of information:

- Answer either YES or NO to the question about your need to enter commands to pass through a local Firewall.
  - If you specify NO (the default), you are indicating that no firewall commands are required by the FTP server from which you plan to download your order.
- Indicate whether you are using ICSF or Java™ for encryption.
Receiving a new order

If you are using ICSF, delete the sample Java directory information and leave this field blank.

If you are using Java encryption, you need to specify your Java home directory on this line in the format shown.

If you specify NO to the Firewall question, when you press Enter, the JOB Statement Information panel (CPPP6103) is displayed. If you specify YES to the Firewall question and press Enter, an ISPF Edit panel is displayed with a data set member containing skeleton firewall commands. Initially, this member appears as shown in Figure 16.

Edit this member to supply the needed firewall information and to remove the comment tags (<!-- and -->) from around the SMP/E tags. When you save the member and end the editing operation (with either the END Command or the END key), any changes you made are saved for future use and the Edit JOB Statement panel (Figure 17 on page 31) is displayed.

Tip: If you get here by accident, there is no need to back up. Just press the END key to save the commented-out firewall commands and keep going.

Generating the RECEIVE job
Press Enter. An ISPF Edit panel is displayed with a data set member containing a skeleton JOB statement. Initially, this member appears as shown in Figure 18.

Modify the JOB statement as required and press PF3. The Edit RECEIVE Job panel (Figure 19 on page 32) is displayed.

Figure 17. Panel: Edit JOB statement

Press Enter. An ISPF Edit panel is displayed with a data set member containing a skeleton JOB statement. Initially, this member appears as shown in Figure 18.

Figure 18. Panel: CPPPEDIF panel with JOB statement

Modify the JOB statement as required and press PF3. The Edit RECEIVE Job panel (Figure 19 on page 32) is displayed.
Receiving a new order

Press Enter. An ISPF Edit panel is displayed with a data set member containing the generated RECEIVE job. Initially, this member appears as shown in Figure 20.

Edit the job, if necessary, and save it. To submit the job, enter SUBMIT and then exit the dialog. The job loads your order from tape, FTP server, or file system to your DASD.

Note: You must exit the dialog for the RECEIVE job to run. It is not necessary to log off from TSO.

If you are downloading your order from an FTP server, the entire download might take considerable time. However, the download is done in two phases, and the first phase will usually not take very long. Once it has finished, you can begin to use the dialog to configure your new order. The RECEIVE job will send you a message to tell you when the dialog is ready to be used if you are logged on and have INTERCOM set in your TSO/E Profile. To see whether you have INTERCOM set, issue the PROFILE command from the TSO/E Ready prompt or ISPF Option 6. To set INTERCOM, issue PROFILE INTERCOM.
Receiving a new order

**Note:** It is acceptable for some steps to “flush” if one of the following conditions applies:

- CHKVERSN receives an RC4 indicating that your master dialogs are currently at the same level or higher than the order you are currently receiving.
- CHKINV receives an RC4 indicating that a new master dialog is loaded with the LOADRIM job and there are no current orders stored in the dialog inventory.

If you want to save a copy of the job, you can use the ISPF Edit CREATE primary command to save the job in a data set (or data set member) of your choice.
Chapter 4. Installing a new order

Before you install the order...

To avoid enqueue contention for dialog data sets, allow only one userid to work with an order at a time.

To begin installing the order, select option I on the Order Processing panel (Figure 21).

To go directly to a specific order, enter the order number in the blank field under "INSTALL" and press Enter. Processing proceeds directly to the Installation Menu for the order (see "Displaying the installation menu" on page 37).

If you leave the order number field blank and press Enter, the dialog displays a list of orders from which to choose (see "Selecting an order to install"). Select an order to install and press Enter.

Note: Although z/OS V1R10 or higher supports Extended Address Volumes (EAV), the ServerPac Dialog does not support EAV in the configuration during installation.

Selecting an order to install

To list all of the uninstalled orders, select the I option, but leave the order number field blank. The dialog displays a list of orders for your selection, as shown in Figure 22 on page 36.
Installing the new order

The Order Installation panel indicates installable orders with either of the following status codes (in the Status column):

- **Received**: This status is set when the order can be selected on the order list panel. For orders delivered on tape, this is after the RECEIVE job has run. For orders that are downloaded, this is after the first phase of the download has been completed.

- **Started**: This status is set when the work configuration has been created.

- **Error**: The RECEIVE job for this order has failed in step DOWNLDP2. You should examine the output of the RECEIVE job, correct the problem, and resubmit it.

After you have installed an order and reset its status to Installed, you can no longer display the order with the I option (Install Orders) on the Order Processing panel.

You can, however, still view the order's work configuration and installation jobs through the dialog by using the D option (Select Orders to Display) on the Order Processing panel (Figure 21 on page 35) and then selecting the desired order from the list. Or, if you use the GENSKEL command described in "Using GENSKEL to generate the installation jobs" on page 138, you can view the order's installation jobs in the SCPPBENU data set for the order.

Select an order by entering an **S** line command before the desired order. In Figure 22 order number MD053718 has been selected.

The following primary commands are valid for this panel:

- **SET**
- **Locate**
- **Find**
- **Previous**
- **SORT**
- **Verbose**

These are standard commands for panels that display lists. See "Primary commands" on page 11 and Appendix A, "Primary command reference," on page 159.

- **OFile**

  This command writes the entire list of orders to a user-defined file. See Appendix A, “Primary command reference,” on page 159 for more information.

The following line commands are valid for this panel:

- **S** Selects an order for installation.
- **E** Edits an existing order.
Installing the new order

D Deletes an order from the order inventory. The dialog prompts you to confirm the deletion.
P Displays the products and features for the order, along with their program numbers, versions, and FMIDs.
R Writes a report of the information associated with an order to a data set that you specify.
O Lists the installation jobs and any associated job output.

Displaying the installation menu

When you select an order to install, the Installation Menu is displayed (Figure 23). This panel is the starting point for all of the functions that are needed to install your order.

```
CPPFLOW  -------------- Installation Options for Order ( MD053718 ) --------------
OPTION =>

Complete these options to install the order:

  C   Create       Create the Work Configuration
     *  Variables   Specify Values for Variables
     *  Zones       Specify SMP/E Zone Names
     *  Modify      Modify the System Layout
     *  Alias       Specify Catalogs for High-Level Qualifiers
     *  SSA         Specify Temporary Aliases (SSAs) for Catalogs
     *  Installation Create and Submit Installation Jobs
                     (Option not available until download complete)

You can use Save any time after creating the work configuration:

/  *  Save       Save the Current Work Configuration
```

Figure 23. Panel: Installation menu

At the beginning of a ServerPac installation, the only available function is Create. Each of the other functions (now marked with asterisks) becomes available after the previous function is completed.

To continue the installation, enter C on the command line and press Enter. Proceed to Chapter 5, “Creating a work configuration for the order,” on page 39.

For a review of the Installation Menu’s other options, see “Using the installation menu” on page 7 or select the Help option of this menu.
Chapter 5. Creating a work configuration for the order

When you select an order for the first time, you must create a work configuration to start the installation.

Choosing the installation type

For an operating system order, option Create displays the Type of Installation panel shown in Figure 24. For subsystem orders, skip ahead to "Creating the configuration" on page 42.

Figure 24. Panel: Type of installation

Use this panel to select the type of installation you prefer: full system replacement or software upgrade. Select the installation type by entering Full system replacement or Software upgrade in the OPTION ==> field and pressing enter.

A full system replacement installs a complete z/OS system. It installs all data sets needed to IPL, log on to the target system, and run a z/OS image for completing other installation and customization tasks. These data sets fall into two major categories:

1. System software and related data sets (such as distribution and target libraries, SMP/E CSI data sets, and sample libraries)
Creating a work configuration

2. Operational data sets (such as page data sets, system control files, and a master catalog).

Because IBM creates a working set of operational data sets for you, a full system replacement helps assure a successful first IPL.

Unless you are installing a new image, you must merge your existing operational data sets with the data sets created by ServerPac; this can be done before or after the first IPL.

A software upgrade (Figure 25) installs only system software and related data sets (category 1 above). You must provide the operational data sets (category 2 above) and make them accessible to the new level of software installed. When new operational data sets are required, you must allocate and initialize them before you IPL. For example, you might need to add parameters required by the new software level, or change data sets so that they work with both the old and new levels.

A software upgrade uses your existing catalog structure. This includes your existing master catalog and user catalogs (with direct or indirect cataloging references). Also, software upgrade allows you to create new user catalogs as part of the installation process.

In Figure 25 the dotted line contains the system software and data sets that are created by full system replacement. Within the dotted line, the data sets below “Target System” are the subset of data sets that are replaced by software upgrade.

![Diagram of operational data sets](image)

**Figure 25. Software upgrade option preserves your existing operational data**

If you select software upgrade or full system replacement and later wish to change the installation type, you must recreate the configuration by selecting Option C, specifying the desired installation type, specifying the JES elements to be installed, selecting a saved configuration for merge (if applicable), and issuing the Create command. If you wish to preserve your modifications, save the configuration. Doing so can reduce the amount of data that you would need to re-enter, depending on how far along you are in the installation process.
Creating a work configuration

Software upgrade is available only for z/OS orders. It is not available for the related subsystem products (DB2, CICS, IMS, and NCP) or WebSphere Application Server.

Selecting a JES for the configuration

After you select a configuration for your z/OS order, the dialog displays the panel shown in Figure 26 to prompt you to select a JES element.

![Figure 26. Panel: JES element selection](image)

Select at least one JES element for installation: JES2 (and SDSF) or JES3 (and SDSF). If your installation requires both JES elements to be installed, you can select BOTH.

For each JES element you select, specify whether the dialog is to merge the SMP/E zones of the JES element with the Base Control Program (BCP) zones. When you merge a JES element with the BCP zones, the SDSF zone is automatically merged with the BCP zones:

- If you specify the JES2 zone to be merged with the BCP zones, both JES2 and SDSF zones are merged with the BCP zones. Similarly, if you specify JES3 to be merged with the BCP zones, both JES3 and SDSF zones are merged with the BCP zones.
- If you specify both JES elements to be merged with the BCP zones, the JES2, JES3, and SDSF zones are merged with the BCP zones.

**Note:** If you install both JES elements, you cannot merge only one of the JES elements with the BCP zones. The error message CPPP0601011E will appear to indicate that the action is not allowed.

If you migrate JES2 or JES3 together with the rest of z/OS, it is recommended that you specify Y on this panel to merge the selected JES elements into the BCP zone.

However, if you plan to stage your z/OS and JES migrations separately, do not merge zones. The dialog loads the JES element's zones, but does not merge them.

When you select a single JES, the dialog processes the data sets for only the JES you select. The dialog does not create or load data sets for the JES you omit.
Creating a work configuration

If you wish to change any of these decisions later, you must recreate the configuration by selecting Option Create, specifying the desired changes, selecting a saved configuration for merge (if applicable), and issuing the CRReate command.

Creating the configuration

After you select the JES Element (for a z/OS order) or select option C (for a subsystem order), the Create Configuration panel is displayed, as shown in Figure 27.

```
CPPP6011 ---------------- CREATE Configuration ( MD053718 ) ----- Row 1 to 2 of 2
COMMAND => CR
SCROLL => CSR

Select Configuration
Primary Commands: (? SET Locate Find Next Previous SORT CRReate)
Line Commands: (Select)

S CONFigureation Comment
- --------------------------------- ----------------------------------------
* CPP.MD053718 Always Selected for Order

S CPP.MD058475 First saved config
CPP.MD058476 Second saved config
******************************************************************************
Figure 27. Panel: Select configuration
```

The shipped configuration is always automatically selected. Any configurations you have saved are also displayed. Selecting a saved configuration (if you have one) will reduce the time needed to install the order.

If you are using the dialog for the first time, simply enter the CRReate primary command. Later in the installation, you will be able to save this configuration for use with subsequent ServerPac orders, or to preserve your work if you decide to recreate the configuration to change installation types or JES selections.

If you are merging this order with a saved configuration, see “Merging a configuration with a previous order” on page 43 for further considerations.

When you create the work configuration, the message “Work Configuration Created” appears, as shown in Figure 28.

```
CPPP6011 ---------------- CREATE Configuration ( MD053718 ) ----- Row 1 to 2 of 2
COMMAND => CR
SCROLL => CSR
CPP060104I WORK Configuration Created

Select Configuration
Primary Commands: (? SET Locate Find Next Previous SORT CRReate)
Line Commands: (Select)

S CONFigureation Comment
- --------------------------------- ----------------------------------------
* CPP.MD053718 Always Selected for Order

CPP.MD058475 First saved config
CPP.MD058476 Second saved config

Figure 28. Panel: Select configuration (configuration created)
```

Press the END key to return to the dialog’s Main Menu.
Creating a work configuration

Merging a configuration with a previous order

At this stage of installing your order, you can reuse any configuration information you might have customized and saved from previous orders. To do so, you merge the new order with the saved information. Wherever possible, saved data set attributes replace shipped attributes. New jobs are generated based on the resulting attributes and on further customization that you will do in the dialog. Data set types (PDS, PDSE, HFS or zFS) are derived from the saved order when those data sets are present in both the saved configuration and the new configuration and they are flagged as switchable in the new order.

You can merge a saved configuration with the order's shipped configuration. Selection of the saved configuration selection is restricted to configurations created in your current dialog release or up to three prior releases. For example if your shipped configuration was created in Dialog Level 18, you can not merge this with a saved configuration from Dialog Level 14.

You select configurations to be merged with the new order configuration on the Create Configuration panel. Enter line command S for each configuration that you want to merge with the current order, and enter CR on the command line to create the new configuration. Figure 29 shows the panel that is displayed.

![Figure 29. Panel: Merge configurations - confirmation](image)

To confirm the merge, enter MERGE in the COMMAND ==> field and press Enter.

If the dialog detects an existing work configuration for the current order, the panel shown in Figure 29 will not appear until you delete the existing work configuration. Instead, the panel shown in Figure 30 on page 44 is displayed to request that you delete the existing configuration.
Creating a work configuration

To confirm the deletion, enter **DELETE** in the **COMMAND ==>** field and press Enter. After you have deleted the existing configuration, the panel shown in Figure 29 on page 43 will be displayed as previously described.

Modify the configuration as required, and save it. For subsequent installations, you can merge a new shipped configuration with the one you save after making changes to this configuration or with a configuration you saved from another installation.

User-defined jobs that the dialog has retained through the saved work configuration are moved to the end of the installation jobstream when merge processing completes (regardless of the order in which you placed the jobs in the installation jobstream).

**Information used by ServerPac when merging configurations**

When you create a configuration for your new order, the dialog allows you to reuse information that you saved from a previously installed order. Here, the dialog merges the information from the saved configuration with the information in the new order.

If a previously-installed product is in the new order at a new level and it now includes a new data set, then there is nothing to bring forward and the new data set gets the shipped defaults in the work configuration. Likewise, if a data set is not present in the product's new release, it is not carried forward from the saved configuration to the work configuration.

If your new order adds a product that was not in the previously installed order, the dialog adds the information about the product and its data sets from the new order to the configuration being created. If your new order omits a product that was included in a previously saved order, the dialog does not carry forward information or data sets for the omitted product in the new configuration.

Thus, if WebSphere for z/OS (for example) was included in the previously installed order, but is not included in the new order, the dialog does not include WebSphere data in the configuration being created. As a result, your changes for WebSphere (such as data set names or space) are not applied to the configuration for the new order, nor is the data for WebSphere saved when you save the configuration.
Another consideration for merging data exists when attributes of a data set are changed between levels of a product. Saved changes to allocation amounts (primary, secondary, and directory) are carried forward using the same increase amounts as were applied to the data sets in the saved configuration, except when secondary allocation amounts were allowed for a data set in the saved configuration, but are not allowed for that data set in the shipped configuration. For example, assume that data set A in the previously saved configuration had 15 secondary blocks and you increased that amount to 20. Data set A in the new release of the product shipped with the new order has secondary blocks of 30. The secondary blocks value for data set A in the configuration being created is set to 35 (an increase of 5, just as before). On the other hand, if data set A in the new order had secondary blocks of 0; the secondary blocks value for data set A in the configuration being created would be set to 0 and any previous increase amount would be ignored.

When you merge the data sets into the new order, the dialog checks the previously saved configuration for user-defined data sets. The dialog adds these data sets to the configuration being created if their names do not conflict with any data set names in the new shipped order. Otherwise, the dialog indicates the existence of data set name conflicts in the Merge Report (see “Merge report” on page 47).

During merge configuration processing, the dialog first determines whether a data set will be included in the work configuration. If so, the dialog determines what information about the data set will be included in the work configuration from the previously saved configuration, as follows:

- If, in the previously installed order, you did not change the particular data set value from the value that was originally shipped, the dialog uses the new shipped value in the configuration being created.
- If you changed the value in the previously saved configuration from the value that was originally shipped, the dialog uses the rules in Table 2 to determine which value to use in the configuration being created.

Table 2. Values used in a merged configuration

<table>
<thead>
<tr>
<th>Data set value</th>
<th>Dialog action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Set Name</td>
<td>If the data set exists in both the previously saved configuration and the new shipped order, the dialog uses the data set name from the previously saved configuration, unless the data set is marked unrenameable in the shipped configuration. A merged data set (described in &quot;Merging and unmerging data sets&quot; on page 96) retains its name. However, if a component data set in the merged data set does not appear in the new shipped order, the dialog automatically removes the component data set from the merged data set and updates the attributes and space of the merged data set based on the removal of the component data set.</td>
</tr>
<tr>
<td>Renameable</td>
<td>This attribute is not saved or merged. If you changed the status of some data sets from not renameable to overridden in the saved configuration, and want to rename them again, you must change their status using the CHANGE RENAME command (see &quot;CHANGE RENAME&quot; on page 168) and then rename them in each order. If the data set exists in both the previously saved configuration and the new shipped order, the dialog uses the data set name from the previously saved configuration.</td>
</tr>
</tbody>
</table>
## Creating a work configuration

### Table 2. Values used in a merged configuration (continued)

<table>
<thead>
<tr>
<th>Data set value</th>
<th>Dialog action</th>
</tr>
</thead>
</table>
| **DSORG**      | If the data set’s organization (DSORG) in the previously saved configuration is different from its DSORG in the new shipped configuration, the dialog uses the DSORG from the new shipped configuration for the data set.  

For a merged data set, if the DSORG of a component data set changes from DSORG=PO, the dialog removes the component data set from the merged data set. The dialog automatically updates the attributes and space of merged data set based on the removal of the component data set. |
| **RECFM**      | If the record format (RECFM) of the data set in the previously saved configuration is different from its RECFM in the new shipped configuration, the dialog uses the RECFM from the new shipped configuration.  

For a merged data set, if the RECFM of a component data set no longer matches that of the merged data set, the dialog removes the component data set from the merged data set. The dialog automatically updates the attributes and space for the merged data set based on the removal of the component data set. In this case, the component data set’s RECFM and allocation amounts are set from the new shipped configuration. |
| **LRECL**      | If the logical record length (LRECL) in the previously saved configuration is different from its LRECL in the new shipped configuration, the dialog uses the LRECL from the new shipped configuration.  

For a merged data set, if the LRECL of a component data set no longer matches that of the merged data set, the dialog removes the component data set from the merged data set. The dialog automatically updates the attributes and space for the merged data set based on the removal of the component data set. In this case, the component data set’s allocation amounts are set from the new shipped configuration. |
| **Primary Space** | The dialog uses one of the following values:  
• The primary allocation amount from the new shipped configuration plus the amount of space that was added to the old shipped configuration in the saved configuration.  
• If no saved configuration is being merged, the primary allocation amount from the new shipped configuration. |
| **Secondary Space** | If the value in either the previously saved configuration or the new shipped order value is 0 (zero), the dialog uses a value of 0 for the configuration being created. A value of 0 means that no secondary space allocation is allowed. When a data set shipped with no secondary allocation has been overridden using the CHANGE SECOND command, the value stored in the saved configuration will reflect the shipped value (0) not the overridden value.  

Otherwise, the dialog uses one of the following values:  
• The secondary allocation amount from the new shipped configuration plus the amount of space that was added to the old shipped configuration in the saved configuration.  
• If no saved configuration is being merged, the secondary allocation amount from the new shipped configuration. |
| **Directory Space** | The dialog uses one of the following values:  
• The number of directory blocks from the new shipped configuration plus the number of directory blocks that was added to the old shipped configuration in the saved configuration.  
• If no saved configuration is being merged, the number of directory blocks in the new shipped configuration. |
### Table 2. Values used in a merged configuration (continued)

<table>
<thead>
<tr>
<th>Data set value</th>
<th>Dialog action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logical Volume</td>
<td>The dialog uses the logical volume name from the previously saved configuration for the data set, unless the logical volume name in the new shipped default configuration is IPLVOL. If the dialog uses the Logical Volume name from the previously saved configuration, the dialog also updates the following fields:</td>
</tr>
<tr>
<td></td>
<td>• Physical Volume value</td>
</tr>
<tr>
<td></td>
<td>• Physical Volume Control Unit Address value. This is the device number for the volume, as assigned through the hardware configuration definition (HCD).</td>
</tr>
<tr>
<td></td>
<td>• Physical Volume Device Type. For a merged data set, if the logical volume of a component data set in the new release becomes IPLVOL, the dialog automatically reassigns the logical volume of the merged data set to IPLVOL accordingly.</td>
</tr>
<tr>
<td>SMS-Managed</td>
<td>The dialog uses the SMS-managed status from the saved configuration, unless doing so would conflict with the data set’s SMS-eligible or SMS-required attributes.</td>
</tr>
</tbody>
</table>

### Using merge configuration reports

To help you in identifying what information has been merged, the dialog generates two different types of reports when you create the merged configuration:

- "Merge report"
- "Data set merge report" on page 53.

These reports are described in the sections that follow.

**Merge report:** The dialog generates the Merge Report to identify the changes that were made to the logical volume table (the data set information) because of the merge with a previous order configuration. The dialog saves this report in a member named MERGE in a data set with the following naming convention:

`hlq.orderid.REPORT(MERGE)`

Use this report to discover potential problems, which are identified in the STATUS column of the report. It is **strongly recommended** that you investigate any data sets that have a non-blank status in the reports.

Each column in this report is separated by one blank. The report displays information in the following order:

1. Shipped SubSystem Type (SST), in ascending order.
2. Low-Level qualifier of the saved data set, in ascending order.
3. High-level qualifier (HLQ) and middle-level qualifier of the saved data set, in ascending order.

The following is an example of the report:

<table>
<thead>
<tr>
<th>SST STATUS</th>
<th>SAVED DATA SET NAME SHIPPED DATA SET NAME SVLVOL SVLVOL SHFVOL DEVN ED DEVICE PRISP(DELTA) SECSP(DELTA) DRRBS(DELTA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aaaa bbbbbbbb ccccccccccccccc... ddddddddddd... eeeeeee ffffffff gggggg hhhh i jjjjjjjjjj</td>
<td>mmmmmmmmmmmm nnnnnnnnnnn oo000000</td>
</tr>
</tbody>
</table>

The fields in the report are described as follows:
Creating a work configuration

**SST**

Subsystem name. This field is blank for operational and CustomPac data sets. For product-supplied data sets, it indicates the major system or subsystem with which the data set is associated:

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2</td>
<td>DB2 and related products</td>
</tr>
<tr>
<td>CICS</td>
<td>CICS and related products</td>
</tr>
<tr>
<td>IMS</td>
<td>IMS and related products</td>
</tr>
<tr>
<td>MVS</td>
<td>z/OS, WAS, and related products</td>
</tr>
<tr>
<td>NCP</td>
<td>NCP and related products</td>
</tr>
</tbody>
</table>

**STATUS**

Status field. This field is a maximum of 11 characters and can be the following:

**NEW**

The data set is a new data set. This means that the data set did not exist in the saved order configuration, but now exists in the new shipped order. When a data set's status is NEW, all fields except Saved LVol are filled in using the shipped defaults.

**DSORG**

The shipped DSORG for the new data set is not the same as the DSORG for the same data set in the saved order configuration. The shipped DSORG is used for this data set. The Shipped Data Set Name value is filled in for reference.

Because this report is sorted using the Saved Data Set Name by default, the Saved Data Set Name value is set to the Shipped Data Set Name value to prevent the Saved Data Set Name value from being blank.

**LRECL**

The shipped LRECL for the new data set is not the same as the LRECL for the same data set in the saved order configuration. The data set space allocations are not merged, but any data set name, logical volume, physical volume, device number, and shipped device information are merge candidates.

**RECFM**

The shipped RECFM for the new data set is not the same as the RECFM for the same data set in the saved order configuration. The data set space allocations are not merged, but any data set name, logical volume, physical volume, device number, and shipped device information are merge candidates.

**D**

The data set mode has been changed; the new shipped order mode is used. The data set mode indicates the installation type for which the data set is to be used (full system replacement, software upgrade, or both).

The new data set mode didn’t match the old one. There are three possible modes (FSR-only, SU-only, and both SU and FSR) and that the new mode doesn’t match the old one.

**DSNAME**

The shipped DSNAME for the new data set is not the same as the DSNAME for the same data set in the saved order configuration. The possible causes for this are as follows:

- A user-defined data set in the saved order configuration has the same name as an IBM-supplied data set in the shipped configuration.
Creating a work configuration

- A data set in the saved order configuration has been renamed, and a data set in the new shipped order is now shipped with that name.
- A data set was renamed in the saved order configuration, but the same data set is now shipped as an unrenameable data set.

In either case, no data set information is merged. The Saved Data Set Name value contains the name of the data set with the conflict. The Shipped Data Set Name is either:
- 'USER DATA SET' for user-defined data set name conflicts
- 'IBM DATA SET' for renamed data set name conflicts

Also, for each DSNAME conflict entry in the report for IBM DATA SET, there is also an entry in the report with a status of NEW.

I The shipped IPL volume for the new data set is not the same as the IPL volume for the same data set in the saved order configuration. There are two possible ways this status can be set:
- The data set in the saved order configuration was required on the IPL volume, but the same data set in the new shipped order is **not** required on the IPL volume.
- The data set in the saved order configuration was **not** required on the IPL volume, but the same data set in the new shipped order is required on the IPL volume.

Data sets required on the IPL volume are unconditionally placed on the IPLVOL logical volume.

M There is a change to the requirement for the data set to be defined in the master catalog. There are two ways this status can change:
- The data set in the saved order configuration was required to be in the master catalog and the same data set in the new shipped order is **not** required to be in the master catalog.
- The data set in the saved order configuration was **not** required to be in the master catalog, but the same data set in the new shipped order is required to be in the master catalog.

Some data sets should be cataloged in the master catalog. ServerPac marks some additional data sets as being required in the master catalog, but you can override this using the CH MCAT command. However, if you override this setting, you must be prepared to make whatever other changes are required to catalog the affected data set in a user catalog. After you have completed the ServerPac installation, you can uncatalog these additional data sets, or move their catalog entries to user catalogs as needed.

R There is a reblock flag conflict between the new shipped order and the same data set in the saved order configuration. There are two possible ways this status can be set:
- The data set in the saved order configuration was allowed to be reblocked (the REBLOCK ALLOWED flag is set to Y), but the same data set in the new shipped order **cannot** be reblocked (the REBLOCK ALLOWED flag is set to N).
- The data set in the saved order configuration was **not** allowed to be reblocked (the REBLOCK ALLOWED flag is set to N), but the same data set in the new shipped order can be reblocked (the REBLOCK ALLOWED flag is set to Y).
Creating a work configuration

S There is a Secondary Blocks conflict between the new shipped order and the same data set in the saved order configuration. There are two possible ways this status can be set:
  • The data set in the saved order configuration was allowed to have secondary blocks, but the same data set in the new shipped order cannot have secondary blocks.
  • The data set in the saved order configuration was not allowed to have secondary blocks, but the same data set in the new shipped order can have secondary blocks.

T There was a type conflict between a data set in the new shipped order and the same data set in the saved order configuration. Either of following occurred:
  • The data set in the saved order configuration is a PDS, but the same data set in the new shipped order is a PDSE.
  • The data set in the saved order configuration is a PDSE, but the same data set in the new shipped order is a PDS.

In these cases, the dialog uses the format of the data set from the saved configuration, unless the data set in the new shipped order is not eligible to have its format converted.

SMS There was a conflict in the SMS status of the data set between the saved configuration and the shipped configuration. The data set is either of the following:
  • Managed by SMS in the saved configuration, but is not eligible for SMS management in the shipped configuration.
  • Unmanaged by SMS in the saved configuration, but is required to be SMS-managed in the shipped configuration.

The data set’s SMS status in the shipped configuration is unchanged. The dialog attempts to merge the remaining attributes of the data set.

X The data set was moved across SSTs between the saved order configuration and the new shipped order. The status can be set when a data set in the saved order configuration was associated with one SST and the same data set in the new shipped order is associated with a different SST.

Notes:
1. Any combination of the single character status values may appear at one time in the status field. If more than one value appears on the status line, it is separated from the next single character value by a comma.
2. The DSNAME and DSORG status values indicate that no merge of any values is done.
3. The LRECL and RECFM values allow the merge of only the data set name, logical volume, physical volume, device number, and shipped device, where a merge of the value applies.
4. Any non-blank status value in the table indicates the user should look closely at the data set to ensure that any merged values are still valid. Also, the following should be reviewed:
   • Data set name
   • Reblocking of the data set
   • Logical volume to physical volume mapping
   • Data set block size
Data set space allocation units: primary, secondary, and directory blocks.

5. A blank value indicates that no potential conflicts were identified during the merge of the data for a data set.

**SAVED DATA SET NAME**
Specifies the data set name that now exists in the configuration created when the saved order configuration was merged with the new shipped order. The field is a maximum of 44 characters long. This field is always non-blank because it is the default sorting field for the report. There are cases where the Saved Data Set Name value and the Shipped Data Set Name value are the same.

The names are the same for the following:
- The Status is set to NEW, or DSORG.
- The shipped order data set name and the saved order configuration data set name are the same.

For Status of DSNAME, the Saved Data Set Name is the name of the data set and the Shipped Data Set Name is ‘USER DATA SET’.

**SHIPPED DATA SET NAME**
Specifies one of the following:
- Name of the data set in the new shipped order. The maximum length for this value is 44 characters.
- USER DATA SET. A user-added data set was copied from the saved order configuration and added to the merged configuration. This value is also specified when a user added data set cannot be added to the merged configuration because of a data set name conflict (DSname in Status Column).
- IBM DATA SET. A data set was renamed in the save configuration and a data set by the same name is now shipped in the new shipped order.

**SVLVOL**
Specifies the logical volume from the saved order configuration. This value is 1-6 characters.

If this value is not blank, it is the value that is used for the data set in the merged configuration. If this value is blank, one or both of the following is true:
- Saved LVol is the same as the Shipped LVol.
- The Status is set to NEW, DSNAME, or DSORG.

**SHLVOL**
Specifies the logical volume from the new shipped order. This value is 6 characters long.

This value is blank when the logical volume value in the saved order configuration is the same as the logical volume value in the new shipped configuration.

**SHPVOL**
For an unmanaged data set, this field specifies the physical volume that exists in the saved configuration for this data set. For an SMS-managed data set, this field specifies the storage class of the data set. This value is 1-8 characters.

SHPVOL is blank when the physical volume value in the saved order configuration is the same as the value in the new shipped order. If this is a new data set (identified by NEW in the status column), this is the value from the new shipped order.

**DEVN**
Specifies the device number of the physical volume that is displayed in the
Creating a work configuration

Physical Volume column, or 'SMS' for an SMS-managed data set. This value is 1-4 characters. If the Physical Volume column is blank, this field is also blank.

**ED**
Specifies whether existing data resides on the volume displayed in the Physical Volume column. This value is either Y or N (meaning yes or no). If the Physical Volume column is blank, this field is also blank. If the DEVN field contains 'SMS,' this field is meaningless.

If the physical volume contains existing data, use the SUMP primary command to force the recalculation of space for the volume.

**DEVICE**
Specifies the device characteristic of the physical volume that is displayed in the Physical Volume column. This value is 1-8 characters. If the Physical Volume column is blank, this field is also blank. If the DEVN field contains 'SMS,' this field is meaningless.

**PRISP(DELTA)**
Specifies the primary allocation value of the data set in the merged configuration if there was a difference between the value in the saved order configuration and the new shipped configuration for this data set. *delta* is the difference between these primary allocations, if any. *delta* is 1-12 characters.

The value is blank if you did not change the value of the primary allocation in the saved order configuration, regardless of the value in the new shipped order. However, if you increased the value of the primary allocation in the saved order, one of the following occurs:

- If the value in the new shipped order is less than the value in the saved order configuration, the saved order configuration value is used and this is the value displayed in the Saved Primary field.
- If the value in the new shipped order is greater than the value in the saved order configuration, the amount of increase that the user specified in the saved order configuration is added to the new shipped order value. This new value is the value displayed in the Saved Primary field.

There are two ways in which you could have changed the primary allocation:

- You entered the CHANGE command to change the primary allocation of one or more data sets in the saved order configuration.
- You changed a specific data set's primary allocation.

**SECSP(DELTA)**
Specifies the secondary allocation value of the data set in the merged configuration if there was a difference between the value in the saved order configuration and the new shipped configuration for this data set. *delta* is the difference between the saved order configuration secondary allocation and the new shipped order secondary allocation. *delta* is 1-12 characters.

If you did not change the value of the secondary allocation in the saved order configuration, *delta* is blank, regardless of the value in the new shipped order. If you changed the value of the secondary allocation in the saved order, one of the following occurs:

- If the value in the new shipped order is less than the value in the saved order configuration, the dialog uses the saved order configuration value and displays this value in the Saved Secondary field.
- If the value in the new shipped order is greater than the value in the saved order configuration, the dialog adds the amount of increase that you specified in the saved order configuration to the new shipped order value. The dialog displays the new value in the Saved Secondary field.
Creating a work configuration

• If the value of either the new shipped order or the saved order configuration is zero, the dialog displays a zero (0) in the Saved Secondary field and an S in the Status field.

There are two ways in which you could have changed the secondary allocation:
• You entered the CHANGE command to change the secondary allocation of one or more data sets in the saved order configuration.
• You changed a specific data set's secondary allocation.

DIRBS DELTA
Specifies the directory blocks value of the data set in the merged configuration if there was a difference between the value in the saved order configuration and the new shipped configuration for this data set. \textit{delta} is the difference, if any, between these two values. \textit{delta} is 1-12 characters.

If you did not change the value of the directory blocks in the saved order configuration, \textit{delta} is blank, regardless of the value in the new shipped order. If you changed the value of the directory blocks in the saved order, one of the following occurs:
• If the value in the new shipped order is less than the value in the saved order configuration, the dialog uses the value for the saved order configuration and displays this value in the DIRBS field.
• If the value in the new shipped order is greater than the value in the saved order configuration, the dialog adds the amount of increase that you specified in the saved order configuration to the new shipped order value. The dialog displays the new value in the DIRBS field.

There are two ways that you could have changed the directory blocks:
• You entered the CHANGE command for the saved order configuration to change the directory blocks of a group of data sets.
• You changed a specific data set's directory blocks.

Data set merge report: The dialog generates the Data Set Merge report to show possible conflicts involving merged data sets as a result of merging of the saved configuration with the new configuration. Use this report to discover potential problems, which are identified in the STATUS column of the report. It is strongly recommended that you investigate any data sets that have a non-blank status in the reports.

The dialog saves this report in a member named DSMERGE in a data set with the following naming convention:
\texttt{hlq.orderid.REPORT(DSMERGE)}

The following is an example of the report:
The fields in the report are described as follows:

**STATUS**

Identifies potential problems, such as data set name conflicts. Valid values for this field are as follows:

- **M** The component merged file system could not be merged because a file system was introduced in the shipped configuration which contains an intermediate mountpoint. When file systems can not be merged as a result of discrepancies between the saved configuration and the shipped configuration, all its component data sets are unmerged.

- **U** Data set was unmerged as a result of the configuration merge.

- **A** One or more of the data sets flags (shown in the right-most columns in this report) have changed as a result of the merge. Each flag is marked with a value of Y or N (“yes” or “no”) to indicate the post-merge conditions for the data set, as follows:
  - **C** — Must the data set be cataloged in the Master Catalog?
  - **I** — Must the data set reside on the IPL volume?
  - **N** — Can the data set be renamed?
  - **M** — Can the data set be merged with another data set?\(^1\)
  - **D** — Can the data set’s type (HFS, PDS, PDSE, zFS) be changed?
  - **S** — Must the data set be managed by SMS?
  - **E** — Can the data set be managed by SMS?

The operating system requires some data sets to have particular names, or reside on the IPL volume, or be cataloged in the master catalog. The dialog sometimes requires that additional data sets follow these restrictions. During the installation, you can choose to make these data sets renameable through the CHANGE RENAME command. Or, you can rename, move, or recatalog these data sets after completing the ServerPac installation.

- **C** Data set was automatically unmerged of all of its component data sets because the dialog detected a member name conflict between it and another data set (which is also indicated with a C status elsewhere in this report).

---

\(^1\) The saved data set name is used even if the value of M is changed. Also, if M is changed to make a data set unrenameable, you can rename the data set to the new name required by the dialog (or to a user-specified name) by using the CH RENAME command to change the status and to rename the data set.
Creating a work configuration

**D** Data set was not in the shipped configuration. The data set is deleted. If it was part of a merged data set, then it was either a merge component data set (that is, it was merged into another data set) or a merge target data set (that is, other data sets were merged into it). If it was a merge component, it is no longer part of the merged data set. However, if it was a merge target, then the dialog unmerges the data sets. If you want the data sets merged again, you will have to choose a different merge target data set.

**I** Data set is ineligible for merging. This status is accompanied with a status of A to indicate that the merge attribute of the data set has changed to N.

**P** The merged data set is a PDSE, but it contains at least one component data set that is a non-switchable PDS.

**S** The component data set was unmerged because the dialog detected a mismatch with the secondary attribute. The dialog restricts merging data sets with unlike secondary attributes. When data sets cannot be merged as a result of discrepancies between the saved configuration and the shipped configuration, the component data set will be unmerged.

**Merged DSName**
Name of the merged data set.

**Component DSName**
Name of a component data set in the merged data set. The first value in this list is the name of the target merge data set.

**LRECL**
Logical record size of the merged data set. This value is the same for all component data sets in the merged data set.

**DSTYPE**
Data set organization of the merged data set. Possible values are:
- *PDS* PDSE data set
- *PDSE* PDSE data set
- *zFS* zFS data set
- *HFS* HFS data set

This value is the same for all component data sets in the merged data set.

**AVBLOCK**
Space units of the merged data set. This value is the same for all component data sets in the merged data set.

**PRI**
Number of space units requested for the primary space allocation for the merged data set, including the space required for its component data sets.

**SEC**
Number of space units requested for the secondary space allocation for the merged data set, including the space required for its component data sets.

**DIR**
Number of directory blocks required for the merged data set, including the space required for its component data sets.
Creating a work configuration
Chapter 6. Defining installation variables

Select V from the Installation Menu to begin the next available function, Define Installation Variables. The Variable Selection List is displayed (Figure 31).

The Variable Selection List displays variables that are required to install your order. The list reflects the installation type you chose — full system replacement or software upgrade. Use this panel to set the values of these variables appropriately for your environment. Refer to the “Variables” appendix in ServerPac: Installing Your Order, for the exact variables for your order.

In this part of the dialog, you are asked to provide (as variables) information about your driving system and target system, such as the SYSNAME for the target system. In some cases, you will need to know the target and distribution zone.
Defining installation variables

names for both the driving system and target system, as well as other driving system specifics, such as console configuration, and system volumes (IPL, RACF unit type, catalogs).

The STA column displays the status of each variable, as follows:

- **C** Customized
- **D** Default
- **E** Erased
- **I** Inserted
- **P** Pre-defined
- **U** User-defined

With the exception of customized variables, you can modify the values of variables by typing over the Contents field.

To display online help for a variable, enter B (Browse) next to it.

The following primary commands are valid for this panel:

- **SET** Locate Find Next Previous
  These are standard commands for panels that display lists. See “Primary commands” on page 11.

- **CANCEL**
  This command, abbreviated as CAN, discards any changes that you have made since the last checkpoint and exits the Installation Variables panel. (A checkpoint is taken when you enter and exit the dialog, and after any SAVE command).

- **SAVE**
  This command saves any changes that you have made and establishes a new checkpoint. (A checkpoint is taken when you enter and exit the dialog, and after any SAVE command).

- **SHOW**
  This command, abbreviated as SH, displays the variables. To limit the display to certain types of variables, enter SH with one or more of the following filters:
  - **C** Customized variables. You cannot edit or delete these variables.
  - **D** Default variables
  - **E** Erased variables
  - **I** Inserted variables
  - **P** Pre-defined variables
  - **U** User-defined variables

  For example, to display only variables with status codes of C (customized) or P (pre-defined), enter the SHOW command as follows:
  
  `SH CP`

  You can prefix the list of status codes with a logical not operator (¬) to bypass variables with particular status codes. For example, to display variables that do not have status codes of C or P, enter the following:
  
  `SH ¬CP`

- **SYNONYM**
  This command, abbreviated as SYN, displays variables by their synonyms. Figure 31 on page 57 shows an example of the synonym format of this panel.

- **VARNAME**
  This command, abbreviated as VAR, displays variables by their names.
Defining installation variables

The following line commands are valid for this panel:

**B**  Browse the information for the selected variable, including:
  - Variable name
  - Full status
  - Default data value
  - Current data value
  - Variable description

See "Browsing variable definitions" on page 61.

**D**  Delete a user variable. You must confirm your DELETE request. See "Deleting user variables" on page 64.

You cannot delete IBM-supplied variables.

**E**  Edit the following fields:
  - Current data value
  - Variable Description

See "Editing variable definitions" on page 62.

You cannot update variables with a status of C (customized).

**I**  Insert a user variable. See "Inserting user variables" on page 63.

**R**  Repeat the insertion of a user variable, using values copied from the selected variable (except for its name, because variable names must be unique). See "Inserting user variables" on page 63.

**S**  Restore the variable to the shipped CustomPac values. You must confirm your SHIP request (see "Restoring a variable to its shipped value" on page 65).

Use S carefully on this panel; S usually means SELECT in the other dialog panels.

Selecting new values for the variables in your order

Reviewing the variables in your order and identifying values for them in advance will simplify your work for this task. Table 3 shows some variables that will likely require some research on your part, and, perhaps, a discussion with your installation's storage administrator and security administrator.

*Table 3. Installation variables that require some planning*

<table>
<thead>
<tr>
<th>Variable synonym</th>
<th>Default value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DYNAMIC DASD INFO</td>
<td>Default: Yes</td>
<td>Specifies whether the dialog should use information from online volumes to automatically determine device characteristics, including device geometry, volume size and device number. If the system on which the dialog runs is not the same system on which the installation jobs will run, two different volumes with the same volume serial could be online (one in each system) and the dialog could retrieve information about the wrong device. In this situation, you should specify &quot;No&quot; for this variable and define the volumes manually.</td>
</tr>
</tbody>
</table>
## Defining installation variables

Table 3. Installation variables that require some planning (continued)

<table>
<thead>
<tr>
<th>Variable synonym</th>
<th>Default value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSTALL DIRECTORY</td>
<td>Default: /Service</td>
<td>Directory on the driving system in which your order’s file system elements are to be restored and its file systems mounted. This value cannot be blank. By default, the Install Directory is /Service. If you specify a directory other than /Service, do not exceed 20 characters. Mixed case characters are allowed. If your driving system file system is mounted read-only, the specified directory must already exist on the driving system. In a multilevel directory path, the lowest directory from the root is automatically created. Higher directories are not created.</td>
</tr>
<tr>
<td>SPOOL VOL PREFIX</td>
<td>Default: MVSC1</td>
<td>First 5 characters for names of spool volumes. This value must match the value specified in the allocation values for the HASPACE data set.</td>
</tr>
<tr>
<td>SMPTLIB VOLSER</td>
<td>Default: MVSCAT</td>
<td>Volume serial (VOLSER) of the DASD on which SMP/E will allocate RELFILES during RECEIVE processing if products are installed after the ServerPac installation jobs have been run. This value is required for the SMPTLIB DDDEF in the global zone.</td>
</tr>
<tr>
<td>SYSNAME</td>
<td>Default: CPAC</td>
<td>System name, as it is specified on the SYSNAME= parameter of the IEASYSxx parmlib member. Standard data set naming conventions apply. If you change this value from the default (CPAC), you must also change the value of SYSNAME in the IEASYSxx member used to IPL the target system. For a full system replacement, changing the SYSNAME value requires that you update the system name list in the SMS Base Configuration (using ISMF after you IPL). Then, you must activate the changed SMS configuration before you can use SMS.</td>
</tr>
<tr>
<td>SYSTEM LOGGER HLO</td>
<td>Default: IXGLOGR</td>
<td>This variable sets the high-level qualifier that System Logger will use to create staging data sets and log data sets for log streams.</td>
</tr>
</tbody>
</table>

**Notes:**

1. As shipped in your order, the system name (SYSNAME) for the target system is CPAC. If you change the SYSNAME value for your order, later in the installation you must ensure that the new system name is defined in the appropriate places, as described in the chapter on IPLing the target system in *ServerPac: Installing Your Order*.

2. The RACF OLD PDSN and RACF OLD BDSN variables allow you to specify only one primary RACF database name and one backup RACF database name.
Defining installation variables

If you use more than one primary or backup RACF database, or do not use a backup RACF database, you must change some of the installation jobs accordingly.

Browsing variable definitions

To display the variable details, use a two panel sequence, as follows.

First, enter line command B for the variable to be browsed. The panel shown in Figure 32 is displayed.

```
CPPP6115 -------------- Installation Variables ( MD053718 ) --------------
COMMAND =>
BROWSE Variable Definition - Value

Variable : FADAXX01
  Synonym : DYNAMIC DASD INFO
  Status : PREDEFINED

  Default Value : YES
  Current Value : YES

Acceptable Values:
  Y N YES NO

( Press ENTER for Description Fields )
```

Figure 32. Panel: Update variable definition - value

For some variables, a set of allowed values is listed in the Acceptable Values: field.

Press Enter to display the variable's description fields. The panel shown in Figure 33 is displayed.

```
CPPP6114 -------------- Installation Variables ( MD053718 ) --------------
COMMAND =>

BROWSE Variable Definition - Usage

  Variable Description
  : This variable tells the dialog whether to use information from online volumes automatically to determine device characteristics including device geometry, volume size, and device number.
  : To have the dialog determine device characteristics automatically, set this variable to Yes.
  : To enter all device characteristics manually, set this variable to No.
  :
  :
```

Figure 33. Panel: Browse variable definition - usage

You can also browse variable section headers (==>). The format of the first panel display changes to show only the synonym and status. The description panel gives a general overview of the variables in the current section.
Defining installation variables

The ENTER and END keys have the following actions:

**ENTER**  
On the Value panel, displays the Usage panel. On the Usage panel, ends the Browse function.

**END**  
On the Value panel, ends the Browse function. On the Usage panel, displays the Value panel.

Editing variable definitions

With the exception of customized variables, you can modify the values of the variables in your order. To update the variable details, use a two panel sequence, as follows.

**First**, enter line command E for the variable to be edited. The panel shown in Figure 34 is displayed.

For some variables, a set of allowed values is listed in the **Acceptable Values:** field. You can select another value from the list.

**Then**, press Enter to display the variable's description fields. The panel shown in Figure 35 is displayed.

You can change the following fields:
Defining installation variables

**Current value**
The data value of the variable that is used when installation jobs are generated.

**Variable description**
The description of the variable. You have 15 fields to describe the variable.

You can also update variable section headers (=>), but you can change only the description.

The ENTER and END keys have the following actions:

**ENTER**
On the Value panel, displays the Usage panel. On the Usage panel, ends the Edit function and updates the variable using the values entered.

**END**
On the Value panel, ends the Edit function. On the Usage panel, displays the Value panel.

### Inserting user variables

You can add one or more user-defined variables to your order. If you plan to insert multiple variables into your order, you can save time by replicating the definitions of existing variables through line command R (REPEAT).

To add a user-supplied variable, you will use a two panel sequence. Begin by choosing an appropriate variable section header in the list for the new variable (for example, GENERAL DSN for general use data sets). Next to an existing variable in the section, enter line command I to insert a user variable. Figure 36 is displayed.

```
CPPP6117 -------------- Installation Variables ( MD053718 ) --------------
COMMAND =>
INSERT a USER Variable - Value
   Variable Name : => $ _
      User Variables are ALWAYS a $ plus 1 to 7 characters
   Synonym       =>
   Status        : USER
   Default Value =>
   Current Value =>

   ( Press ENTER for Description Fields )
```

*Figure 36. Panel: Insert a user variable - value*

In this panel, define the following fields:

**Variable Name**
Name of the variable, prefixed by a $ symbol. Specify a name of 1 to 7 characters. The name you choose must be unique; otherwise, the dialog displays a “duplicate” message.

**Synonym**
Short phrase (1-19 characters) that identifies your variable.

**Default Value**
Value of the variable to be saved as a reference or model.

**Current Value**
Value of the variable to be used in the installation jobs you create.
Defining installation variables

To cancel an insert action, press END. Otherwise, to continue defining the variable, press Enter to display the variable’s description fields, as shown in Figure 37.

Figure 37. Panel: Insert a user variable - usage

Use this panel to provide a description of the variable. Fifteen fields are available for your use.

To add the variable, press Enter. The dialog inserts the variable using the values you entered. If you later return to the Variables list, you will find the user-supplied variables grouped at the end of the variable section, sorted alphabetically by variable name (not synonym).

To repeat the definition of a variable in the list, enter line command R for the variable. Reset the values of the fields to define the new variable.

Deleting user variables

Figure 38 shows the panel that is displayed when you enter line command D to delete a user-defined variable.

Figure 38. Panel: Delete a user variable - confirmation
Defining installation variables

You must confirm your request by entering DELETE in the COMMAND => field and pressing enter.

**Caution:** Be careful when deleting user variables that are used by user-defined installation jobs. Deleting these variables can cause errors to occur in the jobs generated by the Install option of the installation dialog, which is described in Chapter 11, “Submitting the installation jobs,” on page 135.

**Restoring a variable to its shipped value**

Figure 39 shows the panel that is displayed when you enter line command S to restore a variable to its shipped value.

```plaintext
CPPP611S  ------------ Installation Variables ( MD053718 )  ------------
COMMAND =>

RESTORE a Variable to the SHIPPED Value

   Variable : F90GDQ01

   Status : PREDEFINED   Synonym : PREFIX DIALOG DSN
   Default : CUSTNAME.MD053718
   Current : GLANDA.MD053718

You MUST Confirm RESTORE By Typing RESTORE and pressing ENTER
Press the END or RETURN key to CANCEL the RESTORE request
```

*Figure 39. Panel: Restore a variable to the shipped value - confirmation*

Your request restores the following values for the variable to the shipped CustomPac values:
- Default data value
- Current data value
- Variable description.

You must confirm your request by entering RESTORE in the COMMAND => field and pressing enter.

If you restore a user variable, the current data value is made the same as the default data value.
Chapter 7. Defining the SMP/E zone configuration

From the Installation Menu, enter Z to begin the next dialog function, Define Zone Configuration. This function allows you to change the SMP/E zone names that IBM supplied for your order.

Choose SMP/E zone names that are unique for your installation. Doing so will allow you to use SMP/E’s cross-zone processing, such as SMP/E’s reporting and management functions.

If you want to rename the CSI data set, you can do so later in the Modify System Layout function, described in Chapter 8, “Modifying the system layout,” on page 71.

This panel allows you to change the names of zones in your order, but not the contents of zones.

On entering the Z option, the dialog displays the current DLIB and target zone names for your order (as shown in Figure 40).

How zone names are used in your order

All DLIB zones for each SREL are physically defined in the same DLIB CSI data set. All target zones for each SREL are physically defined in the same target CSI data set.
Defining the zone configuration

More than one zone pair (a DLIB and target) might be supplied with your order. Each zone pair has a 3-digit number as a “nickname.” The nickname is used to associate DLIB and target zones together.

For example, suppose you selected JES2 when creating the work configuration, but chose not to merge its zones with the z/OS BCP zones. The following zone nicknames might be used:

<table>
<thead>
<tr>
<th>Nickname 100</th>
<th>z/OS BCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickname 105</td>
<td>JES2</td>
</tr>
</tbody>
</table>

The zone nicknames are also used to generate the default DLIB and target zone names, based on the following naming convention:

- First 3 characters of the order name: CIC, DB2, IMS or NCP.
- 1-character zone type identifier:
  - D  Distribution Zone (DLIB)
  - T  Target Zone (TLIB)
- 3-character zone pair nickname.

For example, assume that a zone nickname of 500 was generated for a CICS order. The zone names would be:

<table>
<thead>
<tr>
<th>CICD500</th>
<th>for the distribution zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>CICT500</td>
<td>for the target zone</td>
</tr>
</tbody>
</table>

For descriptions of the zones that came with your order, see the topic, “Zones Shipped with Your Order,” in ServerPac: Installing Your Order. (Note that JES zones for an unselected JES element and JES zones that are to be merged with the BCP zones will not appear in the dialog, even though they are listed in ServerPac: Installing Your Order.)

Changing the SMP/E zone names in your order

In the panel (shown in Figure 40 on page 67), type over the DLIB and target zone names with the names that you want for your installation and press Enter. The dialog checks for duplicate zone names and, if one is found, displays a message (CPP0639006E DUPLICATE Zone Name) on the panel.

Ensure that the zone names you specify are unique for all environments in your installation. The new zone names should not appear in ZONEINDEX subentries in the global zone ZONE entries for any of your existing systems.

The following primary commands are valid for this panel:

**CANCEL**

This command, abbreviated to **CAN**, discards any changes that you have made since the last checkpoint and exits the Zone Configuration panel. (A checkpoint is taken on entry and exit to the dialog, and after any **SAVE** command).

**SAVE**

This command saves any change that you might have made and establishes a new checkpoint. (A checkpoint is taken on entry and exit to the dialog, and after any **SAVE** command).
Defining the zone configuration

The following line command is valid for this panel:

**FEATURES** Displays the features that are installed in the selected zone. Specify a T for a zone pair and press Enter to display the features installed in the zone. This line command displays feature names only; it does not show FMIDs, nor does it display any other type of SYSMODs, such as PTFs, for example.

Confirming processing requirements

Figure 41 shows the panel that is displayed when you attempt to end the Zone Configuration function when the DLIB and target zone names you have specified are in error and you chose to ignore error message CPP0639006E. You have used the same zone name more than once.

![CPPP6393](image)

Press the ENTER key to continue editing the table
Press the END or RETURN key to save the current values and EXIT, Processing will resume at this function

Figure 41. Panel: Confirm processing requirements

If you press Enter, the cursor is positioned on the first duplicate zone name. If you press End, you exit the panel now, but you will have to return to it before you can continue with the installation.
Chapter 8. Modifying the system layout

From the Installation Menu, enter Modify to begin the next dialog function. The Modify System Layout Options panel is displayed, as shown in Figure 42.

Figure 42. Panel: Modify system layout options

During this part of the dialog, you create the data set layout for your new system. After you have modified this configuration, you can save it for merging with future ServerPac installations.

IBM recommends that you modify your configuration in the following order:

1. Data set merges, if any
2. Data set space changes, if any
3. Specifying Reserved Space, if it will be used
4. Specifying which volumes are not to be initialized
5. Everything else.

This method can help you avoid situations in which volumes become overallocated.

You can create the new data set layout in one of three ways:
Modifying the system layout

- Use Option A, Recommended System Layout, to assign your order’s target and DLIB data sets to volumes automatically.
- Use Option C, View and Change, to assign your order’s data sets to volumes by displaying groups of data sets and use the `CHANGE PVOL` command (described in Appendix A, “Primary command reference,” on page 159) to specify their placement on physical volumes.
- Use the other options (D, M, S, U, V, L, and P) to assign your order’s data sets to logical volumes and then assign those logical volumes to physical volumes (DASD).

To save the most time in the dialog, use Option A to create the recommended system layout. The dialog will automatically assign your order’s target and DLIB data sets to your DASD volumes, attempting to match, as closely as possible, the IBM recommended system layout that is described in the topic, “Recommended Data Set Placement,” in z/OS Planning for Installation. Then use the View and Change Facility for any subsequent changes you make to the configuration data sets.

This chapter describes the recommended approach in three sections, as follows:

- Option A in “Creating the recommended system layout”
- Option C in “Viewing and changing data sets” on page 91
- Option T in “Displaying device types” on page 110

To control data set placement, use either Options A and C, or use the Summary Display commands for data sets (the `SUMD` commands), but not both. If you create a new layout through Option A or change data set assignments in Option C and later attempt to manage data set placement using the dialog’s Summary Display commands, you will have difficulty because the dialog’s automatic logical volume assignments will be dramatically different from those you have saved in previous releases. (Note that the summary of physical volumes displayed by Option V or the `SUMP` command is still used to manage volumes, no matter how you choose to control data set placement.)

To aid your work in this phase of the dialog, the Modify System Layout Options panel includes session control options to allow you to set the disposition of your changes, as follows:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>Keep any changes that you have made since the last SAVE.</td>
</tr>
<tr>
<td>B</td>
<td>Back out (discard) any changes that you have made since the last SAVE, and exit the Modify System Layout function.</td>
</tr>
</tbody>
</table>

Creating the recommended system layout

IBM’s recommended system layout provides a foundation for the ongoing growth and maintenance of your system. When you group your system’s data sets by their content and importance to your installation, you help to minimize the complexity of future installations. For a further discussion of the benefits of using the recommended system layout, see the topic, “Recommended Data Set Placement,” in z/OS Planning for Installation.

When you select the Recommended System Layout option of the dialog, you are choosing to allow the dialog to automatically assign some or all of the target and DLIB data sets in your order to DASD volumes. The dialog assigns data sets based on the following considerations:

- Whether the data set is a target data set or a DLIB data set
Modifying the system layout

- Whether the data set must reside on the IPL volume
- The type of data in the data set (panels, messages, load modules, and so on)
- Whether the dialog should attempt to place the data set on the first or last volume in the configuration.

The dialog does not automatically assign an order’s operational data sets or any of the sample CustomPac Data sets. You must continue to place these data sets yourself based upon the IBM recommended system layout that is described in “Recommended Data Set Placement” in [z/OS Planning for Installation](#).

If you are using a saved configuration with your order, and you run the Recommended System Layout option, only the new operational data sets remain to be assigned afterward. Here, you can use the dialog’s View and Change Facility to help with determining which data sets are operational data sets. In View and Change, display the data sets that are new to the configuration. Then, examine this list for any operational data sets. If you do not know the operational data sets by name, you must display each of them for further information.

The dialog does not automatically assign any SMS-managed data sets in the configuration. Your SMS-managed data sets must reside on volumes other than those used for automatic assignment.

If you include a saved configuration from a previous order in the current work configuration, the dialog preserves any data set changes you might have made in the saved configuration.

Excluding specific data sets from automatic assignment

- If there are specific data sets that you want to exclude from automatic assignment:
  1. Identify the data sets you want to exclude and temporarily assign them to a storage class
  2. Use Recommended System Layout
  3. Reassign the data sets you assigned to a storage class above to physical volumes, using the `CHANGE PVOL` command (see Appendix A, “Primary command reference,” on page 159) or the summary display commands

The role of volumes in automatic assignment

To begin the automatic assignment of data sets to volumes, you can make some of your existing volumes available to the dialog for creating the new system, or you can have the dialog create a configuration based entirely on new volumes. During automatic assignment, the dialog assigns data sets to these volumes. If the dialog requires additional volumes to contain the new configuration, the dialog creates more volumes automatically.

If you are installing a z/OS order, use 3390-9 volumes (or larger) to accommodate some large data sets in your order. It is possible to use smaller volumes for subsystem orders because these orders usually do not contain large data sets; however, you need to change the default volume value from 3390-9 to a smaller one in the dialogs.

How volume types are used

The type of data sets to be stored on a volume determines its **volume type**, as follows:

- **Target volume**
- Target library data sets
Modifying the system layout

<table>
<thead>
<tr>
<th>Volume Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLIB volume</td>
<td>DLIB data sets</td>
</tr>
<tr>
<td>BOTH volume</td>
<td>Target library data sets or DLIB data sets (or both). BOTH volumes are intended for use with subsystem orders, which are often small enough to fit entirely on one volume. Also, BOTH volumes provide a final alternative in the event there are not enough target or DLIB volumes available for a data set assignment.</td>
</tr>
</tbody>
</table>

Usually, the dialog creates only target and DLIB volumes, not BOTH volumes. The dialog creates BOTH volumes only in the case in which there are no target (or DLIB) volumes available in the configuration, you have explicitly created at least one BOTH volume for the configuration, and there are additional target or DLIB data sets to be assigned.

**How volume sequence numbers are used**

For each volume in the new configuration, the dialog assigns a unique sequence number to indicate the order in which the volume will be selected for data set assignments. The volume sequence number follows a naming convention: Tnn for target volumes, Dnn for DLIB volumes, and Bnn for BOTH volumes, where nn is 01 - 99, for a maximum of 99 volumes per type.

**Assigning data sets to volumes**

If the work configuration contains data sets that must reside on the IPL volume, the dialog assigns these data sets to the first target volume (T01). Then, the dialog assigns data sets to volumes, based on their element type. The dialog assigns element types in the following order (from first to last):

- LMOD
- PARM
- PROC
- CLIST
- EXEC
- PNLxxx
- SKLxxx
- TBLxxx
- MSGxxx
- HELPxxx
- Data sets, which have TVOL set to FIRST, that should reside on the first target volume
- All other element types and data sets having no element type
- Data sets, which have TVOL set to LAST, that should be placed on the last volumes in the configuration.

For example, the dialog assigns your configuration’s panel data sets (element type PNLxxx) to volumes before it assigns your skeleton libraries (element type SKLxxx).

Some products include one or more data sets that should reside either on the first target volume or on one of the last target volumes in the configuration. For example, a product might include several data sets of element type DATA that should reside on the IPL volume, which is always the first target volume. During automatic assignment, the dialog recognizes such data sets and attempts to place them according to this requirement, rather than with other data sets of the same element type.

When TVOL is set to FIRST, the dialog will attempt to place the data set on the first volume where it will fit. Therefore, this might not be the first volume in the
configuration, which for z/OS orders is the IPL volume. If there are multiple data
datasets for which the “Special target volume placement” attribute is set to FIRST, they
might not all be placed on the first volume or the same volume in the configuration.

When TVOL is set to LAST, the dialog will attempt to place the data set on the
volume that is last in the configuration at the time the data set is about to be
assigned. If there is not enough room on that volume, the dialog will automatically
create another volume. Therefore, if there are multiple data sets for which the
“Special target volume placement” attribute is set to LAST, they might not all be
placed on the same volume.

Setting the scope of automatic assignments
When you select the All option to “Create a Recommended System Layout” from
the Modify System Layout Options panel, the panel shown in Figure 43 is displayed.
This option causes the dialog to automatically assign the target and DLIB data sets
in the configuration to physical volumes. The dialog does not automatically assign
any SMS-managed data sets in the configuration.

```
CPPP625B  "       Automatic Data Set Assignment ( MD053718 ) "       
OPTION ==>

A - ALL      Assign all target and DLIB data sets in the configuration
to physical volumes automatically. This option creates a
recommended system layout.

N - NEW      Add new data sets to an existing configuration. This
option automatically assigns new data sets, but preserves
the placement of previously-assigned data sets in your
saved configuration.

P - PARTIAL  Assign new data sets and reassign some existing data sets
to physical volumes. This option automatically assigns
all new data sets to physical volumes, as well as data
sets from selected volumes in the saved configuration.

Enter EITHER a default device type OR a model volume below:

Default Device Type ==> 3390-9   (For example, 3390-9)
Model after Volume ==>  (For example, ZOSRES)
```

Figure 43. Panel: Modify system layout options

You can control the scope of the dialog’s automatic assignments by selecting one of
the following settings in the Modify System Layout Options panel:

**ALL**
This setting causes all target and DLIB data sets in the
configuration to be automatically assigned to physical volumes.

**NEW**
This setting causes data sets that are new to the configuration to
be automatically assigned to physical volumes, but preserves the
assignment of data sets that already exist on volumes in the saved
configuration.

**PARTIAL**
This setting causes all new data sets in the configuration to be
automatically assigned to physical volumes, and also allows you to
exclude particular volumes from the saved configuration, freeing
their data sets for reassignment.

To see which new data sets will be assigned automatically, you can use the dialog’s
View and Change Facility to create a list of data sets that have the attribute “New
Data Set.” For more information, see “Viewing and changing data sets” on page 91.
In some cases, not every setting on this panel is selectable. For example, if you are not including a saved configuration in the new configuration, the only selectable setting on this panel is All.

**Choosing between PARTIAL and NEW:** The Partial and New settings allow you to preserve some or all of your existing data set assignments. Choosing between these two settings requires careful consideration of your existing volumes. Usually, the best choice is the one that creates the least work for you.

Both Partial and New cause the dialog to automatically assign new data sets and preserve some or all of your current assignments. Partial preserves your existing assignments, except for those volumes that you choose to make available for reassignment (through the Exclude line command). New preserves all of your existing assignments.

The advantage of Partial over New is increased flexibility. New does not allow you to move volumes or rename them before you enter the CReate command (as you can with All or Partial).

If you have used the Recommended System Layout option before, the dialog displays volumes in sequence number order. Otherwise, the New setting simply displays the IPL volume first, if there is one in the configuration, and places remaining volumes in alphanumeric order. The dialog always attempts to assign data sets to volumes in the order in which they are displayed. Once they are used for automatic assignment, each volume will have a sequence number. If you need to move or rename volumes, it is recommended that you use All or Partial. (If you choose New and then need to rename volumes so that they show up in the order you want, you must follow the procedures described at the end of this section.)

In choosing between New or Partial, consider whether you have used the Recommended System Layout option before. If so, use New when both of the following conditions are true:
- You used All in the past and you want to continue placing new data sets according to the Recommended System Layout.
- Your volumes have enough space to ensure that new data sets will be logically grouped with existing data sets of the same element type.

You should also use New if you do not want existing data sets to be moved and you do not want to place the new ones yourself.

In all other cases, choose All or Partial instead of New.

If you are reusing a saved configuration and you have not used the Recommended System Layout option before, the NEW setting offers the most benefit when your existing configuration follows the IBM recommended system layout that is described in the topic, “Recommended Data Set Placement,” in [z/OS Planning for Installation](https://www.ibm.com) and your volumes have adequate free space. If you have already gone through the effort of manually creating a Recommended System Layout configuration and have sufficient free space on the volumes, you should use the New path.

The first time you use automatic assignment, the dialog will assume that volumes are named using an ascending alphanumeric naming pattern (such as OSRES1, OSRES2, ... or OSRESA, OSRESB, ...) when assigning sequence numbers for automatic assignment. Therefore, if you have not used automatic assignment before and your target volume names do not follow an ascending alphanumeric naming pattern.
Modifying the system layout

pattern, you should rename the volumes before using the New path, and then rename the volumes to their original names afterward, as follows:

- Before using Recommended System Layout, enter the SUMP command to display the work configuration’s physical volumes. In the display, rename the target volumes to names that would ensure that the volumes would appear in the proper sequence when sorted alphanumerically.
- In Recommended System Layout, choose the New setting and create the new configuration. The volumes will be assigned sequence numbers.
- Display the volumes in the new configuration. Change the target volume names back to what you want them to be. The dialog will preserve this volume sequence for subsequent installations regardless of the volume names, until you choose to no longer preserve the volumes (for example, by excluding them during a subsequent PARTIAL automatic assignment).

Setting the default device type or model-after volume: On the Automatic Data Set Assignment panel, you must enter either a device type or a model volume to specify the type of device to be used if the dialog creates more volumes for data set assignments. If you choose to specify a model volume, either the volume must already be in the configuration or you must have set the DYNAMIC DASD INFO variable to Y and the volume must be online.

If you choose to specify a device type, ensure that device type has been defined to the dialog. To see a list of other available devices, enter a question mark (?) in the Default Device Type field and press Enter. You can then select the device type you want from the pop-up display.

To add user-defined device types to this list, return to the Modify System Layout Options panel and enter Option T.

If you are installing a z/OS order, you must use 3390-9 volumes (or larger) to accommodate some large data sets in the order. You can use smaller volumes for a subsystem order because these orders usually do not contain large data sets; however, you need to change the default volume value from 3390-9 to a smaller one in the dialogs.

Displaying the current volume configuration

After you select a setting for automatic assignment, the dialog displays the current volume configuration, as shown in Figure 44.

As shipped by IBM, a new configuration consists of a target volume (MVSRES), a DLIB volume (MVSDLB), and a catalog volume (MVSCAT). Because MVSCAT
Modifying the system layout

contains only operational data sets, this volume is excluded from automatic assignments, and therefore is not shown in the panel display.

Volumes are shown in volume sequence order if they have been used for automatic assignment before. Otherwise, all volumes except the IPL volume are shown in alphanumerical order. The IPL volume, if it is present in the order, is always shown first with sequence number T01.

If you use existing volumes for data set assignments, the dialog checks the storage capacity of these volumes. If the dialog creates a volume (and the DYNAMIC DASD INFO installation variable is set to YES), the dialog determines whether the volume is online. If so, the dialog retrieves the volume’s attributes and available space, just as if the volume had been inserted on the Current Volume Configuration panel. For the ALL or PARTIAL settings, the dialog limits its use of volumes (new and existing) to 85% of capacity. The dialog preserves the remaining 15% of each volume’s capacity for later growth of existing data sets and the assignment of data sets that might be added during future installations. For the NEW setting, the dialog limits its use of new volumes to 85% of capacity, but allows its use of existing volumes to increase to 90% before restricting these volumes from further data set assignments.

Note: You can further limit the dialog’s use of a volume capacity to less than the default 85% by reserving additional space. For example, if you want the volume to have 25% free space at the end of automatic assignment, you can do this by reserving 10% of the volume’s space (334 cylinders for a 3390-3) for the ALL or PARTIAL settings or 15% for the NEW setting.

When the total of used space and reserved space is 10 times the size of the volume or more (that is, more than 999%), the “Used + Reserved” column will contain “999 % *,” with the asterisk (*) highlighted as an eyecatcher.

In the Current Volume Configuration panel, use line command S to select volumes for changes. Use line command L to list the data sets currently assigned to a volume. Use line command I to insert more volumes into the work configuration. Use line command X to make exceptions to automatic assignments (as described in “Excluding volumes from automatic assignments” on page 79).

When you select the ALL or PARTIAL settings, the following line commands are also available on this panel:

M, A, B

Move a volume to a different position in the list. To move a volume after another, enter Move for the volume to be moved, and After for the volume that is to precede it. To move a volume before another, enter Move and Before.

You can move a volume only among other volumes of the same type. For example, you can move a target volume before or after other target volumes, but not into a group of DLIB volumes or BOTH volumes.

To move a volume into a group of volumes of a different type, you must first change the volume’s type to the other type (target, DLIB, or BOTH) through line command S. You can then move the volume within the group of volumes with that type.

Moving a volume will cause the dialog to adjust the volume sequence numbers accordingly.
Modifying the system layout

If your installation uses volume names that do not ascend in the same order in which you want to have the dialog use the volumes, you can use the Move, After, and Before line commands in the Current Volume Configuration panel to reposition the volumes in the order in which you want them to be used. The dialog will retain the volume sequence numbers and use them in the appropriate order thereafter.

If you select the NEW setting for your first use of automatic assignment, you should temporarily rename the volumes in the dialog, use the Recommended System Layout option, and then rename the volumes back to their original names.

When you have finished making changes to volumes, enter the primary command CRReate on the Current Volume Configuration display to create a new configuration.

Excluding volumes from automatic assignments: The Current Volume Configuration panel provides line command eXclude to allow you to make exceptions to automatic assignment. Line command eXclude has different uses, based on the scope of automatic assignment, as follows:

• For the ALL setting, you use line command eXclude to select volumes for removal from the work configuration (the volumes are not actually removed from the work configuration until after you enter the CRReate command to create the configuration). The dialog does not use excluded volumes for data set assignments. When you create the new configuration (through the CRReate command) and display it again, excluded volumes do not appear in the panel.

• For the NEW setting, you use line command eXclude to make a volume ineligible for the assignment of new data sets; the volume remains in the work configuration and its existing data set assignments are left unchanged. However, as in the ALL setting, the volume is removed from the Current Volume Configuration panel because no new data sets will be assigned to it. When you create the new configuration and display it again, excluded volumes do not appear in the panel. (However, if you exit the Recommended System Layout function and re-enter it, the volume is again included in the Current Volume Configuration panel.)

• For the PARTIAL setting, you use line command eXclude to make a volume’s data sets eligible for reassignment. When you create the new configuration, the excluded volume is removed from the work configuration. When you enter a CRReate command, an excluded volume will also be removed from the Current Volume Configuration panel because the volume’s data sets will be reassigned to other volumes. When you redisplay the Current Volume Configuration panel, the excluded volume does not appear in the Current Volume Configuration panel.

If you exclude a volume from the work configuration and then later change your mind, you can restore the volume to the Current Volume Configuration panel. If you have not yet created the new configuration (through the CRReate command), you can restore the volume to the panel by exiting the Recommended System Layout option and re-entering it. The configuration will be displayed as it was when you previously entered the Recommended System Layout option.

If you have already created the configuration, choose one of following approaches:

• In the ALL and PARTIAL settings, the volume is gone. Do one of the following:
  – Add the volume to the configuration and assign data sets to it
  – Rename one of the new volumes to the volser you want
  – Recreate the configuration (re-enter the CRReate command) and try again.

• In the NEW setting, the volume will re-appear when you exit the Recommended System Layout option after creating the new configuration.
Modifying the system layout

Selecting volumes for changes
If you select a volume for changes, the dialog displays the panel shown in Figure 45, allowing you to change the volume and save your changes.

Use caution in resetting volumes from 'Initialize Volume NO' to 'Initialize Volume YES'. Doing so causes the volume to be initialized by the installation jobs, and any existing data on the volume is lost.

Volumes for which Initialize Volume is set to NO must be online, even if DYNAMIC DASD INFO is set to NO.

To save your changes to the volume, press Enter. You return to the Current Volume Configuration display.

Examples of using automatic assignment
How you achieve the recommended system layout depends on whether you are starting with an entirely new system or bringing forward a saved configuration to be merged with the new order. And, in the later case, whether you are using the Recommended System Layout option for the first time, or have already used it on the saved configuration.

This section presents the panel sequence for each of these situations. To determine a course of action, review each example and choose the one that best matches your objectives, as follows:
- "Example 1: Using ALL without a saved configuration"
- "Example 2: Using ALL with a saved configuration" on page 83
- "Example 3: Using NEW with a saved configuration" on page 86
- "Example 4: Using PARTIAL with a saved configuration" on page 89.

Example 1: Using ALL without a saved configuration
Follow this path if you are installing a ServerPac order for the first time, or if you are not using a saved configuration as the basis of your new system. This approach creates a new configuration based only on the new order to be installed.
Select "Automatic Data Set Assignment" (Option A) from the Modify System Layout Options panel. The panel shown in Figure 46 is displayed.

Because you are not including a saved configuration in the new configuration, the only selectable setting on this panel is **All**. This setting causes the dialog to automatically assign all target and DLIB data sets in your order to physical volumes.

On the Automatic Data Set Assignment panel, you must enter either a device type or a model volume to specify the type of device to be used if the dialog creates more volumes for data set assignments. Check this value to ensure that the device type is available for this installation. To see a list of other available devices, enter a question mark (?) in the Default Device Type field and press Enter. You can then select the device type you want from the pop-up display. A configuration can include more than one device type.

If the DYNAMIC DASD INFO variable is set to Y, the model volume must be online. If DYNAMIC DASD INFO is set to N, the model volume must already exist in the configuration.

Enter **All** and press Enter. The current volume configuration is shown in Figure 47.
Modifying the system layout

Here, the configuration consists of a target volume (MVSRES), a DLIB volume (MVSDLB), and a catalog volume (MVSCAT). Because MVSCAT contains only operational data sets, this volume is excluded from automatic assignments, and therefore is not shown in the panel display. Observe that MVSRES and MVSDLB are overallocated.

If you plan to rename these volumes, select the volumes now through line command S and rename them as needed. Later, when the new configuration is created, it is more difficult to rename these volumes.

If you choose to change the device type, do so now through line command S, rather than after you create the new configuration (by entering the CReate command on the Current Volume Configuration panel). Otherwise, the volume might become overallocated (for example, if the default is 3390-9 and you change it to 3390-3).

To have the dialog create the new configuration, enter the primary command CReate and press Enter. The panel shown in Figure 48 is displayed, allowing you to confirm this action before continuing.

To continue, press Enter. The CustomPac progress panel is displayed (as shown in Figure 49) as volumes are assigned.

After Recommended System Layout completes, the Current Volume Configuration panel (Figure 50 on page 83) is displayed again to show you the new configuration.
The new configuration is shown. Observe the following results:

- Four target volumes and three DLIB volumes were used for the new configuration: MVSRES, TARG02, TARG03, TARG04, MVSDLB, DLIB02, and DLIB03.
- The volumes were assigned sequence numbers T01 through T04, and D01 through D03, respectively, and are of the device type 3390-3.
- All but the last volumes of each type were filled close to the threshold (85%). The final volumes, TARG04 and DLIB03, contain the remainder of the target and DLIB data sets from your order.
- No volumes are over-allocated.

In some cases, you might find that the dialog creates more volumes than you think you need. If the last target or DLIB volume has very little used space and you want to eliminate it by placing its data sets on other volumes, you can reassign the volume's data sets using the dialog's View and Change Facility (Option C on the Modify System Layout Options panel). Select “Current PVOL,” select each volume in turn, and then use the CHANGE PVOL command to move the data sets to other volumes. For more information, see “Viewing and changing data sets” on page 91.

If you decide to change the volumes after the new configuration has been created, use Option V from the Modify System Layout Options panel (shown in Figure 42 on page 71) to display the Summary of Physical Volumes and modify the volume names accordingly, as described in “Displaying a summary of physical volumes” on page 113.

**Example 2: Using ALL with a saved configuration**

This approach creates a new configuration based on your order and a saved configuration. Follow this path if you want the dialog to restructure your saved configuration in accordance with IBM's recommended system layout.

Select “Automatic Data Set Assignment” (Option A) from the Modify System Layout Options panel. The panel shown in Figure 51 on page 84 is displayed.
Modifying the system layout

![Figure 51. Panel: Modify system layout options](image)

To reassign all target and DLIB data sets (saved and new), choose the ALL setting to cause the dialog to automatically assign these data sets to your DASD volumes, based on data set type. The ALL setting allows the dialog to create a new configuration that will follow the recommended system layout as much as possible.

On the Automatic Data Set Assignment panel, you must enter either a device type or a model volume to specify the type of device to be used if the dialog creates more volumes for data set assignments. If you choose to specify a model volume, either the volume must already be in the configuration or you must have set the DYNAMIC DASD INFO variable to Y and the volume must be online.

If you choose to specify a device type, ensure that device type has been defined to the dialog. To see a list of other available devices, enter a question mark (?) in the Default Device Type field and press Enter. You can then select the device type you want from the pop-up display.

Press Enter. The panel shown in Figure 52 is displayed, showing the current configuration that you would see if the model volume "MODVOL" specified on the previous panel happened to be a 3390-3.

![Figure 52. Panel: Current volume configuration](image)
When you reuse a saved configuration, you already have target and DLIB volumes. Note that the contents of several volumes (MARNA1, OSDLIB1, OSDLIB2) exceed 85% of capacity.

In this panel, you can use line command X (eXclude) to select volumes for removal from the work configuration (the volumes are not actually removed from the work configuration until after you enter the CRerate command to create the configuration). The dialog does not use excluded volumes for data set assignments.

To have the dialog create the new configuration, enter the primary command CRerate and press Enter. The panel shown in Figure 53 is displayed, allowing you to confirm this action before continuing.

![CPPP625E ---- Automatic Assignment Confirmation ( MD053718 ) ----------------- COMMAND ==> ](image)

You have chosen to have data sets automatically assigned to physical volumes. IF YOU CONTINUE, THE ASSIGNMENTS CANNOT BE EASILY REVERSED WITHIN MODIFY SYSTEM LAYOUT. However, you will be able to modify the configuration after the assignments have been done. If you decide not to use the automatic assignments after they have been done, return to Create Configuration, create the configuration again, and use other options in Modify System Layout to tailor your configuration.

Enter Y to continue, or N to return to the previous panel:

Continue ==> Y ( Y or N )

Figure 53. Panel: Automatic assignment confirmation

Be aware that the dialog organizes logical volumes very differently from the manner in which you assigned them in previous releases. If you attempt to use the older dialog functions (the Summary Display Commands) to manage the configuration after using Recommended System Layout, you will find the old groupings to be replaced. Therefore, use either Recommended System Layout to derive logical volumes automatically, or the Summary Display Commands to derive logical volumes manually, but not a combination of both.

To continue, press Enter. The CustomPac progress panel is displayed as volumes are assigned.

After Recommended System Layout completes, the Current Volume Configuration panel Figure 52 on page 84 is displayed again, to show you the new configuration.

Press Enter. The panel shown in Figure 54 on page 86 is displayed, showing the current configuration.
Modifying the system layout

The new configuration is shown. Observe the following results:

- The new configuration required five target volumes and four DLIB volumes. These volumes were assigned sequence numbers T01 through T05, and D01 through D04, respectively.
- Because the saved configuration contained several volumes that exceeded 85% of capacity, the dialog created two new volumes (TARG05 and DLIB04) of the default device type to reduce the use of volumes to no more than 85%. In the resulting configuration, all but the last volumes of each type were filled close to the threshold (85%).

**Example 3: Using NEW with a saved configuration**

This approach creates a new configuration by automatically assigning data sets in your order that are not present in your saved configuration. Follow this path if you want the dialog to preserve your saved configuration, but assign new data sets automatically. In this example, NEW is used with a configuration for which automatic assignment was not done previously.

Select "Automatic Data Set Assignment" (Option A) from the Modify System Layout Options panel. The panel shown in Figure 55 on page 87 is displayed.
Modifying the system layout

Select the NEW setting to cause the dialog to automatically assign data sets that are new to the configuration to physical volumes. The dialog preserves the assignment of data sets that already exist on volumes in the saved configuration.

On the Automatic Data Set Assignment panel, you must enter either a device type or a model volume to specify the type of device to be used if the dialog creates more volumes for data set assignments. Check this value to ensure that the device type is available for this installation. To see a list of other available devices, enter a question mark (?) in the Default Device Type field and press Enter. (The list of available devices will contain only the devices that have already been defined or whose characteristics have already been discovered.) You can then select the device type you want from the pop-up display. A configuration can include more than one device type.

If the DYNAMIC DASD INFO variable is set to Y, the model volume must be online. If DYNAMIC DASD INFO is set to N, the model volume must already exist in the configuration.

Press Enter. The panel shown in Figure 56 is displayed, showing the current configuration.

Figure 55. Panel: Modify system layout options

Select the NEW setting to cause the dialog to automatically assign data sets that are new to the configuration to physical volumes. The dialog preserves the assignment of data sets that already exist on volumes in the saved configuration.

On the Automatic Data Set Assignment panel, you must enter either a device type or a model volume to specify the type of device to be used if the dialog creates more volumes for data set assignments. Check this value to ensure that the device type is available for this installation. To see a list of other available devices, enter a question mark (?) in the Default Device Type field and press Enter. (The list of available devices will contain only the devices that have already been defined or whose characteristics have already been discovered.) You can then select the device type you want from the pop-up display. A configuration can include more than one device type.

If the DYNAMIC DASD INFO variable is set to Y, the model volume must be online. If DYNAMIC DASD INFO is set to N, the model volume must already exist in the configuration.

Press Enter. The panel shown in Figure 56 is displayed, showing the current configuration.

Figure 56. Panel: Current volume configuration
Modifying the system layout

The dialog treats data sets in the saved configuration as existing data sets, and data sets that appear only in the new order as new data sets. Because automatic assignment has never been done for this configuration, your existing target and DLIB volumes lack volume sequence numbers. In this case, the dialog shows the sequence numbers for these volumes as they would appear after an automatic assignment.

If you want the volumes to be used in a different order, use this panel to reposition the volumes. The dialog will adjust the volume sequence numbers accordingly.

Because you limited automatic assignments to only new data sets, the dialog will use up to 100% of a volume's capacity for existing data sets and will assign new data sets to a volume that has reached up to 90% of its capacity. This additional space allows for the possible expansion of existing data sets and increases the likelihood that data sets of a given type will be placed together.

On this panel, you can use line command X to make a volume ineligible for the assignment of new data sets; the volume remains in the work configuration and its existing data set assignments are left unchanged.

Enter the primary command CREate on the Current Volume Configuration display to create a new configuration. The Automatic Assignment Confirmation panel is displayed, allowing you to confirm this action before continuing.

Recommended System Layout organizes logical volumes very differently from how they were organized in previous releases. If you attempt to use the older dialog functions (the Summary Display Commands) to manage the configuration after using Recommended System Layout, you will find the old groupings to be replaced. Therefore, use either Recommended System Layout to derive logical volumes automatically, or the Summary Display Commands to derive logical volumes manually, but not a combination of both.

To continue, press Enter. The CustomPac progress panel is displayed as volumes are assigned. After Recommended System Layout completes, the Current Volume Configuration panel (Figure 56 on page 87) is displayed again.

The new configuration is shown. Observe the following results:
Modifying the system layout

- The dialog preserved the data set assignments of the saved configuration.
- The dialog automatically assigned all new target and DLIB data sets to volumes.
- The dialog created two new volumes (TARG05 and DLIB04) because the new order would exceed the capacity threshold of the existing volumes. The dialog restricts the other volumes from any additional data set assignments.

Example 4: Using PARTIAL with a saved configuration
Follow this path if you are reusing a saved configuration and want to preserve some of your existing data set assignments, but not all of them. The PARTIAL setting allows you to redistribute data sets, which is useful if your volumes become overallocated as data sets in the configuration grow over time.

Select "Automatic Data Set Assignment" (Option A) from the Modify System Layout Options panel. The panel shown in Figure 58 is displayed.

![Figure 58. Panel: Modify system layout options](image)

To reassign some data sets but not all, choose the PARTIAL setting. During automatic data set assignment, the dialog reassigns all data sets on volumes that you explicitly exclude through line command X on the next panel.

On the Automatic Data Set Assignment panel, you must enter either a device type or a model volume to specify the type of device to be used if the dialog creates more volumes for data set assignments. Check this value to ensure that the device type is available for this installation. To see a list of other available devices, enter a question mark (?) in the Default Device Type field and press Enter. (The list of available devices will contain only the devices that have already been defined or whose characteristics have already been discovered.) You can then select the device type you want from the pop-up display. A configuration can include more than one device type.

If the DYNAMIC DASD INFO variable is set to Y, the model volume must be online. If DYNAMIC DASD INFO is set to N, the model volume must already exist in the configuration.

Press Enter. The panel shown in Figure 59 on page 90 is displayed, showing the current configuration.
Modifying the system layout

The new configuration is shown. Observe the following results:

- All data set assignments except those on MARNA2 (which was excluded), were preserved. MARNA2’s data sets were reassigned.
- Data sets on the volumes with sequence numbers T01, T03, T04, and D01-D03 were not reassigned, but stayed where they were.
• The final volumes of each type, TARG05 and DLIB04, have increased to 76% and 55% of capacity, respectively. (As have some of the others, because the volume threshold was 90% and not all were previously 90% full.)

Modifying the system layout

Viewing and changing data sets

The dialog provides you with a general-purpose view and change facility for working with groups of data sets in your configuration. With this facility, you can:

• Display groups of data sets in your configuration by various attributes
• Make changes to all or some of the data sets in a displayed group
• Save lists of groups you display.

For example, you can use the View and Change Facility to do the following tasks:

• Identify your ISPF panel libraries, so that you can consolidate them through the Merge line command
• Identify your link list libraries, so you can increase their primary space allocation amounts, or cause each of them to be allocated without secondary space. Also, a saved list of these data sets can be useful during migration to other systems after the installation has been completed.
• Identify and save lists of LPA and APF list libraries. These lists are useful when updating catalogs and parmlib during migration to production systems.
• Identify the unrenameable data sets, or those required in the master catalog, and change their status
• Identify all new data sets. This list is useful, for example, when adding security system definitions, updating production PROCs, and in determining what new entries are needed in production master catalogs during migration.
• Identify data sets that were shipped with no secondary space allocation.

To access the View and Change Facility, select Option C from the Modify System Layout Options panel. A panel with a list of possible attributes from which to select is displayed, as shown in Figure 61 on page 92.

Generally, the process of viewing and changing data sets in the work configuration follows this flow:

1. Choose the attribute to display. For example, assume that you want to view the English language panel data sets in your configuration. Here, you begin by choosing the “Element Type” attribute.
2. Narrow the scope of the display to only those data sets having one or more possible values for the attribute. In this example, choose the values PNL, PNLENU and PNLENP to create a list of the English language panel libraries in your configuration.
3. On the resulting display, you can enter Change or Merge line commands for some or all of the data sets in this list, or you can save the list to a separate file for later examination.

You can change data sets in various ways, including the following examples:

• Change high-level qualifiers or names
• Assign data sets on the list to different volumes
• Override the “unrenameable” or “required in master catalog” attributes
• Change eligible data sets from PDS to PDSE (or back again)
• Change eligible UNIX file systems from HFS to zFS (or back again)
• Change space allocation amounts and specify whether data sets will be allocated with secondary space.
Modifying the system layout

For information about the CHange command, see “Making changes to data sets” on page 94.

Figure 61 shows the panel that is displayed when you access the dialog’s View and Change Facility (Option C on the Modify System Layout Options panel).

Figure 61. Panel: Select a data set view

The list of attributes is scrollable. You can view data sets by any single attribute; you cannot select more than one attribute at a time. In Figure 61 the attribute “SMP/E SYSLIB” is selected; this is the first step in displaying a list of the data sets that appear in SMP/E’s assembler SYSLIB concatenation in the SYSLIB DDDEF.

Use the Select line command to select an attribute to display and press Enter. The dialog displays a second panel with the values found for the selected attribute. In Figure 62 on page 93, for example, the value YES is selected for the attribute “SMP/E SYSLIB.”
The dialog displays only values that are applicable to the order. For example, if you attempt to display the SMP/E SYSLIB data sets in an order that does not contain SMP/E SYSLIB data sets, the only displayed value is **NO**.

Select the values for the attribute to display, and press Enter. The dialog displays a list of the data sets that satisfy your search criteria. The values you selected are shown, along with the physical volumes for the data sets. For example, in **Figure 63**, the dialog displays the data sets that appear in SMP/E’s assembler SYSLIB concatenation in the SYSLIB DDDEF.

From this panel, you can make a number of changes to the data sets shown. For example, you could change all of the displayed link list data sets to set their secondary space allocation to zero (see **Making changes to data sets** on page 94). Your changes affect only the data sets that you select from the list.

The following primary commands are valid for this panel:

- **SET**
- **Locate**
- **Find**
- **Next**
- **Previous**
- **SORT**
- **CHANGE**

These are standard commands for panels that display lists. See **Primary commands** on page 11. For information about the **CHANGE** command, see **CHANGE** on page 159.
Modifying the system layout

**OFILE**

This command writes this data set list to a user-defined file. For information about the OFile command, see "OFILE" on page 181.

**OLIST**

This command writes the list of data sets to the ISPF LIST data set. For information about the OList command, see "OLIST" on page 183.

**FindComp**

This command helps you find a particular component data set among your merged data sets — which can be useful, if you forget where you put the data set. Use this command to search on the shipped name of the data set or its modified name, using a full or partial data set name as input (as described in "Finding "lost" component data sets" on page 103). For information about the FindComp command, see "FINDCOMP" on page 175.

The following line commands are valid for this panel:

**Merge-related line commands, as follows:**

- **M** Starts the data set merge process by presenting a list of the currently displayed data sets that you can choose to merge into the selected data set. For more information, see "Merging and unmerging data sets" on page 98.

- **X** Expands the display of a merged data set to show its component data sets. The components of a merged data set are displayed in a scrollable pop-up window that allows you to review the attributes and space of the individual component data sets. This display also allows you to unmerge specific component data sets. For more information, see "Merging and unmerging data sets" on page 98.

- **C** Displays any data sets (in a scrollable pop-up) that contain at least one member with the same name as the selected data set. The dialog automatically excludes these data sets from the Merge Candidates panel for the selected data set.

- **U** Unmerges the entire merged data set into its original, component data sets. For more information, see "Merging and unmerging data sets" on page 98.

- **S** Displays a panel on which you can change particular data set attributes. See "Modifying a data set's attributes" on page 105.

**Making changes to data sets**

CHANGE is a powerful command that you can use to make changes to many data sets at once. Using CHANGE is much faster than making changes to individual data sets in the dialog, so you should use it whenever possible to save time. Use this command to perform tasks such as:

- Changing data set names
- Making unrenameable data sets renameable
- Changing data set types
- Changing the SMS management status
- Overriding the master catalog requirement for data sets
- Changing the physical volume for data sets
- Allocate secondary space for data sets shipped with no secondary space
- Changing logical volumes
- Changing data set space values.
Modifying the system layout

Based on the parameters you specify on your CHANGE command, the dialog checks the data sets in the current display list and returns a candidate list of data sets that are eligible to be changed by the command. At this point, changes are only simulated; no data sets have actually been changed.

For example, Figure 64 shows a candidate list that simulates a change to data set types (for the CHANGE TYPE command).

![Candidate list for data set types](image)

Figure 64. Panel: Global change - candidate list for data set attributes

You now must determine whether to commit the changes as shown in the display, cancel your change request, or exclude particular data sets from the candidate list before committing the changes. For example, the data sets shown in Figure 64 are currently in PDS format. Committing this change, however, would cause the data sets to be changed to PDSE format.

To commit the changes, press Enter or End. To cancel the changes, enter the CANcel command and press Enter.

Figure 65 on page 96 shows an example of a candidate list that is displayed for changes to data set space values (for the CHANGE SPACE command).
Any changes that you make to merged data sets through the \texttt{CHANGE} command are applicable to their component data sets. These changes are retained even if you later unmerge the data set.

The following primary commands are valid for this panel:

\texttt{? SET Locate Find Next Previous SORT CANCEL}

These are standard commands for panels that display lists. See “Primary commands” on page 11.

\textbf{CANCEL}

This command, abbreviated as \texttt{CAN}, discards any changes that you have made to the data sets.

The following line command is valid for this panel:

\texttt{X} Excludes the selected data set from the list of data sets to be changed. The data set is not changed if the change is committed.

A detailed description of the \texttt{CHANGE} command and its syntax can be found in Appendix A, “Primary command reference,” on page 159:

- \texttt{CHANGE} command in general
- \texttt{CHANGE DSNAME}
- \texttt{CHANGE DSNAME "HLO"}
- \texttt{CHANGE DSNTYPE}
- \texttt{CHANGE LVOL}
- \texttt{CHANGE MCAT}
- \texttt{CHANGE PVOL}
- \texttt{CHANGE RENAME}
- \texttt{CHANGE SECOND}
- \texttt{CHANGE SMS}
- \texttt{CHANGE SPACE}
Some considerations for a maintenance system versus an IPL-able system
IBM recommends certain data set restrictions to help avoid potential problems with maintaining a production environment. By default, ServerPac ships your order with these restrictions. For example, LNKLS data sets are shipped with no secondary space allocations and data sets required to be cataloged in the master catalog. If you plan to use your ServerPac environment for support of system maintenance only, you may consider changing some of the IBM recommendations shipped with your ServerPac order. Using the ServerPac installation dialogs, you can make some of the modifications listed below prior to executing the ServerPac installation jobs.

Using the Modify System Layout function within the ServerPac dialogs:

- To add secondary space allocation to your data sets shipped with Secondary space 0:
  1. Select D (Data Set Summary).
  2. Enter CH SECOND Y to set the secondary space to be 10% of the primary space.
  3. Use the X line command to exclude any data set that you don’t want affected by this change.
  4. If you want to increase the secondary space to be more than 10% of the primary, you can now use the CH SPACE command.

- To remove the Master catalog requirement for data sets:
  1. Select D (Data Set Summary).
  2. Enter CH MCAT N to override the Must be in Master catalog attribute.
  3. Use the X line command to exclude any data set that you don’t want affected by this change.

- To allow unrenameable data sets to be renameable:
  1. Select D (Data Set Summary).
  2. Enter CH RENAME Y to override the unrenameable attribute.
  3. Use the X line command to exclude any data set that you don’t want affected by this change.

Virtual storage management and LPA-eligible data sets
ServerPac puts all LPA-eligible data sets in the LPA list, which will probably reduce the size of the private area below 16MB. The View and Change option lets you display some lists that can help you determine what to move to the link list, or, in some cases, simply remove from the LPA list.

There are four kinds of LPA-eligible data sets:
1. those that must be in the LPA list for the system to work (like LPALIB),
2. those you do need for a function you use to work (such as RMF’s SERBLPA),
3. those that can be placed either in the LPA list for better performance or in the link list (like DFSORT’s SORTLPA), and
4. those you do not need for a function to work (for example, ISAM’s ISAMLPA, if you do not use ISAM).

To see how much virtual storage will be used by an LPA list data set, browse each one and sort the member list by Residency Mode (enter SORT RM on the command line). Scroll to the bottom, and see whether the data set has RMODE 24 modules in it. If it does, you will use less virtual storage for LPA below 16MB if you remove it from the LPA list. Use these View and Change lists to help you decide what to move to the link list or simply remove from the LPA list:

- LPA Required (leave all of these data sets in the LPA list)
Modifying the system layout

- LPA Eligible (those not required might be candidates for removing from the LPA list)
- LNKLST Eligible (you might be able to move some LPA Eligible data sets there).

For related information about virtual storage management, see the topic “How Placement Affects Virtual Storage” in z/OS MVS Initialization and Tuning Guide. Do not forget to compare the results to your current LPA list to see what changed.

Merging and unmerging data sets

The dialog allows you to simplify your new configuration by merging some of the PDS and PDSE or HFS and zFS data sets in your order (see “Merging UNIX file system data sets” on page 100). You can merge target data sets to reduce the number of libraries with similar attributes and uses. For example, you can merge ISPF panel libraries to consolidate them. Later, when you save your configuration through the Save Configuration command (see Chapter 12, “Saving the configuration,” on page 147), the dialog also saves the data for each merged data set and its component data sets. The merged data sets are then available for merging with future ServerPac orders.

Unmerging a data set causes its attributes and space allocations to revert to their pre-merge values, with the exception of changes made to merged data sets through the CHANGE command (these are retained). Therefore, to avoid possible extra work, you should complete all merges and unmerges before going on to modify the attributes and space allocations of your merged data sets (as described in “Modifying a data set’s attributes” on page 105).

While you can merge data sets from any data set list panel, you can use this function most effectively from the dialog’s View and Change Facility (described in “Viewing and changing data sets” on page 91). Use the View and Change Facility to create lists of specific kinds of target data sets for merging, so that you spend less time excluding individual data sets from merges.

When you select a data set for merging (through line command M), the Data Set Merge Candidates panel shown in Figure 66 is displayed.

This panel shows the data sets from the display list that are eligible for merging with the selected data set (the target data set). Enter Information to the left of a
candidate data set and press Enter to get information about data set attributes. Enter Select to the left of candidate data sets to select them for merging with the target data set.

In the Merge Candidates panel, observe the following:

- The Element Type column displays the element type of the data set, or one of these values:
  - LMOD, for load libraries and PDSEs containing program objects
  - DLIB, for distribution libraries.

  For information about SMP/E element types, see [SMP/E Reference](SA22-7772).

- The DS Type column displays the data set type.

- The MCAT Reqd column displays a Y if the data set must be cataloged in the master catalog.

- The IPL Vol column displays a Y if the data set resides on the IPLVOL logical volume.

- The APF column displays a Y if the data set requires APF authorization.

Not all data sets can be merged. The dialog restricts you from some, but not all, merge operations that would result in configurations that would be unworkable, lack important functions, or perhaps even be impossible to IPL. Specifically, the dialog prevents you from making the following types of merges:

- Merging libraries that are required in the LPA with libraries that cannot reside in the LPA.

- Merging libraries that are eligible to reside in the LPA with libraries that cannot reside in the LPA.

- Merging libraries that are eligible to reside in the link list concatenation with libraries that cannot reside in the link list.

- Merging data sets shipped with no secondary space with data sets with secondary space.

Also, the dialog prevents you from merging the following types of data sets:

- The NUCLEUS data set
- The SVCLIB data set
- Operational data sets, such as PARMLIB and VTAMLST
- SMP/E data sets
- User data sets
- VSAM data sets

The dialog prevents you from merging any data sets that contain a member that matches (conflicts with) a member name within the selected data set. To see whether naming conflicts exist for a particular data set, enter line command C for the data set in the candidate list.

Lastly, you cannot merge a data set that is already a component of another merged data set. In this case, you must first unmerge the component data set from the merged data set before you can merge it with another data set.

The dialog allows you to merge data sets only when they share all of the following attributes with the target data set:

- Record format (RECFM)
- Logical record size (LRECL)
- Data set type (DSNTYPE)
- Eligibility to be managed by SMS
Modifying the system layout

- Compatible link list or LPA attributes
- Origin library (DLIB or target library).

The candidate list automatically excludes any data sets that do not match these attributes of the target data set.

Also, the candidate list excludes data sets that do not match the SMS eligibility of the target data set. For a target data set that is managed by SMS, for example, the candidate list excludes data sets that are not eligible to be managed by SMS. Likewise, for a target data set that is not SMS-managed, the candidate list excludes data sets for which SMS management is required.

The candidate list can extend for several screens. You can scroll through the list and select data sets, as needed, for merging with the target data set.

When you are done selecting data sets, enter the M (merge) primary command on the command line of this panel and press Enter to merge the data sets. The dialog checks each selected component data set for member name conflicts with data sets that were previously merged into the target data set. If the dialog detects a conflict, a pop-up panel appears at the bottom of your screen. Press Enter to clear the pop-up and continue with the next selected data set in the candidates list. When the merge operation completes, the Data Set Merge Candidates panel displays a message indicating that the merge is successful.

Redisplaying the data set list panel now shows an asterisk in the X column for the target data set. Also, the component data sets that were merged into the target data set no longer appear in the list.

Merging UNIX file system data sets

The dialog allows you to merge some of the eligible HFS and zFS data sets in your order. When you select a UNIX file system data set as a merge target (through line command M), the Data Set Merge Candidates panel shown in Figure 67 is displayed. The panel shows the file system data sets that are eligible for merging with the selected data set (target data set). Later, when you save your configuration through the Save Configuration command (see Chapter 12, “Saving the configuration,” on page 147), the dialog also saves the data for each merged file system data set and its component data sets. The merged file system data sets are now available for merging with future ServerPac orders.

![Figure 67. Panel: Data set merge candidates for UNIX file system data sets](image)
The functions of the primary and line commands on this panel are the same as those for Figure 66 on page 98. The Conflict line command, however, is not applicable to the UNIX file system data sets and is not available on this panel.

Not all file system data sets can be merged. The dialog prevents you from these restrictions. Specifically, the dialog prevents you from merging the following file system data sets in z/OS orders:

- OMVS.ETC
- OMVS.VAR

Also, the dialogs prevents you from merging when the following conditions are not met:

- The data set must be either:
  - The same type (HFS or zFS), or
  - The file system data set must be marked as Switchable. Use the dialog's View and Change Facility (Option C on the Modify System Layout Options panel) and select the display “Switchable.”
- The merge target file system data set has a lower-level mount point.

In order to merge eligible HFS and zFS data sets together they must both be included in the generated list from which you issue the Merge line command. For example, if you generate your list of file system data sets using the Data Set Type display from the dialogs View and change data sets by selected attributes facility, you must select both HFS and zFS data set types.

Once you have selected the file system data sets to be merged you can enter the primary command Merge. For UNIX file system data sets, merge will proceed for a selected component when there are no other file system data sets having a mount point that is hierarchically between the target data set's mount point and the candidate component data set's mount point. The space allocated for a merged file system data set will be equal to the sum of the space of both the merge target data set plus the space of all the merge component data sets.

For an example of the MERGE command, refer to "MERGE" on page 179.

**Considerations for merging data sets**

When you enter the Merge command from a data set list panel, the dialog checks the data set list panel for data sets with matching attributes and presents these data sets as candidates for merging. The dialog does not enforce the operating system's rules for data set placement or rules that individual products might impose. Therefore, use caution in deciding which data sets to merge.

Generally, to keep your configuration as manageable as possible, IBM recommends that you merge only data sets of the same element type or that serve a similar purpose. If you choose to merge data sets of different element types, understand that the dialog will display only one of those element types for the merged data set in subsequent dialog data set lists.

Use the dialog's View and Change Facility, described in "Viewing and changing data sets" on page 91, to identify similar groups of target data sets that you can merge (the dialog does not display DLIB data sets by individual type). You might, for example, merge target libraries that are required in the LPA list or merge your ISPF panel libraries. Also, consider merging your procedure libraries into a smaller number of procedure libraries.
Modifying the system layout

These actions result in configurations that are easier to manage.

Consider the following IBM recommendations:

- Do not merge macro libraries with panel libraries; doing so can cause assemblies to fail.
- Do not merge data sets that appear in the SMP/E SYSLIB concatenation. Usually, these are MAC and SRC data sets. To see which data sets in the configuration reside in SMP/E SYSLIB, use the dialog's View and Change Facility to display the data sets having an SMP/E SYSLIB attribute of 'YES'.
- Merge target data sets only. Do not merge DLIB data sets.
- If you merge data sets that were originally shipped with no secondary space allocation that you later changed to having secondary allocation, any saved configuration for these data sets will reflect only the shipped values of these data sets and not the changed values.

Merging PDSE data sets

When merging PDSE data sets, observe the following:

1. You can merge PDSE data sets when they have matching RECFM, LRECL, and origin library (target or DLIB).
2. With some exceptions, you can merge PDS data sets with a PDSE target data set. The PDSE target data set must have matching characteristics (RECFM, LRECL, origin library). The exceptions are PDS data sets that must reside on the IPL volume or have a record format (RECFM) of U. The dialog automatically excludes these PDS data sets from the candidates list for a PDSE target data set.
3. You cannot merge a PDSE data set with a PDS target data set, unless you first change the PDSE data set to a PDS data set. This conversion is possible only if the PDSE was originally shipped as a PDS data set.

Effects of merging data sets

When merged, component data sets assume the following attributes of the target data set:

- Data set name.
- Data set type (PDS or PDSE, HFS or zFS).
- Logical volume
- Catalog, unless one or more of the component data sets is cataloged in the master catalog. If so, the merged data set becomes cataloged in the master catalog.

A merged data set has the combined space of the merge target data set and its merge component data sets.

If you merge data sets of different element types, the dialog displays only one of those element types for the merged data set in subsequent dialog data set lists. In selecting an element type to represent the merged data set, the dialog selects the "highest" element type from among the data sets being merged. To select an element type, the dialog uses the same priority order it uses for creating a recommended system layout (from highest to lowest; see "Creating the recommended system layout" on page 72). For example, merging a panel data set (element type PNLxxx) with a skeleton library (element type SKLxxx) results in a merged data set with an element type of PNLxxx.
Modifying the system layout

If you intend to change the merge target data set from SMS-eligible to SMS-managed, you should make the change prior to the merger.

The dialog updates the installation jobs in your order to use the name of the merged data set. The dialog does not, however, update any product-supplied code on your system (such as EXECs or CLISTs) that might refer explicitly to data sets by name. As with renaming data sets, be aware that merging data sets can cause conflicts in any products that reference data sets explicitly by name.

When a merge action completes, the dialog reserves the names of component data sets so that you can, if desired, unmerge the data sets during the Modify System Layout phase of installation. Use care, however, in merging data sets. After you begin to run the installation jobs, unmerging a data set requires you to reinstall the order, starting from Modify System Layout.

Finding "lost" component data sets
If you forget where a particular data set is after you merge it, you can use the FINDCOMP (Find Component) primary command on the Select Values to Display panel to find it among your merged data sets. The FINDCOMP command allows you to search for a data set by either its shipped name or its new name if you renamed the data set during a subsequent phase of the installation. For more information, see the FINDCOMP command in Appendix A, “Primary command reference,” on page 159.

Unmerging data sets
When unmerged, a data set returns to its pre-merge values for data set name, data set type, attributes, and space allocations, with the exception of any changes you made through the CHANGE command (these are retained). You can unmerge a merged data set of all of its component data sets at once, or you can remove particular component data sets from a merged data set. To unmerge a merged data set of all its component data sets at once, enter line command U to the left of the merged data set. When you press Enter, a message is displayed to indicate whether the unmerge action was successful.

To remove only particular component data sets from a merged data set, you must first expand the display of the merged data set to see its individual component data sets. To do so, enter line command X (expand) to the left of the merged data set. The pop-up window shown in Figure 68 on page 104 is displayed.
Select individual component data sets for unmerging by entering a U to the left of the component data set and pressing Enter. (Note that the data set marked with an asterisk is the merge target data set, while the others are merge component data sets. The merge target data set is not allowed to be the target of an Unmerge line command; this command will act only on merge components.) A message is displayed to indicate whether the unmerge action was successful.

Enter 'I' to the left of a component data set and press Enter to get information about the component data set.

As shown in Figure 68, the pop-up list indicates the target data set with an asterisk. This is the name of the target data set before it was merged. Only line commands I or U are valid for the target data set.

It is also possible to completely unmerge the data set of all its component data sets from the EXPAND pop-up display. Simply enter a U for every component data set (the ones without an asterisk) in the pop-up display and press Enter.

Note: This is not true for UNIX file system data sets. The dialog prevents you from unmerging all the components at once. They must be unmerged one at a time. See "Unmerging UNIX file system data sets" for more information.

Unmerging UNIX file system data sets
Unmerging UNIX file system data sets is different from unmerging other data set types.

The dialog will prevent you from unmerging a file system data set from a target file system data set if there is a third file system component data set with a mount point that is hierarchically below the mount point of the target file system and the selected component file system data sets. In this situation, you have the following options:

- Deselect the file system data set you selected for unmerging and the unmerge should be canceled, or
Modifying the system layout

- Unmerge the third file system data set and then you can unmerge the other component file system data set.

For example, a data set with a mount point of /a/b cannot be unmerged from a data set having mount point of /a if another component of the merge has a data set with a mount point of a/b/c.

When you enter the line command expand to the left of a merged UNIX file system data set on panel CPPP605W, the Figure 69 panel appears.

![Figure 69](image)

Figure 69. Panel: Expansion of the merge component data set panel for UNIX file system data sets

Saving merged data sets
To preserve your merged data sets for merging with future ServerPac orders, you must save your configuration through the Save Configuration command (see Chapter 12, “Saving the configuration,” on page 147). The dialog saves the data for each merged data set and its component data sets.

Modifying a data set’s attributes
The Data Set Attributes panel, shown in Figure 70, appears when you enter a Select line command from a data set list panel or when you enter an Information line command from a data set merge candidate panel. This panel shows the attributes of a specific data set. When you navigate to this panel from any of the data set merge candidate panels (CPPP605M or CPPP605V), or CPPP605X, all fields are display only.

![Figure 70](image)

Figure 70. Panel: Data set attributes 1 of 2
Depending on the data set's type (VSAM, sequential, or partitioned), you can change the following fields on the Data Set Attributes 1 panel (Figure 70 on page 105):

- Data set name
- Data set type (for HFS, PDS, PDSE, and zFS data sets only)
- Logical volume.
- SMS Managed status
- Tracks

The fields in the Data Set Attributes 1 panel are described as follows.

**Data set name**
Specifies the name of the data set. If the Data Set Name field is preceded by `==>`, you can rename the data set, otherwise it is unrenameable. Unrenameable data sets cannot be renamed unless you first override this attribute through a CHANGE RENAME command. For information about unrenameable data sets, see the CHANGE RENAME command in Appendix A, “Primary command reference,” on page 159.

If you change the high level qualifier of a data set, you might need to re-establish its catalog and SMS relationships.

For other considerations about changing the names of data sets in your configuration, see the CHANGE RENAME command in Appendix A, “Primary command reference,” on page 159.

**Shipped name**
Specifies the shipped name of the data set.

**Data set type**
Specifies the data set type. For data sets that are eligible (see the CHANGE DSNTYPE command), zFS is the default data set type. The Data Set Attributes 1 panel (Figure 70 on page 105) allows you to change

- PDS data sets to PDSE data sets
- PDSE data sets to PDS data sets
- HFS data sets to zFS data sets
- zFS data sets to HFS data sets

Type over the Data set type field with the new value, as follows:

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFS</td>
<td>To change a zFS data set to an HFS data set</td>
</tr>
<tr>
<td>PDS</td>
<td>To change a PDSE data set to a PDS data set (if the PDSE was originally shipped as a PDS data set).</td>
</tr>
<tr>
<td>PDSE</td>
<td>To change a PDS data set to a PDSE data set</td>
</tr>
<tr>
<td>ZFS</td>
<td>To change an HFS data set to a zFS data set</td>
</tr>
</tbody>
</table>

For data sets that are not eligible to be changed, the Data Set Type field is read-only. The dialog does not, for example, allow you to change your order’s PDSE data sets to PDS data sets, because they contain members that cannot be loaded into a PDS.

The dialog does not enforce all product requirements. You must determine whether data sets are allowed to be changed before changing them.

For considerations about changing the data set type of data sets in your configuration, see the CHANGE DSNTYPE command in Appendix A, “Primary command reference,” on page 159.

**Data set element type**
Specifies the element type of the data set. For example, MAC stands for macro library and LMOD is a load module.
Modifying the system layout

Category
The Category field contains a 1-character value that indicates where the data set resides, as follows:
- DLIB: DLIB volume
- Target: Target library volume
- Operational: Catalog volume. This value is set for operational data sets, such as page and dump data sets.
- User: User-defined data set; not shipped as part of the order.

Logical volume
 Specifies the logical volume to which the data set is assigned. This is a data entry field, preceded by =>, if the logical volume is one you can change; otherwise, this will be a display-only field, preceded by a colon (:).

Observe the following considerations:
- If space recalculation is required (because the new logical volume is assigned to a physical volume that has different device capacity), the recalculation occurs automatically.
- Two logical volumes, CSIVOL and IPLVOL, are reserved for the system's use. You cannot assign data sets to or from either of these logical volumes. If you attempt to do so, your request is rejected.

For other considerations about changing the logical volumes of data sets in your configuration, see the CHANGE LVOL command in Appendix A, “Primary command reference,” on page 159.

SMS-managed
 Specifies whether SMS is to manage the data set (this is the SMS status of the data set). If the data entry area for the SMS-Managed field is active, you can change the setting for this data set. Data sets for which the SMS-Eligible field is set to YES can be SMS-managed or not, as you choose. Data sets for which the SMS-Required field is YES must remain SMS-managed data sets.

To see which data sets in your configuration are eligible for SMS-management, use the dialog’s View and Change Facility (described in “Viewing and changing data sets” on page 91). Be aware that you cannot assign data sets that reside on the IPLVOL logical volume to SMS-managed logical volumes.

For considerations about changing the SMS management status of data sets in your order, see the CHANGE SMS command in Appendix A, “Primary command reference,” on page 159.

Physical volume or storage class
 If the value for SMS Managed is No, the displayed name for this field is Physical Volume and the value is the name of the physical volume to which the logical volume has been assigned.

If the value for SMS Managed is Yes, the displayed name for this field is Storage Class and the values is the storage class to which the data set has been assigned.

Tracks
 Depending on a data set’s record format (RECFM) and type (VSAM, sequential or partitioned), you can change the following fields on the Data Set Attributes 1 panel (Figure 70 on page 105):
- Primary tracks
- Secondary tracks
- Directory blocks
You cannot decrease the size of a shipped data set to less than its original, shipped amount.

The fields in the Data Set Modification - Space panel are described as follows.

**Primary tracks**
Specifies the primary space allocation (in tracks) for the data set. You can specify any value from 1 to 999999 tracks. However, you cannot specify less than the “Shipped” amount shown on the right side of the panel.

**Note:** If you want to change the primary space allocations for a large number of data sets, it might be faster to use the View and Change option and the [CHANGE SPACE] command (described in Appendix A, “Primary command reference,” on page 159).

**Secondary tracks**
Specifies the secondary space allocation (in tracks) for the data set. You can specify any value from 0 to 999999 tracks.

To specify no secondary space allocation for the data set, set this value to 0 (zero). You can, if necessary, reset this value at a later time.

**Notes:**
1. If you want to change the secondary space allocations for a large number of data sets, it might be faster to use the View and Change option and the [CHANGE SPACE] command (described in Appendix A, “Primary command reference,” on page 159).
2. Some data sets are not allowed to have secondary space because of operating system restrictions. These data sets are shipped with their Secondary Space fields set to zero.

**Directory blocks**
Specifies the number of directory blocks for a partitioned data set (PDS). You can set this field to any value between 1 and 99999, but you cannot decrease it below the shipped number of directory blocks.

For information about directory blocks, see [z/OS DFSMS Using Data Sets](z/OS DFSMS Using Data Sets).

**Product, element, or feature**
Specifies the product, element, or feature associated with the data set.

If you press End on this panel, the previous panel appear.

If you make modifications on the Data Set Attributes 1 panel (Figure 70 on page 105) and press Enter, the panel remains on display with the updated fields. If you then press Enter again, the Data Set Attributes 2 panel (Figure 71 on page 109) appears for non-UNIX file system data sets. If you make no modifications on the Data Set Attributes 1 panel (Figure 70 on page 105) and press Enter, the Data Set Attributes 2 panel (Figure 71 on page 109) appears for non-UNIX file system data sets.
This is an information only display panel. It presents the current values for the data set. Changes to eligible fields can only be made with the CHange command. The displayed values are for presentation only and may not reflect the actual internal value. For example, the internal value of Y is presented as the logical value Yes. Also, any value that has been overridden is displayed as its logical value (Yes or No) followed by the word Overridden.

This panel displays different fields depending on the data set type. For example, Figure 72 shows a panel for a shipped VSAM data set.

Figure 71. Panel: Data set attributes 2

For UNIX file system data sets, when you press Enter on the Data Set Attributes 1 panel (Figure 70 on page 105), the Data Set Attributes 2 panel for a UNIX file system data set (Figure 73 on page 110) appears. The entire mount point can be displayed on this panel along with the data set attributes. Pressing end on this panel returns you to the Data Set Attributes 1 panel.

Figure 72. Panel: Data set attributes 2 for a shipped VSAM data set
Modifying the system layout

Figure 73. Panel: Data set attributes 2 for a UNIX file system data set

Displaying device types

Figure 74 shows the panel that is displayed when you enter Option T on the Modify System Layout options panel, or enter the DEVT command from another panel.

This panel shows the direct-access storage devices (DASD) defined to ServerPac. You cannot delete or edit the IBM-defined devices in this list. However, you can add entries for real or emulated devices and edit and delete those entries.

The ? primary command is valid for this panel. This is a standard command for panels that display lists. See “Primary commands” on page 11.

The following line commands are valid for this panel:

S Select a user-defined device for editing. You can do this only if the device is not currently referenced by any data sets (see “Inserting or editing device types” on page 111). You cannot edit IBM-supplied DASDs or dynamically-created entries.

D Delete a user-defined device. You must confirm the delete request (see “Deleting device types” on page 111). You cannot delete IBM-supplied DASDs or dynamically-created entries.
Modifying the system layout

Insert a user-defined device. For more information, see “Inserting or editing device types.”

Inserting or editing device types

Figure 75 shows the panel that is displayed when you enter Insert or Select for a device type on the Device Type Table panel. (This panel is not displayed for IBM-defined devices, because you cannot modify those devices.)

![Device Type Table panel]

The fields are described as follows:

Device type
  Specifies the device type and model by which the DASD is to be known.

Unit type
  Specifies the generic name to be used to allocate data sets on the device. For example, UNIT might be specified as 3390 or 3380.

Cylinders/Device
  Specifies the number of cylinders for each DASD. Obtain this value from your DASD supplier; it need not match the number of cylinders available on any IBM device.

Tracks/Cylinder
  Specifies the number of tracks for each cylinder on the DASD. Obtain this value from your DASD supplier.

Bytes/Track
  Specifies the number of bytes for each track on the DASD. Obtain this value from your DASD supplier.

How defined
  Specifies whether the device was user defined (USER) or dynamically defined (DYNAMIC).

For a user defined device, you can modify any of the values in this panel. For a dynamically-defined device, you can modify only the Device Type value.

Deleting device types

Figure 76 on page 112 shows the panel that is displayed when you enter line command D to delete a user-defined device type from the Device Type Table panel.
Modifying the system layout

You can delete only user-defined device types. Confirm deletion by entering "DELETE" in the COMMAND field and pressing Enter.

If you attempt to delete a device name that is currently referenced by a data set, the dialog rejects your delete request.

Viewing and defining user data sets

To view a summary of user data sets, use the Modify System Layout panel (CPPP6052). From the Modify System Layout Options panel (Figure 42 on page 71), enter Option U to display the Summary of Data Sets panel (CPPP6052).

To define a new user data set, enter the Insert command on the user defined data sets summary panel as shown in Figure 77 to display the Define a User Data Set panel (Figure 78 on page 113).
Displaying a summary of physical volumes

To see the physical volumes that are used by a particular feature or element, use the Summary of Features/Elements panel. From the Modify System Layout Options panel (Figure 42 on page 71), enter Option V to display the Summary of Physical Volumes panel. You can also display this panel by entering the SUMP command from the Summary of Features/Elements panel.

The panel shown in Figure 79 is displayed.

For descriptions of the fields in this panel, press HELP (?).

Use this panel to verify and change (if necessary) the attributes of the physical volumes. Before you proceed, however:

- If there are warnings on this panel, you should not try to resolve them until you have completed any data set merges, space allocation changes, or volume assignment changes that you intend to make.
- If you have DYNAMIC DASD INFO set to No, you must use the Select line command to display the Display and Change Volume Attributes panel, on which you must specify the required information about each volume and may choose to reserve space on the volume or tell the dialog not to initialize it.
Modifying the system layout

- If you have DYNAMIC DASD INFO set to Yes, you can use the Select line command to reserve space on the volume or tell the dialog not to initialize it.

- These changes should be among the last things you do before exiting Modify System Layout (because other changes you make could force you to do rework), but they must be completed before you attempt to run any jobs that install the data sets on your DASD volumes.

To accommodate libraries that expand during the installation of service, and to make it less likely that libraries will have to be moved when you install a subsequent release, allow at least 15 percent free space for each physical volume allocation. You can create more space by moving some data sets to another volume. For more information, see “Resolving over-allocated volume conditions” on page 115.

In the panel, the Warnings column indicates volume conditions you might have to resolve before continuing with the installation. The possible warnings are as follows:

**DEV<<S**
Incorrect device type specified for the volume. For more information, see the description of message CPP0605055S in Appendix B, “Diagnostic messages,” on page 189.

**OFF<<S**
Volume cannot be accessed because it is offline. For more information, see the description of message CPP0605056S in Appendix B, “Diagnostic messages,” on page 189.

**EXT<<W**
The combined size of the data sets to be allocated on this volume exceeds the size of the largest free extent on the volume. For more information, see the description of message CPP0605057W in Appendix B, “Diagnostic messages,” on page 189.

**VOL<<S**
Information about the volume could not be retrieved. For more information, see the description of message CPP0605058S in Appendix B, “Diagnostic messages,” on page 189.

**OVR<<S**
The number of cylinders to be allocated on the volume exceeds the total number of cylinders for the volume. For more information, see “Resolving over-allocated volume conditions” on page 115 and the description of message CPP0605059S in Appendix B, “Diagnostic messages,” on page 189.

The following primary commands are valid for this panel:

**?** Displays help for this panel. See “Primary commands” on page 11.

**DEVT**
Displays the currently-defined device types and their storage capacities (in cylinders).

The following line commands are valid for this panel:

**Select** Use the S line command to select physical volumes and SMS storage classes for reassignment, as follows:
Modifying the system layout

- For a physical volume, the S line command displays a panel that allows you to specify a different physical volume and to change the attributes of the current physical volume, as described in "Changing the attributes of a physical volume" on page 116.
- For a storage class, the S line command displays a panel that allows you to specify a new storage class, as described in "Changing an SMS storage class" on page 117.

Note: To assign a STORCLAS in place of a physical volume, you must assign the logical volume to the STORCLAS.

Dslist Use the D line command to display the data sets for the selected physical volume or storage class. The Summary of Data Sets panel is displayed, allowing you to do any of the following:
- Merge or unmerge ServerPac-shipped data sets (you cannot merge or unmerge user-defined data sets)
- Make global changes to multiple data sets (using one of the CHANGE commands described in Appendix A, "Primary command reference," on page 159)
- Modify the attributes of particular data sets or modify their space information (using one of the CHANGE commands described in Appendix A, "Primary command reference," on page 159)
- Write a list of the data sets to the ISPF LIST data set or to a user-defined file (using the OLIST or OFILE command described in Appendix A, "Primary command reference," on page 159).

Resolving over-allocated volume conditions

While processing the configuration you specify in Modify System Layout, the dialog might show that some volumes are over-allocated (as in Figure 79 on page 113). The dialog displays a message on the panel, with “OVR<<S” indicated for the over-allocated volume. Until you resolve this condition, the dialog prevents you from continuing to the next function.

There are several ways to resolve this condition:
- Change the device type to one having a larger capacity.
- Move some or all data sets to another physical volume. See the topic, “Recommended Data Set Placement” in z/OS Planning for Installation for assistance in determining which data sets to move.

For help in changing the device type or moving a data set to another physical volume, see the descriptions that accompany Figure 80 on page 116.

To add another volume, use the CHANGE PVOL command (see Appendix A, "Primary command reference," on page 159), or follow this process:
1. Enter the END command (or press PF3 using the default PF key definitions) to return to the Summary of Features/Elements panel.
2. On the Summary of Features/Elements panel, select entries to be moved to a new volume and press Enter. The Logical Volume by Feature/Element panel is displayed.
3. The Logical Volume by Feature/Element panel lists the logical volumes that have been defined for the feature or element. Write down the names of the logical volumes to be moved. Enter the END command to return to the Summary of Features/Elements panel.

Chapter 8. Modifying the system layout 115
Modifying the system layout

4. Enter the SUML primary command to display the Summary of Logical Volumes panel.
5. On the Summary of Logical Volumes panel, select the logical volumes to be moved. Specify line command S for the volumes. Assign a physical volume to the logical volume. Enter the END command.
6. On the Summary of Features/Elements panel, enter the SUMP command to display the Summary of Physical Volumes panel. The new volume is shown.

Changing the attributes of a physical volume

When you select a physical volume from the Summary of Physical Volumes panel (through line command S), the panel shown in Figure 80 is displayed.

```
CPPP605J  --------------  Modify System Layout ( MD053718 )  --------------
COMMAND =>

Display and Change Volume Attributes

  Volume Serial  => MVSCAT  (Always required)
  Device Number  => 07C2
  Device Type    => 3390-3  (Enter ? For List of Available Devices)
                     (See Device Type Table for UNIT Type)
  Reserved Space  => 0  (Cylinders)
  Initialize Volume => Y  (Y or N.  Default is Y)

Press Enter to continue or End to Cancel

Note: Only the volume serial is required for online volumes when the DYNAMIC DASD INFO variable is set to Yes.
```

Figure 80. Panel: Display and change volume attributes

You can change these attributes for a physical volume:

**Volume serial**
A unique name for the physical volume; you cannot use a name that is already defined to the dialog.

**Device number**
A unique device number for the volume, in hexadecimal. Each physical volume that you define in the dialog must have a unique device number. This field is filled in only if the DEFAULT DASD INFO variable is set to NO.

**Device type**
A device type that is defined to the dialog.

For a list of available device names, enter a question mark (?) in the Device Name field. A pop-up window — Defined Device Types — displays the currently-defined device names and their storage capacities (in cylinders).

By default, the device name is 3390-9.

If space recalculation is required because the new physical volume has a different device capacity, the dialog recalculates the space automatically.

This field is filled in only if the DEFAULT DASD INFO variable is set to NO.

**Reserved space**
Amount of space, in cylinders, that you require to be reserved on the volume.
Specify a value from 0 to 999. The maximum allowed value is the maximum allocatable space on the volume, minus one cylinder. The default is 0 (no space is reserved).

To accommodate libraries that can use secondary extents, allow at least 15 percent free space for each physical volume allocation.

**Initialize volume**

Use this field to specify whether the dialog is to initialize the volume. Valid values are Y or N (yes or no). The default is Y. If the volume already contains data that you wish to preserve, specify N.

IBM recommends that you defragment any existing volumes that you plan to use for data sets supplied with your order. Also, to avoid a warning message, ensure that the VTOCs of existing volumes are placed at the beginning or end of each volume.

Also, check the names of data sets on the existing volumes; these names must be unique. They must not duplicate names of data sets shipped with your ServerPac order, or with product-specific VSAM data sets or file system data sets that you create when you submit your installation jobs.

In checking for duplicate names, note that a name that includes an SSA prefix is considered to be the same as the name without the prefix. For example, within an existing volume, data sets named 'XYZ' and 'ssa.XYZ' are considered to be duplicates.

**Changing an SMS storage class**

When you select a storage class from the Summary of Physical Volumes panel (through line command S), the panel shown in Figure 81 is displayed.

```
CPPP605Q ----------------- Modify System Layout ( MD05371B ) ------------------
COMMAND =>
ASSIGN a Storage Class

STORAGE CLASS : SMSDCLAS
NEW STORAGE CLASS => SMSDCLAS2
The STORCLAS you specify must be defined to SMS
```

*Figure 81. Panel: Assign a storage class*

To change the storage class, enter the 1-8 character name of the new storage class. The storage class you choose must be defined in the active SMS configuration before you run the first installation job that allocates a data set on an SMS-managed volume in this storage class.

You can also use ACS routines to override the storage classes that are assigned in the jobs generated by the dialog. In this case, the acceptable values for the storage class you enter are determined by the ACS routines.
Modifying the system layout

Confirming processing requirements

The panel in Figure 82 an example of what is displayed if you attempt to exit the Modify System Layout function when problems exist. This panel is tailored to show only the problems that actually exist, so any actual panel displayed would likely show fewer problems. The panel shown in Figure 82 would be displayed only if you attempted to exit Modify System Layout when all of the following situations existed:

- At least one physical volume has an invalid device number. The default device number is set to CCUU. You must change each CCUU to a valid hexadecimal device number.
- Problems were encountered with physical volumes.
- SMS is not active on the driving system.

To continue working with the configuration, press the ENTER key and correct the problems identified on the panel.

To exit the panel, press the END key. Your subsequent work with the dialog resumes at the Modify System Layout function.

Figure 82. Panel: Confirm processing requirements
Chapter 9. Defining HLQ-to-catalog relationships

From the Installation Menu, enter A to begin the next dialog function, Specify Catalogs for High-Level Qualifiers.

The dialog and the installation process for ServerPac use the standard order of catalog search when defining and locating data sets. Therefore, there must be an alias in the target system master catalog for each high-level qualifier used for data sets that will be cataloged in a user catalog. Also, there must be system-specific aliases (called SSAs) in the driving system master catalog for the temporary high-level qualifiers you will choose when you use the next dialog option.

The Specify Catalogs for HLQ option defines the relationships between high-level qualifiers for target system data sets and target system catalogs. The SSA option defines relationships between the driving system's master catalog and the target system's catalogs. Another way to look at these relationships is:

- There is an alias-to-catalog relationship defined for each intended (final) high-level qualifier.
- There is an SSA relationship defined for each target system master catalog.

Use the Specify Catalogs for HLQ function in the dialog to associate the high-level qualifiers for data sets to be cataloged in user catalogs with the appropriate user catalogs. Use the Specify Temporary Aliases (SSAs) for Catalog function to associate the SSAs you chose to install the ServerPac with the target system’s master catalog.

Before you start, use a worksheet like the following to plan the catalog and alias names, and their relationships.

<table>
<thead>
<tr>
<th>Catalog</th>
<th>High level qualifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Some data sets must be cataloged in the master catalog because the operating system requires it. Also, ServerPac requires some additional data sets to be
Defining HLQ-to-catalog relationships

cataloged in the master catalog. For a list of the data sets that ServerPac requires to be cataloged in the master catalog, use the dialog’s View and Change Facility to create a list of data sets that have the attribute “Master Catalog” (for more information, see “Viewing and changing data sets” on page 91). The list of master catalog data sets is also provided in the appendix “Data Sets in This Order” in ServerPac: Installing Your Order.

You can override the master catalog requirement for data sets in your configuration. For more information, see “CHANGE MCAT” on page 165.

How SSAs are used during installation

Many of the data sets in your new order already exist on your driving system. While your order’s data sets are intended for creating a new target system, there is a period during installation in which jobs running on your driving system must be able to locate the target system’s data sets.

Because many of these data set names already exist in your master catalog, ServerPac requires a way to find the data sets in the normal order of catalog search. This way, jobs on the driving system can locate the target system’s data sets without disturbing the operation of the driving system. Without such a method, ServerPac could not build a target system with any data sets that were already cataloged and allocated on your driving system.

In the Specify Temporary Aliases (SSAs) for Catalogs function of the dialog, you define temporary high-level-qualifiers (HLQs) for the target system data sets. During the installation, your order’s data sets are cataloged with the temporary HLQs. To direct the catalog entries to the proper catalog, the temporary HLQs are defined as aliases in the driving system’s master catalog. Thus, these alternate HLQs are called “system-specific aliases” or SSAs. Later, during the installation, a job renames the target system’s data sets to their true names and an optional job is provided for you to remove the SSAs.

Consider that your driving system always includes the SYS1.LPALIB data set. When you install a z/OS order, this data set must be cataloged and allocated on the new target system as SYS1.LPALIB. Because the data set must be named SYS1.LPALIB at IPL time and its catalog entry must have the same name, ServerPac needs a method of allocating and locating the data set in a catalog other than the current master catalog on the driving system. And, this method must work for all data sets that must be cataloged to be used, including SMS-managed and VSAM data sets.

Generally, ServerPac uses SSAs as follows:

- ServerPac creates at least one user catalog for your order’s data sets. For a z/OS order, one of these catalogs will eventually become the master catalog, but for now it is just a user catalog. (For simplicity, this example uses only one catalog, but any others would also follow the same pattern.)
- ServerPac defines one or more aliases that refer to the user catalog. If, for example, the alias is “FRED,” ServerPac defines the alias in the driving system’s master catalog (which is the current master catalog) as follows:

  \[\text{DEFINE ALIAS (NAME (FRED) RELATE (TARGET.MASTER.CATALOG))}\]

  This action ensures that all new entries starting with the high-level qualifier FRED will be cataloged in the user catalog. In this example, the user catalog is named TARGET.MASTER.CATALOG because that is what this catalog will become later
Defining HLQ-to-catalog relationships

in the install process. At this step in the process, however, TARGET.MASTER.CATALOG is still just a user catalog.

- ServerPac allocates your order’s data sets. In this example, ServerPac allocates your order’s SYS1.LPALIB data set as FRED.SYS1.LPALIB. Because the data set name begins with FRED, and the alias for FRED points there, the data set is cataloged in TARGET.MASTER.CATALOG.

- ServerPac renames the data sets and renames FRED.SYS1.LPALIB to SYS1.LPALIB. However, the data sets have not been recataloged yet. So, the catalog TARGET.MASTER.CATALOG does not yet have an entry for SYS1.LPALIB. Rather, it still has the entry for FRED.SYS1.LPALIB, which no longer exists. At this point (which exists for only a few minutes while the ALTCAT or RECATDS job is running), the current catalog entries do not allow the data sets to be located through the catalog.

- ServerPac establishes catalog entries that will allow the data sets to be located. Specifically, ServerPac deletes the FRED.* entries from TARGET.MASTER.CATALOG, defines the entries needed to use the data sets from the target system, and then defines an alias for each data set that points to the entry for the data set.

For data set LPALIB, for example, ServerPac does the following:

```
DELETE -
    FRED.SYS1.LPALIB -
    NOSCRATCH -
    CATALOG(TARGET.MASTER.CATALOG)

DEFINE -
    NONVSAM( -
        NAME(SYS1.LPALIB) -
        VOLUMES(sysres) -
        DEVT(33n0)) -
    CATALOG(TARGET.MASTER.CATALOG)

DEFINE -
    ALIAS( -
        NAME(FRED.SYS1.LPALIB) -
        RELATE(SYS1.LPALIB)) -
    CATALOG(TARGET.MASTER.CATALOG)
```

Even now, TARGET.MASTER.CATALOG is still a user catalog. Up until the time you IPL the new system, you can locate the data sets using the FRED- qualified names. (Even after you IPL the new system, the FRED- qualified names can still be used from the driving system in the Full-System Replacement installation path.)

When you IPL the new system (and afterward), you use TARGET.MASTER.CATALOG as the master catalog and you can locate the data sets by their real names. Later, an optional job will allow you to remove the SSAs.

The installation jobs for your order are described in ServerPac: Installing Your Order.

Default catalog structure for full system replacement

Figure 83 on page 122 shows the default catalog structure that you generate on the driving system through a full system replacement installation. The figure shows the driving system's master catalog referencing the target system user catalog “T1U” and the target system master catalog “T1M.” The jobs that you run on the driving system use the SSA to find the target system data sets, such as SYS1.LINKLIB.
Defining HLQ-to-catalog relationships

Without the SSA, your jobs would update the driving system data sets.

Figure 83 shows the minimum required system.

Through the SSA option, you can change the default catalog structure. Figure 84 shows a structure that includes a second user catalog, “T1n.”

You modify the default structure by entering X on the SSA panels to refer to a second target system user catalog instead of referring to the IBM-supplied default user catalog.

You must supply these values to identify a catalog:
- The desired data set name for the catalog
- The system specific alias name referring to this catalog
- The alias referring to this catalog.
- The volume serial for the volume on which the catalog is to reside
- The device type of the volume on which the catalog is to reside.
Defining HLQ-to-catalog relationships

- The primary and secondary space with which this catalog is to be allocated (in cylinders)

---

Defining catalog data set names

The Specify Catalogs for HLQ function of the dialog allows you to define a catalog data set name for each alias in your order. Entering option A on the Installation Menu (Figure 2 on page 7) displays the panel shown in Figure 85.

![Figure 85. Panel: Define catalog data set names](image)

The catalog names are initially shown as “???????” because they are not yet defined. You can specify the catalog name with which an alias is to be associated by typing over the question marks in the Target System Catalog Data Set Name field. Blank out the rest of the line after the catalog name.

To associate the master catalog with an alias, type over ?MASTER.CATALOG with the actual master catalog name. Then, to use the master catalog for another alias, enter the following:

?MCAT

To use a catalog name that is already defined for another alias, enter a question mark (?), followed by the alias name, for example:

?SYS1

If a data set must be in the master catalog, then all data sets with the same high level qualifier must be in the master catalog. If you do not want all data sets with that high level qualifier to be in the master catalog, you can either:

- Rename the data set that must be in the master catalog to use a high level qualifier that is cataloged in the master catalog (SYS1, for example), or
- Rename the data sets that should not be in the master catalog to use a high level qualifier that will cause them to be cataloged in a user catalog.

For a list of the data sets that ServerPac requires to be cataloged in the master catalog, use the dialog’s View and Change Facility to list the data sets having the attribute “Master Catalog” (for more information, see “Viewing and changing data sets” on page 91). The list of master catalog data sets is also provided in the appendix “Data Sets in This Order” in ServerPac: Installing Your Order.
Defining HLQ-to-catalog relationships

You can override the master catalog requirement for data sets in your configuration. For more information, see “CHANGE MCAT” on page 165.

STA field indicates, for each currently-existing high level qualifier, which ones must be associated with catalogs because data sets starting with them existed at the conclusion of Modify System Layout, and which of them must be associated with the master catalog. This field can show any of the following values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>(blank)</td>
<td>This high-level qualifier can be associated with any catalog. You must associate this high-level qualifier with the master catalog or a user catalog.</td>
</tr>
<tr>
<td>M</td>
<td>This high-level qualifier must be associated with the master catalog.</td>
</tr>
<tr>
<td>U</td>
<td>This high-level qualifier is not associated with any of the data sets in the work configuration. You created it with the R or I line command on this panel. You must associate it with the desired catalog.</td>
</tr>
</tbody>
</table>

The following primary commands are valid for this panel:

? SET Locate Find Next Previous SORT CANcel SAVE

These are standard commands for panels that display lists. See “Primary commands” on page 11.

CANCEL

This command, abbreviated as CAN, discards any changes that you have made since the last checkpoint and exits the Specify Catalogs for HLQ function. (A checkpoint is taken when you enter and exit the function, and after any SAVE command).

SAVE

This command saves any changes that you have made and establishes a new checkpoint. (A checkpoint is taken when you enter and exit the function, and after any SAVE command).

The following line commands are valid for this panel:

D Delete a user-defined alias (only aliases with a status (STA) of “U” can be deleted). You must confirm your delete request on the panel that results. Confirm deletion by entering DELETE in the COMMAND ==> field and pressing Enter.

If aliases are already defined (perhaps because you are re-installing the package) for one or more high level qualifiers in the driving system’s master catalog, the target system’s master catalog, or both, the D line command will not delete them. Any previously-defined alias entries must be deleted manually.

I Insert a user-defined alias. You must specify the alias and catalog name on the panel described in “Inserting a user-defined alias” on page 125.

R Repeat the insertion of a user-defined alias. You must specify the alias name, but the catalog name is copied from the alias on which you entered this command. See “Inserting a user-defined alias” on page 125.

When an order does not contain any aliases that must be cataloged in the master catalog (often, a subsystem order), this panel shows the following line commands only:
Defining HLQ-to-catalog relationships

M  Associate the high-level qualifier’s alias with the master catalog (the Type field is set to MCAT).

N  Delete an existing master catalog association (the Type field is reset to blanks). You can use this command to reverse the effect of entering line command M earlier, if you change your mind.

When you exit the Define Alias to Catalog Relationships function, your changes are automatically saved. The dialog checks to ensure that all aliases are associated with valid catalog data set names. If not, the panel described in “Confirming processing requirements” on page 126 is displayed to prompt you for a correct name.

When this function completes, the panel shown in Figure 86 is displayed.

Inserting a user-defined alias

If you attempt to insert a user-defined alias (line command I), the panel in Figure 87 is displayed.

The following fields are required:

**ALIAS**  The alias to be defined as part of the ServerPac installation process. The alias can be associated with any catalog.

**CATALOG**  Catalog data set name.

To use the same catalog name as one already defined for another alias, enter a question mark (?) followed by the model alias name, for example:

?SYSI
Defining HLQ-to-catalog relationships

To use the master catalog name, enter the following:

?MCAT

Confirming processing requirements

The “Confirm Processing Requirements” panel is displayed if you attempt to exit the Define Alias to Catalog Relationships function while one or both of the following conditions exist:

- At least one alias has not been defined (the Target System Catalog Data Set Name field contains question marks).
- At least one catalog has an invalid data set name.

To continue working with the configuration, press Enter. If you press End, you exit the panel, but you will have to return to it before you can continue with the installation.
Chapter 10. Defining system-specific aliases (SSAs)

From the Installation Menu, enter SSA to begin the next dialog function, Specify Temporary Aliases (SSAs) for Catalogs.

When you install a z/OS order, you must allocate and catalog many data sets on the driving system. To do so, you must first define one or more system specific aliases (SSAs) to be prefixed to each of the target system’s data set names defined in a particular catalog. SSAs allow the driving system to refer to commonly named data sets on the target system. Choose one alias for each catalog in which you will define new duplicate data set names.

For an example of using SSAs, see "How SSAs are used during installation" on page 120.

The SSAs you choose:
- must be unique
- must not exceed 8 characters in length
- must not match any aliases that are already defined in the master catalog for the driving system or target system
- must not match any of the high-level qualifiers you choose for the data sets in your order
- must not contain a pound sign (#) or dollar sign ($), if the SSA is for a UNIX file system data set or the HFSFILE data set.

Before specifying SSAs for the catalogs, use a worksheet such as the following to plan the catalog names and their associated SSAs.

<table>
<thead>
<tr>
<th>Catalog name</th>
<th>Associated system-specific aliases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Defining system-specific aliases (SSAs)

Notes:
1. If your order defines data sets whose names conflict with data set names that are already cataloged in the standard order of catalog search, then before you run the installation jobs you must either:
   - Rename data sets to eliminate the conflicts, or
   - Define SSAs for the catalogs in which the order’s data sets will reside.
2. For a software upgrade installation, the dialog will not allow you to define a master catalog, so the target system master catalog must exist before you start the installation.
3. To define SSAs, you must be able to update the driving system’s master catalog.
4. If you enter the “N” for the Define SSA field, the dialog attempts to allocate and catalog all data sets with that high-level qualifier on the driving system with the data set names that you defined in the Modify System Layout function.

When you leave the Specify Temporary Aliases (SSAs) for Catalogs function, your changes are automatically saved. The dialog checks to ensure that all catalog names either have valid SSA entries or have “N” specified in the Define SSA field. If not, the panel described in “Confirming processing requirements” on page 133 is displayed.

Selecting the catalog

Use the Catalog Selection List panel (Figure 88) to specify an SSA for each catalog. The SSAs you specify here are used to create alias entries for these catalogs in the driving system’s master catalog.

Figure 88. Panel: Catalog selection list

For a software upgrade installation, the target system’s master catalog must already exist (the Allocate Catalog field is set to N and cannot be changed). User catalogs can be new or existing catalogs.

When you first display the Catalog Selection List panel, you might see a message warning you that you have not defined at least one SSA. If you try to exit this panel before completing the SSA definitions, the message reappears. Whether you receive this message or not, you should ensure that the needed SSA definitions exist and that any SSA definitions inherited from a saved configuration are still valid.
Defining system-specific aliases (SSAs)

The following primary commands are valid for this panel:

?  This is a standard command for panels that display lists. See “Primary commands” on page 11.

CANCEL  
This command, abbreviated as CAN, discards any changes that you have made since the last checkpoint and exits the Specify Temporary Aliases (SSAs) for Catalogs function. (A checkpoint is taken when you enter and exit the dialog, and after any SAVE command).

SAVE  
This command saves any changes you made, and establishes a new checkpoint. (A checkpoint is taken when you enter and exit the dialog, and after any SAVE command.)

The following line command is valid for this panel:

S  Selects a catalog, allowing you to specify:
  • SSA  
  • When an SSA is to be used for this catalog, the SSA name
  • Whether the catalog is to be allocated
  • When the catalog is to be allocated, the unit and volume
  • When the catalog is to be allocated, its size

Enter line command S for a data set name on this panel and press Enter to display the next panel, which is described in “Defining SSA and catalog data.” After you define the SSAs, the dialog displays the Catalog Selection List panel again with the updated SSA information. When you are satisfied with the results, return to the Installation Menu panel (Figure 2 on page 7).

Defining SSA and catalog data

The process you use to define SSAs depends on your installation type: full system replacement or software upgrade. See the section that applies to your installation, as follows:
  • “Defining SSA and catalog data for full system replacement”
  • “Defining SSA data for software upgrade” on page 131.

Defining SSA and catalog data for full system replacement

For a full system replacement, define your SSA and catalog with the panel shown in Figure 89 on page 130.
Defining system-specific aliases (SSAs)

In the panel, the fields are as follows:

- **Catalog**: Name of the catalog.
- **Type**: Type of catalog. MCAT indicates a master catalog; UCAT indicates a user catalog.

**Define the following fields:**

**Define SSA**
- Set this value to Y (yes) to define a new SSA in the driving system's master catalog. Set this value to N (no) if the SSA is already defined in the driving system's master catalog.

If you set the Allocate Catalog field to Y, you must set the Define SSA field to Y.

**Allocate Catalog**
- Specifies whether to allocate the catalog. Set this value to Y (yes) if the catalog does not yet exist on the target system, and is to be allocated. Set this value to N (no) if the catalog already exists on the target system; it cannot be allocated again.

All catalog names must be unique.

**SSA Name**
- Specifies the system-specific alias to be used to locate target system data sets that will be cataloged in the specified catalog. The name you choose must not have an existing alias entry in the driving system's master catalog, and cannot be the same as the high-level qualifier of any data set cataloged in the driving system's master catalog.

**Catalog Volume**
- Specifies the volume serial of the DASD on which the catalog is to reside. For a pop-up list of volumes that exist in the work configuration, enter a question mark (?). Select a volume by entering S before the desired volume serial. You are not required to choose a volume from the list. Any volume serial may be specified; if it does not exist, it is added to the configuration.

If the volume you specified already exists in the work configuration, the unit you specify here must match the unit value you specified previously. Otherwise, a message is displayed to prompt you to resolve the mismatch.
Defining system-specific aliases (SSAs)

Space
Specifies the primary and secondary space to be allocated to the catalog. See the section “Determining Catalog Size” in z/OS DFSMS Managing Catalogs, SC26-7409 for information on how much space to allocate for catalogs.

If you did not specify that the catalog is to be allocated (you set the Allocate Catalog field to N), do not enter values for these fields.

Defining SSA data for software upgrade
For a software upgrade installation, two panels are used to define SSAs: one for the master catalog and one for user catalogs.

For the master catalog, define your SSAs with the panel shown in Figure 90.

```
CPPP6035  ----------------- SSA to CATALOG ( PC000226 ) -----------------
COMMAND =>

Define SSAs

Catalog : MASTER.CATALOG
Type : MCAT

SSA Name  => ZORT (Required)
```

Figure 90. Panel: Define SSA and catalog data (software upgrade) master catalog

In the panel, the fields are described as follows:
- **Catalog**: Name of the catalog for which an SSA is to be defined.
- **Type**: Type of catalog. Always MCAT, indicating the master catalog.

Define the following field:

**SSA Name**
Specifies the system-specific alias to be used to locate target system data sets. The name you choose must not have an existing alias entry in the driving system’s master catalog, and cannot be the same as the high-level qualifier of any data set cataloged in the driving system’s master catalog. For a software upgrade installation, these same restrictions apply to existing entries in the target system’s master catalog.

For user catalogs, define your SSAs with the panel shown in Figure 91 on page 132.
Defining system-specific aliases (SSAs)

In the panel, the fields are described as follows:

**Catalog**
Name of the catalog for which an SSA is to be defined.

**Type**
Type of catalog. Always UCAT, indicating a user catalog.

Define the following fields:

**SSA Name**
Specifies the system-specific alias to be used to locate target system data sets that will be cataloged in the specified catalog. The name you choose must not have an existing alias entry in the driving system’s master catalog, and cannot be the same as the high-level qualifier of any data set cataloged in the driving system’s master catalog. For a software upgrade installation, these same restrictions apply to existing entries in the target system’s master catalog.

**Allocate Catalog**
Specifies whether to allocate the catalog. Set this value to Y (yes) if the catalog does not yet exist on the target system, and is to be allocated. Set this value to N (no) if the catalog already exists on the target system; it cannot be allocated again.

**Catalog Volume**
If you specify that the catalog is to be allocated (that is, you set the Allocate Catalog field to Y), use the Catalog Volume field to specify the volume serial of the DASD on which the catalog is to reside. For a pop-up list of volumes that exist in the work configuration, enter a question mark (?). Select a volume by entering S before the desired volume serial. You are not required to choose a volume from the list. Any volume serial may be specified; if it does not exist, it is added to the configuration.

If the volume you specified already exists in the work configuration, the unit you specify here must match the unit value you specified previously. Otherwise, a message is displayed to prompt you to resolve the mismatch.

If you did not specify that the catalog is to be allocated (you set the Allocate Catalog field to N), do not enter a value for this field.

**Space**
Specifies the primary and secondary space to be allocated to the catalog, if the catalog does not yet exist on the target system and must be allocated. See the section “Determining Catalog Size” in [z/OS DFSMS Managing Catalogs, SC26-7409] for information on how much space to allocate for catalogs.

---

CPPP6036 ---------------- SSA to CATALOG ( PC000226 ) ------------------------
COMMAND => _

Define SSA and CATALOG Data

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog</td>
<td>TONY.CATALOG</td>
</tr>
<tr>
<td>Type</td>
<td>UCAT</td>
</tr>
<tr>
<td>SSA Name</td>
<td>SMPESSA (Required)</td>
</tr>
<tr>
<td>Allocate Catalog</td>
<td>(Y or N)</td>
</tr>
</tbody>
</table>

If allocating the catalog, the following information is required:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog Volume</td>
<td>AMHCAT (? For List of Available Vols)</td>
</tr>
<tr>
<td>Primary Space</td>
<td>1 (1-999 Cylinders)</td>
</tr>
<tr>
<td>Secondary Space</td>
<td>1 (1-999 Cylinders)</td>
</tr>
</tbody>
</table>

Figure 91. Panel: Define SSA and catalog data (software upgrade)

In the panel, the fields are described as follows:

**Catalog**
Name of the catalog for which an SSA is to be defined.

**Type**
Type of catalog. Always UCAT, indicating a user catalog.
Defining system-specific aliases (SSAs)

If you did not specify that the catalog is to be allocated (you set the Allocate Catalog field to N), do not enter values for these fields.

Confirming processing requirements

If, when you try to exit the Specify Temporary Aliases (SSAs) for Catalogs function, the dialog detects an invalid catalog alias definition or (for a software upgrade installation) that there is not at least one catalog alias defined, the panel shown in Figure 92 is displayed.

CustomPac ------------ SSA to CATALOG ( MD053718 ) ------------------------
COMMAND ==> Confirm Processing Requirements

Some Catalog to SSA Relationships have not been defined OR were Invalid

Press the ENTER key to continue editing the table
Press the END or RETURN key to save the current values and EXIT, Processing will resume at this function

Figure 92. Panel: Confirm processing requirements

To continue working with the configuration, press Enter.

To exit the function, press End. Subsequent processing of the dialog resumes at the Specify Temporary Aliases (SSAs) for Catalogs function.
Chapter 11. Submitting the installation jobs

From the Installation Menu, enter I to begin the next dialog function, Create and Submit Installation Jobs. The Job Selection List is displayed (Figure 93), showing the installation jobs, plus any additional jobs you might have defined.

**Note:** The I option is not selectable until the order has been successfully downloaded.

You can use the GENSKEL command to tailor all of the installation jobs at one time. When GENSKEL completes, the dialog saves the jobs in a backup data set. You can select the jobs from the backup data set through line command B (rather than line command S). GENSKEL saves you time during installation, and frees your TSO/E session for other tasks while the jobs are being tailored. For more information, see “Using GENSKEL to generate the installation jobs” on page 138.

At this stage of the installation process, your primary source of information is *ServerPac: Installing Your Order*. This chapter supplements the information in that book. When you have finished running the installation jobs and verification programs (IVPs) described in *ServerPac: Installing Your Order*, you continue with Chapter 12, “Saving the configuration,” on page 147.
Submitting the installation jobs

The panel displays the jobs and documentation that are required to install your order, based on the installation type that you chose earlier in the installation (full system replacement or software upgrade).

The “Jobs used to install the ServerPac” table in ServerPac: Installing Your Order lists all of the jobs and indicates the installation type to which they apply (full system replacement or software upgrade).

The job selection list includes the maximum return code (“MC”) of the “STEP,” the status of the “STEP” and the actual return code of the “STEP.” For a system abend, the RC field shows “SYST.”

As [Figure 93 on page 135](#) shows, the installation jobstream has three types of “components,” as follows:

**SRC**
Identifies the default job statement (or “source data”). The source data always appears first in the jobstream. You can browse it by selecting it, or edit it through ISPF EDIT using the ‘E’ line command.

**DOC**
Identifies a part of the tailored documentation for your order. You can browse the documentation by selecting it.

**JOB**
Identifies an installation job for your order. If you enter S for the job, the dialog displays the job, tailored according to your work configuration. You can submit the job for execution.

If you include the job within a set of block Select (SS) line commands, the dialog tailors all the included “STEPS” into a single job and displays it.

If you enter B for the job (and have run GENSKEL), the dialog displays the previously-tailored job.

You can always edit a job and submit it, no matter how you select it. Note, however, that your changes will be saved only if you:

- Use the ISPF EDIT CREATE command to save the altered job, or
- Use the ISPF EDIT REPLACE command to create a BACKUP member, or
- Edit an IBM-supplied job in the backup library (SCPPBENU), or
- Edit a user-supplied job in the skeleton library (SCPPSENU).

The following primary commands are valid for this panel:

**? SET Locate Find Next Previous**
These are standard commands for panels that display lists. See “Primary commands” on page 11.

**GENSKEL**
This command generates the installation jobs for your order and stores them in the SCPPBENU data set. Of these jobs, the Job Selection List panel displays only those jobs that apply to your order’s installation type (full system
Submitting the installation jobs

replacement or software upgrade). For more information, see "Using GENSKEL
to generate the installation jobs" on page 138.

OFILE
This command writes a list of the installation jobs to a user-defined file (see
page "OFILE" on page 181).

OLIST
This command, writes a list of the installation jobs to the ISPF LIST data set.

SUMMARY
This command, abbreviated as SUM, displays the processing log, which is a list
of the jobs that were submitted from the jobstream and their return codes. If
output logging is active, you can browse the job output (see "Displaying the
processing log" on page 140).

SS$
This command controls whether user-defined jobs are included with any
file-tailored jobs that you select through line command SS. On the panel, the
"SS$( )" field shows the current status of this setting. For example, Figure 93 on
page 135 shows SS$( EXCLUDE ) to indicate that user-defined jobs will not be
selected by block select (SS) commands. To change this setting to its other
value (INCLUDE), enter the SS$ command.

VAREDIT
This command, abbreviated as VAR, invokes the Specify Values for Variables
function (described in Chapter 6, "Defining installation variables," on page 57).
All variables are reloaded on exit from this function; changes to data values are
available for immediate use.

The following line commands are valid for this panel:

B Back-up command. This command displays backup members you have
created by running GENSKEL or saved by using the BACKUP or REPLACE
command after selecting the job with the Select line command. You can edit
the job and submit it for execution. Any modifications you make will be
saved. See "Using line command B" on page 140.

D Delete command. Use this command to delete any user-defined job (you
cannot delete IBM-supplied jobs). You must confirm your DELETE request.
The job is deleted, but the processing log entries, if any, remain. See "Deleting a user-defined job" on page 145.

E Edit command. Use this command if you want to edit the SRC member or
any user-defined job. Your changes are saved when you exit ISPF Edit.
See "Editing a user-defined job" on page 144.

I Insert command. Use this command to insert user-defined jobs, if any, into
the jobstream. See "Inserting a user-defined job" on page 143.

L Log command. Use this command to display the processing log for the
selected job, which contains a list of executions of the job and their return
codes (the job might have been run more than once because of previous
processing failures). If output logging is active, you can browse the job
output. This command uses the same processing as the SUMMARY
primary command (see "Displaying the processing log" on page 140).

O Activate output logging. Use this command to display the job output through
ISPF Browse. The maximum return code from the job is shown in the RC
field. If output logging is not active, only the processing status of the job is
reported (for example, 'ON OUTPUT QUEUE').
Submitting the installation jobs

**S**  Select command. Use this command to file tailor a component in foreground mode. Use of this command depends on the type of component that you have selected, as follows:

For JOB components:
- The job is tailored and displayed. The default job statement is automatically inserted before the STEP JCL (unless it is a user-defined job and the MAX return code field is blank).
- You can submit the job for execution using the ISPF Submit command (for more information, see “Using line command S” on page 141).
- To file tailor jobs in background mode (batch), use the GENSKEL primary command.

For DOC or SRC components:
- The data is tailored and displayed (through ISPF Browse).

**SS**  Block Select. Use this command to select a block of jobs (mark the start and end of the block of jobs with the SS command pair). The marked block can contain any kind of component, but only JOB components are selected. If user-defined jobs are contained in the block, they are selected only if the current setting of the SS$ command indicates INCLUDE. The job is tailored and displayed for edit. The default job statement is automatically inserted before the first step JCL. You can submit the job for execution.

Do not use the block selection method for steps with a blank MC field.

**V**  VARS command. Use this command to see the CustomPac variables (those prefixed with \(F\)) that are relevant for the selected job. See Chapter 6, “Defining installation variables,” on page 57.

If you change the value of any of the variables, and you used GENSKEL previously, you must rerun GENSKEL to tailor the jobs with the updated values.

For information about running the jobs in the Job Selection List, see ServerPac: Installing Your Order.

Using GENSKEL to generate the installation jobs

When you enter the GENSKEL primary command from the Job Selection list panel, the panel shown in Figure 94 on page 139 is displayed.
Submitting the installation jobs

You must tailor each of the installation jobs before you submit them. You can use
the GENSKEL command to tailor installation jobs in the background. GENSKEL
generates the installation jobs for your order, and stores them in the backup data
set (SCPPBENU). Having the installation jobs stored in SCPPBENU allows you to
review them, if desired, after the order is installed.

File-tailored jobs might already exist in the SCPPBENU data set. Specify whether
GENSKEL is to replace these jobs or preserve them. Set the Replace Job field to Y
to replace jobs; set the field to N to preserve them.

Press Enter to generate the GENSKEL job. Then, submit the job with the SUBMIT
command. Exit the dialogs until the GENSKEL job completes.

For your convenience, the Job Selection List panel displays only the installation
jobs that apply to your order's installation type (full system replacement or software
upgrade). To view the entire set of jobs generated by GENSKEL, including jobs that
are not needed for your installation type, check the SCPPBENU data set. (The
GENSKEL output lists all generated jobs in the SYSPRINT output data set.) To
access these jobs, enter line command B on the Installation Jobs display.

Selecting job output logging

When you submit a job for execution, the job number is written to a processing log.

You can capture the job output by having it written to data set SCPPOENU. Doing
so requires that you set the installation variable synonym OUTPUT LOGGING to
YES. The jobname also needs to be the users id plus a character.

The process for setting installation variables is described in Chapter 6, “Defining
installation variables,” on page 57.

If data set SCPPOENU runs out of space, rename it, and allocate a new one with
more space. Copy the renamed data set into the new SCPPOENU data set and
then delete the original.
Submitting the installation jobs

Displaying the processing log

If you enter the SUMMARY primary command at the Job Selection List, the Processing Log panel is shown (Figure 95). This panel lists the jobs that were submitted from the jobstream and their respective return codes. If output logging is active, you can browse the job output.

The following primary commands are valid for this panel:

?, SET, F, L, N, P, SORT

These are standard commands for panels that display lists. See “Primary commands” on page 11.

The following line commands are valid for this panel:

O  Output. Displays the job output through ISPF Browse and shows, in the RC field, the highest return code for the job. If output logging is not active, this command shows only the processing status of the job (for example, “ON OUTPUT QUEUE”).

Using line command B

If you enter line command B for a job in the Job Selection List, the panel in Figure 96 on page 141 is displayed.
Submitting the installation jobs

This edit session acts directly on the named member in the backup library (SCPPBENU).

If you delete all of the records from the member, you cannot exit the panel until you enter the CANCEL primary command. An empty member is not allowed in the backup library.

Standard editing commands have the following effects when entered for a backup job:

**CANCEL**  
Ends the edit session without saving your changes.

**END/RETURN**  
Ends the Edit session and saves your changes. If the backup member has no records, the command is ignored, and you must use the CANCEL command.

**REPLACE**  
Saves your changes from the edit session in the backup member. If a backup member does not exist, one is created. If a backup member already exists, the member is replaced.

**SAVE**  
If the backup member has no records, this command is ignored.

**SUBMIT**  
The job is submitted for execution and the job number is written to the processing log.

**Using line command S**

If you enter line command S for a job or doc in the Job Selection List, the panel in [Figure 97 on page 142](#) is displayed.
Submitting the installation jobs

This ISPF Edit session allows you to edit the job before submitting it. If you make changes, you can save the job in the backup data set by using the BACKUP or REPLACE command as described below. To reselect a job you have edited and saved in the backup data set, use the B line command to select it on the previous panel, rather than the S line command.

In this session, ISPF edit commands work as expected, with the exceptions of End, Replace, Save and Submit. The effects of these commands are described, as follows:

**END**

Ends the edit session, but does not save your changes.

**REPLACE**

Replaces an existing backup member (created by the BACKUP command; see below).

**SAVE**

Is disabled.

**SUBMIT**

Submits the job for execution (as expected), but also tells the dialog that the job was submitted, for tracking purposes.

Besides the ISPF Edit commands, you can use the dialog’s BACKUP command to save the contents of this edit session in a new member of the backup library, SCPPBENU. When you end the session, the new member is shown in the STEP column in the dialog.

If the member already exists, the BACKUP command is rejected with the message “BACKUP MEMBER EXISTS”. (To replace an existing backup member, use the REPLACE command.)

The BACKUP command creates members in the SCPPBENU library only. You cannot use BACKUP to create members in other libraries. You can, however, use the ISPF Edit Create command to do so.

Working with user-defined jobs

Besides working with the IBM-supplied jobs, you can add your own jobs to the installation job stream; see the following sections:

- “Inserting a user-defined job” on page 143
- “Editing a user-defined job” on page 144
- “Deleting a user-defined job” on page 145.
Inserting a user-defined job

When you attempt to insert a user-defined job into the jobstream, the panel in Figure 98 is displayed.

![Figure 98. Panel: Insert a user-defined job]

Fill in the following fields:

**Step Name**
Specifies the name by which the job is to be known (this is not the jobname). The name must be unique. Otherwise, the dialog displays a “duplicate” message.

The first character must be a dollar sign ($), so the dialog inserts the $ character ahead of the data entry field. For the rest of the member name, you can use up to 7 valid characters: alphabetic, numeric, or national (@, #, or $).

**MAX Return Code**
Specifies the maximum expected return code for the step. If you specify a value in the range 00-99, the default JCL job statement is automatically inserted before the step when you select the file from the Job Selection List (through line command S).

If you leave the value blank, the dialog assumes that the user-defined job already includes a valid job statement and does not insert a job statement.

**Data Description**
Enter a meaningful description of the step.

A scan of the skeleton library (SCPPSENU) is made. If the STEP name you wish to use does not exist as a current member of the library, EDIT processing is invoked to allow creation of source JCL for the step. (See “Editing a user-defined job” on page 144).

If a member currently exists which has the same name as the step name you wish to use, it is possible that:
- It is an old version
- It is a previously deleted user-defined job, but physical delete of the skeleton member was specified as no.

You must determine the cause. To assist you, the dialog displays the member, for example:
Submitting the installation jobs

You must confirm that the member in the skeleton library can be used as source for the step user-defined job (Figure 100). Do so by entering USE in the COMMAND field and pressing enter.

When confirmed, EDIT processing is invoked to allow changes to the source JCL for the step (see “Editing a user-defined job”).

Editing a user-defined job

If you enter line command E for a user-defined job in the Job Selection List, the panel in Figure 101 on page 145 is displayed.
Submit the installation jobs

This edit session acts directly on the job source member.

Do not create a job statement for a user-defined job. When you later select the job from the Job Selection List (Figure 93 on page 135), the dialog will automatically insert a job statement in the job.

If you delete all of the records from the member, you cannot exit from the panel unless you enter the CANCEL primary command. An empty member is not allowed in the skeleton library.

Standard editing commands have the following effects when entered for job source:

**CANCEL**  
The edit session is ended; nothing is saved.

**END/RETURN**  
If the member has no records, the command is ignored, and you must use the CANCEL command.

**SAVE**  
If the member has no records, the command is ignored.

**SUBMIT**  
This command is disabled. To submit a job, you must first select it from the Job Selection List panel. See Figure 93 on page 135

---

Deleting a user-defined job

If you enter line command D to delete a user-defined job, the panel in Figure 102 on page 146 is displayed.

---

Chapter 11. Submitting the installation jobs 145
Submitting the installation jobs

To confirm your request, enter DELETE in the COMMAND ==> field and press Enter.

By default, the physical skeleton from the skeleton library (SCPPSENU) is retained; only the entry for the job in the control table is deleted, to allow the job to be re-inserted at a later stage. To delete the physical skeleton, specify Y in the Delete Skeleton field.

Figure 102. Panel: Delete a user-defined job - confirmation
Chapter 12. Saving the configuration

After you install a ServerPac order, use the Save the Current Work Configuration function of the dialog to save your work configuration. Doing so can help you save time in installing subsequent ServerPac orders. Rather than manually re-entering all of the data required for each new order, you can merge the saved configuration with the new order and avoid much of the data entry.

For example, while installing your order, you might have chosen to customize the shipped configuration. You might have:
- Merged it with a saved work configuration
- Changed the values of variables
- Added your own user variables and installation jobs
- Changed data set names
- Changed the space allocated for data sets
- Assigned data sets to physical volumes
- Merged data sets
- Changed the catalog configuration.

To keep these settings available for a future order, save the configuration.

Another, equally important reason to save a configuration is to take a checkpoint to which one can return. You can use the Save command at any time after the work configuration is created. If you wish to preserve the work configuration in a particular state (for example, to be able to return to that state if a subsequent step goes awry), you can save it. You can save it more than once; each time you save it, the previously saved copy is overlaid. To return to the saved state, recreate the configuration and select the saved configuration for merging. The work configuration will then reflect the saved configuration. However, you must re-select each previously-completed option on CPPPFLOW, in turn, before being able to return to the option in use when the configuration was last saved.

Figure 103 on page 148 shows the panel that you use to save the work configuration. To display this panel, select option S (Save the Current Work Configuration) from the Installation Menu.
Saving the configuration

Enter the high level qualifiers for the saved work configuration (up to 35 characters, including the periods). To uniquely identify the saved configuration, it is recommended that you use your order qualifier as one of the specified qualifiers, along with something meaningful (such as CONFIG or SAVECFG) to identify the configuration.

To your specified qualifiers, the dialog appends one of the following low-level qualifiers to the data sets in the saved configuration:

- **SCPPSENU** For skeleton libraries
- **SCPPTENU** For table libraries.

For example, if the order qualifiers are CPP.MD053718, a good high level qualifier to use for the saved configuration would be:

CPP.MD053718.CONFIG

and the two libraries used to save the configuration are:

CPP.MD053718.CONFIG.SCPPSENU
CPP.MD053718.CONFIG.SCPPTENU

If you use ACS routines, ensure that these routines permit the allocation of the dialog data sets, SCPPSENU and SCPPTENU. Or, preallocate these data sets before saving the configuration. Otherwise, your SAVE command might fail with a dynamic allocation error. For information about writing ACS routines, see [z/OS DFSMSdfp Storage Administration](#).

It is recommended that you enter a meaningful description in the comment field. Include the release level of the product that you installed, for example:

DEBBIE'S Z/OS REL.5 SET-UP WITH RECOMMENDED LAYOUT

During your next installation of a ServerPac order, you will find the description of the saved configuration displayed on the Select Configuration panel (shown in "Creating the configuration" on page 42).

If the saved configuration data sets do not exist, the dialog prompts you to confirm that the data sets can be automatically allocated.

You can save only one configuration for an order. If a saved work configuration already exists, the dialog prompts you to confirm that the configuration can be deleted (see Figure 104 on page 149). Processing cannot continue until you allow
Saving the configuration

To confirm that the configuration can be deleted, enter *DELETE* in the **COMMAND** field and press Enter.

```
CPPP6O42 -------------- SAVE Configuration ( MD053718 ) -----------------------
COMMAND =>
DELETE an EXISTING Configuration

A Saved Configuration already exists in Library
   CPP.MD053718.CONFIG
This must be DELETED before SAVE can continue

You MUST Confirm DELETION By Typing DELETE and pressing ENTER

Press the END or RETURN key to CANCEL the DELETE request
```

*Figure 104. Panel: Deleting an Existing Configuration - Confirmation*

To confirm that the configuration can be deleted, enter *DELETE* in the **COMMAND** field and press Enter.
Chapter 13. Working with orders

Selecting an order

Figure 105 shows the Order Selection panel, which allows you to specify the orders to be displayed. This panel is displayed when Option D is selected from CPPPPOLI.

<table>
<thead>
<tr>
<th>Figure 105. Panel: Order selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>To display only those orders having a specific status, specify a Y for each status type to be included in the order display list and an N for each status type to be excluded from the order display list.</td>
</tr>
<tr>
<td>Any field left blank defaults to Y. If all status fields are specified as Y (the default), all orders are shown.</td>
</tr>
<tr>
<td>The available status selections are:</td>
</tr>
<tr>
<td><strong>Received</strong> This status is set when the order can be selected on the order list panel. For orders delivered on tape, this is after the RECEIVE job has run. For orders that are downloaded, this is after the first phase of the download has been completed.</td>
</tr>
<tr>
<td><strong>Started</strong> This status is set when the work configuration has been created. You can still make changes to an order that is in the started status.</td>
</tr>
<tr>
<td><strong>Installed</strong> This status is set once the installation jobs for the order have been run. You cannot make changes to an order that is in the installed status.</td>
</tr>
<tr>
<td><strong>Error</strong> This status is set when the RECEIVE job fails and the failure is detected by the job. (It cannot be set if the job is canceled, abends, or ends due to a system failure.) When an order's status is <strong>Error</strong>, examine the output of the RECEIVE job, correct the problem, and resubmit the job.</td>
</tr>
<tr>
<td>If no orders meet your selection criteria, a message is displayed and the panel allows you to enter a different selection.</td>
</tr>
</tbody>
</table>

Displaying an order

When you complete the Select Orders to Display panel, a list of orders that matches your selection criteria is displayed in the Order List panel (Figure 106 on page 152). (This panel is also displayed if you enter Option I on panel CPPPPOLI.)
The Order List panel indicates the status of your orders with one of the following status codes (in the Status column):

- **Received**: This status is set when the order can be selected on the order list panel. For orders delivered on tape, this is after the RECEIVE job has run. For orders that are downloaded, this is after the first phase of the download has been completed.
- **Started**: This status is set when the work configuration has been created.
- **Installed**: This status is set once the installation jobs for the order have been run.
- **Error**: This status is set when the RECEIVE job fails and the failure is detected by the job. (It cannot be set if the job is canceled, abends, or ends due to a system failure.) When an order’s status is **Error**, examine the output of the RECEIVE job, correct the problem, and resubmit the job.

The following primary commands are valid for this panel:

? SET Locate Find Next Previous OFile SORT VERBOSE

These are standard commands for panels that display lists. See "Primary commands" on page 11.

**OFILE**

This command, abbreviated as OF, writes the list of orders to a user-defined file (see page "OFILE" on page 181).

The following line commands are valid for this panel:

- **D** Delete. Deletes an order from the order inventory. You will prompted to confirm the deletion.
- **E** Edit. Allows an existing order to be edited. Only the order’s System Name, Status, and Comment fields are editable.
- **P** Products. Displays the products, elements, and features in the order, including the individual program names and numbers, their versions, and the number of FMIDs in each product, element, or feature.
- **R** Report. Displays a panel on which you can request a report that writes all information associated with an order and its products and features to a data set. The panel prompts you for information about the report data set.
- **S** Select. Select an order for installation.
- **O** Output. Displays a panel that lists the installation jobs you have submitted. You can use this panel to display any associated job output for a selected installation job.
Editing an order

Figure 107 shows the panel that is displayed when you select an order for editing through line command E on the Order List panel.

```
ORDER-#00001.PKG123

ORDER DETAILS

Order Number: JE000001
Package Type: SERV
Production Date: 2004/08/31
SREL: ZO38 (MVS)
Customer Name: IBM Corp.
Customer Number: 1234567
Last Changed On: 2004/09/01
Last Changed By: DAVID

Status: S (Started, Received, Installed, **Error**)
System Name: SYSA
Comments: z/OS R6

Last Saved Configuration:
Description: Z/OS R4 ORDER #1
Qualifiers: DAVID.DO000277.CONFIG4
```

Figure 107. Panel: Editing an order

Update the order information in the panel and press Enter to save the changes. You can change only the Status, System Name, and Comment fields, and (if they appear), the Description and Qualifiers fields under Last Saved Configuration. You cannot change the other fields.

The “Last Saved Configuration:” text, the two data entry fields that follow it, the content of those fields, and their descriptions are displayed only when there is a saved configuration for the order. When there is a saved configuration, they appear regardless of the order’s status.

The fields are described as follows:

**Order number**

This value is supplied by IBM.

**Package type**

Package type of the order. Valid values are:

- **CPP**: ProductPac
- **CRMO**: Selected Follow-On Service
- **CRS**: RefreshPac
- **EXP**: SubSystem ServerPac or SystemPac Full Volume Dump format
- **EXPDD**: SystemPac Dump by Data Set format
- **FPAC**: FunctionPac
- **HCHK**: Health Check
- **OMIS**: OMIS
- **SERV**: ServerPac

**Production date**

Production date. The date is in the format:

```
YYYY/MM/DD
```

**SREL**

System release of the order. These are the SRELs defined by IBM:

- **MULT**: Multiple SRELs
Customer name
Your company name.

Customer number
Your customer number.

Last changed on
You cannot change this field. This is the date the status field was last changed. It is updated automatically whenever the status field is changed.

Last changed by
You cannot change this field. This is the userid of the person or program that last changed the status field. It is updated automatically whenever the status field is changed.

Status
The current install status of the order. Possible values are:
- **R** Received
- **S** Started
- **I** Installed
- **E** "**Error**"

Notes:
1. No data entry value is allowed for a status of "**Error**", which can be displayed, but not set.
2. Orders having a status of "Finalized," which could be set using prior levels of the dialog, are displayed as "Installed."
3. For the meaning of each status code, see "Selecting an order" on page 151.
4. You must confirm the change in status (see "Verifying the status of an order" on page 157). The normal status sequence is:
   - Received → Started
   - Started → Installed

System name
This optional field is reserved for your use; it is not set by IBM. You can put whatever you want here or leave it blank.

Comment
This is an optional, user-defined field. You can change it at any time.

Description
This is an optional, user-defined field. You can change it at any time.

Qualifiers
This is an optional, user-defined field. You can change it at any time.

Displaying the products and features of an order

From the Order List panel (Figure 106 on page 152), you can view the products, elements, and features of a particular order by entering line command P. Figure 108 on page 155 shows the panel that is displayed.
This panel shows the products, features, and elements in the order, including the individual program names and numbers, their versions, and the number of distinct FMIDs in each product or feature.

The following primary commands are valid for this panel:

?, SET, Locate, Find, Next, Previous, SORT

These are standard commands for panels that display lists. See "Primary commands" on page 11.

OFILE

This command, abbreviated as OF, writes a list of the products and features to a user-defined file (see page "OFILE" on page 181).

The following line command is valid for this panel:

F Displays the FMIDs for a product or feature. See "Displaying the FMIDs for a product or feature."

Displaying the FMIDs for a product or feature

From the panel shown in Figure 108, you can view the FMIDs for a particular product or feature by entering line command F. Figure 109 shows the panel that is displayed.

The following primary commands are valid for this panel:
Requesting an order report

From the Order Information panel (Figure 106 on page 152), you can request that a report (order data; products, elements, and features; FMIDs) for an order be written to a data set by entering line command R. Figure 110 shows the panel that is displayed.

```plaintext
CPPP6077 ------------ ORDER INFORMATION ------------
COMMAND =>
REPORT File Details
    Send REPORT to ISPF LIST Dataset ==> ? (Y or N)

    OR

    Enter Details of the Dataset to which the Report will be Written.
    Dataset Name ==> MD053718.PRINT
    DISPosition ==> NEW (NEW, MOD, OLD or SHR)
    When Allocated NEW (DSORG=PS,RECFM=FB,LRECL=80)
    Volume Serial ==> WORK14 (Default=SYSDA)
```

Figure 110. Panel: Specify a report data set

Specify a fully qualified data set name (without quotation marks) and volume serial for the output of the report data set.

If the data set is a PDS, you must also specify a member name. Also, the output data set must have an LRECL of 80 bytes.

Specify the data set's allocation disposition as one of the following:

- **OLD**  An existing data set is to be used
- **SHR**  An existing data set is to be used
- **NEW**  A new data set is to be allocated and cataloged
- **MOD**  If it exists, a sequential data set is to have the report appended to it. If it does not exist, a new sequential data set will be created and the report will be written to it.

If the specified data set already exists and you specified a disposition of NEW, or the data set name implies a change to the DSORG attribute (for example, the data set is DSORG=PS and you specify a member name), the data set is deleted and re-allocated. Here, you must confirm that the existing data set can be deleted by entering DELETE on the command line and pressing the Enter key. Or, you can use the END or RETURN keys to cancel the delete request.

Also, you can also choose to browse the report when it is created.
Verifying the status of an order

[Figure 111] shows the panel that is displayed when you attempt to change to the status of an order. This can occur, for example, if you edit the status field (see "Editing an order" on page 153).

The normal status sequence is:

- Received → Started → Installed

You requested a status change that does not follow the normal status sequence. This is allowable, but you must confirm it by typing STATUS on the command line and pressing Enter. You can cancel the status change request by pressing End.

Figure 111. Panel: Status verification

The normal status sequence is:
- Received → Started → Installed
Appendix A. Primary command reference

BACKUP

Purpose
When issued from a selected job in the 'Job Selection list' panel the BACKUP command will save the content of that selected JOB in a new member of the backup library, SCPPBENU.

Syntax

```
BACKUP /SM590000/SM590000
BACKUP /SM590000/SM630000
```

Parameters
None.

Results
When the session ends, the new member is copied into the SCPPBENU data set.

Restrictions
1. The BACKUP command creates members only in the SCPPBENU library. You cannot use BACKUP to create members in other libraries. You can, however, use the ISPF Edit CREATE command to do so.
2. If the member already exists, the BACKUP command is rejected. To replace an existing backup member, use the REPLACE command.

Examples
To save the contents of the current edit session in a new member of the backup library, select the JOB from the "Job Selection list" panel and enter BACKUP. You will see message "CREATE BACKUP DEFERRED". Once you end the session the new member is copied into the backup library, SCPPBENU.

CHANGE

Purpose
CHANGE is a powerful command that you can use to make changes to many data sets at once. Using CHANGE is much faster than making changes to individual data sets in the dialog, so you should use it whenever possible to save time.

The following syntax diagram shows the primary keywords for the CHANGE command. Each of these keywords is separately documented, along with their unique parameters, in the following sections.
### Parameters

**DSNAME**
- Renames one or more data sets. See [“CHANGE DSNAME” on page 161](#) for details.

**DSNAME ‘HLQ’**
- Changes the high level qualifier for one or more data sets. See [“CHANGE DSNAME ‘HLQ’” on page 162](#) for details.

**DSNTYPE**
- Allows changing between PDS and PDSE or HFS and zFS data sets. See [“CHANGE DSNTYPE” on page 163](#) for details.

**LVOL**
- Reassigns one or more data sets to a different logical volume. See [“CHANGE LVOL” on page 165](#) for details.

**MCAT**
- Overrides the dialog’s requirement for one or more data sets to be defined in the system’s master catalog. See [“CHANGE MCAT” on page 165](#) for details.

**PVOL**
- Reassigns one or more data sets to a different physical volume. See [167](#) for details.

**RENAME**
- Overrides for one or more data sets the dialog’s restriction on renaming the data set. See [“CHANGE RENAME” on page 168](#) for details.

**SECOND**
- Change secondary allocation of data sets with shipped value of 0. See [“CHANGE SECOND” on page 169](#) for details.

**SMS**
- Changes the SMS management status of one or more data sets. See [“CHANGE SMS” on page 170](#) for details.

**SPACE**
- Changes the space attributes for one or more data sets. See [“CHANGE SPACE” on page 172](#) for details.
Processing

The general procedure for using the CHANGE command is:

1. Decide which data sets you want to change
2. Pick a characteristic of those data sets for which you can display a list of desired data sets. You will probably want to pick a characteristic that eliminates as many unwanted data sets as possible.
3. Enter the desired CHANGE command on the resulting display list
4. Based on the parameters specified on the CHANGE command, the dialog checks the data sets in the current display list and returns a candidate list of data sets that are eligible to be changed by the command. At this point, changes are only simulated; no data sets have actually been changed.
5. Determine whether to:
   - Commit the changes as shown in the display (by pressing Enter or End)
   - Exclude particular data sets from the candidate list before committing the changes (by identifying the data sets to be excluded with the X line command and then pressing Enter or End), or
   - Cancel the change request (by entering the ISPF CANCEL command and pressing Enter).
6. Unless you cancel the change request, the CHANGE command will apply the specified change to all selected data sets (that is, all the data sets on the list that you did not exclude).

Note: The CHANGE command may be abbreviated as CH.

CHANGE DSNAME

Purpose

You can use the CHANGE DSNAME command to modify a string of characters in a data set name. Only data sets that are allowed to be renamed are displayed in the candidate list that results from a CHANGE DSNAME command. For information about unrenameable data sets, see the CHANGE RENAME command. The dialog checks the new data set name to ensure that it is a valid data set name and conforms to ServerPac standards.

Syntax

```
CHANGE DSNAME /source target/
```

Parameters

- `source`
  Specifies the character string to be replaced.

- `target`
  Specifies the new character string.
Restrictions

1. Only data sets that are allowed to be renamed are displayed in the candidate list that results from a CHANGE DSNAME command. Unrenameable data sets cannot be renamed unless you first override this attribute with the CHANGE RENAME command (see ["CHANGE RENAME" on page 168].

2. For each order you install, choose unique names for the order’s SMP/E data sets (those beginning with SMP*), for example, SMPPTS and SMPLTS.

For the CSI data sets, IBM recommends that you choose names that are unique throughout your entire installation or enterprise, not merely within your driving system's environment. The CSI data sets include:

- SMPE global CSI
- SMPE target CSI
- SMPE DLIB CSI

Examples

Use care in entering the CHANGE DSNAME command because it replaces all occurrences of the source string in the names of your data sets. For example, assume that you want to rename data set CBC.SCBCMOD1 to XXX.SCBCMOD1. If you enter the CHANGE DSNAME command as follows:

```
CH DSN CBC XXX
```

the resulting data set name is XXX.SXXXMOD1, which is probably not what you wanted. Here, to make the correct change, you must include the period (.) with the source string, as follows:

```
CH DSN CBC. XXX.
```

The resulting data set name is XXX.SCBCMOD1.

CHANGE DSNAME *HLQ*

Purpose

You can use the CHANGE DSNAME *HLQ* command to change the high level qualifiers of renameable data sets.

To change the high level qualifiers of data sets, enter the CHANGE DSNAME *HLQ* command from any data set list panel. From the resulting display, exclude any data sets that you do not want to change and press Enter. The high level qualifiers in the list are changed to the new high level qualifier.

Syntax

```
CHANGE DSNAME *HLQ* target
```

Parameters

- **target**

  specifies the new high level qualifier of the data sets.
Restrictions

1. Only data sets that are allowed to be renamed are displayed in the candidate list that results from a CHANGE DSNAME *HLQ* command. Unrenameable data sets cannot be renamed unless you first override this attribute with the CHANGE RENAME command (see "CHANGE RENAME" on page 168).

2. If you change the high level qualifier of a data set, you might need to re-establish its catalog and SMS relationships.

Examples

Assume that in a data set list you have created, some data sets begin with JOAN.* and some begin with WAYNE.*. You can use one command to change all of these data sets to use the same high level qualifier (for example, JOHN.*) as follows:

```
CH DSN *HLQ* JOHN
```

The CHANGE DSN *HLQ* command also allows you to change single high level qualifiers to multiple high level qualifiers. For example, assume that you want to change all of the listed data sets to use the high level qualifiers SYS9.MARNA.*. To do so, display the desired data sets and enter the CHANGE DSN *HLQ* command, as follows:

```
CH DSN *HLQ* SYS9.MARNA
```

CHANGE DSNTYPE

Purpose

You can use the CHANGE DSNTYPE command to convert your shipped order’s data sets to a different format:

- PDS data sets to PDSE data sets
- PDSE data sets to PDS data sets (This can be done only for data sets that were originally PDS data sets)
- HFS data sets to zFS data sets
- zFS data sets to HFS data sets

The main advantage of using a PDSE over a partitioned data set is that a PDSE uses DASD space more efficiently. The size of a PDS directory is fixed, regardless of the number of members in it, while the size of a PDSE directory is flexible and expands or contracts to fit the stored members. Also, PDSEs do not need to be compressed. PDSEs offer other functional benefits, too, such as the ability to store program objects or data. For a complete description of PDSEs and their restrictions, see [z/OS DFSMS Using Data Sets](SC26-7410).

A zFS data set is a VSAM Linear Data Set (LDS), which offers some performance and file sharing features not available in HFS.

The dialog displays only those data sets that are allowed to be changed. The dialog does not, for example, allow you to change your order’s PDSE data sets to PDS data sets, because they contain members that cannot be loaded into a PDS. You can change a PDSE data set to a PDS only if the PDSE was originally shipped as a PDS data set.

You can use the dialog’s View and Change Facility to display a list of data sets that can be changed. In View and Change, select “Switchable” and then select “Yes” to get the list.
CHANGE DSNTYPE

Syntax

```
CHANGE DSNTYPE
```

Parameters

**PDS PDSE**
specifies that PDS data sets should be converted to PDSE data sets.

**PDSE PDS**
specifies that PDSE data sets should be converted back to PDS data sets.

**HFS ZFS**
specifies that HFS data sets should be converted to ZFS data sets.

**ZFS HFS**
specifies that zFS data sets should be converted to HFS data sets.

Restrictions

1. The following system data sets cannot be converted to PDSE format:
   • SYS1.NUCLEUS
   • SYS1.SVCLIB
   • Data sets listed in the LPALSTxx member of parmlib
   • Data sets in the parmlib concatenation used for IPL.
   • Master JCL data sets, such as:
     – Procedure libraries concatenated to IEFPDSI or IEFJOBS
     – SYS1.UADS
   • DB2 DBRM data sets.

2. A data set's type cannot be changed if any of the following are true:
   • The data set was originally shipped as a PDSE
   • Record format (RECFM) is U
   • Logical volume is IPLVOL.

3. The dialog does not enforce all product requirements. You must determine whether data sets are allowed to be in a different format before changing them.

Examples

To change PDS data sets to PDSE data sets, enter the CHANGE DSNTYPE command as follows:

```
CH TYPE PDS PDSE
```

To change HFS data sets to ZFS data sets, enter the CHANGE DSNTYPE command as follows:

```
CH TYPE HFS ZFS
```
CHANGE LVOL

Purpose

You can use the CHANGE LVOL command to reassign data sets to a different logical volume. The dialog displays only those data sets that are allowed to be reassigned.

If you specify an existing logical volume for the target, the device attributes are inherited from the target. If you specify an undefined logical volume for the target, the device attributes are inherited from the source.

Syntax

CHANGE LVOL

Parameters

source
Specifies the logical volume to which the data sets are currently assigned.

target
Specifies the logical volume to which the data sets are to be re-assigned.

Restrictions

1. You cannot assign non-SMS-eligible data sets to logical volumes that are assigned to a storage class.
2. You cannot assign SMS-required data sets to logical volumes that are assigned to physical volumes.
3. The following logical volume names will be rejected if specified as either a source or target name:

   CSIVOL       Reserved for the CSI data sets that are used to hold the DLIB and target zones for the ordered features and elements.
   IPLVOL       Reserved for data sets that must reside on the IPL volume.

Examples

Assume that for all data sets in the current Display List, you want to change logical volume RES001 to RES999. Enter the following command:

CH L RES001 RES999

CHANGE MCAT

Purpose

The installation dialog requires some data sets to be defined in the target system’s master catalog. The CHANGE MCAT command can be used to override the dialog’s requirements.
CHANGE MCAT

Attention: This command has no effect on any operating system restrictions, so injudicious use of CHANGE MCAT might result in an unusable system.

Note: A Master Catalog attribute of 'No' just means that the dialog does not require that data set to be defined in the target system's master catalog. It will not prevent you from doing so.

Syntax

```
CHANGE MCAT
```

Parameters

```
N  Override the master catalog requirement for selected data sets
Y  Restore the master catalog requirement for selected overridden data sets
```

Restrictions

You cannot change data sets having a Master Catalog attribute of 'No', unless they were originally shipped with an attribute of 'No'.

Examples

To override the master catalog requirement for data sets in your configuration, do the following:
- Use the dialog's View and Change Facility to display data sets with a Master Catalog attribute of 'Yes'.
- From the list of master catalog data sets, enter the CHANGE MCAT command as follows:
  
  ```CH MCAT N```
  
- Exclude any data sets that you do not want to change (through line command X) and press Enter.
- Press Enter or End to refresh the display. The overridden data sets are removed from the list.

To view the overridden data sets in your configuration, return to the selection list for master catalog data sets and display data sets having a Master Catalog attribute of 'Overridden'.

To reverse the preceding action, display the data sets having a Master Catalog value of 'Overridden.' Then, enter the CHANGE MCAT command as follows:

```
CH MCAT Y
```

After excluding any data sets that you do not want to change, and press Enter. Then, press Exit to refresh the display. The changed data sets are removed from the list.
CHANGE PVOL

Purpose

You can use the CHANGE PVOL command to reassign data sets to a different DASD volume. If the volume serial you enter is known to the dialog, the data sets are assigned to it. If there is enough space remaining on the volume for the data sets, no other actions are needed.

If the volume serial that you enter is not known to the dialog, then:

- If DYNAMIC DASD INFO is set to Yes (the default), the dialog tries to dynamically retrieve the physical attributes of the device. If this is successful, the Global Change Candidate List panel (CPPP6050) is displayed.
  - If the dialog cannot dynamically retrieve the device information, but the dialog expects the device to be offline, the dialog accepts the input on the command and displays the Global Change Candidate List panel. The dialog will not require the volume to be online, but will recheck volume availability during some operations and, if the volume has become available, it will verify the volume’s attributes and correct them, if necessary.
  - If the dialog does not expect the device to be offline, then you must either press the Enter key to tell the dialog that the device is expected to be offline and to accept the input and display the Global Change Candidate List panel, or press the End key to discard the input and cancel the command.

- If DYNAMIC DASD INFO is set to No, the device type is set to 3390-9 and the device number is set to CCUU.

Syntax

CHANGE PVOL

Parameters

DLIB
Specify that distribution library data sets are to be reassigned. DLIB can be abbreviated as D.

OPERATIONAL
Specify that operational data sets are to be reassigned. OPERATIONAL can be abbreviated as O or OP.

TARGET
Specify that target library data sets are to be reassigned. TARGET can be abbreviated as T or TARG.

volume_serial
Specify the physical volume to which the data sets are to be reassigned.
CHANGE PVOL

Restrictions
You cannot use this command to reassign SMS-managed data sets or data sets that must reside on the IPL volume.

Examples
To assign operational data sets to volume_serial OPRVOL, enter:
CH PVOL OPERATIONAL OPRVOL

CHANGE RENAME

Purpose
The installation dialog marks some data sets as being `unrenameable` to prevent them from being renamed by a CHANGE DSNAME command. Only data sets that are allowed to be renamed are displayed in the candidate list for a CHANGE DSNAME command. You can use the CHANGE RENAME command to override the dialog’s settings to make such data sets renameable.

Data sets that normally cannot be renamed include the following:
- CSSLIB
- LINKLIB
- LPALIB
- MIGLIB
- NUCLEUS
- PROCLIB
- SVCLIB

Attention: This command has no effect on any data set naming requirements that might be imposed by the operating system or by a product, so injudicious use of CHANGE RENAME might result in an unusable system.

Syntax

```
CHANGE RENAME
  CH RENAME Y N
```

Parameters

- **Y** Override the “unrenameable” attribute for selected data sets
- **N** Restore the “unrenameable” attribute for selected overridden data sets

Restrictions
Unlike other changes you make to data sets, the dialog does not preserve the “overridden” value when you later save the configuration for use with future orders.
Examples

To make selected data sets renameable, enter the dialog’s View and Change Facility and display the data sets in the configuration with a renameable attribute of NO. From any data set list, enter the CHANGE RENAME command, as follows:

CH RENAME Y

Then, exclude any data sets that you do not want to rename and press Enter. The data sets that you did not exclude will have their renameable attribute changed to "Overridden." When the data set display is updated, the data sets whose renameable attribute you overrode will no longer be displayed (because they no longer match the original display criteria). If did not exclude any data sets, this will result in an empty display list.

To reverse the preceding action, display only the data sets having a renameable attribute value of "overridden." Then, enter the CHANGE RENAME command as follows:

CH RENAME N

If you issued a CHANGE DSNAME or CHANGE DSNAME *HLQ* command and did not find a data set you wanted on the candidate list, it might be because the desired data set was not renameable. In this case, you could:
1. Return to the original data set list (from the change candidate list for CHANGE DSNAME)
2. Issue CHANGE RENAME Y to get a new change candidate list
3. Select the desired data set (by excluding the others) and press Enter
4. Return to the original data set list (from the change candidate list for CHANGE RENAME)
5. Reissue the original CHANGE DSNAME or CHANGE DSNAME *HLQ* command.

CHANGE SECOND

Purpose

ServerPac ships the link list data sets with no secondary space allocations. The CHange SECOND command allows you to override this and allocate secondary space for these data sets. Only the data sets in the list that were originally shipped with no secondary are eligible to have secondary space allocation changed. This command has no effect on data sets with shipped secondaries. For instance, if you use the CHange SECOND Y command to allocate secondary spaces for data set that were shipped with no secondary space, you can subsequently use the CHange SECOND N command to restore the no secondary attribute. You cannot, however, use this CHange SECOND N command to restore the no secondary attribute for data sets that were shipped with secondary space allocated.

You can eXclude data sets from this list.
CHANGE SECOND

Syntax

```plaintext
CHANGE SECOND
   CH  SECOND  Y  N
```

Parameters

- **Y** Override the no secondary attribute for selected data sets. When you issue the CH SECOND Y command, secondary space is set to a value that is 10% of the primary for the selected data sets shipped with no secondary space.
- **N** Restore the no secondary attribute for selected overridden data sets.

Restrictions

You can only use these commands with data set that were shipped with no secondary space allocated.

Examples

To override the no secondary attribute for a data set, enter the CHange SECOND command, as follows:

```plaintext
CH SECOND Y
```

Then, exclude any data sets for which you do not want to change the secondary space attribute and press Enter.

To reverse the preceding action, display only the data sets having a secondary space attribute value of “overridden.” Then, enter the CHANGE SECOND command as follows:

```plaintext
CH SECOND N
```

CHANGE SMS

Purpose

You can use the CHANGE SMS command to change the SMS management status of data sets in your work configuration.

As of the time this book was written, orders shipped from IBM contain no SMS-managed data sets. In most cases, however, the dialog allows you to modify the SMS status of a particular data set to indicate that SMS is to manage the data set.

Use valid SMS storage classes for any data sets that you assign to SMS management, and ensure that these classes are defined before running installation jobs that allocate SMS-managed data sets. For information on assigning SMS storage classes, see "Changing an SMS storage class" on page 117.

Also, when you later examine the installation jobs, ensure that the SMS attributes assigned by the installation jobs are acceptable and will allow the system to be used if you plan to IPL it.
If you use SMS to manage the data sets in your order configuration, the userid that
you later use to submit the installation jobs requires at least READ access to the
FACILITY class profile for STGADMIN.IGG.DIRCAT.

To see which data sets in your configuration are eligible for SMS-management, use
the dialog's View and Change Facility.

Syntax

```
CHANGE SMS
```

Parameters

YES

Adds unmanaged data sets to SMS management. YES can be abbreviated as
Y and is accepted in any combination of uppercase and lowercase letters.

NO

Removes from SMS management any data sets in the candidate list that are
currently managed by SMS. NO can be abbreviated as N and is accepted in
any combination of uppercase and lowercase letters.

Restrictions

1. You cannot assign data sets that reside on the IPLVOL logical volume to
   SMS-managed logical volumes.

2. You cannot use the dialog to assign catalogs to SMS management. To use SMS
to manage your catalogs, you must do one of the following:
   • Modify the ServerPac installation jobs to allocate SMS-managed catalogs
   • Use pre-allocated SMS-managed catalogs
   • Have your ACS routines redirect the allocation of the catalogs to
     SMS-managed volumes.

3. Be aware that the dialog allows you to change the SMS status for all eligible
data sets, regardless of whether such changes make the best sense for your
particular installation. Therefore, it is important that you carefully consider the
consequences of using SMS to manage your target data sets and operational
data sets, such as the following:
   • For a full system replacement, SMS-managed data sets on your driving
     system are not easily accessible from the target system before you run the
     CATCVTM and CATCONV installation jobs. These jobs are described in
     ServerPac: Installing Your Order.
   • SMS-managed data sets on your target system are not easily accessible from
     the driving system after you run the DELDSN and DELSSA clean-up jobs.
     These jobs are described in ServerPac: Installing Your Order.
   • When you re-assign a data set to SMS management, the dialog does not
     automatically remove the VOLUME parameter from JCL in all the jobs that
     allocate or locate the data set. Depending on your SMS configuration, you
     might have to remove the VOLUME parameter from jobs that allocate or
     locate SMS-managed data sets.
**CHANGE SMS**

**Examples**

To add unmanaged data sets to SMS management, enter the CHANGE SMS command, as follows:

```
CH SMS Y
```

This command activates SMS management for any data sets in the candidate list that are not already managed by SMS.

To remove data sets from SMS management, enter the CHANGE SMS command, as follows:

```
CH SMS N
```

This command removes from SMS management any data sets in the candidate list that are currently managed by SMS.

**CHANGE SPACE**

**Purpose**

You can use the CHANGE SPACE command to change the following values for data sets:

- Amount of primary space
- Amount of secondary space
- Number of directory blocks needed (only for partitioned data sets).

**Syntax**

```
CHANGE SPACE primary secondary dirblocks
```

**Parameters**

- `primary`
  Specifies the percentage by which to increase or decrease the current primary space value. The following values are valid:
  - To increase the space, specify an integer from +1 through +100 (the prefixed plus sign is optional).
  - To decrease the space, specify an integer from −1 through −50 (the prefixed minus sign is required).
  - To leave the primary space unchanged while changing other space values, specify an asterisk (*).

- `secondary`
  Specifies the percentage by which to increase or decrease the current secondary space value, or specifies a fixed percentage of primary space on which to base the amount of secondary space. The following values are valid:
  - To increase the space, specify an integer from +1 through +100 (the prefixed plus sign is optional).
CHANGE SPACE

- To decrease the space, specify an integer from −1 through −50 (the prefixed minus sign is required).
- To define the amount of secondary space as a percentage of primary space, specify an integer from P0 through P100 (the prefixed P is required). This amount is based on the current primary space value and will not be recalculated if the primary space is later changed.
- To set secondary space to zero, specify P0.
- To leave the secondary space unchanged while changing other space values, specify an asterisk (*)

IBM recommends increasing the primary space allocation when you use P0.

dirblocks
Specifies the percentage by which to increase or decrease the current number of directory blocks. The following values are valid:
- To increase the space, specify an integer from +1 through +100 (the prefixed plus sign is optional).
- To decrease the space, specify an integer from −1 through −50 (the prefixed minus sign is required).

Restrictions

1. For IBM-supplied data sets, you cannot decrease the primary space allocation to less than the original, shipped amount. If you attempt to do so, the dialog uses the shipped amount instead.
2. For user-defined data sets, you cannot decrease the primary space allocation to less than it was when you first defined it. You can increase the amount, but you cannot reduce it unless you delete the data set and redefine it with a smaller space allocation.
3. If the shipped secondary space allocation for a data set is zero, it means that secondary space is not allowed for the data set. This allocation must remain at zero.
4. You cannot decrease the number of directory blocks for a data set to a value that is less than its original, shipped value. If you attempt to do so, the dialog uses the shipped value instead.

Examples

To increase primary space 25 percent, enter:
CH S 25 (or CH S +25 )

To increase the secondary space by 20 percent, enter:
CH S * 20 (or CH S * +20)

To remove the secondary space altogether (for example, for link list eligible data sets), enter the following command:
CH S * P0

Assume that for all data sets in the current display list, you want to increase the number of directory blocks by 40 percent. Enter the following command:
CH S * * 40

Assume that for all data sets in the current display list, you want to increase the primary space by 20 percent and the secondary space by 50 percent. Enter the following command:
CHANGE SPACE

CH S 20 50  (or CH S +20 +50)

Assume that for all data sets in the current display list, you want to decrease the primary space by 10 percent and increase the secondary space by 25 percent. Enter the following command:

CH SPACE -10 25  (or CH S -10 +25)

Assume that for all data sets in the current display list, you want to decrease the primary space by 15 percent and set the secondary space to 40 percent of the primary space amount. Enter the following command:

CH SP -15 P40

Assume that for all data sets in the current display list, you want to set the secondary space to 30 percent of the primary space amount. Enter the following command:

CH S * P30

CREATE

Purpose

Use the CREATE command on the Select Configuration panel (described in "Creating the configuration" on page 42) to create a new work configuration from the shipped configuration and any desired saved configurations. The CREATE command processing merges eligible UNIX file system data sets in the shipped configuration when they were merged in a saved configuration and you selected that saved configuration to be merged with the shipped configuration.

Syntax

```
CREATE
```

Parameters

None for the CREATE command itself. You can, however, use the Select line command to identify the desired saved configurations that the CREATE command is to use when creating the new configuration.

Restrictions

Saved configuration selection is restricted to those created in the current release or up to three prior releases. For example, if your shipped configuration was created in Dialog Level 18, you can merge it with a saved configuration created in Dialog Level 15, 16, 17, or 18, but you can not merge it with a saved configuration from Dialog Level 14.

Results

The Select Configuration panel (shown in Figure 28 on page 42) is displayed with the message "Work Configuration Created" if the configuration was successfully created.
FIND

Purpose

The FIND command searches the field specified on the SET command for a character string that matches a specified string. FIND searches from the top of the panel to the bottom. There are two steps to using the FIND command:
1. Enter SET with the desired field.
2. Enter FIND with the desired character string.

Syntax

```
FIND /SM590000/SM590000
FIND F /string/ /SM590000/SM630000
```

Parameters

`string`

specifies the character string to be found.

Notes:

1. FIND is not case sensitive; both `string` and the field contents are treated as uppercase characters. For example, FIND treats ‘SERV’ as a match for ‘serv’.
2. `string` can begin in any character position of the field; it can be imbedded in the field. For example, FIND treats ‘SER’ as a match for ‘SERV’.
3. FIND has only one comparison operator, EQ, which is also the default.

Results

The FIND command searches the field specified on the SET command for a character string that matches the specified `string`. FIND searches from the top of the panel to the bottom. If a match is found, the panel entry that contains `string` is displayed at the top of the scrollable area.

Examples

1. To search the Customer Name field for ‘FINANCIAL’, enter the following:
   ```
   SET CUST F 'FINANCIAL'
   ```
2. If the string contains blanks, enclose it your search argument in quotation marks. For example, the following is a search for ‘AND SHIP’:
   ```
   SET CUST F 'and Ship'
   ```

FINDCOMP

Purpose

If you forget where a particular data set is after you merge it, you can use the FINDCOMP (Find Component) primary command on the Select Values to Display.
FINDCOMP

panel to find it among your merged data sets. The FINDCOMP command allows you to search for a data set by either its shipped name or its new name if you renamed the data set during a subsequent phase of the installation.

If you specify a data set that is not a component of a merged data set, the dialog displays the message "component not found."

Syntax

```
FINDCOMP
```

```
FINDCOMP /dsname
```

Parameters

dsname

Specifies the name of the data set that you want to find.

To search on a fully qualified data set name, enter the complete name of the data set. The dialog displays the name of the merged data set that contains the specified data set.

To search on a partially qualified data set name, enter the first few characters of the data set name and a wildcard (*). The dialog displays a pop-up list of data sets — the "Data Set Selection List" — that match the specified argument.

Examples

For example, entering

```
FC SYS1.M*
```

results in a list of all component data sets beginning with 'SYS1.M,' allowing you to select the desired data set with line command S to obtain the name of the merged data set.

GENSKEL

Purpose

Use the GENSKEL command to tailor all of the installation jobs at one time in the background (rather than individually in the foreground). GENSKEL saves you time during installation and frees your TSO/E session for other tasks while the jobs are being tailored. When GENSKEL completes, the dialog saves the jobs in a backup data set. You can then review and submit jobs from the backup data set. For more information, see "Using GENSKEL to generate the installation jobs" on page 138.
Syntax

GENSKEL

Parameters
None. You supply information needed for the job generation on panels displayed by GENSKEL.

Results
GENSKEL generates the installation jobs for your order and stores them in the SCPPBENU data set.

Examples
Enter GENSKEL to display the panels used to generate the installation jobs.

HELP

Purpose
The HELP command invokes the dynamic help, if available, for the current panel.

Syntax
HELP

Parameters
None.

Results
Invokes the dynamic help facility for the current dialog functions (if available).

Examples
If you want more information about the current dialog function, enter ? to invoke the dynamic help facility.
LOCATE

Purpose
The LOCATE command searches the field specified on the SET command for a character string that satisfies the comparison operator. LOCATE searches from the top of the panel to the bottom. There are two steps to using the LOCATE command:
1. Enter SET with the desired field.
2. Enter LOCATE with the desired character string and (optionally) the desired comparison operator.

Syntax

```
LOCATE /SM590000/SM590000
LOCATE L string EQ GE GT LE LT NE
/SM590000/SM630000
```

Parameters

string
specifies the character string to be located.

Notes:
1. The locate command is case sensitive. For example, ‘SERV’ does not match ‘serv’.
2. You cannot use LOCATE to find substrings of larger strings. That is, LOCATE does not treat ‘SER’ as a match for ‘SERV’.

comparison operator
The optional comparison operator can be any of the following:

<table>
<thead>
<tr>
<th>Operator</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQ</td>
<td>Equal to. EQ is the default value.</td>
</tr>
<tr>
<td>GE</td>
<td>Greater than or equal to</td>
</tr>
<tr>
<td>GT</td>
<td>Greater than</td>
</tr>
<tr>
<td>NE</td>
<td>Not equal to</td>
</tr>
<tr>
<td>LE</td>
<td>Less than or equal to</td>
</tr>
<tr>
<td>LT</td>
<td>Less than</td>
</tr>
</tbody>
</table>

Results
The LOCATE command searches the field specified on the SET command for a character string that satisfies the comparison operator. LOCATE searches from the top of the panel to the bottom. If a match is found, the panel entry that contains string is displayed at the top of the scrollable area.
Examples

1. The following example searches the Package Type field for a character string that matches ‘SERV’.
   
   SET P
   L SERV

2. The following example searches the SREL field for any character string that does not match ‘Z038’.
   
   SET SR
   L Z038 NE

3. To search for a string that contains blanks, enclose the search argument in quotation marks. For example, to search the Customer Name field for ‘legal services’, enter the following:
   
   SET CUST
   L 'legal services'

MERGE

Purpose

Use the MERGE command to merge eligible selected data sets with the merge target data set you selected on a list data set panel. You can also use the MERGE command to merge eligible selected UNIX file system data sets with the merge target UNIX file system data set you selected on a list of data set panel. MERGE is a two step process:

1. Use the line Merge command from a Data Set List panel such as CPPP605U (Figure 63 on page 93) to select the merge target data set.

2. Select one or more file system data sets from the Data Set Merge Candidates panel such as CPPP605M (Figure 66 on page 98) or CPPP605V (Figure 67 on page 100) to be merged with the target data set, type the primary MERGE command on the panel command line, and press Enter.

Syntax

```
MERGE /SM590000/SM590000
```

Parameters

None. You select the data set(s) to be merged with the target data set from the merge data set candidate list provided.

Restrictions

These restrictions apply only to merging UNIX file system data sets. Any eligible file system data set is allowed to be a merge target data set. UNIX file system data sets are eligible to be merge component data sets when the merge target data set is either an HFS or zFS data set and the following criteria are met:

- The merge allowed flag is set to Y in the logical volume table for the data set
- The data set is one of the following:
MERGE

- The same data set type as the merge target
- An HFS or zFS data set that is marked as switchable, or
- The merge target data set has a lower-level mount point.

Results

Eligible selected data sets are merged with the target data set.

Examples

1. A configuration contains the following three UNIX file system data sets at the
   specified mount points:

<table>
<thead>
<tr>
<th>File system data set</th>
<th>Mount point</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMVS.A</td>
<td>/usr/lpp/a</td>
</tr>
<tr>
<td>OMVS.AB</td>
<td>/usr/lpp/a/b</td>
</tr>
<tr>
<td>OMVS.ABC</td>
<td>/usr/lpp/a/b/c</td>
</tr>
</tbody>
</table>

   If you select OMVS.A as the merge target on panel CPPP605U, OMVS.AB and
   OMVS.ABC are displayed as candidates on panel CPPP605V. You can select
   either OMVS.AB, or both OMVS.AB and OMVS.ABC as valid merge candidates.
   You cannot, however, select OMVS.AB as the sole merge candidate because
   OMVS.AB has an intermediate mount point between OMVS.ABC and the merge
   target.

   If you select OMVS.AB as the merge target on panel CPPP605U, OMVS.ABC is
   displayed as the only merge candidate on panel CPPP605V and is the only
   valid selection.

2. A configuration contains the following three data sets:
   - sys1.data
   - sys1.abcd
   - sys1.efgh

   If you select data set sys1.data as the merge target on panel CPPP605U
   (Figure 63 on page 93), sys1.abcd and sys1.efgh are displayed as eligible
   merge candidates on panel CPPP605M (Figure 66 on page 98). You can select
   either or both of the data sets listed using the Select command. Once you have
   made your selection, enter the primary Merge command to merge the data sets.

NEXT

Purpose

Use the NEXT command to repeat the last FIND or LOCATE command, searching
forward.

Syntax

```
NEXT
```
Parameters

None.

Results

If a match is found, the panel entry that contains the character string is displayed at the top of the scrollable area.

Examples

If you had previously entered the following commands:

```
SET SR
L Z038 NE
```

Then NEXT would search forward in the SREL field for any character string that does not match ‘Z038’.

**OFILE**

Purpose

The OFILE command writes the currently displayed data set list to a user-defined file. There are three steps to using the OFILE command:

1. Enter OFILE with the OPEN keyword to dynamically allocate the user file and open it.
2. Enter OFILE without any keywords to send the list of data sets to the file.
3. Enter OFILE with the CLOSE keyword to close the file and free the dynamic allocation.

Syntax

```
OFILE
```

Parameters

- **dsname**
  
  is a fully-qualified data set name (enclosed in single quotation marks). If you do not enclose the data set name in quotes, your TSO/E PROFILE PREFIX is used as the high level qualifier.

- **CLOSE**
  
  Specifies that the data set identified by **dsname** is to be closed and to free the dynamic allocation. **CLOSE** can be abbreviated as **C**.

- **OPEN**
  
  Specifies that the data set identified by **dsname** is to be dynamically allocated and opened for output by the OFILE command.
OFILE

OLD
Specifies that the data set identified by dsname is an existing data set that is to be overwritten with the new data set list. OLD is the default.

MOD
Specifies that the data set identified by dsname is either an existing data set, to which the new data set list is to be appended, or a new data set, to which the list will be written.

NEW
Specifies that the data set identified by dsname is a new data set, which will be allocated and cataloged.

SHR
Specifies that the data set identified by dsname is an existing data set that is to be overwritten with the new data set list.

Results
The output data sets written by OFILE are in fixed block (FB) format with a record length (LRECL) of 120 bytes. The record format is as follows:

<table>
<thead>
<tr>
<th>Columns</th>
<th>Field size</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–44</td>
<td>44</td>
<td>Data set name</td>
</tr>
<tr>
<td>45</td>
<td>01</td>
<td>Data set merged flag</td>
</tr>
<tr>
<td>46</td>
<td>01</td>
<td>Data set changed flag</td>
</tr>
<tr>
<td>47–50</td>
<td>04</td>
<td>Record format (RECFM)</td>
</tr>
<tr>
<td>51–54</td>
<td>04</td>
<td>Data set organization (DSORG)</td>
</tr>
<tr>
<td>55–59</td>
<td>05</td>
<td>Logical record length (LRECL)</td>
</tr>
<tr>
<td>60–64</td>
<td>05</td>
<td>Reserved for IBM use</td>
</tr>
<tr>
<td>65–70</td>
<td>06</td>
<td>Logical volume</td>
</tr>
<tr>
<td>71–78</td>
<td>08</td>
<td>Physical volume or SMS storage class</td>
</tr>
<tr>
<td>79–82</td>
<td>04</td>
<td>Device number</td>
</tr>
<tr>
<td>83–90</td>
<td>08</td>
<td>Generic or esoteric unit name</td>
</tr>
<tr>
<td>91–98</td>
<td>08</td>
<td>Device type</td>
</tr>
<tr>
<td>99–102</td>
<td>04</td>
<td>Space required (in cylinders)</td>
</tr>
<tr>
<td>103–120</td>
<td>18</td>
<td>Reserved for IBM use</td>
</tr>
</tbody>
</table>

When the OFILE command is issued from panel CPPP6071, however, the output data set is written in (VB) format with a LRECL of 7086.

Examples
Here are the three steps required to send the list of data sets to a new file:
1. Enter **OFILE OPEN "MY.OFILE.TEXT" NEW** to open a new file "MY.OFILE.TEXT".
2. Enter **OFILE** without any keywords to send the list of data sets to "MY.OFILE.TEXT".
3. Enter **OFILE CLOSE** to close and free "MY.OFILE.TEXT".
OLIST

Purpose

This command, abbreviated as OL, writes the list of data sets to the ISPF LIST data set. For more information about ISPF LIST data sets, see z/OS ISPF User's Guide Vol I.

Syntax

```
OLIST
```

Parameters

None.

Results

Same as OFILE output.

Examples

Enter OLIST to write the list of data sets to the ISPF LIST data set.

PREVIOUS

Purpose

Use the PREVIOUS command to repeat the last FIND or LOCATE command, searching backwards.

Syntax

```
PREVIOUS
```

Parameters

None.

Results

If a match is found, the panel entry that contains the character string is displayed at the top of the scrollable area.
PREVIOUS

Examples

If you had previously entered the following commands:

```
SET SR
L 'Z038 NE
```

Then PREVIOUS would search backwards in the SREL field for any character string that does not match 'Z038'.

REPLACE

Purpose

When issued from a selected job in the "Job Selection list" panel, the REPLACE command saves the contents of the selected JOB into an existing member of the backup library, SCPPBENU.

Syntax

```
REPLACE /SM590000/SM590000
REPLACE /SM590000/SM630000
```

Parameters

None.

Results

When the session ends, the member is replaced into the SCPPBENU data set.

Restrictions

The REPLACE command replaces members in the SCPPBENU library only. You can, however, use the ISPF Edit CREATE command to create members in other libraries.

Examples

To save the contents of the current edit session into an existing member of the backup library, select the JOB from the "Job Selection list" panel and enter REPLACE. The message “REPLACE BACKUP DEFERRED” appears. When the session ends, the new member is replaced in the backup library, SCPPBENU.

SET

Purpose

The SET command specifies the field to be acted on by the FIND and LOCATE primary commands. The SET command is not available on some panels.
Syntax

\[
\text{SET} \quad \text{set-to\_field}
\]

Parameters

\textit{set-to\_field}

specifies the column heading or synonym for the field to which the FIND and LOCATE primary commands are to apply. The available \textit{set-to\_fields} vary from panel to panel.

\textbf{Note:} Some column headings have synonyms that you can use with the SET command. Synonyms are identified in uppercase letters in the column heading. See "Examples" for an example of using synonyms with the SET command.

Results

The column heading for the current SET field is displayed in turquoise. Subsequent FIND and LOCATE commands will operate on the current SET field.

Examples

Enter \texttt{SET OID} if you want the FIND command to find an order number on the panel.

SORT

Purpose

For panels with sortable fields, the SORT command specifies the field by which the display should be sorted and, optionally, whether the sorted field should be displayed in ascending or descending order.

Syntax

\[
\text{SORT} \quad \text{sort field}
\]

Parameters

\textit{sort field}

specifies the column heading or synonym for the field by which the display is to be sorted. The available \textit{sort fields} vary from panel to panel.
**SORT**

**Note:** Some column headings have synonyms that you can use with the SORT command. Synonyms are identified in uppercase letters in the column heading. See “Examples” for an example of using synonyms with the SORT command.

A or D specifies the order in which the specified field is to be sorted:

- **A**  Sort the display by the specified field in ascending order
- **D**  Sort the display by the specified field in descending order

**Notes:**
1. If neither **A** nor **D** are specified, the display will be sorted using the sequence that was pre-programmed for the specified field.
2. Usually, the Date field is pre-programmed so that the most recent date is shown first, with earlier dates following in descending order.

**Results**

The SORT command sorts the display by the specified field in ascending or descending order. The column heading for the current SORT field is displayed in yellow.

**Examples**

Suppose you want to sort the panel shown in Figure 112 by customer name in ascending order.

```
CustomPac ----------- Sample Panel Display MODE(TE) --------- ROW 1 TO 12 OF 99
COMMAND ==> SCROLL ==> PAGE
Primary Commands: (? SET Locate Find Next Previous SORT VERBOSE) Line Commands: (Browse Delete Edit Select)

<table>
<thead>
<tr>
<th>S Order ID</th>
<th>Pack</th>
<th>SREL</th>
<th>CUSTomer</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD010001</td>
<td>SERV</td>
<td>Z038</td>
<td>HERMANS ASSURANCE, LTD.</td>
<td>R</td>
</tr>
<tr>
<td>MD010022</td>
<td>CRS</td>
<td>C150</td>
<td>ELLS ARCHITECTURAL DESIGN</td>
<td>R</td>
</tr>
<tr>
<td>MD010023</td>
<td>SERV</td>
<td>Z038</td>
<td>T. HOOD USBILITY, INC.</td>
<td>F</td>
</tr>
<tr>
<td>MD010032</td>
<td>EXPDD</td>
<td>Z038</td>
<td>LAMASTRO CONTAINERS AND SHIPPING</td>
<td>R</td>
</tr>
<tr>
<td>MD010048</td>
<td>SERV</td>
<td>Z038</td>
<td>DAYNE-TRONICS</td>
<td>R</td>
</tr>
<tr>
<td>MD010057</td>
<td>EXPDD</td>
<td>Z038</td>
<td>ESMAT TECHNICAL SUPPORT</td>
<td>R</td>
</tr>
<tr>
<td>MD010059</td>
<td>SERV</td>
<td>Z038</td>
<td>ELLS ARCHITECTURAL DESIGN</td>
<td>R</td>
</tr>
<tr>
<td>MD010068</td>
<td>SERV</td>
<td>Z038</td>
<td>HARRIGAN MANAGEMENT CORP.</td>
<td>R</td>
</tr>
<tr>
<td>MD010069</td>
<td>SERV</td>
<td>C150</td>
<td>WALLE BUILDING AND SUPPLY CO.</td>
<td>A</td>
</tr>
<tr>
<td>MD010070</td>
<td>CPP</td>
<td>Z038</td>
<td>8-MAZURIK FINANCIAL SERVICES</td>
<td>R</td>
</tr>
<tr>
<td>MD010083</td>
<td>CPP</td>
<td>Z038</td>
<td>CORNELL LEGAL SERVICES</td>
<td>F</td>
</tr>
<tr>
<td>MD010101</td>
<td>CPP</td>
<td>Z038</td>
<td>LANDER O'BRIEN PARTNERSHIP</td>
<td>I</td>
</tr>
</tbody>
</table>
```

*Figure 112. Sample panel for SORT example*

To do this, enter the following:

```
SORT CUST A
```

where **CUST** is the synonym for the Customer field and **A** specifies ascending order. Likewise, you could sort this panel by the **Order ID** field in descending order with this command:

```
SORT OID D
```
SUMP

Purpose
Use the SUMP command to display the Summary of Physical Volumes panel, which lists the physical volumes that are referred to by your system. Use this panel to change device numbers and device types. This panel is described in "Displaying a summary of physical volumes" on page 113.

Syntax

```
SUMP
```

Parameters
None.

Results

The Summary of Physical Volumes panel is displayed.

TERSE

Purpose
Use the TERSE command to display the panel with only one line of information for each item. Terse display mode remains active until you enter a VERBOSE command. TERSE is valid only for panels that have both a terse and verbose mode.

Syntax

```
TERSE
```

Parameters
None.

Results

The panel is displayed with only one line of information for each item.

Examples

See Figure 3 on page 10 and Figure 4 on page 10 for examples of a panel in terse and verbose mode.
VERBOSE

Purpose

Use the VERBOSE command to display the panel with multiple lines of information for each item. Verbose display mode remains active until you enter a TERSE command. VERBOSE is valid only for panels that have both a terse and verbose mode.

Syntax

```
VERBOSE
```

Parameters

None.

Results

The panel is displayed with more than one line of information for each item.

Examples

See Figure 3 on page 10 and Figure 4 on page 10 for examples of a panel in terse and verbose mode.
Appendix B. Diagnostic messages

This appendix describes the CustomPac installation dialog messages.

The message number has the following format:
- Program prefix (CPP)
- Four-digit CustomPac program number
- Three-digit message number within the specific program
- Severity
  - I Information
  - W Warning
  - E Error
  - S Severe error

CPP0149009S Allocation failed for dataset dsname

Explanation: The dialog could not allocate data set dsname. The data set's volume is offline or no default volume/unit setup has been defined for the system on which the dialog is running.

System programmer response: Manually preallocate the data set or vary the volume online.

CPP0149117S RC from LISTDSI=17, System or user abend occurred.

Explanation: The dialog encountered an internal error when you attempted to save the 'create configuration report' output. As a result, the system did not save your report configuration data.

System programmer response: Check your order's work configuration for a LOG report data set from a previous order. If an older LOG report data set exists, delete the data set and retry the operation. If this problem persists, contact IBM Support for assistance.

CPP0601001E Configuration is INCOMPLETE or CORRUPTED

Explanation: You requested that a merged configuration be created, but the saved configuration SCPPTENU library does not contain all of the tables needed for a full saved configuration, or the library is corrupted. The library is missing one or more of the following members:
- CPPDEVF
- CPPITBL
- CPPVTBL

System programmer response: If the work configuration that you used to create the saved configuration is still available, do the following:
1. Ensure that the order's status is "S" (started). If not, change the order's status to "S" on panel CPPP6074 (entered by using line command E from CPPP6071, after getting the list by selecting Option "O" (orders) on CPPPPOLI).
2. Resave the order.
3. Use the newly-saved configuration for the merge.

CPP0601002E In addition to the MASTER configuration, ONLY ONE Saved Configuration is allowed for MERGE, De-Select those not required

Explanation: You selected more than one saved configuration to be merged with the shipped order configuration, which is not allowed.

System programmer response: Select only one saved configuration to be merged with the order.

CPP0601003I Config Request CANCELLED

Explanation: You requested that the configuration is to be created, however one or both of the following conditions exist:
- A configuration already exists.
- You attempted to create a merged configuration.

These conditions required confirmation, which was refused.

System action: The configuration was not created.

System programmer response: None.

CPP0601004I WORK Configuration Created

Explanation: The order's work configuration has been created successfully.

System programmer response: None.

CPP0601005E Data set NOT Allocated 'dsname', sys-msg

Explanation: You attempted to create a merged configuration, however the saved or master configuration library could not be allocated.
**System programmer response:** Determine why the library (dsname) was not allocated. See message sys-msg. If the data set has been deleted, restore it from your system backups.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPP0601006I</td>
<td>Report output has been saved in data set dsname</td>
<td>None.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>You used the SAVE command to save the output of the Create Configuration process in the specified data set, dsname.</td>
<td></td>
</tr>
</tbody>
</table>

**System programmer response:** None.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPP0601007E</td>
<td>A JES element must be selected for its zones to be merged.</td>
<td>Do either of the following:</td>
</tr>
<tr>
<td>Explanation:</td>
<td>You specified that a JES element’s SMP/E zones were to be merged with the BCP zones, but you did not select the JES element for installation. You must select the JES element for installation if you plan to merge its zones.</td>
<td></td>
</tr>
<tr>
<td>System action:</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>System programmer response:</td>
<td>None.</td>
<td></td>
</tr>
</tbody>
</table>

For considerations about merging JES zones, see “Selecting a JES for the configuration” on page 41.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
</table>
| CPP0601008E  | Select a merge option for JES
| Explanation: | You selected a JES element for installation, but did not specify whether its SMP/E zones were to be merged with the BCP zones. |
| System programmer response: | Specify Y or N to indicate whether the selected JES element’s zones are to be merged with the BCP zones. |

For considerations about merging JES zones, see “Selecting a JES for the configuration” on page 41.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPP0601009E</td>
<td>Configuration selected for merge is not supported.</td>
<td>Do either of the following:</td>
</tr>
<tr>
<td>Explanation:</td>
<td>You chose a saved configuration from a level of the dialog that is no longer supported. Only configurations saved within three releases of the current dialog are supported.</td>
<td></td>
</tr>
<tr>
<td>System action:</td>
<td>Saved configuration is not selected.</td>
<td></td>
</tr>
<tr>
<td>System programmer response:</td>
<td>Select a supported level of a saved configuration.</td>
<td></td>
</tr>
</tbody>
</table>

- Choose to base the new configuration on the shipped configuration only.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPP0602001E</td>
<td>NOT a Valid Catalog Data Set Name</td>
<td>Correct the catalog data set name.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>You entered a catalog data set name that is not valid.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPP0602002S</td>
<td>Catalog information for at least one entry is INVALID or NOT DEFINED</td>
<td>Enter a valid catalog data set name for all aliases.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>At least one alias is associated with an invalid catalog data set name or the catalog data set name has not yet been defined.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPP0602003I</td>
<td>Changes to the TABLE have been SAVED</td>
<td>None.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>Your changes to the order’s alias-to-catalog relationships have been saved.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPP0602004I</td>
<td>Processing CANCELLED by User &lt;changes&gt;</td>
<td>None.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>You entered the CANCEL command; your changes to the order’s alias-to-catalog relationships were discarded.</td>
<td></td>
</tr>
</tbody>
</table>

<changes> might show more information, such as the message: “CHANGES TO THE TABLE WERE NOT SAVED”.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPP0602005E</td>
<td>DELETE Request Refused, This Alias Is NOT USER DEFINED, It is Needed By CustomPac to Install Your Package</td>
<td>To get rid of a shipped HLQ, you must use Modify System Layout to rename all the data sets that use it.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>You attempted to delete an HLQ that was not user-defined in the alias option. You can delete only user-defined aliases.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Explanation</th>
<th>System programmer response</th>
</tr>
</thead>
</table>
| CPP0602006W  | Catalog Connection FORCED to MCAT, Either Alias MUST be in Master Catalog or Master Catalog DSNAME Specified | The catalog data set name you specified is the master catalog’s data set name. Or, one or more data sets named using this high-level qualifier must be
cataloged in the master catalog. All of the data sets beginning with this high-level qualifier will be cataloged in the master catalog.

**CPP0602007I** Changes to the Alias-to-Catalog Relationships REQUIRE you to Re-evaluate your SSA to Catalog Relationships

**Explanation:** Changes that you have made to the order’s alias-to-catalog relationships require you to synchronize your changes with the SSA-to-catalog relationships.

**System programmer response:** Repeat the Define SSA-to-Catalog Relationships function.

**CPP0602008E** Only ONE Master Catalog Can be Defined

**Explanation:** You have already defined a data set name for the master catalog. You cannot have a master catalog with more than one catalog data set name.

**System programmer response:** If you wish to use a different catalog data set name for the master catalog, enter line command N for the catalog data set name that is marked as the master catalog. Then, enter line command M for the correct catalog data set name to mark it as the master catalog.

**CPP0602009E** Command “option” is INVALID for this Alias

**Explanation:** You entered a line command, where option is M or N as follows:

- M - Mark master catalog
- N - Unmark master catalog

However, the catalog target for the selected alias would conflict with what is expected by CustomPac. You cannot change this entry because the installation dialog requires it to be in the master catalog.

**System programmer response:** Review your change request.

**CPP0602010E** You Cannot Change the Catalog Name for this Line Command

**Explanation:** You entered a line command and also changed the catalog data set name, which caused a command conflict. The original catalog data set name has been retained.

**System programmer response:** Enter the line command with the catalog data set name unchanged.

**CPP0603002S** SSA Information for at least one entry is INVALID or NOT DEFINED

**Explanation:** At least one catalog data set name has not yet been associated with an SSA (system specific alias), or the catalog definition has not been supplied.

**System programmer response:** Enter a valid SSA or catalog definition for all catalog data set names.

**CPP0603003E** If Catalog is to be Allocated, then the SSA must be defined

**Explanation:** You specified that the catalog is to be allocated, but have not specified an SSA (system specific alias) for the catalog.

**System programmer response:** Supply an SSA so that the selected catalog can be accessed by the driving system through the master catalog of the target system.

**CPP0603004I** Changes to the TABLE have been SAVED

**Explanation:** Your changes to the order’s SSA-to-catalog relationships have been saved.

**System programmer response:** None.

**CPP0603005I** Processing CANCELLED by User

**<changes>**

**Explanation:** You entered the CANCEL command; your changes to the order’s SSA-to-catalog relationships were discarded.

<changes> might show more information, such as the message: “CHANGES TO THE TABLE WERE NOT SAVED.”

**System programmer response:** None.

**CPP0603006E** Cannot Change Catalog VOLSER unless you also ALLOCate the Catalog

**Explanation:** You specified that the catalog is not to be allocated, but you have changed the DASD volume serial. This action caused a conflict of information.

**System programmer response:** To allocate the catalog, set the ALLOC CATALOG field to Y.

**CPP0603007E** You are trying to allocate a CATALOG without SSA definition. This is allowed ONLY for SUB-Systems and FunctionPac.

**Explanation:** You did not specify an SSA definition. An SSA definition can be omitted only for a subsystem or FunctionPac installation.

**System programmer response:** Specify an SSA definition.
SSA name is TOO long. This catalog has a data set (dsname) with a length of length, which limits the SSA to max-length characters.

**Explanation:** During SSA assignment, it was detected that the combined length of the SSA name specified, plus the data set associated with this SSA, exceeded the maximum of 44 characters. The name of the data set with the longest name is identified by dsname. Based on this length, the length of the SSA cannot be longer than max-length characters.

**System programmer response:** Shorten the length of the SSA definition to the specified maximum, or return to the Modify System Layout function of the dialog and change the name of the data set so that the combined length of data set and SSA does not exceed 44 characters.

Conflicting units stored for volume. This must be resolved to proceed beyond the SSA option. Press Enter to continue.

**Explanation:** The unit specified for volume volume does not match the value that was previously specified for this volume when defining or altering another SSA. Only one unit should be specified for any particular volume.

**System action:** None.

**System programmer response:** You must resolve this mismatch before you can proceed beyond the SSA dialog option. Press Enter or End to accept the unit specified or select a different unit. If you accept a mismatched unit, you must resolve the mismatch. Specify the same unit for all entries for the same volume.

Configuration is INCOMPLETE or CORRUPTED

**Explanation:** The order configuration SCPPTENU library does not contain all tables needed for a full work configuration, or is corrupted.

At least one of the following tables is missing from the library:

- **NEWDEVT** Device types table
- **NEWITBL** Installation jobs table
- **NEWVTBL** Installation variables table

**System programmer response:** Review the order configuration SCPPTENU library.

You CANNOT Save to the ORDER Configuration Library

**Explanation:** The high level qualifiers that you have specified plus one of the low level qualifiers would result in a data set name that is the same as the your order configuration libraries.

The order configuration libraries have the following low level qualifiers:

- SCPPSENU
- SCPPTENU

For example, suppose that you received your order into the following libraries:

- STOB4.MD000277.SCPPSENU
- STOB4.MD000277.SCPPTENU

and you specified a high level qualifier of STOB4.MD000277.

**System programmer response:** Specify a different high level qualifier.

HLQ Specified is NOT available, it is Used by Order ordernum

**Explanation:** The high level qualifiers that you have specified are used by another order ordernum.

**System programmer response:** Save the configuration to a unique set of configuration libraries. Specify the high level qualifiers for the order configuration libraries.

Data set NOT Allocated 'dsname', system-message

**Explanation:** The saved order configuration libraries could not be allocated.

**System programmer response:** Review the message system-message to determine why data set dsname was not allocated.

**System programmer response:** None.

SAVE Request CANCELLED

**Explanation:** The saved configuration libraries already contain a valid configuration. To continue with the save request, the older configuration must be deleted. This required confirmation, which was refused. As a result, nothing was saved.

**System programmer response:** None.

SAVE Request SUCCESSFUL

**Explanation:** The work configuration was successfully copied to a saved or master configuration.

**System programmer response:** None.

CustomPac LVT has been INITIALIZED With SHIPPED Values

**Explanation:** All data sets were restored to their original, shipped values. Any customization that you might have done has been lost.
System programmer response: None.

CPP0605002I  RESTORE Confirmation has been denied, SHIP Command will NOT be Executed

Explanation: Your request for all data sets to be restored to their original, shipped values was canceled because you did not confirm your request.

System action: The data sets remain at their current values.

System programmer response: None.

CPP0605003I  Changes to the TABLE have been SAVED

Explanation: Your changes for the logical volume table have been saved to the order table library.

System programmer response: None.

CPP0605004I  Processing CANCELLED by User

<changes>

Explanation: You entered the CANCEL command; your changes to the logical volume table were discarded.

<changes> might show more information, such as the message: “CHANGES TO THE TABLE WERE NOT SAVED.”

System programmer response: None.

CPP0605005S  At least one physical volume has problems which need to be resolved.

Explanation: One or more of the specified volumes has a problem that you must resolve before you can continue with the installation. In the panel, these volumes are indicated by ‘nnnn<<n’ and an associated message.

System programmer response: See the description of the associated message.

If you have completed the ServerPac installation, you may get this message if you return to the Modify System Layout option and have used “Initialize Volume” of ‘N’ for your physical volumes. In this case, you must set “Initialize Volume” to ‘Y’ to end the option without error. Setting the option to ‘Y’ will stop the Modify System Layout process from checking space on the volumes.

If the remaining installation options still appear as incomplete with an asterisk (**”) after exiting the Modify System Layout process, you must reselect and exit each completed option on CPPPFLOW in turn to return to the Installation Screen. Review the completed options to make sure that they are still correct.

CPP0605006I  VOLUME is NOT Available, It is Already Defined to CustomPac

Explanation: You attempted to assign a physical volume by changing the volume serial number, but the volume serial number you entered is already defined to CustomPac.

System programmer response: Assign the physical volume to a volume serial number that is not defined to CustomPac.

CPP0605007I  ADDRESS is NOT Available, It is Already Defined to CustomPac

Explanation: You attempted to assign a physical volume by changing the device address, but the device address you entered is already defined to CustomPac.

System programmer response: Assign the physical volume to a device address that is not defined to CustomPac.

CPP0605008E  Missing or invalid device type.

Explanation: The device type you specified for the volume was not defined to the dialog, or you did not specify a device type for the volume when one was required.

System action: None.

System programmer response: Depending on the value that you specified for the DYNAMIC DASD INFO variable, do one of the following:

- If DYNAMIC DASD INFO is set to YES, the dialog attempts to retrieve information about devices dynamically. To allow this action to complete, either make the device for the specified volume available (for example, vary it online) or specify a valid device type.

- If DYNAMIC DASD INFO is set to NO, either specify a valid device type or use the Device Type Table option of the Modify System Layout function to define a device of the correct type and return to this panel to specify the device type.

To see the list of currently-defined devices, enter a question mark (?) in the Device Type field or enter the DEVT command on the command line and press Enter.

CPP0605009E  PHYSICAL VOLUME(p-vol) is NOT an IPL Pack, BUT the LOGICAL VOLUME(l-vol) Contains IPL DATA SETS

Explanation: You attempted to assign a logical (l-vol) to a different physical volume (p-vol), but the logical volume contains data sets that must reside on the system IPL volume. The physical volume is not the system IPL volume, so you cannot use it with this logical volume.
System programmer response: Assign the logical volume to the physical volume that is the system IPL volume.

CPP0605010E  PHYSICAL VOLUME(p-vol) IS an IPL Pack, BUT the LOGICAL VOLUME(l-vol) Does NOT Contain IPL DATA SETS

Explanation: You attempted to assign a logical volume (l-vol) to a physical volume that is the system IPL volume (p-vol). However, the logical volume contains data sets that do not reside on the system IPL volume.

You cannot use the system IPL volume for this logical volume. The system IPL volume is reserved for data sets that must reside on the system IPL volume.

System programmer response: Assign the logical volume to a different physical volume.

CPP0605011E  LOGICAL VOLUME(IPLVOL) is RESTRICTED, It CANNOT be ASSIGNED, or be the Target of an ASSIGNMENT

Explanation: Logical volume IPLVOL is a reserved logical volume that contains data sets that must reside on the system IPL volume. Therefore, you cannot use IPLVOL as the source or target of an assignment.

System programmer response: Correct and resubmit your assignment request.

CPP0605013W  PHYSICAL VOLUMES are Referenced that DO NOT have a valid DEVICE ADDRESS (CCUU) Assigned, << RUN THE SUMP COMMAND >>

Explanation: Some data sets are mapped to physical volumes that do not have a valid device number (CUU). A physical volume must have a valid hexadecimal device number.

System programmer response: Enter the SUMP command and assign valid device numbers.

CPP0605014E  DUPLICATE DATA SET NAME, Data set Name is Already Used by CustomPac

Explanation: You attempted to use an existing data set name, which is not allowed.

System programmer response: Specify a different data set name.

CPP0605015E  DUPLICATE DATA SET NAME, Data set Name is an ORIGINAL SHIPPED Data set Name

Explanation: You attempted to use the original, shipped data set name of another data set, which is not allowed.

System programmer response: Specify a different data set name.

CPP0605017E  INVALID BLKSIZE, Data Set is UNBLOCKED, RECFM is F .. BLKSIZE must be LRECL

Explanation: You specified a DCB RECFM of F, but the BLKSIZE is not the same as the LRECL. For RECFM=F data sets, the BLKSIZE must be the same as the LRECL.

System programmer response: Reset the BLKSIZE to match the LRECL.

CPP0605018E  INVALID BLKSIZE, Data Set is UNBLOCKED, RECFM is V .. BLKSIZE must be LRECL + 4

Explanation: You specified a DCB RECFM of V, but the BLKSIZE is not the same as the LRECL + 4. For RECFM=V data sets, the BLKSIZE must be the same as the LRECL + 4.

System programmer response: Reset the BLKSIZE to match the LRECL + 4.

CPP0605019E  INVALID BLKSIZE, RECFM is F .. BLKSIZE must be a MULTIPLE of the LRECL

Explanation: You specified a DCB RECFM of F, but the BLKSIZE is not a multiple of the LRECL. For RECFM=F data sets, the BLKSIZE must be a multiple of the LRECL.

System programmer response: Reset the BLKSIZE to a multiple of the LRECL.

CPP0605022W  High Level Qualifier has CHANGED, You MUST Re-Evaluate the ALIAS to CATALOG and SSA to CATALOG Relationships

Explanation: You changed the high level qualifier of the data set. The new high level qualifier is not defined in the Alias-to-Catalog Table.

System programmer response: Rerun the Alias-to-Catalog and SSA-to-Catalog functions.

CPP0605023E  Missing or invalid device type.

Explanation: Either the device type you specified for the volume was not defined to the dialog, or you did not specify a device type for the volume when one was required.

System action: None.
System programmer response: Do one of the following:

- If you have the DYNAMIC DASD INFO variable set to YES, to indicate that the dialog should retrieve information about devices dynamically, you must either make the device for the specified volume available (for example, vary it online) or specify a valid device type. You can enter a question mark (?) in the Device Type field or enter the DEVT command on the command line and press Enter to see the list of currently-defined devices.

- If you have the DYNAMIC DASD INFO variable set to NO, you must either specify a valid device type or use the Device Type Table option of Modify System Layout to define a device of the correct type and then return to this panel to specify it. You can enter a question mark (?) in the Device Type field or enter the DEVT command on the command line and press Enter to see the list of currently-defined devices.

CPP0605024I  Data set Profile UPDATED
Explanation: You changed the data set profile. Your changes are stored in a temporary table until you save them or complete the Modify System Layout function of the installation dialog.
System programmer response: None.

CPP0605026E  INVALID REC FM
Explanation: You entered an invalid record format.
System programmer response: Enter a valid RECFM (U, FB, FA, FM, FS, VB, VA, VM, VS).

CPP0605027E  LOGICAL VOLUME(CSIVOL) IS RESTRICTED, IT CANNOT be Assigned, or be the Target of an ASSIGNMENT
Explanation: Logical volume CSIVOL is reserved; you cannot use it as the source or target of an assignment (you can, however, assign CSIVOL to another physical volume).
System programmer response: Correct your assignment request and resubmit it.

CPP0605028E  INVALID Data Set Name OR INVALID Symbolic Syntax
Explanation: You attempted to change the data set name using a symbolic variable, but after symbolic substitution, the resulting data set name does not pass syntax checking.
System programmer response: Either the fixed portion of the data set name is invalid, or the symbolic variable is in error. To correct the symbolic variable, return to the V (Define Installation Variables) function of the dialog and reassign the variable.

CPP0605029E  Symbolics are NOT ALLOWED for the High level or Low level Qualifiers
Explanation: You cannot use symbolics for high level qualifiers or low level qualifiers.
System programmer response: Use symbolics for the middle level qualifiers only.

CPP0605031E  Global CHANGE, Incorrect Option.
Explanation: You entered the CHANGE command with an incorrect option.
The following options are valid: DSN, LV, TYPE, SPACE, SMS, RENAME, PVOL, MCAT, SECOND.
System programmer response: Enter a valid change command. For correct syntax, see "Making changes to data sets" on page 94.

CPP0605032E  Global CHANGE, Missing Parameter(s)
Explanation: You entered the CHANGE command without specifying one or more required parameters.
The following parameters are valid: DSN, LV, TYPE, SPACE, SMS, RENAME, PVOL, MCAT, SECOND.
System programmer response: Reenter the command, including all required parameters. For examples, see "Making changes to data sets" on page 94.

CPP0605033E  Global CHANGE, Unknown Parameter(s) "parm"
Explanation: You entered the CHANGE command with one or more incorrect parameters, which are indicated by parm.
System programmer response: Enter the command with valid parameters. For examples, see "Making changes to data sets" on page 94.

CPP0605034I  Global CHANGE, NO Data matched your Selection Criteria
Explanation: The data set list was searched to apply your changes, but no matching data sets were found.
System programmer response: Review your change requirements.

CPP0605035I  Global CHANGE was CANCELLED by user or all changes were excluded
Explanation: The data set list was searched to apply your changes and some matches were found. However, you entered the CANCEL command or excluded all data sets from the candidate list. Therefore, no changes were made.

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System programmer response: None.

CPP0605036E Global CHANGE, Incorrect Parameter "parm"
Explanation: The CHANGE command parameter shown in parm is incorrect.
System programmer response: Correct the parameter and enter the CHANGE command again.

CPP0605037E Global CHANGE, Value OUT OF RANGE "parm"
Explanation: The CHANGE SPACE parameter shown in parm contains a value that is outside the allowable range.
System programmer response: Correct the parameter and enter the CHANGE command again.

CPP0605038I GLOBAL CHANGE, ALL Data that Matched Your selection Criteria resulted in Invalid Substitution, Nothing Changed
Explanation: The data set list was searched to apply your changes. Some data sets were found to match your selection criteria, but the CHANGE command would cause an invalid substitution. Therefore, no changes were made.
For example, suppose you entered the following:
CH DS AB DAPPLET
and a data set was named SYS1.CABS. If the change were applied, it would result in SYS1.CDAPPLETS, which would be an invalid substitution because CDAPPLETS is an invalid data set name.
System action: The system ignores your request.
System programmer response: Review your change requirements.

CPP0605042E INVALID Data set DISPosition or NOT Supplied (OLD, SHR, NEW, MOD)
Explanation: The OFILE OPEN data set disposition is not valid, or the default of OLD was used and the data set does not exist.
System programmer response: Correct the OFILE OPEN data set disposition. You can use OLD, SHR, NEW, or MOD. By default, the disposition is OLD.

CPP0605043E INVALID Data set DISPosition NEW and MOD are NOT allowed for a MEMBER
Explanation: The OFILE OPEN data set disposition was NEW or MOD, and you specified a member as part of the data set name. You must use OLD or SHR if you specify a member name.
System programmer response: Correct the OFILE OPEN data set disposition.

CPP0605044E Data set ATTRIBUTES are INCOMPATIBLE with the OFILE Command
Explanation: The OFILE data set has DCB attributes that are incompatible with the output record.
System programmer response: Review the DCB attributes of the data set you are trying to use for the output of the OFILE command. The OFILE data set must be compatible with RECFM=F LRECL=120.

CPP0605045I Data set OPEN SUCCESSFUL
Explanation: The OFILE output data set is open and available for your use.
System programmer response: To write the data set list to the OFILE data set, enter the OFILE command without parameters.

CPP0605046E Data set OPEN FAILED
Explanation: The OFILE output data set was not allocated or failed to open correctly.
System programmer response: If you attempted to open the data set as NEW, verify that the data set does not already exist. If you tried to open the data set as SHR or OLD, verify that the data set exists and is not in use by another user or job.
Also, review the DCB attributes of the data set that you are attempting to use for the output of the OFILE command. The OFILE data set must be compatible with RECFM=F LRECL=120.
Explanation: The OFILE output data set dsname is open and available for your use.

System programmer response: None.

**CPP0605054I** Data set CLOSED

Explanation: The OFILE output data set is now closed, and can be accessed by other users or jobs.

System programmer response: None.

**CPP0605049E** Data set OPERATION INVALID or NOT DEFINED (OPEN CLOSE)

Explanation: You entered the OFILE command incorrectly.

System programmer response: Reenter the OFILE command correctly, as follows:
- To open the OFILE data set, enter OFILE OPEN data set.name disposition
- To write the OFILE data set, enter OFILE without parameters
- To close the OFILE data set, enter OFILE CLOSE

**CPP0605050I** Data set List SAVED to 'dsname'

Explanation: The data set list has been written to data set dsname.

System programmer response: Close the output data set through the OFILE CLOSE command.

**CPP0605051I** Data set List SENT to ISPF LIST Data Set

Explanation: The data set list has been written to the ISPF list data set.

System programmer response: You can dynamically close the ISPF list data set through the ISPF LIST command. Otherwise, the data set is freed when your ISPF session is ended.

**CPP0605053E** INVALID command Parameters, Specify 'USER, SHIPPED, or MERGED' (Can be abbreviated to U, S, or M)

Explanation: You entered the SUMD primary command to display the Summary of Data Sets panel. However, you included an incorrect filter with the SUMD command.

Valid filters are as follows:
- (blank) Display all data sets.
- M Display only merged data sets.
- S Display shipped data sets and merged data sets.
- U Display only user-defined data sets.

System programmer response: Reenter the SUMD command to display the Summary of Data Sets panel. To filter the display output, specify a valid filter (U, S, or M) after the SUMD command.

**CPP0605055S** Actual device type attributes do not match those specified.

Explanation: You specified a device type or device number that does not match the volume’s actual device type or device number.

System action: None.

System programmer response: Specify the correct information for the volume, including its device type and device number.

**CPP0605057W** Volume (volume) largest free space overallocated.

Explanation: The combined size of the data sets to be allocated on this volume is greater than the size of the largest free extent on the volume.

In the panel, the volume is indicated by 'EXT<<W'.

System action: Processing continues.

System programmer response: To ensure that all data sets fit on the volume, do one or both of the following:
- Consolidate the free space on the volume into a smaller number of extents. (For example, run the DFSMSdss™ DEFRAG command to create a smaller number of free extents.) This might create a large enough free space extent to allocate the data sets currently assigned to this volume.
- Reduce the number of data sets defined in the configuration that are identified to be allocated on the volume. For example, move some of the existing data sets on the volume to another volume; or, if they are not needed, delete them.
To add another volume, use the dialog's View and Change facility (or the CH PVOL command) to move the data sets to another volume. If DYNAMIC DASD INFO is set to Yes and the volume is online, the dialog will determine how full the new volume is. If it is set to No, and the volume already exists in the configuration, the dialog will determine how full the new volume is. Otherwise, the new volume will have to be defined (on panel CPPP625D or CPPP605J).

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**CPP0605058S**  
*Volume (volume) information not retrievable.*

**Explanation:** Information about the volume volume could not be retrieved.

In the panel, the volume is indicated by 'VOL<<S'.

**System action:** The dialog prevents you from installing the order until you resolve this condition.

**System programmer response:** Ensure that the specified volume has been initialized, has a VTOC index, and is online. If so, rebuild the volume's VTOC index through the ICKDSF BUILDIX command and try again to use the volume.

If the DYNAMIC DASD INFO variable was set to "Y" and it is acceptable for volumes to be offline, select each volume (with the Select line command) in turn and respond to the resulting CPP0605087W message.

If this message persists after you rebuild the VTOC index, contact IBM for support.

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**CPP0605059S**  
*Volume (volume) is overallocated.*

**Explanation:** The number of cylinders to be allocated on volume volume exceeds the total number of cylinders for the volume.

In the panel, overallocated physical volumes are indicated by 'OVR<<S'.

**System action:** The dialog prevents you from installing the order until you resolve this condition.

**System programmer response:** There are several ways to resolve this condition:

- Specify another volume that has greater capacity.
- Use the SUMP command to select a device type that has a larger capacity.
- Move data sets from the overallocated volume to another physical volume, or add a new volume for the data sets. See the topic, "Recommended Data Set Placement" in z/OS Planning for Installation for assistance in determining which data sets to move.
- If this message is displayed after you have run the ALLOCDS job (as described in ServerPac: Installing Your Order), and you have not changed the data set layout since last using the Modify System Layout function, you can resolve the condition by resetting the 'Initialize Volume' field from N to Y.
- If the volume resides on a device with a reconfigurable size (and the DYNAMIC DASD INFO variable is set to Yes), exit the panel, reconfigure the volume, and retry the operation.

For help in changing the device type or moving a data set to another physical volume, see the descriptions that accompany Figure 80 on page 116.
converted (for details, see the CHANGE DSNTYPE command in Appendix A, “Primary command reference,” on page 159).

- Exit the installation dialog and activate SMS on the driving system. Return to the dialog at the Modify System Layout option.

CPP0605069E  Invalid combination of data set types specified for the CHANGE TYPE command.

**Explanation:** You entered the CHANGE DSNTYPE command incorrectly. This command allows changing between PDS and PDSE data sets, and between HFS and zFS data sets. Other combinations are not allowed (for example, changing a PDS to a zFS).

**System action:** The system ignores your request.

**System programmer response:** Use the correct syntax of the CHANGE DSNTYPE command. For information, see Appendix A, “Primary command reference,” on page 159.

CPP0605071E  Only Y(es) and N(o) allowed for CHANGE SMS Command

**Explanation:** You entered a CHANGE SMS command without a valid operand. The only operands allowed for CHANGE SMS are Y, YES, N and NO. Other operands are not supported.

**System action:** Command is not accepted.

**System programmer response:** Enter the command with a valid operand.

CPP0605072E  Physical Volume OR Storage Class is required.

**Explanation:** Neither a physical volume nor a storage class was assigned. You must assign the logical volume to either a physical volume or a storage class before leaving this panel.

**System programmer response:** Assign either a physical volume or a storage class to this logical volume.

CPP0605075E  Name not allowed. Specify SMxxxx for SMS-managed logical volumes. Do not specify SMxxxx for unmanaged volumes.

**Explanation:** You attempted to rename a logical volume. However, the name you chose violates one or more of the following naming conventions for logical volumes:

- For SMS-managed data sets, logical volume names must start with the letters SM and be 3 to 8 characters long.
- For non-SMS-managed data sets, logical volume names must not begin with the letters SM and must be 6 characters long.

If you want to change the SMS management status of a logical volume, you must apply the change to the individual data sets on the volume or through the SUML command for the entire logical volume.

**System action:** The operation is disallowed.

**System programmer response:** Specify a valid name, according to the logical volume naming conventions, or change the SMS management status of the volume, if appropriate.

1. Change the logical volume name to specify a volume whose SMS status matches the data set's SMS status
2. Change the volume’s SMS status to match the data set’s SMS status.

CPP0605074E  Logical Volume to-vol does not match SMS-managed status of logical volume from-vol

**Explanation:** You entered the command: CH LVOL from-vol to-vol, but the data sets represented by logical volume from-vol have different SMS attributes than the data sets represented by logical volume to-vol. The change request is ignored.

**System programmer response:** Ensure that the data sets represented by from-vol and to-vol have matching SMS attributes, and enter the CHANGE command again.
Invalid syntax. The correct syntax is:
CH PVOL TARGET|DLIB|OPERATIONAL
new_volume

Explanation: You entered the CHANGE PVOL command incorrectly.

System action: None.

System programmer response: Use the correct syntax, as shown in the text of the message. For an example of how to enter the CHANGE PVOL command, see [167].

Invalid syntax. The correct syntax is:
CH RENAME Y|N

Explanation: You entered the CHANGE RENAME command incorrectly.

System action: None.

System programmer response: Use the correct syntax, as shown in the text of the message. For an example of how to enter the CHANGE RENAME command, see Appendix A, "Primary command reference," on page 159.

Data set dsname would exceed 44 characters.

Explanation: The CHANGE command you specified would cause one or more data set names to exceed the maximum allowable length of 44 characters. The first of the data set names that would have exceeded 44 characters is shown.

System action: None.

System programmer response: Enter a CHANGE command that does not attempt to create data set names longer than 44 characters. VSAM and zFS data sets are restricted to 40 characters. Non-VSAM and zFS data sets are restricted to 42 characters.

Unmatched or too many "SS" selections. Two or no "SS" selections allowed.

Explanation: Your SS block commands are mismatched. Enter them in pairs.

System action: None.

System programmer response: Enter the select command as follows:
- To display a single data set, enter one S command.
- To display data sets for a range of values, use a pair of block select commands. That is, enter SS next to the first value and SS next to the last value.
- To display data sets for a range of values, and for values outside the range, use a pair of SS commands to select the largest range, and individual

No values were found to display.

Explanation: Your search resulted in no matches.

System action: None.

System programmer response: None.

No value was selected.

Explanation: You entered the LIST primary command, but did not specify a value to display.

System action: None.

System programmer response: Select a value before entering the LIST command.

Invalid syntax. The correct syntax is:
CH MCAT YIN

Explanation: You entered the CHANGE MCAT command incorrectly.

System action: None.

System programmer response: Use the correct syntax, as shown in the text of the message. For an example of how to enter the CHANGE MCAT command, see "CHANGE MCAT" on page 165.

Physical Volume volume is already in use as a Storage Class.

Explanation: When assigning a logical volume to a physical volume, you entered a physical volume name that matches an existing SMS storage class name, which is not allowed.

System action: None.

System programmer response: Specify a physical volume name that is not the same as the name of a storage class.

Storage Class storage-class is already in use as a Physical Volume.

Explanation: When assigning a logical volume to a physical volume, you entered an SMS storage class name that matches an existing physical volume, which is not allowed.

System action: None.

System programmer response: Specify a storage class name that is not the same as the name of a physical volume.
Device information updated

Explanation: The dialog successfully retrieved device information for the volume for which you specified the volume serial. The device type and device number were set from the retrieved information. If you entered "No" in the "Initialize Volume" field, available space on the volume was set using the amount of free space actually found.

System action: None.
System programmer response: None.

Device information could not be retrieved for volume.

Explanation: Because the DYNAMIC DASD INFO variable was set to Yes, the dialog attempted to retrieve device information for the volume for which you specified the volume serial. However, the information could not be retrieved.

System action: None.
System programmer response: None.

Device number found for volume conflicts with the device number found for volume. Respecify volume serial or press Enter to continue.

Explanation: You entered a volume serial on the panel while the DYNAMIC DASD INFO variable was set to Yes. The dialog retrieved the information for the volume, but found that its device number matches a device number already specified for another volume in the configuration.

System action: None.
System programmer response: Do either of the following:
- Respecify the volume serial.
- Press Enter to continue. The device number for the other volume will be set to CCUU. When you complete the panel, use Option V on the Modify System Layout Options panel to correct the device number for the other volume.

Missing or invalid device number.

Explanation: Either the device number you specified for the volume was invalid, or you did not specify a device number for the volume when one was required.

System action: None.
System programmer response: Do either of the following:
- If you have the DYNAMIC DASD INFO variable set to YES, to indicate that the dialog should retrieve information about devices dynamically, either make the device for the specified volume available (for example, vary it online) or specify a valid device number.
- If you have the DYNAMIC DASD INFO variable set to NO, specify a valid device number.

Reserved space cannot be greater than amount.

Explanation: The value you entered for the reserved space exceeds the amount available on the volume. At least one cylinder must remain unreserved on the volume after the VTOC and VTOC index have been allocated.

System action: None.
System programmer response: Enter a smaller amount of reserved space, or increase the volume's size.
**Explanation:** When you change a PDS data set with no secondary space to a PDSE data set, ServerPac automatically allocates a secondary space that is 10% of the primary space to the PDSE data set.

**System action:** The system automatically assigns the secondary space to the switched data set.

**System programmer response:** None.

**Explanation:** When you change a PDS data set with no secondary space to a PDSE data set, ServerPac automatically allocates a secondary space that is 10% of the primary space to the PDSE data set. If you then change the PDSE data set back to a PDS data set, ServerPac automatically removes the secondary space that it previously allocated.

**System action:** The system automatically removes the secondary space.

**System programmer response:** Specify a different physical volume.

**Explanation:** The physical volume you specified already has logical volume IPLVOL assigned to it. However, the logical volume you attempted to assign to the same physical volume contains data set SYS1.PAGEDUMP.

**System action:** The standalone dump program must be installed on the physical volume that contains this data set. You cannot have IPL text and the stand alone dump program on the same physical volume.

**System programmer response:** Specify a different physical volume.

**Explanation:** The work configuration contains one or more SMS-managed data sets. These data sets cannot be allocated because SMS is not active on the driving system.

**System programmer response:** To complete Modify System Layout, do either of the following:
- Change the SMS-managed data sets in the configuration to unmanaged data sets
- Exit the dialog, activate SMS on the driving system, return to Modify System Layout, and continue.

**Explanation:** The component data sets that you selected on the Merge Candidates panel were successfully merged with the target data set.

**System programmer response:** None.
Merged data set is now the target for a merge action

**Explanation:** You have selected a data set to be the target of a data set merge action.

**System programmer response:** None.

UNMERGE line command is not allowed for a target data set

**Explanation:** You attempted to completely unmerge a merged data set. However, the pop-up display permits you to unmerge only individual component data sets.

**System programmer response:** To completely unmerge a merged data set, you can do either of the following:
- From the current pop-up display:
  1. Enter a U for every component data set.
  2. Press Enter.
- From the Summary of Data Sets panel (you must first exit the pop-up):
  1. Enter a U for the data set to be unmerged.
  2. Press Enter.

Merged data set was unmerged.

*Therefore, you must re-evaluate the alias-to-catalog and SSA-to-catalog relationships*

**Explanation:** You have unmerged a component data set from a merged data set, causing it to revert to the high level qualifier it had before it was merged. Therefore, the data set's alias-to-catalog and SSA-to-catalog relationships are also changed.

**System programmer response:** Reestablish the data set's alias-to-catalog and SSA-to-catalog relationships. For more information, see [Chapter 9, "Defining HLQ-to-catalog relationships," on page 119](#) and [Chapter 10, "Defining system-specific aliases (SSAs)," on page 127](#).

Filesystem data set 1 cannot be merged because filesystem data set 2 has an intermediate mount point.

**Explanation:** You selected a file system data set (data set 1) to be merged into another file system data set. However, a third file system data set (data set 2) has a mount point that is hierarchically between the first two data sets. For example, a data set with a mount point /a/b/c cannot be merged into a data set having mount point /a if another unmerged data set has a mount point of /a/b. In this example, /a would be the mount point of the merged target data set, /a/b/c would be the mount point of the data set you selected to cause the message to be issued, and /a/b would be the mount point of the third data set.

**System action:** None.
CPP0605210E  Select at least one data set with the SELECT line command when entering the MERGE primary command

Explanation: You have entered the Merge command for a target data set without selecting component data sets for the target data set.

System programmer response: Enter an 'S' to the left of one or more data sets to select them for merging with the target data set.

CPP0605211E  Member conflict exists between two data sets. Data set dsnname1 is merged.
Data set dsnname2 is not merged.

Explanation: A data set that you have selected is ineligible for merging because it contains a member name that matches a member of a data set that was previously merged into the target data set.

System action: The data set is not merged. Merge processing continues with the next selected data set.

System programmer response: Review your selection.

CPP0605212E  No candidate data sets exist for merging with the target data set

Explanation: You selected a target data set for merging, but no data sets are eligible for merging with it.

System action: The data set is not merged. Merge processing continues with the next selected data set.

System programmer response: Review your selection. The rules for merging data sets are described in "Merging and unmerging data sets" on page 98.

CPP0605213E  UNMERGE line command may only be used on a merged data set

Explanation: You have attempted to unmerge a data set that is not a merged data set.

System action: The UNMERGE command is ignored.

System programmer response: Review your selection. If appropriate, choose a different data set for unmerging.

CPP0605214I  Component data set has been merged into merged-dsname

Explanation: The selected data set has been successfully merged into data set merged-dsname.

System action: None.

System programmer response: None.

CPP0605215E  Component data set not found

Explanation: The string you entered on the FINDCOMP command does not match any component data sets.

System action: None.

System programmer response: Review your selection.

CPP0605216E  Filesystem data set 1 could not be unmerged because component filesystem data set 2 includes its mount point.

Explanation: You selected a file system data set to be unmerged from a target file system data set. However, a third file system data set has a mount point that is hierarchically below the first two data sets. For example, a data set with a mount point /a/b cannot be unmerged from a data set having mount point /a if another merged data set has a mount point of /a/b/c. In this example, /a would be the mount point of the merge target data set, /a/b would be the mount point of the data set you selected to cause the message to be issued, and /a/b/c would be the mount point of the third data set.

System action: None.

System programmer response: Either:
  v Deselect the data set you selected for unmerging, or
  v Unmerge the data set, data set 2, first, before unmerging data set 1.

Note: This message may appear more than once if you choose the second option above and there are one or more other data sets with dependant mount points.

CPP0605217W  Remerge attempt canceled.
Filesystem data set data set is unmerged.

Explanation: You attempted to merge another filesystem into an existing file system data set, but the new component could not be merged because an intermediate filesystem mount point existed. The result is an unmerged filesystem due to the error not being corrected.

System programmer response: Either:
  v Leave the filesystems unmerged, or
  v Retry the merge command, ensuring that you select all filesystems with intermediate mount points.

Note: This message may appear more than once if you choose the second option above and there are one or more other data sets with dependant mount points.
CPP0606002E  *devname* is an IBM Supplied Device Type and CANNOT be DELETED

**Explanation:** You attempted to delete a device *devname*. This is a standard IBM device definition, which must be available to your order.

**System action:** This device is not deleted.

**System programmer response:** Review your selection.

CPP0606003E  *devname* is an IBM Supplied Device Type and CANNOT be UPDATED

**Explanation:** You attempted to update a device *devname*. This is a standard IBM device definition, which must be available to your order.

**System action:** This device is not updated.

**System programmer response:** Review your selection.

CPP0606004E  *devname* is Assigned to at Least One Physical Volume and CANNOT be action

**Explanation:** You attempted to delete or update a device, *devname*, which is currently referenced by data sets in the logical volume table.

**System action:** Your request is ignored.

**System programmer response:** Review your selection.

CPP0606005E  *devtype* is NOT a Known IBM Device Type, Enter the IBM DASD Family Name that is Being Emulated ... EG. 3390

**Explanation:** You attempted to insert a new device name and specified that this device name emulates the IBM device that belongs to the DASD family *devtype*. However, ServerPac does not support this DASD family.

**System programmer response:** Enter a valid DASD family name, such as 3390-9.

CPP0606006E  *devtype* is Already a DEFINED Device, Byte/Trk and Trks/Cylinder have been FORCED to use the Existing Defined Values

**Explanation:** You attempted to change the DASD family emulated by the selected device name to *devtype*. However the bytes per track and tracks per cylinder are not correct for this DASD family.

**System action:** These attributes are reset to the correct values.

CPP0607001E  INVALID Production DATE

**Explanation:** You entered a date with an incorrect format. The date must be in the format DD/MM/YY.

**System programmer response:** Resubmit the request with the correct date format.

CPP0607002I  OUTPUT Command is NOT AVAILABLE for NON-IBM Orders

**Explanation:** You entered the OUTPUT command for a non-IBM order. Non-IBM orders are not installed using the installation dialog; there is no information to display.

CPP0607003I  OUTPUT Command is NOT AVAILABLE for an Order with Status(RECEIVED)

**Explanation:** You entered the OUTPUT command for an order in RECEIVED status. However, there is no information to display because the installation jobs have not been run.

CPP0607004E  Order *ordernum* is IBM Supplied, it Cannot be Deleted

**Explanation:** You attempted to delete an IBM-supplied order *ordernum*. You cannot delete an IBM-supplied order after you have received it.

**System programmer response:** To delete the order, receive it again with the replace option.

CPP0607005I  Order is Customer Added, it Has NO Product Information

**Explanation:** The order you selected has no product information to display.

CPP0607006I  Order is Customer Added, it Cannot be Installed

**Explanation:** The order you are attempting to install, *ordernum*, is currently in use by another user or session.

**System programmer response:** Try again later.
This order cannot be selected because its status is "Installed." To change the status, use Edit.

**Explanation:** On the Order List panel, you entered a Select line command for an order whose status was set to Installed. Only orders with a status of Received, Started, or "Error" may be selected.

**System action:** None

**System programmer response:** To change the order's status, use the Edit line command to display the "ORDER DETAILS" panel, and set the status to Received or Started.

_Delete Of Report Data set was Cancelled by User_

**Explanation:** You attempted to print the details of an order. However one or both of the following conditions occurred:
- You specified a disposition of NEW, but the report data set already exists.
- The DCB attributes of the report data set have changed

These conditions require that the existing report data set be deleted. This required confirmation, which was refused.

**System programmer response:** Review the report data set.

_Report Data set NOT Deleted, ERROR ENCOUNTERED, RETURN CODE WAS rc_code_

**Explanation:** The dialog cannot delete the report data set. The TSO/E DELETE command issued return code rc_code.

**System action:** The report is not deleted.

**System programmer response:** Review the return code. A list of possible causes follows:
- Data set is in use by another user.
- Data set is protected by a security product
- Data set is cataloged but does not exist on the cataloged volume.
- Data set is archived by a storage product.

Correct the problem. Or, specify a different report data set name and try the request again.

_Report Data set NOT Allocated, reason_

**Explanation:** The dialog could not allocate the report data set. In the message, reason is one of the following:
- Allocate failed
- Error processing data set
- Invalid data set name
- Missing data set name
- Protected data set
- Unavailable data set
- Unknown return code
- Volume not on system

**System action:** The report is not produced.

**System programmer response:** Review the return code. A list of possible causes follows:
- Data set is in use by another user.
- Data set is protected by a security product
- Data set is cataloged but does not exist on the cataloged volume.
- Data set is archived by a storage product.

Correct the problem. Or, specify a different report data set name and try the request again.

_Report NOT Produced, DCB of Report File is NOT Compatible with the Report Record._

**Explanation:** The DCB of the report data set is not compatible with the report record. The report is written using fixed length 80 byte records.

**System action:** The report is not produced.

**System programmer response:** Check the DCB of the report data set. The LRECL must be one of the following:
- LRECL=80, if an FB file is used
- LRECL=84 or greater, if a VB file is used.

_Report Data set is PARTITIONED, a DISPosition of MOD is INVALID_

**Explanation:** Your report data set is partitioned; you cannot specify a disposition of MOD with a PDS.

**System programmer response:** Review the report data set disposition.

_Synchronization DELETE has Completed Successfully ordenum_

**Explanation:** The order you have selected, ordenum, has been deleted by another user.

**System action:** When you entered the installation dialog, a table was created for the current orders. It is possible that, while you were logged on:
- New orders were received
- Old orders were updated or deleted.
These changes are not automatically available to you within the current invocation of the installation dialog.

System programmer response: Periodically, enter the REFRESH primary command to reflect any changes made by other users to the order database.

CPP0607018I  Synchronization UPDATE has Completed Successfully ordernum

Explanation: The order you have selected, ordernum, has been updated by another user.

System action: When you entered the installation dialog, a table was created for the current orders. It is possible that, while you were logged on:
• New orders were received
• Old orders were updated or deleted.

These changes are not automatically available to you within the current invocation of the installation dialog.

System programmer response: Review your request, and resubmit if still required. Periodically, enter the REFRESH primary command to reflect any changes made by other users to the order database.

CPP0607019I  Installation Dialogs Version DATE

version

Explanation: This message indicates the current version of the installation dialog.

System programmer response: None.

CPP0607020E  Status Of 'status' is NOT VALID for the Selected Order

Explanation: You attempted to change the status of an order to status, which is not valid for the order.

System programmer response: Choose a valid status code, as follows:
I    Installed
R    Received (not valid for a customer-added order).
S    Started

CPP0607021I  NO Orders in the Order Inventory, INSERT Forced or press END to Cancel Processing

Explanation: The order inventory does not contain any orders, the insert facility has been forced so that you can define a customer added order.

System programmer response: Define a customer added order or press the End key to cancel processing.

CPP0607022I  NO Orders Matched Your Selection Criteria

Explanation: The order inventory was searched for orders with a status that matched your selection criteria, none were found, there is nothing to display.

System programmer response: Review your selection criteria.

CPP0607023I  No orders have been received yet. Use the Receive option to receive an order.

Explanation: You selected either the Install or Display option on the CustomPac Order Management Menu. However, because no orders have been received yet, there are none to install or display.

System programmer response: Use the Receive option to receive an order. After it has been received, the Install and Display options will be available.

CPP0607024I  NO Orders Waiting to be Installed

Explanation: There are no orders to be installed.

System programmer response: If you wish to reinstall an order, use the Order Information option to reset the order's status to RECEIVED.

CPP0607025I  Change of Status CANCELLED by User

Explanation: You attempted to change the status of an order which would have caused a 'jump' in status. This required confirmation, which was refused. The status was not changed.

System programmer response: None.

CPP0607026E  Field Value Cannot be Changed UNLESS the Order Number is ALSO Changed

Explanation: When copying an order, you must maintain the association between the order number and its related field values in the Order panel. For example, you cannot keep the same order number, but change the SREL.

You have changed at least one of the following fields and have not changed the order number:
• Profile number
• SREL
• PAC type
• Customer number
• Customer name

System programmer response: If you wish to use the values you have entered in the fields, you must change the order number. Or, press End to cancel your copy request.
Message and Help Inventories for this order must be converted to VSAM.

Explanation: The Message Inventory data set (SCPPEENU) and Help Inventory data set (SCPPHENU) for the order you selected are not VSAM data sets. The dialog requires that both data sets be VSAM.

System action: None

System programmer response: Convert the data sets to VSAM data sets. There is a sample job to convert them to VSAM in the CPPCVINV member of the SYS1.order_number.DOCLIB data set you use to change them to VSAM.

Invalid data set name, or data set name not specified

Explanation: The OFILE OPEN data set name you specified is not valid.

System programmer response: Correct the OFILE OPEN data set name.

Invalid member name

Explanation: You entered the OFILE OPEN command with an incorrect member name.

System programmer response: Reenter the command with the correct member name.

Invalid data set disposition, or none supplied (OLD, SHR, MOD, NEW)

Explanation: The OFILE OPEN data set disposition is not valid, or the default of OLD was used and the data set does not exist.

System programmer response: Correct the OFILE OPEN data set disposition. You can use OLD, SHR, NEW, or MOD. By default, the disposition is OLD.

Invalid data set disposition, NEW and MOD are not allowed for a member

Explanation: The OFILE OPEN data set disposition was NEW or MOD, and you specified a member as part of the data set name. You must use OLD or SHR if you specify a member name.

System programmer response: Correct the OFILE OPEN data set disposition.

Data set attributes are not compatible with the OFILE command

Explanation: The OFILE data set has DCB attributes that are incompatible with the output record.

System programmer response: Review the DCB attributes of the data set you are trying to use for the output of the OFILE command. The OFILE data set must be compatible with RECFM=F LRECL=120.

Data Set open successful

Explanation: The OFILE output data set is open and available for your use.

System programmer response: To write the data set list to the OFILE data set, enter the OFILE command without parameters.

Data Set open failed

Explanation: The OFILE output data set was not allocated or failed to open correctly.

System programmer response: If you attempted to open the data set as NEW, verify that the data set does not already exist. If you tried to open the data set as SHR or OLD, verify that the data set exists and is not in use by another user or job.

Also, review the DCB attributes of the data set that you are attempting to use for the output of the OFILE command. The OFILE data set must be compatible with RECFM=F LRECL=120.

OFILE data set is active 'dsname'

Explanation: The OFILE output data set dsname is open and available for your use.

System programmer response: None.

Data Set closed

Explanation: The OFILE output data set is now closed, and can be accessed by other users or jobs.

System programmer response: None.

Data Set operation invalid or not specified (OPEN CLOSE)

Explanation: You entered the OFILE command with an invalid operation.

System programmer response: Reenter the OFILE command correctly, as follows:

- To open the OFILE data set, enter OFILE OPEN data set.name disposition
- To write the OFILE data set, enter OFILE without parameters
- To close the OFILE data set, enter OFILE CLOSE

OFILE data set is not active (use OPEN)

Explanation: You entered the OFILE write output data set command, but the output data set is not open.

System programmer response: Use the OFILE OPEN command to open the output data set. Enter
OFILE OPEN data set.name disposition.

CPP0607051I Order details saved to "dsname"
Explanation: The data set list has been written to data set dsname.
System programmer response: Close the output data set through the OFILE CLOSE command.

CPP0607052I Order details sent to ISPF list data set
Explanation: The data set list has been written to the ISPF list data set.
System programmer response: You can dynamically close the ISPF list data set through the ISPF LIST command. Otherwise, the data set is freed when your ISPF session is ended.

CPP0608001E Order ordernum Already Exists on the Order Inventory and Cannot be Re-Added
Explanation: The order you are receiving, ordernum, already exists on the order inventory.
System action: An existing order cannot be re-added.
System programmer response: Check that the batch job to receive the order has not already been run, maybe because of a system failure it has been re-started. Check the order using the Order Information function of the installation dialog. You might have to rerun the Order Receive function, specifying a REPLACE of the current order.

CPP0608002I Order ordernum Has been Added to the Order Inventory
Explanation: The order you are receiving, ordernum, has been successfully added to the Order Inventory.
System programmer response: None.

CPP0608003I Order ordernum has been Deleted, it will be REPLACED by the Received Order
Explanation: You are receiving an order that will replace an existing order.
System action: The existing order is deleted before the new order is added.
System programmer response: None.

CPP0608004I Order ordernum Was Specified as REPLACE, but was not found on the Order Inventory. A NEW Order will be Added
Explanation: You specified that an existing order, ordernum, was to be replaced by the received order, but the existing order was not found in the order inventory.
System action: The received order is added as a new order.
System programmer response: None.

CPP0608005E Table table-id Does NOT Exist in the Order SCPPTENU Table Library
Explanation: The table table-id, which forms part of your order shipment, is missing from the SCPPTENU library.
table-id can be either of the following:
CPPOTBL Order information table
CPPNTBL Products table
System action: The order cannot be installed.
System programmer response: Check the receive job to ensure the order libraries were allocated correctly and were loaded with data.
If you cannot resolve the problem, contact IBM for assistance.

CPP0608006E Product prodname, Already Exists on the Order Inventory for the Current Order and Cannot be Re-Added
Explanation: Product prodname already exists in the order inventory of the order you are installing. You cannot re-add an existing product for the same order.
System action: None.
System programmer response: Check that the batch job to receive the order has not already been run (perhaps, it was restarted after a system failure). Check the order using the Order Information function of the installation dialog. You might need to rerun the Order Receive function, specifying a replacement the current order.

CPP0608007I Product prodname Has been Added to the Order Inventory
Explanation: For the received order, product prodname was added to the order inventory.
System programmer response: None.

CPP0608008I Order has NO Products for Package pac-type
Explanation: Your received order has no products; this situation is normal situation when pac-type is one of the following:
• CRMO
• OMIS
• SFS
System programmer response: If you expected your
order to have products, contact IBM for assistance.

CPP0608009E  Order Number ordernum1 Passed to Program Does NOT Match the Order Number ordernum2 From the Order Table CPPOTBL.

Explanation:  The order number you specified for receive processing ordernum1 does not match the order number ordernum2 shipped by IBM in the order table CPPOTBL.

System programmer response:  Try again to receive the order, specifying the correct order number.

CPP0610001E  Invalid ORDER Number, MUST be 2 Alpha plus 6 Numeric Characters

Explanation:  You entered an incorrect order number.

System programmer response:  Enter the IBM order number. This must be two alphabetic characters (A-Z), plus six numeric (0-9) characters.

CPP0610002E MEMBER name is not Allowed

Explanation:  You entered a member name as part of the qualifier or data set name, this is not allowed.

System programmer response:  Correct your entry by removing the member name.

CPP0610005I RECEIVE Job NOT SUBMITTED

Explanation:  You pressed the END key while using the Generate Jobstream panel. Doing so cancels the generation of the installation jobs.

System action:  The receive job was not submitted.

System programmer response:  To generate the receive job, press Enter in the Generate Jobstream panel.

CPP0610006I RECEIVE Of Order CANCELLED

Explanation:  One of the following conditions exists:
- Existing order records were found, and you entered the cancel command while in the Order Selection panel.
- Existing order data sets were found which needed to be deleted. This required confirmation, which you refused.

System action:  The order was not received.

System programmer response:  None.

CPP0610007I RECEIVE Job SUBMITTED

Explanation:  The receive job was correctly generated and automatically submitted to the JES execution queue.

System programmer response:  None.

CPP0610009E  HLQ is used for an existing Order, Specify another HLQ

Explanation:  You entered the same high level qualifier (HLQ) for more than one order, which is not allowed.

System programmer response:  Enter a unique HLQ that you can use to allocate the order libraries. IBM recommends that you include your order number as part of the qualifier to ensure that it is unique.

CPP0610014E Order qualifiers must be different from master dialog qualifiers.

Explanation:  The qualifier or qualifiers you entered for the order's dialog data sets was the same as the qualifiers for the master dialog data sets. The master and order dialog data sets must have different qualifiers.

System action:  None

System programmer response:  Choose a different qualifier for the order's data sets. IBM recommends using the order number as one of the qualifiers for the order's data sets and naming the master data sets without using an order qualifier.

CPP0610016E Server name or address format not valid. Specify a fully-qualified server name or a valid server address.

Explanation:  You entered an invalid address or a server name.

System action:  None

System programmer response:  Either enter the name of an FTP server or specify a valid IPV4, IPV6, or mixed-style address.

The valid format for URLs is documented in RFC 959 and RFC 1123. ServerPac supports only the entry of the hname part of the URL.

IPV6 addresses are fully documented in RFC 1884, and have the general format:
```
xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx, where each xxx value is the character representation of a hexadecimal sixteen-byte value (for example, FFFF represents X'FFFF').
```

IPV4 addresses are in the general form
```
nnn.nnn.nnn.nnn, where each nnn value is a decimal number from 0-255. Mixed-style addressing is documented in the same topic of the RFC, and has the general format:
```
```
xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:nnn.nnn.nnn, where xxx and nnn are defined as above.
```

Abbreviated forms (as described by the RFC) are also acceptable.
CPP0610018E  Enter EITHER a volume serial or a STORCLAS.

Explanation: On the Receive An Order Options panel, either:
  • You entered a volume serial and a STORCLAS, or,
  • You did not enter a volume serial or a STORCLAS.
Data is required in one of these field.

System action: None

System programmer response: Enter data in one, and only one, of these two fields. For a non-SMS-managed data set, enter the volume serial for an online volume and leave the STORCLAS field blank. For an SMS-managed data set, specify a STORCLAS that is defined on your system, and leave the Volume Serial field blank.

CPP0610019E  Not enough space on volume volser.  nnnnn cylinders free, nnnnn cylinders required.

Explanation: The volume you specified does not have enough space for the data set size you specified. The volume serial you specified, the volume free space, and the amount of space you specified are contained in the message.

System action: None

System programmer response: If you specified more space than is required, try specifying less space. Otherwise, specify a volume with enough free space to allocate the data set.

CPP0610020E  Volume not found online. Specify an online volume.

Explanation: The volume you specified is not online.

System action: None

System programmer response: Either specify an online volume, or use the VARY command to bring the specified volume online.

CPP0610021E  Table in use. Try again in a few minutes.

Explanation: One of the tables used on this panel is in use by another user or batch job.

System action: None

System programmer response: Wait a few minutes and try again. If the condition persists, determine which user or batch job is using the master dialog tables. Get the user or job to release the tables and then try again.

CPP0610022E  This data set already exists.

Explanation: You entered "Y" for "Allocate a new file system data set," but the data set name you specified already exists.

System action: None

System programmer response: Do one of the following:
  • Specify a unique name for the new data set
  • Delete or rename the existing data set and then return to the panel and proceed
  • Specify "N" for "Allocate a new file system data set" to use the existing data set.

CPP0610023E  The target directory must be the same as the mount point or a subdirectory of the mount point.

Explanation: The target directory cannot be created in the path specified by the mount point.

System action: None

System programmer response: Specify a target directory that is either the same as the mount point or a subdirectory of the mount point.

CPP0611001E  Cannot Change the Variable Contents, The Variable is CUSTOMISED

Explanation: You attempted to change the value of a customized variable. These variables, as shipped by the CustomPac build process, contain fixed data, such as the order number. You cannot change the values of customized variables.

System action: None; the original value is used.

System programmer response: Enter the line command with the data value unchanged.

CPP0611002E  You are NOT Allowed to Change the Variable Contents when a Line Command is Issued, Contents Preserved

Explanation: You entered a line command and also attempted to change the data value of the variable, which caused a command conflict. The data value was not changed.

System action: None.

System programmer response: Enter the line command with the data value unchanged.

CPP0611003E  INVALID Status status

Explanation: You entered the SHOW command with an incorrect status. Valid status values are:
  * All status values
  C CUSTOMIZED
  D DEFAULT

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System programmer response: Reenter the SHOW command with a valid status value.

**CPP0611004E** Literal “==>” is RESERVED for use by CustomPac. It Cannot be used in a User Defined Variable

**Explanation:** You used the literal “==>” within the Synonym field when defining a User Defined variable. This literal is reserved for use by CustomPac.

**System programmer response:** Change the contents of the Synonym field so that it does not contain the literal “==>”.

**CPP0611005I** RESTORE Request Successful

**Explanation:** You restored the variable to its shipped value.

**System programmer response:** None.

**CPP0611006I** RESTORE Request Cancelled

**Explanation:** You requested that the variable be restored to its shipped value. This was not done, however, because you did not confirm your request.

**System programmer response:** None.

**CPP0611007I** Changes to the TABLE have been SAVED

**Explanation:** Your changes to the installation variables were saved.

**System programmer response:** None.

**CPP0611008I** Processing CANCELLED by User <changes>

**Explanation:** You entered the CANCEL command. Your changes to the installation variables were discarded.

<changes> might show more information, such as the message: “CHANGES TO THE TABLE WERE NOT SAVED”.

**System programmer response:** None.

**CPP0611009E** Enter an acceptable value for synonym.

**Explanation:** The value you entered for the variable displayed on the panel is not allowed. It is displayed in the Current Value field.

**System action:** None.

**System programmer response:** Enter one of the acceptable values listed on the panel.

**CPP0611010E** Enter value for synonym.

**Explanation:** You entered a blank or null value for the variable displayed on the panel. This field cannot be left blank.

**System action:** None.

**System programmer response:** Enter one of the acceptable values listed on the panel.

**CPP0612001W** User JOB member-name EXISTS as a member of the File Tailoring Library, REVIEW The Contents of the Member

**Explanation:** You attempted to insert a user-defined job into the order skeleton library. However, a member already exists with the same name as the one you are trying to add. The contents of the existing member are displayed.

**System action:** This is not necessarily an error. It may be that the job previously existed, but was deleted without physically deleting the member.

**System programmer response:** Review the contents of the member. Determine whether to use the existing member as the target of your inserted job. You will be prompted at a later stage to confirm that this member is to be used.

**CPP0612002W** User JOB member-name EXISTS (with NO records) as a member of the File Tailoring Library

**Explanation:** You attempted to insert a user-defined job into the order skeleton library. However, a member already exists with the same name as the one you are trying to add. An attempt was made to display the contents of the member, but it contained no records.

**System action:** This might not be an error. The job might have existed previously, but was deleted without physically deleting the member.

**System programmer response:** Determine whether to use the null member as the target for the inserted job.

**CPP0612003E** Command is Only Valid for JOBs

**Explanation:** You entered a line command for an entry that is not a job. The command is valid for jobs only.

**System programmer response:** Review your selection.
This JOB Does NOT Exist in the Backup Data set

Explanation: You requested that the job stored in the backup library be used. However, the job does not exist in the backup library.

System programmer response: Review your selection.

JOBCARD NOT FOUND OR INVALID

Explanation: You attempted to file tailor a job, but the jobcard member is missing or incorrect.

System programmer response: For the name of the jobcard member, check installation variable F90GXX04. If the jobcard member exists in the order skeleton library, the skeleton probably contains incorrect file tailoring commands. In particular, look for < & | > in the jobcard programmer name field.

SEVERE ERROR Encountered Whilst Attempting to File Tailor JOB/DOC (STEP=stepname)

Explanation: An error was encountered during file tailoring of a job for step stepname.

System programmer response: Review the skeletons that you used to create the job. It is unlikely that the problem lies in a shipped CustomPac skeleton, so look first at user defined jobs. In particular, look for < & | > characters, which have a special meaning to ISPF.

INVALID Parameter 'parm', Command Format is 'SS$', 'SS$ INCLUDE' or 'SS$ EXCLUDE'

Explanation: You entered the SS$ command with an incorrect parameter, which is indicated by parm.

The following parameters are valid:
- SS$ (which reverses the current value)
- SS$ EXCLUDE
- SS$ INCLUDE

System programmer response: Enter the command with a valid parameter.

NO Other Commands may be entered when the 'SS' Block Command is being used

Explanation: You entered line command SS to select a sequence of jobs to build the installation jobstream, but you also entered other line commands, which caused a command conflict.

System programmer response: Review your selection.

"SS" Block Command Processed, BUT NO JOBS were Selected

Explanation: You entered line command SS to select a sequence of jobs to build the installation jobstream, but the sequence contained no jobs. Or, you specified EXCLUDE for the SS$ command and the sequence contained only user-defined jobs.

System programmer response: Review your selection.

ENTER a Matching "SS" Command to Complete the Block Command Pair

Explanation: You entered line command SS to select a sequence of jobs to build the installation jobstream, but you did not specify an ending SS command.

System programmer response: Enter an ending SS line command.

"SS" Command Conflicts with a Previous "SS" Command, DELETE ONE

Explanation: You entered line command SS to select a sequence of jobs to build the installation jobstream, but you specified more than one pair of SS commands, which caused a command conflict.

System programmer response: Review your selection.

NO Job Output Found in the Output Library

Explanation: You entered the SUMMARY command before running any jobs. There is no output to browse.

System programmer response: None.

A BACKUP Member ALREADY Exists for this JOB

Explanation: The job you selected for file tailoring has a backup member in the SCPPBENU data set.

System programmer response: Submit the job. Or, press the End key and enter line command B to display the backup version of the job.

ERROR Storing Output in SCPPOENU

Explanation: The TSO/E OUTPUT command encountered an error while storing the held output for the selected job. Possible causes include:
- The output from the job is too large. You entered line command SS to create a job with multiple steps.
- The output library SCPPOENU is full or has run out of directory blocks.
- The held output is incomplete.
System programmer response: If you have a spool browsing utility, use it to investigate.

If you use ISPF Option 3.8, it is possible that the error that caused this message will force an error in that utility also.

CPP0612015E  ERROR Browsing Output in SCPPOENU
Explanation: An error occurred while trying to browse the member in SCPPOENU that contains the held job output from the selected job.
System programmer response: This error has several possible causes:
• An error occurred while storing the held job output.
• The member that contains the job output exists, but is zero length (contains no records).

CPP0612016E  A Member Name is NOT Allowed
Explanation: You entered the GENSKEL command, and on one of the subsequent panels, you specified an ISPF library name with a member name in parentheses. This is not allowed.
System programmer response: Specify the library name without specifying a member.

CPP0612017I  GENskel Command Cancelled by USER
Explanation: You entered the GENSKEL command to file tailor the installation jobs in batch mode; however, you ended GENSKEL processing prematurely by pressing the END key.
System programmer response: To tailor the installation jobs in batch mode, enter the GENSKEL command.

CPP0612020I  Job removed from selection list and is deleted from the skeleton data set.
Explanation: You deleted a user-defined job from the system. The dialog's Job Selection List panel is updated to show the deletion. Also, the job is deleted from the skeleton data set (SCPPSENU) in which it resided.
System programmer response: None.

CPP0612021I  Job removed from selection list, but is retained in the skeleton data set.
Explanation: You deleted a user-defined job from the dialog's Job Selection List panel. The job is retained in the skeleton data set (SCPPSENU) because you did not request deletion of the job.
To delete a user-defined job, you must specify Y in the Delete Skeleton field when you confirm your deletion request (you cannot delete an IBM-supplied job).
System programmer response: None, unless you also want to delete the job itself. Here, you must edit the SCPPSENU data set to remove the job.

CPP0612022W  Job removed from selection list, but could not be deleted. Data set is in use or allocated by another job or user.
Explanation: You deleted a job from the Job Selection List, but the dialog could not delete the job from the SCPPSENU data set. A possible cause is that another user or job is currently accessing the SCPPSENU data set.
System programmer response: If you want to delete the job, exit the dialog and edit the SCPPSENU data set to remove the job.

CPP0612040E  INVALID Data set Name or Data set Name Not Defined
Explanation: The OFILE OPEN data set name you have entered is not valid.
System programmer response: Correct the OFILE OPEN data set name.

CPP0612041E  INVALID Member Name
Explanation: You entered the OFILE OPEN command with an incorrect member name.
System programmer response: Reenter the command with the correct member name.

CPP0612042E  INVALID Data set DISPosition or NOT Supplied (OLD, SHR, NEW, MOD)
Explanation: The OFILE OPEN data set disposition is not valid, or the default of OLD was used and the data set does not exist.
System programmer response: Correct the OFILE OPEN data set disposition. You can use OLD, SHR, NEW, or MOD. By default, the disposition is OLD.

CPP0612043E  INVALID Data set DISPosition NEW and MOD are NOT allowed for a MEMBER
Explanation: The OFILE OPEN data set disposition was NEW or MOD, and you specified a member as part of the data set name. You must use OLD or SHR if you specify a member name.
System programmer response: Correct the OFILE OPEN data set disposition.
CPP0612044E  Data set ATTRIBUTES are INCOMPATIBLE with the OFILE Command

Explanation: The OFILE data set has DCB attributes that are incompatible with the output record.

System programmer response: Review the DCB attributes of the data set you are trying to use for the output of the OFILE command. The OFILE data set must be compatible with RECFM=F LRECL=120.

CPP0612045I  Data set OPEN SUCCESSFUL

Explanation: The OFILE output data set is open and available for your use.

System programmer response: To write the data set list to the OFILE data set, enter the OFILE command without parameters.

CPP0612046E  Data set OPEN FAILED

Explanation: The OFILE output data set was not allocated or failed to open correctly.

System programmer response: If you attempted to open the data set as NEW, verify that the data set does not already exist. If you tried to open the data set as SHR or OLD, verify that the data set exists and is not in use by another user or job.

Also, review the DCB attributes of the data set that you are attempting to use for the output of the OFILE command. The OFILE data set must be compatible with RECFM=F LRECL=120.

CPP0612047I  OFILE Output Data set IS ACTIVE 'dsname'

Explanation: The OFILE output data set dsname is open and available for your use.

System programmer response: None.

CPP0612048I  Data set CLOSED

Explanation: The OFILE output data set is now closed, and can be accessed by other users or jobs.

System programmer response: None.

CPP0612049E  Data set OPERATION INVALID or NOT DEFINED (OPEN CLOSE)

Explanation: You entered the OFILE command incorrectly.

System programmer response: Reenter the OFILE command correctly, as follows:
• To open the OFILE data set, enter OFILE OPEN data set.name disposition
• To write the OFILE data set, enter OFILE without parameters

• To close the OFILE data set, enter OFILE CLOSE

CPP0612050I  OFILE Output Data set is NOT ACTIVE (Use OPEN)

Explanation: You entered the OFILE write output data set command, but the output data set is not open.

System programmer response: Use the OFILE OPEN command to open the output data set. Enter OFILE OPEN data set.name disposition.

CPP0612051I  Installation Job List SAVED to dsname

Explanation: You used the dialog's OFILE primary command to write a list of the installation jobs to the user-defined file, dsname.

System programmer response: To close the output data set, use the OFILE CLOSE command.

CPP0612052I  Installation Job List SENT to ISPF LIST Data Set

Explanation: You used the dialog's OLIST primary command to write a list of the installation jobs to the ISPF LIST data set.

System programmer response: To close the ISPF list data set now, use the ISPF LIST command. Otherwise, the data set will be released when you end the ISPF session.

CPP0612099S  A JOB WAS SUBMITTED BUT THE SUBMIT TRAP COULD NOT INTERPRET THE DATA.

Explanation: On submission, your job issued a message that could not be read by the dialog.

System action: The Installation Jobs function of the dialog cannot run.

System programmer response: If you have a SUBMIT exit active, disable it, or submit the job outside of the dialog. Otherwise, contact IBM for assistance in determining the actual message text and cause of failure.

CPP0615001I  Order ordemun Status Set to INSTALLED

Explanation: The status of order ordemun is now set to INSTALLED. You cannot reenter the dialog for this order until you reset its status to RECEIVED.

System programmer response: None.
**CPP0615002I**  Order ordernum Status is Already INSTALLED or FINALIZED

**Explanation:** The status of order ordernum was already set to INSTALLED or FINALIZED. You cannot re-enter the dialog for this order unless you reset its status to RECEIVED.

**System programmer response:** None.

---

**CPP0616001S**  LIBRARY(library-name) Version Member member-name Does NOT Exist

**Explanation:** In the Upgrade Installation Dialog panel, you specified Starter SET "N", which requires that version members already exist from a previous upgrade. However, library library-name does not contain a version member member-name.

**System programmer response:** In the Upgrade Installation Dialog panel, specify Starter SET "Y" to create the version member.

---

**CPP0616002S**  NO VERSION Date For LIBRARY(library-name)

**Explanation:** The version member in library library-name does not contain a version date. You cannot install the order.

**System programmer response:** The order shipment tape might contain corrupt libraries. Re-receive the order. If the problem reoccurs, contact IBM for assistance.

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**CPP0616003S**  INVALID VERSION Date (version) For LIBRARY(library)

**Explanation:** The version member in library has an incorrect version date, version. The order cannot be installed.

**System programmer response:** The order shipment tape might contain corrupt libraries. Re-receive the order. If the problem reoccurs, contact IBM for assistance.

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**CPP0616004S**  Order Libraries Have Different VERSION Dates

**Explanation:** The version members shipped as part of your order have different version dates. The order cannot be installed.

**System programmer response:** The order shipment tape may contain corrupt libraries. Re-receive the order. If the problem persists, contact IBM for assistance.

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**CPP0616005S**  LIBRARY(library) Version Reference to Member member-name, Which DOES NOT EXIST

**Explanation:** The version member in library references a member member-name, which does not exist. The order cannot be installed.

**System programmer response:** If the library is one of your CustomPac master libraries, it may be corrupted. You might have to restore it from your system backups. If the library is one of the libraries unloaded from the order shipment tape, the order shipment tape might contain corrupt libraries. Receive the order again. If the problem reoccurs, contact IBM for assistance.

---

**CPP0616006E**  A Member Name is NOT Allowed

**Explanation:** You defined the data set name of one of your installations ISPF libraries, but have included a member name as part of the data set name. A member name is not allowed.

**System programmer response:** Enter the data set name without the member name.

---

**CPP0616007I**  Version UPGRADE Cancelled, Order Can NOT be Installed Until the Upgrade Has Completed

**Explanation:** The order you are trying to install requires that the installation dialog be upgraded to a later version. However, you canceled the upgrade.

**System action:** You cannot install the order unless you allow the upgrade to complete.

**System programmer response:** Review your reasons for cancelling the upgrade. Select INSTALL again, or contact IBM for assistance.

---

**CPP0616009E**  Invalid DATE, must be YYYYMMDD . . . YYYY must be 1994 or Greater . . . MM and DD must be valid and compatible

**Explanation:** You specified the date incorrectly, for example:
- You did not enter the full year, such as 2003
- The month and day are not valid
- You entered a date earlier than January 1, 1994.

**System programmer response:** Specify a valid date in the format YYYYMMDD. Or, specify an "*" (asterisk) to use the current date.

---

**CPP0616010I**  Installation Dialogs Version Date

**Explanation:** The current version of the installation dialog is displayed.

**System programmer response:** None.
**CPP0621001S**  First parameter parm is invalid.
Processing stopped.

**Explanation:** An invalid parameter, parm, was specified for the CPPERCS exec.

**System action:** Processing stops.

**System programmer response:** If the failure occurred in the VERIFY job, ensure that CHECK is the first parameter that is passed to the CPPERCS exec. If the failure occurred in the RECATS job, ensure that CREATE is the first parameter that is passed to the CPPERCS exec.

Rerun the step that invokes exec CPPERCS.

---

**CPP0621002E**  High level qualifier hlq cannot be defined in both existing catalog oldcat and catalog configcat in the configuration.

**Explanation:** High level qualifier, hlq, is currently defined in a user catalog, oldcat, that does not match the name of the catalog in your configuration, configcat.

**System action:** Processing continues.

**System programmer response:** Do one of the following:

- If the high level qualifier is defined in the correct existing catalog, use the Alias option of the installation dialog to change the catalog name for the high level qualifier to match the name that was returned from the existing catalog entry.
- If the high level qualifier is to be defined in the configuration catalog, delete or move the data sets having this high level qualifier from the master catalog.

Rerun the step that invokes exec CPPERCS.

---

**CPP0621003S**  The entry for target system master catalog tmcat could not be read successfully from dmcat.

**Explanation:** Access method services issued a nonzero return code when CPPERCS attempted to retrieve the entry for the target system master catalog.

In the message, the variables are as follows:

- tmcat  Target system master catalog name
- dmcat  Driving system master catalog name

**System action:** Processing stops.

**System programmer response:** Determine whether the driving system's master catalog contains an entry for the target system master catalog. If no entry exists, use the access method services IMPORT CONNECT command to create an entry for the target system master catalog.

If an entry exists for the target system master catalog, run the access method services VERIFY command for the driving system master catalog. If VERIFY detects problems, resolve the problems before continuing. Otherwise, contact IBM for assistance.

---

**CPP0621004E**  High level qualifier hlq cannot be in both existing target system master catalog tmcat and catalog configcat in the configuration.

**Explanation:** High level qualifier, hlq, is currently defined in the master catalog, tmcat, which does not match the name of the catalog in your configuration, configcat.

**System action:** Processing continues.

**System programmer response:** Do one of the following:

- If the high level qualifier is defined in the correct existing catalog, use the Alias option of the installation dialog to change the catalog name for the high level qualifier to match the name that was returned from the existing catalog entry.
- If the high level qualifier is to be defined in the configuration catalog, delete or move the data sets having this high level qualifier from the master catalog.

Rerun the step that invokes exec CPPERCS.

---

**CPP0621005I**  New high level qualifier hlq is associated with catalog configcat in the configuration.

**Explanation:** High level qualifier, hlq, is new. In the message, configcat is the name of the configuration catalog.

**System action:** Processing continues.

**System programmer response:** Take any actions required for a new high level qualifier at your installation, such as creating a new security system definition.

---

**CPP0621006E**  Device type oldunit for data set dname in catalog configcat does not match configuration volume device type configunit for physical volume configvol.

**Explanation:** Unit in the catalog entry does not match the unit specified in the configuration for the specified physical volume.

In the message, the variables are as follows:

- oldunit  Device type from existing catalog entry
- dname  Data set name
- configcat  Configuration catalog name
- configunit  Unit from configuration
- configvol  VOLSER from configuration

**System action:** Processing continues.
**System programmer response:** Do one of the following:

- If the unit value in the configuration for the volume on which this data set resides is incorrect, use the installation dialog to change it.

Observe the following:

- If this message was issued by the VERIFY job, you must file tailor all jobs again. If you used the GENSKEL primary command to file tailor the jobs, use GENSKEL again. Rerun the step that invokes exec CPPERCDS.
- If this message was issued by the RECATDS job, rerun the installation jobs starting with the VERIFY job. Otherwise, subsequent job steps will fail.

- If the unit value is changing in the catalog entry, determine whether the change affects data set entries in catalogs on an active system. If so, determine whether to make copies of the affected catalogs and then change the copies.

For information about making copies of catalogs, see [z/OS DFSMS Managing Catalogs](https://www.ibm.com/support/docview/doc/153721).

---

**CPP0621007E** Volume *oldvol* for data set *dsname* in catalog *configcat* does not match configuration volume *configvol*.

**Explanation:** The VOLSER in the catalog entry does not match the VOLSER specified in the configuration.

In the message, the variables are as follows:

- **oldvol**: VOLSER from existing catalog entry
- **dsname**: Data set name
- **configcat**: Configuration catalog name
- **configvol**: VOLSER from configuration

**System action:** Processing continues.

**System programmer response:** Do the following:

- If the volume in the configuration on which this data set resides is incorrect, use the installation dialog to change it.

Observe the following:

- If this message was issued by the VERIFY job, you must file tailor all jobs again. If you used the GENSKEL primary command to file tailor the jobs, use GENSKEL again. Rerun the step that invokes exec CPPERCDS.
- If this message was issued by the RECATDS job, rerun the installation jobs starting with the VERIFY job. Otherwise, subsequent job steps will fail.

- If the volume value is changing in the catalog entry, determine whether the change affects data set entries in catalogs on an active system. If so, determine whether to make copies of the affected catalogs and then change the copies.

For information about making copies of catalogs, see [z/OS DFSMS Managing Catalogs](https://www.ibm.com/support/docview/doc/153721).

---

**CPP0621008E** Volume *oldvol* for data set *dsname* in catalog *configcat* does not match symbol *symvol* that was defined in P2IMAP for physical volume *configvol*.

**Explanation:** An existing data set entry is indirectly cataloged. The symbol that is specified in the existing data set entry does not match the symbol specified in P2IMAP for the physical volume on which this data set resides.

In the message, the variables are as follows:

- **oldvol**: VOLSER from existing catalog entry
- **dsname**: Data set name
- **configcat**: Configuration catalog name
- **symvol**: Symbol for extended indirect cataloging
- **configvol**: VOLSER from configuration

**System action:** Processing continues.

**System programmer response:** Do one of the following:

- If the symbol specified in P2IMAP is incorrect, edit the P2IMAP member of the orderlhq.SCPPSENU data set and correct the symbol. Rerun the step that invokes exec CPPERCDS.

- If the symbol specified in P2IMAP is correct, the catalog entry is changing. Determine whether the change affects any data set entries in catalogs on an active system. If so, determine whether to make copies of the affected catalogs and then change the copies.

For information about making copies of catalogs, see [z/OS DFSMS Managing Catalogs](https://www.ibm.com/support/docview/doc/153721).

---

**CPP0621009E** Data set *dsname* in catalog *configcat* was indirectly cataloged using symbol *oldvol*. However, the catalog entry will be changed from indirect because no symbol was defined for physical volume *configvol* in P2IMAP.

**Explanation:** Indirect cataloging is used for existing entry *dsname*. However, a symbol was not specified in P2IMAP for the physical volume on which this data set resides. As a result, the data set entry is no longer cataloged with indirect referencing.

In the message, the variables are as follows:

- **dsname**: Data set name
- **configcat**: Configuration catalog name
- **oldvol**: VOLSER from existing catalog entry
- **configvol**: VOLSER from configuration

**System action:** Processing continues.

**System programmer response:** Do one of the following:

- If the physical volume in the P2IMAP member of the orderlhq.SCPPSENU data set requires a symbol, add one. Rerun the step that invokes exec CPPERCDS.
If no symbol is required, determine whether the change to direct catalog referencing affects any data set entries in catalogs on an active system. If so, determine whether to make copies of the affected catalogs and then change the copies.

For information about making copies of catalogs, see *z/OS DFSMS Managing Catalogs*.

---

**CPP0621010S** The entry for target system master catalog *tmcat* could not be read successfully from *tmcat*.

**Explanation:** Access method services issued a nonzero return code when CPPERCDS attempted to retrieve the entry for the target system's master catalog, *tmcat*.

**System action:** Processing stops.

**System programmer response:** Ensure that the volume on which the target system master catalog resides is online and available. If so, run the access method services VERIFY command for the target system's master catalog. If VERIFY detects problems, correct the problems before continuing. Otherwise, contact IBM for assistance.

---

**CPP0621011S** The user catalog entry for *configcat* could not be read successfully from the target system master catalog *tmcat*.

**Explanation:** Access method services issued a nonzero return code when CPPERCDS attempted to retrieve the user catalog entry for the configuration catalog.

In the message, the variables are as follows:
- *configcat* Configuration catalog name
- *tmcat* Target system master catalog name

**System action:** Processing stops.

**System programmer response:** Determine whether the target system's master catalog contains a user catalog entry for the configuration catalog. If no entry exists, use the access method services IMPORT CONNECT command to create an entry for the user catalog. Rerun the step that invokes exec CPPERCDS.

If an entry exists for the user catalog, run the access method services VERIFY command for the driving system master catalog. If VERIFY detects problems, correct the problems before continuing. Otherwise, contact IBM for assistance.

---

**CPP0621012S** Symbol *symvol* is not valid for a non-IPL volume.

**Explanation:** Either "******" or &SYSR1 was specified for a physical volume that is not the IPL volume. *symvol* is the symbol that is used for indirect catalog referencing.

**System action:** Processing stops.

**System programmer response:** Edit the P2IMAP member of the orderhlq.SCPPSENU data set and specify the correct symbol. Rerun the step that invokes exec CPPERCDS.

---

**CPP0621013S** Symbol *symvol* is not valid for physical volume *configvol*.

**Explanation:** An invalid symbol was specified.

In the message, the variables are as follows:
- *symvol* Symbol for indirect catalog referencing
- *configvol* VOLSER in configuration.

The following syntax is checked for the symbol:
- If the first character is an asterisk, the value must be six asterisks (******).
- If the first character is an ampersand, the value must be between two and six characters long. The second character must be an alphabetic. Each subsequent character must be alphanumeric.

**System action:** Processing stops.

**System programmer response:** Edit the P2IMAP member of the orderhlq.SCPPSENU data set and specify a valid symbol. Rerun the step that invokes exec CPPERCDS.

---

**CPP0621014S** Physical volume *configvol* is not defined in P2IMAP.

**Explanation:** Physical volume was not defined. *configvol* is the volume's VOLSER.

**System action:** Processing stops.

**System programmer response:** Edit the P2IMAP member of the orderhlq.SCPPSENU data set and add any necessary entries for volumes that were defined in your configuration and their associated symbols. Rerun the step that invokes exec CPPERCDS.

---

**CPP0621015S** The user catalog entry for *configcat* could not be read successfully from the driving system master catalog *dmcat*.

**Explanation:** Access method services issued a nonzero return code when CPPERCDS attempted to retrieve the user catalog entry for the configuration catalog.

In the message, the variables are as follows:
- *configcat* Name of the configuration catalog
- *dmcat* Name of the driving system's master catalog.

**System action:** Processing stops.

**System programmer response:** Determine whether the driving system’s master catalog contains a user catalog entry for the configuration catalog. If no entry exists, use the access method services IMPORT
CONNECT command to create an entry for the user catalog. Rerun the step that invokes exec CPPERCDS.

If an entry exists for the user catalog, run the access method services VERIFY command for the driving system master catalog. If VERIFY detects problems, correct the problems before continuing. Otherwise, contact IBM for assistance.

**CPP0621016S**  The entry for configcat could not be successfully read from configcat.

**Explanation:** Access method services issued a nonzero return code when CPPERCDS attempted to retrieve the entry for the configuration catalog, configcat.

**System action:** Processing stops.

**System programmer response:** Ensure that the volume on which the configuration catalog resides is online and available. If so, run access method services VERIFY command against the configuration catalog. If VERIFY detects problems, correct the problems before continuing. Otherwise, contact IBM for assistance.

**CPP0621017S**  Data set SCPPSENU does not contain the P2IMAP member.

**Explanation:** Member P2IMAP is not accessible.

**System action:** Processing stops.

**System programmer response:** Rerun the P2IMAP step in the VERIFY job. Then, rerun the step that invokes exec CPPERCDS.

**CPP0621018S**  Two parameters must be specified.

**Explanation:** Two parameters were not specified as input to CPPERCDS.

**System action:** Processing stops.

**System programmer response:** Ensure that two parameters are specified on the invocation of exec CPPERCDS. Then, rerun the step that invokes exec CPPERCDS.

**CPP0621019I**  A new indirect catalog entry is being created for data set dsname in user catalog configcat.

**Explanation:** A new indirect catalog entry is being created for data set dsname in user catalog, configcat.

**System action:** Processing continues.

**System programmer response:** Determine whether the indirect catalog entries should exist in the specified user catalog. If not, select the Alias Option of the dialog and change the name of the catalog for this data set high level qualifier to the name of the master catalog. Then, rerun the step that invokes exec CPPERCDS.

**CPP0621020S**  ISPF Table access error performing task.

**Explanation:** ISPF issued a high return code when CPPERCDS invoked it through ISPF table command, task.

**System action:** Processing stops.

**System programmer response:** Contact IBM for assistance.

**CPP0621021S**  The entry for the driving system master catalog dmcat could not be successfully read.

**Explanation:** Access method services issued a nonzero return code when CPPERCDS attempted to retrieve information about the driving system’s master catalog, dmcat.

**System action:** Processing stops.

**System programmer response:** Determine whether the driving system’s master catalog name is correct. If so, run the access method services VERIFY command for the driving system’s master catalog. If VERIFY detects a problem, correct it before continuing. Otherwise, contact IBM for assistance.

If the driving system master catalog name is incorrect, do the following:

- Use the VAR primary command in the Install option of the installation dialog.
- Find the prompt for the driving system master catalog (OLD CAT).
- Enter the correct driving system master catalog name.

You must file tailor the job again (through line command S or the GENSKEL primary command) to use the new master catalog name. Also, file tailor any other jobs that use this variable. Rerun the job that failed.

**CPP0621022I**  An existing SMS-managed data set named dsname was found in catalog configcat.

**Explanation:** A data set in the configuration has the same name as an existing SMS-managed data set, which is cataloged in the configuration catalog. A subsequent job step will uncatalog the existing SMS-managed data set, making it inaccessible.

**System action:** Processing continues.

**System programmer response:** You must do either of the following:

- Rename the data set in the configuration
- Rename the existing SMS-managed data set.

If you change the configuration, you must rerun the installation jobs you created through the installation
dialog. If you used the GENSKEL command to file tailor the jobs, you must use GENSKEL again before rerunning the jobs.

**CPP0621023E** Data set dsname in catalog configcat was indirectly cataloged using symbol oldvol. However, this data set is SMS-managed in the configuration.

Explanation: The catalog entry for this data set will be changed to a direct entry in a later jobstep because SMS-managed data sets cannot have indirect catalog entries.

System action: Processing continues.

System programmer response: If you want the existing data set dsname to remain indirectly cataloged, do one of the following:

- Rename the existing data set.
- Rename the data set in the configuration.
- Change the data set in the configuration from SMS-managed to non-managed. Then, in member P2IMAP, define the symbol for the volume on which this data set is to reside.

Determine whether the change affects data set entries in catalogs on an active system. If so, determine whether to make copies of the affected catalogs and then change the copies.

If you change the configuration, you must rerun the installation jobs you created through the installation dialog. If you used the GENSKEL command to file tailor the jobs, you must use GENSKEL again before rerunning the jobs.

**CPP0621024E** A non-SMS entry was found for data set dsname in catalog configcat, but this data set is SMS-managed in the configuration.

Explanation: The catalog entry for this data set will be changed to an SMS-managed entry in a later job step.

System action: Processing continues.

System programmer response: If you want the existing data set to remain accessible through the catalog, you must do either of the following:

- Rename the existing data set
- Rename the data set in the configuration.

If you change the configuration, you must rerun the installation jobs you created through the installation dialog. If you used the GENSKEL command to file tailor the jobs, you must use GENSKEL again before rerunning the jobs.

---

**CPP0623001I** Report output has been saved in data set ‘dsname’

Explanation: The current level of the CustomPac installation dialog is displayed.

System programmer response: None.

**CPP0624001E** Unexpected return code or reason code from the Catalog Search Interface. Catalog Return Code return_code, Catalog Reason Code reason_code.

Explanation: The CPPEDSN program called the DFSMSdss Catalog Search Interface (CSI), which encountered an unexpected return code or reason code from catalog processing. The catalog return and reason codes are shown in the message text.

System action: CPPEDSN sets the return code to 8 and continues.

System programmer response: For the meaning of the return code and reason code in this message, see the description of message IDC3009I in [z/OS MVS System Messages, Vol 6 (GOS-IEA)](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.2.0/com.ibm.zos.doc/). Correct the problem and follow the failing job’s restart instructions.

**CPP0624002E** Unexpected catalog entry found for data_set_name in catalog catalog_name

Explanation: The CPPEDSN program found a catalog entry with the same name as a data set that is to be allocated. Because there is already an entry for data set data_set_name in catalog catalog_name, it would not be possible to catalog this data set if it were to be allocated.

System action: CPPEDSN sets the return code to 8 and continues.

System programmer response: Either the data set exists and is cataloged, or it does not exist and there is a catalog entry for it. The data set cannot already exist on the volume on which it is to be allocated, nor can there be a catalog entry for the data set in the catalog to be used to allocate the new data set.

Use one of the following methods to resolve this error condition:

- If the existing data set cannot be renamed or deleted along with its catalog entry, or the existing catalog entry cannot be deleted, do the following:
  - Use the installation dialog to rename the new data set, change its SSA, or specify a different catalog for the data set’s SSA or high level qualifier.
  - If you previously used the GENSKEL command to tailor all of the jobs at one time, rerun the GENSKEL command.
  - Rerun the installation jobstream from the beginning.
• If the existing data set can be renamed or deleted along with its catalog entry, or the existing catalog entry can be deleted, correct the problem (for example, by renaming the data set and its catalog entry, or deleting it) and follow the failing job’s restart instructions.

CPP0624003E  Data set data_set_name to be allocated has already been allocated on volume volume.

Explanation:  The CPPEDSN program checked the volume on which the data set identified in the message was to be allocated, and found that a data set with the same name already exists on the volume.

System action:  CPPEDSN sets the return code to 8 and continues.

System programmer response:  Do one of the following:
• If the data set can be renamed or deleted, do so and follow the failing job’s restart instructions.
• If the data set cannot be renamed or deleted, take the following steps:
  – Use the installation dialog to rename the new data set.
  – If you previously used the GENSKEL command to tailor all of the jobs at one time, rerun the GENSKEL command.
  – Rerun the installation jobstream from the beginning.

CPP0624004E  Unexpected return code or reason code from the Catalog Search Interface. GPR 15 = value, CSI Return Code return_code, CSI Reason Code reason_code.

Explanation:  The CPPEDSN program called the DFSMSdfp Catalog Search Interface (CSI), which returned an unexpected value in general purpose register 15, or with an unexpected return code or reason code in the CSI return work area.

System action:  CPPEDSN sets the return code to 8 and continues.

System programmer response:  For the meanings of the contents of general purpose register 15, and the return code and reason code from Catalog Search Interface, see the “Catalog Search Interface User’s Guide” appendix in z/OS DFSMS Managing Catalogs. Correct the problem and follow the failing job’s restart instructions.

CPP0625001E  Specified device is unknown. Press Enter to respecify or enter ? to display a list of known device types.

Explanation:  The device you entered in the Default Device Type field has not been defined to the installation dialog.

System action:  None.

System programmer response:  Take one of the following actions, as appropriate:
• Specify a different device type: Press Enter; specify a valid device type in the Default Device Type field.
• Query the list of defined device types: Specify a question mark (?) in the Default Device Type field and press Enter. From the resulting list of devices, select a device type and press Enter.
• Define the device type to the dialog: Return to the Modify System Layout Options panel. Select Option D (or enter DEVT on the command line). Add the device type to the list of device types and press Enter. On return to the Automatic Data Set Assignment panel, repeat your scope selection for data set assignment (ALL, NEW, or PARTIAL), enter the device type in the Default Device Type field, and press Enter.

CPP0625002E  This option cannot be used because all the target and DLIB data sets in the configuration are SMS-managed.

Explanation:  SMS-managed data sets are not eligible for automatic data set assignment. Because all target and DLIB data sets in this configuration are managed by SMS, you cannot use the Create a Recommended System Layout option.

System action:  None.

System programmer response:  Select an option other than Create a Recommended System Layout.

CPP0625003E  Option not available for lower-level orders.

Explanation:  Automatic Data Set Assignment cannot be used for this order. Because the order was created before the automatic assignment option was added to the dialog, the order lacks information required for automatic assignment.

System action:  None.

System programmer response:  None.

CPP0625004E  Initialize Volume was set to “No” for volume, but the volume could not be accessed.

Explanation:  The dialog attempted to retrieve used space from the volume volume for which “Initialize
Volume" was specified, however, one or more of these volumes could not be accessed. If the volume is offline, for example, its used space cannot be retrieved.

System action: None.

System programmer response: Take one of the following actions, as appropriate:
- Return to the previous panel and vary the needed volumes online. Retry this operation.
- Change "Initialize Volume" to YES for this volume and continue. The dialog will not attempt to retrieve free space information from the volume.

Use caution in resetting volumes from Initialize Volume NO to Initialize Volume YES. Doing so causes the volume to be initialized by the installation jobs.

CPP0625005E Duplicate volume specified. Enter the name of a volume that is not in the configuration.

Explanation: The volume you specified already exists in the configuration.

System action: None.

System programmer response: Specify a new volume for the configuration.

CPP0625007E Only one Move, Before, or After is allowed.

Explanation: You entered more than one MOVE command, or you entered the MOVE command with both the BEFORE and AFTER parameters.

System action: None.

System programmer response: Enter a single MOVE command with either BEFORE or AFTER specified, but not both.

CPP0625008E One or more volumes could not be accessed. The volumes are marked with * in the Existing Data column.

Explanation: The dialog attempted to access volumes with existing data to determine how much space was left on them. However, one or more of these volumes was inaccessible. These volumes are indicated by an asterisk (*) in the panel under the heading, Existing Data.

When a volume with existing data is not accessible, the dialog cannot determine the amount of used space on the volume. As a result, the dialog displays only the amount of space required for the data sets being assigned to the volumes, plus any reserved space. If the data sets allocated to the volume will not fit on the volume (because of a lack of free space), the ALLOCDS job might fail to allocate some data sets. Subsequently, these allocation failures cause the RESTORE job to fail with a JCL error.

System action: None.

System programmer response: To avoid potential overallocation errors when the ALLOCDS job runs, it is recommended that you investigate the cause of this message and ensure that there is enough space on the volumes to contain the order's data sets. Leave this panel and return to the Modify System Layout Options panel to resolve the problems with the affected volumes (for example, vary the volumes online). Then, return to this panel and continue.

CPP0625009E A volume can be moved only within volumes of the same type.

Explanation: Your attempt to move a volume through line command M was rejected. Doing so would place the volume in a group of volumes of another type, which is not allowed.

System action: None.

System programmer response: You can move a volume only among other volumes of the same type. For example, you can move a target volume before or after other target volumes, but not into a group of DLIB volumes or BOTH volumes.

To move a volume into a group of volumes of a different type, you must first change the volume’s type to the other type (target, DLIB, or BOTH) through the CHANGE PVOL command (see 167). You can then move the volume within the group of volumes with that type.

CPP0625010E The IPL volume cannot be excluded or moved.

Explanation: You cannot exclude the IPL volume from automatic data set assignment.

System action: None.

System programmer response: None.

CPP0625011E Insert not allowed on this line.

Explanation: You cannot enter line command I on this line. When NEW is specified, line command I is allowed only at the end of a list (that is, on the line for the last target, DLIB, or operational volume).

System action: None.

System programmer response: Use the correct syntax, as shown in the text of the message.
CPP0625012E  Sum of Reserved Space and
Existing Data exceeds volume
threshold.

Explanation:  You specified reserved space or Initialize
Volume "NO", or both, for the volume. However, the
total amount of space exceeds the volume’s space
utilization threshold, as shown in the panel "Current
Volume Configuration."

System action:  None.

System programmer response:  Do one or more of
the following, as appropriate:

• Increase the size of the volume by specifying a
different device type
• If the volume has reserved space, reduce the amount
of reserved space
• If the volume has existing data, move some or all of
these data sets to other volumes.

CPP0625013E  Incomplete selection. Specify
M(move) with either B(efore) or A(fter).

Explanation:  You entered line command M, B, or A
alone.

System action:  None.

System programmer response:  To move a volume
among volumes of the same type, enter line command
M (Move) for the volume to be moved, and line
command B (Before) or A (After) to place the volume in
a new position.

CPP0625014I  Automatic data set assignment
complete.

Explanation:  Your assignment of data sets in the work
configuration to DASD volumes completed successfully.

System action:  None.

System programmer response:  None.

CPP0625015I  No data sets found on volume
volume_name.

Explanation:  You entered line command L to list the
data sets on volume volume_name. However, the
volume contains no data sets.

System action:  None.

System programmer response:  None.

CPP0625016E  (YOU CHANGED THE DEFAULT
DEVICE TYPE.) dsname requires
nnnnnn cylinders and cannot fit on
volume volume_name.

Explanation:  During an automatic data set
assignment, the dialog could not place data set dsname
on the next available volume volume_name because
doing so would have exceeded the volume’s space
utilization threshold. At the time of the error, there had
been no other data sets assigned to the volume.

System action:  None.

System programmer response:  Take one or more of
the following actions, as necessary:

• If you specified reserved space for the volume,
  reduce the amount of reserved space.
• If you specified Initialize Volume NO for the volume,
  move some of the existing data sets to other
  volumes.
• If you increased the size of data set dsname, reduce
  the size of the data set.
• Increase the size of the volume by specifying a
different device type.

When you have resolved the problem, reenter the
CREATE command to create the configuration.

CPP0625017E  99 volume type volumes exist.
Unable to create more volumes.

Explanation:  Ninety-nine volumes of type TARGET,
DLIB, or BOTH already exist. This is the maximum
number of volumes permitted for a type. More data sets
remain to be assigned to this type, however these data
sets cannot fit on the existing volumes, and the dialog
cannot create additional volumes.

System action:  None.

System programmer response:  Take one or more of
the following actions to resolve the problem:

• Increase the size of one or more volumes
• Reduce the size of the data sets to be assigned by
  the dialog
• Reduce the number of data sets to be assigned by
  the dialog
• If you specified Reserved Space, reduce the amount
  of Reserved Space specified for one or more
  volumes
• If you specified Initialize Volume NO, move some
data sets to volumes that are not eligible for
  automatic data set assignment.

When you have resolved the problem, reenter the
CREATE command to create the configuration.

CPP0625018E  No more volume type volume names
available. Unable to create more
volumes.

Explanation:  The dialog could not create another
volume in the series indicated by volume type because
all of the possible volume names for this series have
been used.

System action:  None.

System programmer response:  A configuration
should not occupy all of the volumes in any volume series (Target, DLIB, or BOTH). To resolve this problem, do either of the following:

- Determine why automatic data set assignment is creating so many volumes. For example, the default volume size specified might be smaller than intended, or the primary space allocation specified for some of the data sets in the configuration might have been inadvertently increased by a large amount.
- If you think the configuration should occupy a large enough number of volumes for this message to be issued, rename one or more volumes in the series identified in the message text. These volumes will be named TARGnn, DLIBnn, or BOTHnn. However, you should be aware that there is also a limit on the number of sequence numbers in each series. See message CPP0625017E for information about the sequence number limit. Therefore, renaming one or more volumes might only change which limit is encountered.

When you have resolved the problem, enter the CREATE command to create the configuration.

CPP0625019E All IPLVOL data sets could not be placed on first Target volume.

Explanation: The dialog attempted to place the IPL volume data sets on the first target volume. Doing so, however, would exceed the volume’s space utilization threshold.

System action: None.

System programmer response: The data sets required on the IPL volume are usually not very large and should fit easily on any supported device type. To resolve this problem, do the following:

- Display the IPLVOL logical volume. This volume contains all of the data sets that must be placed on the first target volume.
- If you have placed other data sets on the IPLVOL logical volume, move some or all of them to different logical volumes.
- If you have increased the primary space for data sets on the IPLVOL logical volume, either specify less primary space for these data sets or increase the size of the first volume in the configuration.

When you have resolved the problem, enter the CREATE command to create the configuration.

CPP0625020E Enter EITHER Default Device or Model-After Volume

Explanation: You either entered no values for the default device type or model-after volume or entered both of them on the panel. You must enter one, and only one, value.

System action: None.

System programmer response: Specify only one default device type or one model-after volume.

CPP0625021E Volume not found.

Explanation: The Model after Volume was not found. If the DYNAMIC DASD INFO variable is set to Yes, the volume was not available. If it was set to No, the volume does not exist in the current configuration. In either case, the information needed to use the volume’s device as a model is not available.

System action: None.

System programmer response: If the DYNAMIC DASD INFO variable is set to Yes, either enter a default device type rather than a model-after volume, or exit the panel and ensure that:

- The volume is online and available
- The correct volume serial was specified
- The device and control unit are working correctly.

Then, select the option again.

Otherwise, if the DYNAMIC DASD INFO variable is set to No, either enter a default device type rather than a model-after volume, or specify a volume that is already defined in the current configuration.

CPP0625086I Device information updated

Explanation: The dialog successfully retrieved device information for the volume for which you specified the volume serial. The device type and device number were set from the retrieved information. If you entered “No” in the “Initialize Volume” field, available space on the volume was set using the amount of free space actually found.

System action: None.

System programmer response: None.

CPP0625087W Device information could not be retrieved for volume volume.

Explanation: Because the DYNAMIC DASD INFO variable was set to Yes, the dialog attempted to retrieve device information for the volume for which you specified the volume serial. However, the information could not be retrieved.

System action: None.

System programmer response: If the volume does not exist or is intentionally offline, press the Enter key to bypass the warning. Then, use Option V (Physical Volume Summary) from the Modify System Layout Options panel to specify a device that has been defined in the Device Type Table. To display defined devices or to define a new device, select Option T (View and change device type table) from the Modify System Layout Options panel. If the required device is not
defined, exit the panel, define the device, and then retry the operation.

If the volume should be online, ensure that:

- The correct volume serial is specified on the panel.
- The volume is online and available (for example, not pending offline or boxed). If the volume is not online and available, exit the panel and make the volume available. Then, retry the operation.
- The device and control unit are working correctly. For example, check the system log for IOS000I messages that might indicate a problem.

If these actions do not resolve the problem, contact IBM for assistance.

---

**CPP0625088W** Device number found for **volume1** conflicts with device number found for **volume2**. Respecify volume serial or press Enter to continue.

**Explanation:** You entered a volume serial on the panel while the DYNAMIC DASD INFO variable was set to Yes. The dialog retrieved the information for the volume, but found that its device number matches a device number already specified for another volume in the configuration.

**System action:** None.

**System programmer response:** Do either of the following:

- Re-specify the volume serial
- Press Enter to continue. The device number for the other volume will be set to CCUU. When you complete the panel, use Option V on the Modify System Layout Options panel to correct the device number for the other volume.

---

**CPP0626003W** Member **member-name** has no SSI Information.

**Explanation:** The indicated member has no SSI information in its directory entry. All of the IBM-supplied modules in the SCPPLOAD data set should have SSI information.

**System action:** None.

**System programmer response:** Remove any non-IBM modules from SCPPLOAD. If this message is issued for an IBM-supplied module, contact IBM for assistance.

---

**CPP0627001I** The level of SMP/E is **vv.rr.mm**.

**Explanation:** This message identifies the level of SMP/E installed on your system. In the message, **vv.rr.mm** indicates the following:

- **vv** is the SMP/E version
- **rr** is the SMP/E release
- **mm** is the SMP/E modification level.
System programmer response: None.

CPP0639002I RESTORE Confirmation has been denied, SHIP Command will NOT be Executed

Explanation: You requested that all DLIB and target zone names be restored to their shipped values. No names were restored, however, because you did not confirm your request.

System programmer response: None.

CPP0639003I Changes to the TABLE have been SAVED

Explanation: Your changes to the zone configuration have been saved.

System programmer response: None.

CPP0639004I Processing CANCELLED by User

<changes>

Explanation: You entered the CANCEL command; your changes to the zone configuration were discarded. <changes> might show more information, such as the message: “CHANGES TO THE TABLE WERE NOT SAVED.”

System programmer response: None.

CPP0639005I No changes were made to the TABLE.

Explanation: You pressed the END key to exit from the Define Installation Variables function of the installation dialog. No changes were saved.

System programmer response: None.

CPP0639006E DUPLICATE Zone Name

Explanation: You attempted to rename a DLIB or target library zone to a name that is already used for another zone. Duplicate zone names are not allowed. The cursor indicates the first occurrence of the duplicate zone name.

System action: Dialog processing stops.

System programmer response: Change the zone name to a unique name.

CPP0670001E The XML output data set could not be opened.

Explanation: The CPPXMLG program could not open the XML output data set.

System action: CPPXMLG processing ends. The content of the XML output data set is not valid.

Programmer response: Ensure that XML output data set has been allocated, and that the XMLGNR8 job is running under a user ID that has UPDATE access (or higher) to the output data set. If the problem persists, contact IBM for assistance.

CPP0670002E The table-name table could not be read.

Explanation: The CPPXMLG program could not read table table-name.

System action: CPPXMLG processing ends. The content of the XML output data set is not valid.

Programmer response: Ensure that data set SCPPTENU is concatenated to ISPTLIB in the BUILDXML step of the XMLGNR8 job. Also ensure that the XMLGNR8 job is running under a user ID that has READ access (or higher) to the SCPPTENU data set. If the problem persists, contact IBM for assistance.

CPP0670003E Call to program-name failed.

Explanation: The CPPXMLG program could not call program program-name.

System action: CPPXMLG processing ends. The content of the XML output data set is not valid.

Programmer response: Contact IBM for assistance.

CPP0670004E Bad return code from program-name.

Explanation: The CPPXMLG program called program program-name, which ended with a return code that is higher than the value allowed by CPPXMLG. The called program might have issued a message to further explain the error.

System action: CPPXMLG processing ends. The content of the XML output data set is not valid.

Programmer response:
- If the called program issued a message to further explain the error, respond as that message indicates. If the problem persists, contact IBM for assistance.
- If the called program did not issue a message, contact IBM for assistance.

CPP0670005E SMP/E API call failed.

Explanation: The CPPXMLG program attempted to call the SMP/E authorized program interface (API), but the call failed.

System action: CPPXMLG processing ends. The content of the XML output data set is not valid.

Programmer response: Determine whether the joblog contains any messages that describe the failure. If so, respond as the messages indicate. Otherwise, contact IBM for assistance.
CPP0670006E Unknown data set organization.
Explanation: The CPPXMLG program could not create an XML tag to describe a data set or file, because the program does not recognize the organization of the data set or file.
System action: CPPXMLG processing ends. The content of the XML output data set is not valid.
Programmer response: If you added the data set or file during the Modify System Layout function of the dialog, ensure that its organization is supported. The supported organizations are:
- PS (sequential)
- PO (PDS or PDSE)
- VSAM
- HFS
- zFS

If the organization of the data set or file is not supported, you must change its organization (through the Modify System Layout function), or remove the data set or file from the order configuration. If you entered the GENSKEL command, you must rerun this command to update the installation jobs for the changed configuration.

If the organization of the data set is supported, contact IBM for assistance.
- If the data set or file was supplied by IBM, contact IBM for assistance.

CPP0670007E Bad parameter list passed to program-name.
Explanation: Program program-name was called with no parameters or with an unrecognized parameter.
System action: program-name returns control to its caller with return code 12.
Programmer response: Contact IBM for assistance.

CPP0670008E package-type is not supported.
Explanation: Package type package-type is not supported by the package routine called by the CPPXMLG program.
System action: The package routine returns control to the CPPXMLG program with return code 8.
Programmer response: If you are running the CPPXMLG program for a supported package type, contact IBM for assistance.

CPP0670009E No <SOFTWAREELEMENT> found for SOFTWAREFEATURE-name
Explanation: A SOFTWAREELEMENT could not be built for this SOFTWAREFEATURE. For an SMP/E-installed product, this condition occurs when program CPPXMLG cannot find the required SYSMOD entry in the order's target zones. CPPXMLG searched the zones for a SYSMOD entry with a status of APPLIED that matches an FMID subentry in the FEATURE entry for which this <SOFTWAREFEATURE> is being built.
System action: CPPXMLG sets the return code to 4.
Programmer response: If the feature is included in the package and was installed through SMP/E, contact IBM for assistance.

CPP0670010E The DTD input data set could not be opened.
Explanation: The CPPXMLG program could not open the DTD input data set.
System action: CPPXMLG processing ends. The content of the XML output data set is not valid.
Programmer response: Ensure that ddname DTDFILE refers to member, DTD, in data set SCPPSENU.

CPP0670011W type zone zone-name could not be opened.
Explanation: CPPXMLG could not open the indicated zone, even though a ZONEINDEX entry for it was found.
System action: None.
Programmer response: If you want to create a product definition file to describe this zone's products, ensure that the SMP/E CSI data set containing this data is available and can be allocated. Otherwise, ignore this message.

CPP0670012E Lower-level order tables are not supported. CPPXMLG terminated.
Explanation: CPPXMLG must be run with the same level of ServerPac data it was shipped with, or a higher level. CPPXMLG does not support lower-level data.
System action: None.
Programmer response: Run an appropriate level of CPPXMLG for the tables to be processed.
CPP0670013W Unsupported DBCS data encountered in a PRODUCT entry needed to create tag for DDDEF name dddef-name.

**Explanation:** CPPXMLG read the DESCRIPTION field of a PRODUCT entry in order to construct the file ID for a product's data sets. The product's description contains double-byte character set (DBCS) characters, which are not supported.

**System action:** None.

**Programmer response:** None.

---

CPP0670014E FUNCTION SYSMOD sysmod-name found APPLIED in more than one target zone.

**Explanation:** While attempting to identify the target zone for a product, CPPXMLG found the same function sysmod applied in more than one target zone.

**System action:** None.

**Programmer response:** In the CPPXMLIN data set, do not specify more than one target zone having a function sysmod in APPLY status.

---

CPP0670015E Data set dsnname has conflicting APF and RECFM attributes.

**Explanation:** CPPXMLG found a data set that has a defined record format, but which must be APF-authorized. Only RECFM=U data sets can be APF-authorized.

**System action:** None.

**Programmer response:** Contact IBM for assistance.

---

CPP0670016E Unknown CPPXMLIN control statement statement-name found. Control statement follows: text

**Explanation:** CPPXMLG did not recognize the control statement shown.

**System action:** None.

**Programmer response:** Check the syntax of the control statement.

---

CPP0670017E Invalid value specified for statement-name. Control statement follows: text

**Explanation:** CPPXMLG encountered a control statement with an incorrect value specified.

**System action:** None.

**Programmer response:** Check the CPPXMLIN data set for the erroneous control statement. Correct the statement and rerun the job that you use to execute program CPPXMLG.

---

CPP0670018E Zone name too long on TARGETZONE statement: zone-name

**Explanation:** CPPXMLG encountered a zone name that exceeds the 7 character limit on a TARGETZONE control statement.

**System action:** None.

**Programmer response:** Check the CPPXMLIN data set for the incorrect TARGETZONE control statement. Correct the zone name and rerun the job that you use to execute the CPPXMLG program.

---

CPP0670019W Duplicate DDDEF name for product product-name found in zone: zone-name The first DDDEF name found was used.

**Explanation:** CPPXMLG encountered a DDDEF name for the same product in two different zones. CPPXMLG used the DDDEF encountered in the first target zone specified on a TARGETZONE control statement, or the DDDEF encountered in the first DLIB zone associated with the first zone specified on a TARGETZONE statement.

**System action:** None.

**Programmer response:** If the DDDEFs in both zones are for the same product and the same data set, no action is required. For example, if the JES2 zone has a DDDEF for the MACLIB data set in the BCP zone, the DDDEFs would both refer to the same product's data set.

If the DDDEFs in both zones are for different levels of the same product or represent different data sets, remove one of the TARGETZONE control statements from the CPPXMLIN data set and rerun the program that you use to execute CPPXMLG.

---

CPP0670020E Expected continuation not found after control statement starting with text.

**Explanation:** A continuation character (+) was found after the control statement indicated in the message. However, the remainder of the control statement was not found in the CPPXMLIN data set before the next control statement or the end of the data set was encountered.

**System action:** None.

**Programmer response:** Add the remainder of the control statement or remove the continuation character.
CPP0670021W  No PRIME control statement found in CPPXMLIN data set.

Explanation: A CPPXMLIN data set, other than a dummy data set, was allocated but no PRIME control statement was found. Any other control statements in CPPXMLIN data set are ignored. CPPXMLG will run in package mode.

System action: None.

Programmer response: If you did not want CPPXMLG to run in priming mode, disregard the message. If you want CPPXMLG to run in priming mode, add a PRIME control statement to the beginning of the CPPXMLIN data set and rerun CPPXMLG.

CPP0670022E  Priming mode was specified, but the first CPPXMLIN control statement was not PRIME.

Explanation: CPPXMLG found a PRIME control statement in the CPPXMLIN data set, but it was not the first control statement, or, the PRIME control statement was missing and other data is present in the data set. The PRIME control statement must be the first control statement in the CPPXMLIN data set.

System action: None.

Programmer response: If you do not want CPPXMLG to run in priming mode, disregard the message. Otherwise, move the PRIME control statement so that it appears first in the CPPXMLIN data set and rerun CPPXMLG.

CPP0670023W  No target zones were processed.

Explanation: No TARGETZONE statements were found in the CPPXMLIN data set, and, therefore, none were processed.

System action: None.

Programmer response: If you intended to include TARGETZONE statements in the CPPXMLIN data set, add the statements and rerun CPPXMLG. Otherwise, disregard this message.

CPP0670024E  Zone not found in ZONEINDEX:

zone-name

Explanation: The named target zone was specified on a TARGETZONE control statement. However, there was no ZONEINDEX entry for the specified target zone in the global zone.

System action: None.

Programmer response: Do one of the following:

• Specify a global zone containing a ZONEINDEX entry for the specified target zone on the SMPCSI DD statement

• Specify a target zone for which there is a ZONEINDEX entry on the TARGETZONE control statement

• Add a ZONEINDEX entry to the global zone for the specified target zone

• Remove the TARGETZONE control statement.

CPP0670025E  Duplicate CPPXMLIN control statement text found.

Explanation: CPPXMLG encountered a duplicate statement in the CPPXMLIN data set.

System action: None.

Programmer response: Remove the duplicate statement from CPPXMLIN and re-run the job.

CPP0670026E  NO valid zones were available to process.

Explanation: CPPXMLG did not find any zones to process in the CPPXMLIN data set.

System action: None.

Programmer response: If you ran the XMLGNR8 job in package mode, ensure that the required zone can be opened. If you ran CPPXMLG job in priming mode, ensure that the TARGETZONE statement is specified correctly and that the required zone can be opened.

CPP0670027E  Missing CPPXMLIN control statement. Control statement follows:

text

Explanation: CPPXMLG did not find the required statement in the CPPXMLIN data set.

System action: None.

Programmer response: Check the syntax of the required statement to ensure that it is coded correctly.

CPP0670028W  The CPPXMLIN input data set could not be opened.

Explanation: CPPXMLG could not open the CPPXMLIN data set. CPPXMLG continues processing in package mode.

System action: None.

Programmer response: For package mode, either ignore the message or remove the CPPXMLIN DD statement. For priming mode, edit the CPPXMLIN data set, adding the control statements required for priming mode processing.
CPP0670029W  DLIBZONE statement ignored since no target zones available to process.

Explanation: The DLIBZONE statement is being ignored because no target zones are available for processing.

System action: None.

Programmer response: You have specified that related DLIB zones are to be processed, however, no valid target zones exist to be processed. Check that the target zones have been correctly specified in the CPPXMLIN control statements and the zones are correctly defined in the CSI.

CPP0670030E  Targetzone name was specified but Dlibzone found with that name in ZONEINDEX: zone-name.

Explanation: TARGETZONE name zone was specified as a zone to be processed, however, a DLIB zone was found with that name in ZONEINDEX.

System action: CPPXMLG processing ends. The content of the XML output data set is not valid.

Programmer response: Either correct the spelling of the TARGETZONE name to be processed in the CPPXMLIN control statement or in the CSI definitions.

CPP0670091W  Warnings have been issued by GIMAPI; messages follow:

Explanation: The CPPXMLG program called the SMP/E authorized program interface (API), which issued warning messages.

System action: None.

Programmer response: For information, see [SMP/E Messages, Codes, and Diagnosis] Respond as the messages indicate. Otherwise, contact IBM for assistance.

CPP0670092E  Errors were encountered by GIMAPI; messages follow:

Explanation: The CPPXMLG program has called the SMP/E authorized program interface (API), which has issued error messages.

System action: CPPXMLG processing ends. The content of the XML output data set is not valid.

Programmer response: Contact IBM for assistance.

CPP0699001S  Flow Table CPPFLOW NOT Found in Order Table Library

Explanation: The table CPPFLOW, which forms part of your order shipment, was not found in the SCPPTENU library. As a result, the order is not installable.

System programmer response: Check the receive job to make sure the order libraries were allocated correctly and were loaded with data. If you cannot resolve the problem, contact IBM for assistance.

CPP0699002I  Your driving system supports EAV volumes. However, the CustomPac Dialogs do not support these volumes.

Explanation: Although z/OS V1R10 or higher supports EAV, the CustomPac Dialogs cannot use EAV as the target volumes to install the orders.

System programmer response: Make sure that no EAV is used as the target volume.

CPP0995001S  DDname ddname Is NOT a Partitioned Dataset

Explanation: The data set that is allocated to DDname ddname is not a partitioned data set. This utility only supports the conversion of partitioned data sets.

System programmer response: Report this problem to IBM.

CPP0995002S  DDname ddname Has an incompatible RECFM

Explanation: The data set allocated to DDname(SYSUT1) is not RECFM=FB, or the data set allocated to DDname(SYSUT2) is not RECFM=VB.

System programmer response: Report this problem to IBM.

CPP0995003S  DDname ddname Has an Incompatible LRECL

Explanation: The data set allocated to DDname(SYSUT1) is not LRECL=80, or the data set allocated to DDname(SYSUT2) has an LRECL < 72.

System programmer response: Report this problem to IBM.

CPP9999901X  Unsupported SERVICE (service-call)

Explanation: This message is issued by the CPPCMSG interface.

The program calling the interface has specified an incorrect service service-call.

System programmer response: Report this problem to IBM.
**CPP9999902X**  FILE *(file-name)* MISSING DD STATEMENT

**Explanation:** The CPCMSG interface cannot open the file *file-name* because it is missing a DD statement.

**System action:** The system responds in either of two ways, depending on when the error occurred, as follows:

- If the problem occurred during an INIT service call, the message inventory is not allocated.
- If the problem occurred during a MSG service call, the ddname to which the message is to be written is not allocated, and a PL/I ONCODE(1016) abend occurs.

**System programmer response:** Note which dialog function you were using, and, if possible, the sequence of events that caused the message to be issued. Report the problem to IBM.

**CPP9999903X**  FILE (MSGINV) CORRUPT, NO Module Table Record

**Explanation:** The message inventory is corrupt and is unusable. You cannot install the order until this problem is corrected.

**System programmer response:** Note which dialog function you were using, and, if possible, the sequence of events that caused the message to be issued. Report the problem to IBM.

**CPP9999904X**  INIT Failed for UNKNOWN Module *(module-name)*

**Explanation:** The calling program specified a module that is not defined to the message inventory.

**System programmer response:** Note which dialog function you were using, and, if possible, the sequence of events that caused the message to be issued. Report the problem to IBM.

**CPP9999905X**  STACK Overflow Condition for STACK *stack-name*

**Explanation:** This message is issued by the CPCMSG interface.

One of the internal stacks used by the message interface is not large enough.

**System programmer response:** Report this problem to IBM.

**CPP9999906X**  RESTORE Failed, SAVE STACK is empty

**Explanation:** This message is issued by the CPCMSG interface.

The program calling the interface has specified a RESTORE service call, however no preceding SAVE has taken place. There is nothing to restore.

**System programmer response:** Report this problem to IBM.

**CPP9999907X**  Invalid Output Destination *(output-destination)*

**Explanation:** This message is issued by the CPCMSG interface.

The program calling the interface has specified a service call that specifies an incorrect output destination.

**System programmer response:** Report this problem to IBM.

**CPP9999908X**  Unknown MESSAGE *(message-id)* Issued By MODULE *(module-name)*

**Explanation:** The calling program specified a message ID that is not defined in the message inventory.

**System programmer response:** Note which dialog function you were using, and, if possible, the sequence of events that caused the message to be issued. Report the problem to IBM.

**CPP9999909E**  Valid options are "F" or "S"

**Explanation:** You entered an incorrect value for the installation type.

**System action:** Dialog processing stops.

**System programmer response:** Specify a valid value.

**CPP9999910E**  Valid values are "Y" or "N"

**Explanation:** You specified an incorrect value.

**System action:** None; the panel values are not processed.

**System programmer response:** Specify a valid value.

**CPP9999911E**  Valid characters A-Z, 0-9, #, @, $. The first cannot be 0-9.

**Explanation:** You specified an incorrect value.

**System action:** None; the panel values are not processed.

**System programmer response:** Specify a valid value.
CPP999950I  Module was Compiled On
compile-date

Explanation:  You entered the COMP primary command to display the date and time at which this module was compiled.

System programmer response:  None.

CPP999951W  INVALID Primary Command
"command-name"

Explanation:  The command shown is not a valid primary command for the current panel, or it contains incorrect syntax.

System programmer response:  None.

CPP999952W  INVALID Line Command
"command-name"

Explanation:  The line command shown is not valid for the row being selected.

System programmer response:  None.

CPP999953E  Invalid PARM Information parm.

Explanation:  The external PARM information parm supplied to the program was missing or in error.

System programmer response:  None.

CPP999954I  Table REFRESHED

Explanation:  The current panel was refreshed.

System programmer response:  None.

CPP999955I  Field NOT KNOWN field-name

Explanation:  You entered a SET command for a field that is not available on the current panel.

System programmer response:  Enter a valid SET command.

CPP999956I  SORT Completed

Explanation:  Your SORT command has completed successfully.

System programmer response:  None.

CPP999957I  SET Successful for field field-name

Explanation:  Your SET command has completed successfully; the field has been set.

System programmer response:  None.

CPP999958I  Display MODE now set to
"mode-name"

Explanation:  You changed the display mode of the current panel to mode-name.

Display modes are explained, as follows:
TE  Terse mode; only summary information is shown.
VE  Verbose mode; all information is shown.

System programmer response:  None.

CPP999961I  Data FOUND

Explanation:  You entered a LOCATE, FIND, NEXT or PREVIOUS command for the current SET field and the search string was found. The matching list entry is positioned at the top of the scrollable area.

System programmer response:  None.

CPP999962I  Data NOT FOUND

Explanation:  You entered a LOCATE or FIND command for the current SET field, but no matches were found.

System programmer response:  None.

CPP999963I  BOTTOM of Table

Explanation:  You entered a NEXT command for the current SET field. The list was searched from the last entry with a match to the 'bottom of table,' but no other matches were found.

System programmer response:  To resume the search from the top of the list, enter the NEXT command again.

CPP999964I  TOP of Table

Explanation:  You entered a PREVIOUS command for the current SET field. The list was searched from the last entry that matched to the 'top of table,' but no other matches were found.

System programmer response:  To resume the search from the bottom of the list, enter the PREVIOUS command again.

CPP999965I  NO Search Criteria

Explanation:  You entered a LOCATE, FIND, NEXT or PREVIOUS command for the current SET field, but you did not specify any search criteria.

System programmer response:  Enter the command again with search criteria.
Ending QUOTE is missing
Explanation: You entered a LOCATE or FIND command for the current SET field. However, the search criteria you specified contains embedded blanks and you did not enter a closing quotation mark.
System programmer response: Add an ending quotation mark to the search criteria.

NO Data Updated By User
Explanation: You displayed a panel with changeable values. However, you either:
• Ended processing without changing any data.
• Continued processing, using the displayed data.
System programmer response: None.

Synchronization DELETE Has Completed Successfully
Explanation: You attempted to delete a data object that was already deleted. The display of the data was created when you invoked the function, and is likely now unsynchronized with the physical database. This is not an error. The data object has been deleted from your display (synchronized).
System programmer response: None.

Synchronization INSERT Has Completed Successfully
Explanation: You attempted to insert a data object that has already been created. The display of the data was created when you invoked the function, and is likely now unsynchronized with the physical database. This is not an error. The data object has been inserted in your display (synchronized).
System programmer response: None.

This Already EXISTS, DUPLICATES are Not Allowed
Explanation: You attempted to insert or create a data object that already exists. Duplicate data objects are not permitted.
System programmer response: None.
CPP9999987E  Enter a valid volume serial.
Explanation:  The volume serial entered on the panel is not valid.
System action:  None
System programmer response:  Specify a valid volume serial. A volume serial has 1 through 6 alphanumeric, national ($, #, @), or special characters. There are special rules for specifying special characters. For more information, see z/OS MVS JCL Reference, SA22-7597

CPP9999988E  INVALID Primary Command
"command-name"
Explanation:  The command shown is not a valid primary command for the current panel, or the command has invalid syntax.
System programmer response:  Enter a valid command.

CPP9999990I  NO Dynamic HELP Available
Explanation:  You requested help for a panel that does not have any help information.
System programmer response:  Contact IBM for assistance.

CPP9999991I  Date(date) Time(time)
Explanation:  You entered the TIME or DATE primary command. The current time and date are displayed.
System programmer response:  None.

CPP9999992W  Table table-id Not Found
Explanation:  The currently executing dialog function required access to table table-id, which was not found.
System programmer response:  Exit the dialog. Log off, log on again, and retry the failing function. If the problem persists, contact IBM for assistance.

CPP9999993W  Enque for Table table-id Failed, this is NOT Normally a Problem, the Table May be IN USE by Another User
Explanation:  The currently executing dialog function requires access to table table-id, which is in use by another user. This is not usually a problem.
System programmer response:  Wait until the other user has finished using the table.

CPP9999994S  Table table-id, INPUT/OUTPUT Library (library-name) Was NOT Allocated
Explanation:  The currently executing dialog function could not access table table-id because library library-name was not allocated.
System programmer response:  Exit the dialog. Log off, log on again, and retry the failing function. If the problem persists, contact IBM for assistance.

CPP9999996S  Unexpected DIALOG ERROR
Explanation:  The currently running dialog function detected an ISPF error while issuing a program call.
System programmer response:  Exit the dialog. Log off, log on again, and retry the failing function. If the problem persists, report the following information to IBM:
•  The sequence of events leading to the error.
•  A screen print of the displayed information.
Appendix C. Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features in z/OS enable users to:

- Use assistive technologies such as screen readers and screen magnifier software
- Operate specific or equivalent features using only the keyboard
- Customize display attributes such as color, contrast, and font size

Using assistive technologies

Assistive technology products, such as screen readers, function with the user interfaces found in z/OS. Consult the assistive technology documentation for specific information when using such products to access z/OS interfaces.

Keyboard navigation of the user interface

Users can access z/OS user interfaces using TSO/E or ISPF. Refer to z/OS TSO/E Primer, z/OS TSO/E User’s Guide, and z/OS ISPF User’s Guide Vol I for information about accessing TSO/E and ISPF interfaces. These guides describe how to use TSO/E and ISPF, including the use of keyboard shortcuts or function keys (PF keys). Each guide includes the default settings for the PF keys and explains how to modify their functions.

z/OS information

z/OS information is accessible using screen readers with the BookServer/Library Server versions of z/OS books in the Internet library at:

http://www.ibm.com/systems/z/os/zos/bkserv/
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