ServerPac

Using the Installation Dialog

Dialog Level: 15 (September 2002)

SA22-7815-04

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Note
Before using this information and the product it supports, be sure to read the general information under “Notices” on page 207.

Fifth Edition, September 2002

This book replaces the previous edition, SA22-7815-03. 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 15, 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 online or by FAX (see the form 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:

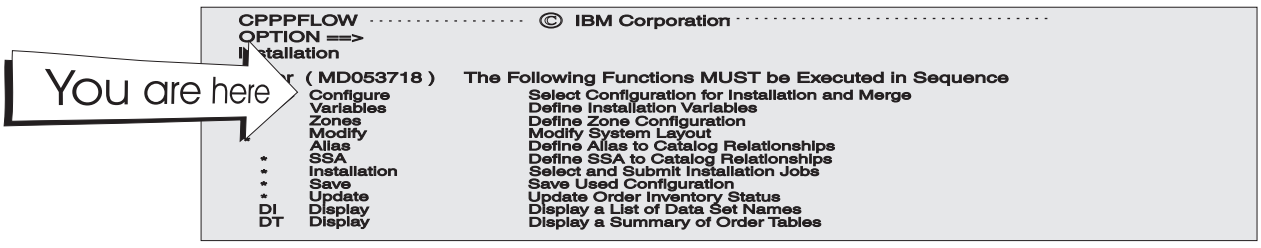
Driving System
: The system image (hardware and software) that you use to install the target system.

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:

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

Before you begin your ServerPac installation of z/OS (MVS SREL), see *z/OS and z/OS.e Planning for Installation* to:

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

When you begin to install an order, you will turn most often to this document for the information you need. During one stage of the process (submitting the installation jobs), however, you will turn to *ServerPac: Installing Your Order* for specific instructions for your particular order. This document is provided with your order in both hardcopy and softcopy. Unlike a formal publication, *ServerPac: Installing Your Order* is tailored to match your individual z/OS ServerPac order. Figure 1 on page 3 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*.

Using LookAt to look up message explanations

LookAt is an online facility that allows you to look up explanations for most 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 access LookAt from the Internet at:

`http://www.ibm.com/eserver/zseries/zos/bkserv/lookat/`

or from anywhere in z/OS where you can access a TSO/E command line (for example, TSO/E prompt, ISPF, z/OS UNIX System Services running OMVS). You can also download code from the *z/OS Collection* (SK3T-4269) and the LookAt Web site that will allow you to access LookAt from a handheld computer (Palm Pilot VIIx suggested).

To use LookAt as a TSO/E command, you must have LookAt installed on your host system. You can obtain the LookAt code for TSO/E from a disk on your *z/OS Collection* (SK3T-4269) or from the **News** section on the LookAt Web site.

Some messages have information in more than one document. For those messages, LookAt displays a list of documents in which the message appears.

Summary of Changes

Summary of Changes
for SA22-7815-04
as Updated, September 2002

This document contains information previously presented in SA22-7815-03.

New Information:

- **Select a JES in the dialog.** For a z/OS or OS/390 order, you can now use the dialog to specify which JES elements are to be installed on the target system, and to merge the JES's SMP/E zones with the base control program (BCP) zones.

  Previously, you had to install both JES2 and JES3. You then used installation jobs to delete unused JES elements and merge zones on the target system. For more information, see "Selecting a JES for the Configuration" on page 31.
- **Review the SMP/E SYSLIB data sets in your order.** A new option in the dialog's View and Change Facility allows you to display your order's SMP/E SYSLIB data sets. For more information, see "Viewing and Changing Data Sets" on page 80.
- **Work with the Master Catalog data sets in your order.** The MCAT operand is added to the CHANGE command to allow you to override the master catalog requirement for data sets in your order. For more information, see "Overridding the Master Catalog Requirement for Data Sets" on page 90.
- **Print the list of jobs for your order.** Commands OFILE and OLIST are added to the dialog's "Installation Jobs" panel. Now it is easier to work with the list of installation jobs for your order: format the list, save it, download it, or print it (for example, through IEBGENER).

Changed Information:

- **Merge data sets safely.** The dialog now restricts certain types of merge operations, to help you avoid creating configurations that would be unworkable, lack certain functions, or be impossible to IPL. Specifically, the dialog prevents you from merging LPA libraries with non-LPA libraries, or from merging link-list eligible data sets with data sets that cannot reside in the link list.
- **Use a mixed case directory name for HFS elements.** You can now specify the target system's HFS installation directory (dialog variable A00PQ04) in upper-case, lower-case, and mixed-case characters. Previously, this directory name was limited to uppercase characters only.
- **Include SCEERUN 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 STEPLIB concatenation in your logon proc.

Deleted Jobs: These jobs are no longer needed to install your order: BPXISETS, CALLJOB, FOMISCHO, J2MERG, J2DELETE, J3MERG, J3DELETE, UPDCSI.

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 SA22-7815-03
as Updated, March 2002

This document contains information previously presented in SA22-7815-02.

New Information:

- The cover of this document now includes the *dialog level*. This number indicates the level of the dialog code that came with your order. To verify that you have the correct publication for your order, compare the dialog level with the *package version* for your order, which is printed on the cover of the publication, *ServerPac: Installing Your Order*. The dialog level should match the first two digits of the package version for your order.
- The dialog requires a minimum region size of 9 megabytes (MB). When you log on to TSO/E to start the dialog, ensure that the TSO/E logon panel specifies a sufficiently large value in the size field, as described in "Starting the Dialog" on page 16.
- When you use the dialog's Select line command to work with a tailored installation job, you will find that the Create and Backup commands are now fully supported and function as expected. Previously, when you selected jobs for file tailoring, the dialog placed your TSO/E session in ISPF Edit mode for the job, but processed these commands differently than is done by ISPF command processing.
- ServerPac is now available on 3590 tape.

Summary of Changes
for SA22-7815-02
as Updated, September 2001

This document contains information previously presented in SA22-7815-01.

New Information: For an explanation of system-specific aliases (SSAs), see the new topic "How SSAs Are Used During Installation" on page 108.

Changed Information: The dialog now uses the ISPF editor with a setting of CAPS OFF. When you edit a job through dialog line commands S or B, the CAPS OFF setting preserves your text input in the form in which you enter it (uppercase, lowercase, or mixed case).

Previously, if you entered mixed case input in a job, the dialog converted your input to uppercase characters. As a result of this change, you must take care to 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 Edit and Edit Macros*.

Summary of Changes
for SA22-7815-00
as Updated, March 2001

This document contains information previously presented in SC28-1244-13, which applied to OS/390 Version 2, Release 10.

New Product Name: z/OS is the follow-on to OS/390. Throughout the document, references to the operating system name have been changed appropriately. Do not be concerned if you received this document with an OS/390 order. The same dialog is used to install either operating system (OS/390 or z/OS.)

New Information:

New dialog functions help you save time in installing z/OS, as follows:

- **Create a Recommended System layout.** Now you can let the dialog automatically assign your order's target and DLIB data sets to DASD volumes. The new Recommended System Layout option allows you to quickly configure a system according to IBM's recommendations, as described in *z/OS and z/OS.e Planning for Installation*, GA22-7504. For more information, see "Creating the Recommended System Layout" on page 62.

  Previously, you were required to use the dialog's Summary Display commands to assign your order's data sets to logical volumes and then assign those logical volumes to physical volumes (DASD). The Summary Commands remain valid in this release, but are now described in Appendix B, "Using the Dialog's Summary Display Commands" on page 145.
- **View and Change Facility.** This new dialog facility makes it easier to change data sets in the work configuration. Now you can create customized lists of data sets in the configuration, then use these lists as targets for your subsequent CHANGE and MERGE commands.

  For example, you can use the View and Change Facility to create lists of data sets that are link-list eligible or required to be cataloged in the Master Catalog. For more information, see "Viewing and Changing Data Sets" on page 80.
- **CHANGE DSN *HLQ* Command.** The *HLQ* operand is added to the CHANGE DSN command to allow you to change the various high level qualifiers of data sets in a display list to a new high level qualifier. The EXCLUDE command allows you to omit particular data sets from such changes. For more information, see "Changing Data Set HLQs" on page 87.
- **CHANGE RENAME Command.** The RENAME operand is added to the CHANGE command to allow you to override the ″unrenameable″ attribute of data sets in your configuration, for example, CSSLIB, LINKLIB, PROCLIB, MIGLIB, LPALIB, SVCLIB, or NUCLEUS. With the addition of this operand, the dialog now allows you to rename all data sets in the order. For more information, see "Making Unrenameable Data Sets Renameable" on page 88.
- **CHANGE PVOL Command.** The PVOL operand is added to the CHANGE command to allow you to change the DASD volume to which non-SMS managed data sets are assigned, based on data set type (target, DLIB, or operational). For more information, see "Changing the Physical Volume for Data Sets" on page 91.

The index of this document now allows searching for dialog panels by panel ID.

Changed Information:

- Chapter 8, "Modifying the System Layout" on page 61 is restructured to reflect the new functions added in this release.
- Merging data sets in the work configuration is easier. The MERGE command is narrowed in scope so that it affects only the data sets in a display list. Previously, the MERGE command presented as ″merge candidates″ all data sets in the configuration that matched the merge target's DSORG, LRECL, and origin library (target or DLIB). When used with the new View and Change Facility, the MERGE command allows you to quickly merge specific groups of data sets in your configuration, such as the ISPF panel data sets.

- The CHANGE SPACE command now allows you to remove the secondary space allocation from particular data sets in the configuration, such as link-list eligible data sets. Previously, all data sets were given a secondary allocation of at least one percent of their primary allocation. For more information, see “Changing Data Set Space Values” on page 92.

Moved Information:

- Information about the the dialog’s summary display commands (SUMD, SUMP, SUML) is moved to Appendix B, “Using the Dialog’s Summary Display Commands” on page 145.

Deleted Information:

- The installation variable HFS FROM DRV SYS? is removed. Beginning with z/OS Version 1, Release 1, you must unload the HFS from the driving system.

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

Before you install your order, be sure to review the contents of the ServerPac shipment that you received from IBM. 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.

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

For z/OS or z/OS.e orders... Follow the instructions in *z/OS and z/OS.e 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 and z/OS.e 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 and z/OS.e 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 and z/OS.e 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, z/OS.e, or a z/OS-related subsystem product, you use the installation dialog described in this book to install the order.

If you are installing a ServerPac for the first time, you will need to install the installation dialog and its associated data sets on your driving system. IBM provides the dialog data sets on the Related Installation Materials (RIM) tape that comes with your order. 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.

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 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 or z/OS.e 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.

Review jobs RACFDRV and 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 “Changing the SMS Management Status” on page 89), 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, if this profile is defined. STGADMIN.IGG.DIRCAT protects the ability 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 3 summarizes the steps for using the dialog to install a ServerPac order. The book for each step is listed under “Use this book...”.

Run each function in order. That is:
1. Receive the order
2. Install the order
3. Review the order history.

Following the figure is a summary of these steps.

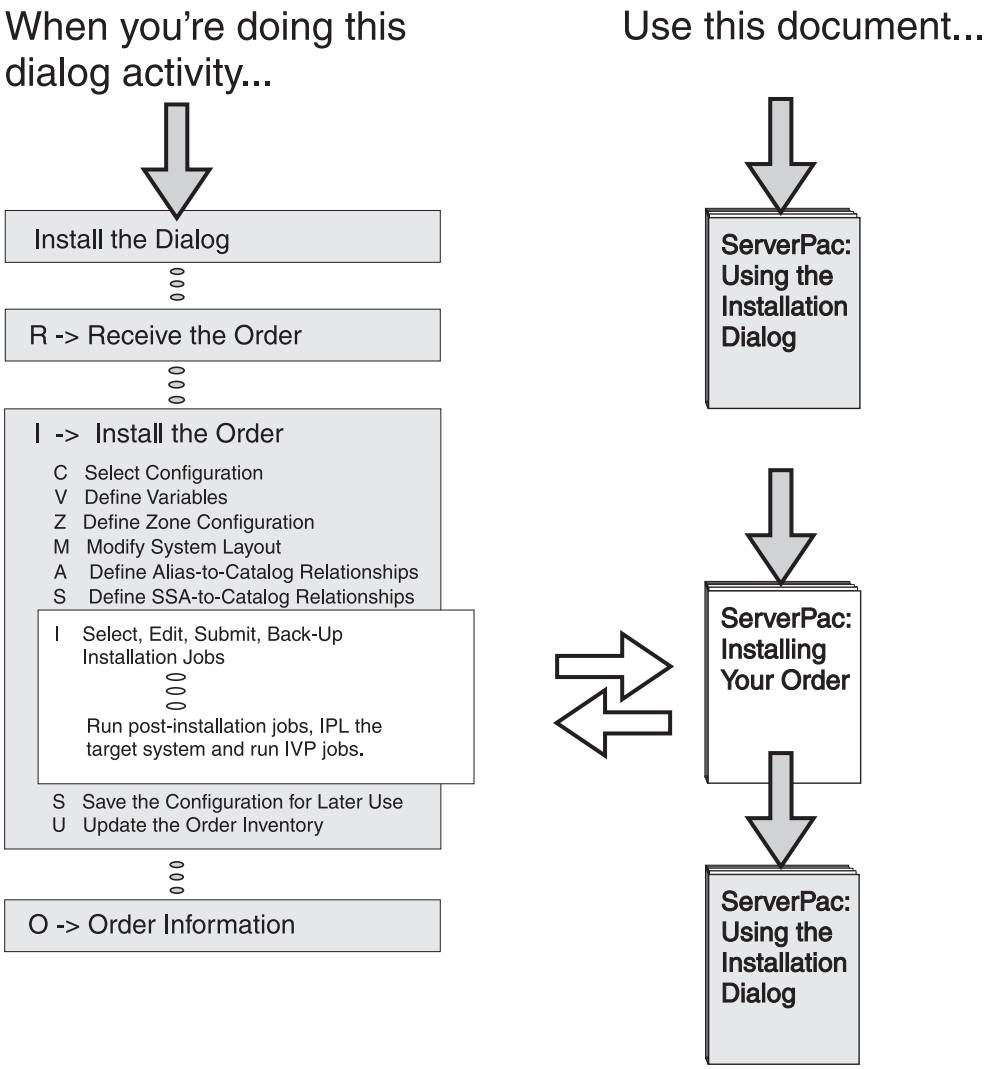


Figure 1. Overview of ServerPac Installation Dialog Activities

Receiving Your Order

You use the dialog to receive your ServerPac order. The dialog generates a job to receive the new order by loading information from the RIM tape to your DASD.

Receiving the order ensures that the following occurs:

- 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 on the target system, you create one or more types of configurations: *shipped*, *work*, and *saved*. Also, you can use the *master configuration*, which was created the first time you used the dialog to install an order on the system.

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

- **Shipped**: The IBM-supplied default configuration (unique for each 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, or a master configuration, or both.
- **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.
- **Master**: The Master Configuration is created the first time you install a ServerPac order and is retained thereafter for future reference.

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. The resulting work configuration requires less tailoring than was needed the first time. Also, you have a *master configuration*, which you can choose to include during create configuration processing.
- **Tailor the work configuration**. You use a series of dialog panels to:
  - Select the installation type (full system replacement or software upgrade)
  - Define variables that are used in the installation jobs
  - Select different SMP/E zone names than the ones chosen by IBM
  - Modify the data set layout of the volumes in the work configuration; merge these data sets and modify their attributes.
  - Define your catalogs and aliases.
- **Submit installation jobs**. The installation dialog builds a series of jobs that you use to install ServerPac on your target system. The jobs are generated based on control information from the work configuration. However, you can view and edit the jobs using the installation dialog if you wish. *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 basic system.
- **Save the work configuration and update the inventory**. IBM recommends that you save the work configuration so that you can re-use the data for future orders. Then, use the dialog to update the order inventory (a VSAM data set in which ServerPac stores information about the order).

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:

- Use the dialog's Summary Display commands to define SMS storage classes and assign the logical volumes for SMS-managed data sets to the storage classes. You must do this step before tailoring the installation jobs, as described in Chapter 11, "Submitting the Installation Jobs" on page 121. Then, before you

run the installation jobs, you must create the SMS classes and groups, and define which volumes are to be used for the storage groups.

Also, you must ensure that your ACS routines will allow the specified storage classes to be used (these storage classes must be defined before the ALLOCDS installation job runs).

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 "Changing the SMS Management Status" on page 89.

- 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 Reference*.

  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 Reference*, and the DFSMS migration information in *z/OS and z/OS.e 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 Reference*.

Reviewing Your Order's Information

This option provides summary information about CustomPac orders (see Chapter 13, "Updating the Order Inventory" on page 135 for details).

Using the Installation Menu

When you select an order to install, the Installation Menu is displayed (Figure 2 on page 6). This panel is the starting point for all of the functions that are needed to install your order.

```
CPPPFLOW --------------- (C) IBM Corporation 1990-2002 -----------------------
OPTION ==> _

Installation

Order ( MD053718 ) The Following Functions MUST be Executed in Sequence

   C    Configure        Select Configuration for Installation and Merge
   *    Variables        Define Installation Variables
   *    Zones            Define Zone Configuration
   *    Modify           Modify System Layout
   *    Alias            Define Alias to Catalog Relationships
   *    SSA              Define SSA to Catalog Relationships
   *    Installation     Select and Submit Installation Jobs
   *    Save             Save Used Configuration
   *    Update           Update Order Inventory Status
   DI   Display          Display a List of Dataset Names
   DT   Display          Display a Summary of Order Tables
```

Figure 2. Panel: Installation Menu

At the beginning of a ServerPac installation, the only available functions are C (configure), DI (display a list of data set names), and DT (for shipped order information only). 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 **Select Configuration for Installation and Merge:** Use this option to select 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, "Selecting a Configuration for the Order" on page 29.

V **Define Installation 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 non-customized variables.
- Define your own user variables.

For more information, see Chapter 6, "Defining Installation Variables" on page 47.

Z **Define Zone Configuration:** 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 57.

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 61).

M **Modify 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 and z/OS.e 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 61.

A **Define Alias to Catalog Relationships:** Data sets shipped with your order are referenced through normal catalog search procedures. For data sets having high level qualifiers that will not be cataloged in the target system's master catalog, there must be an alias in the master catalog pointing to the user catalog in which the data sets are to be cataloged. This function defines the catalog data set names and the aliases associated with them. For more information, see Chapter 9, "Defining HLQ-to-Catalog Relationships" on page 107.

SSA **Define SSA to Catalog Relationships:** Many of the data sets in your new order also exist on the driving system. To simplify recovery during the installation, it is recommended that you enable the installation jobs to allocate and access the target system's data sets with alternative high-level qualifiers (called ″system-specific aliases″) temporarily.

Use this function to define these temporary HLQs for the target system data sets. Later, during the installation, jobs remove the SSAs, and an optional job is provided for you to rename the target system's data sets to their true names. For more information, see Chapter 10, "Defining System-Specific Aliases (SSAs)" on page 115.

I **Select 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 121.

S **Save Used Configuration:** During the installation of your order, you might have customized the shipped order configuration extensively. Use this function to to save your changes, so that you can apply them to future orders (see Chapter 12, "Saving the Configuration" on page 133).

U **Update Order Inventory Status:** After you have successfully installed the order, use this option to reset the Order Inventory record to a status of INSTALLED.

DI **Display a List of Data set Names:** This option provides immediate access to the ISPF Data Set List Utility. You can use DI at any stage in the dialog.

DT **Display a Summary of Order Tables:** Use this option to display summary information about your order and the work configuration, such as the following:

- Order variables
- Zone nicknames
- Logical volumes
- Alias to catalog mapping
- Catalog to SSA mapping
- Installation jobs.

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 upper-case characters (like many JCL statements) do not contain lower-case 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 Edit and Edit Macros*.

Use of Color

The dialog uses color to identify key information on a panel, as follows:

- Field names are displayed in white and field 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
- Input data is displayed in red. You can change input data by typing over it.

Panel Display Format

The sample displays in Figure 3 on page 9 and Figure 4 on page 9 show the general format of the dialog's panel interface.

```
CustomPac ----------- Sample Panel Display MODE(TE) -------  ROW 1 TO 12 OF 99
COMMAND ==>                                                   SCROLL ==> PAGE

Primary Commands:(? SET Locate Find Next Previous SORT VErbose) 1
Line Commands:(Browse Delete Edit Select) 2

S   Order ID   Pack  SREL   CUSTomer STatus
- --------  ----  ----  --------------------------------          ------
3 MD010001  SERV  Z038  HERMANS ASSURANCE, LTD.                    R
  MD010022  CRS   C150  EELLS ARCHITECTURAL DESIGN                 R
  MD010023  SERV  Z038  T. HOOD USABILITY, INC.                    F
  MD010032  EXPDD Z038  LAMASTRO CONTAINERS AND SHIPPING           R
  MD010048  SERV  Z038  DAYNE-TRONICS                              R
  MD010057  EXPDD Z038  ESMAT TECHNICAL SUPPORT                    R
  MD010059  SERV  Z038  EELLS ARCHITECTURAL DESIGN                 R
  MD010068  SERV  Z038  HARRIGAN MANAGEMENT CORP.                  R
  MD010069  SERV  C150  WALLE BUILDING AND SUPPLY CO.              A
  MD010070  CPP   Z038  B-MAZURIK FINANCIAL SERVICES              R
  MD010083  CPP   Z038  CORNELL LEGAL SERVICES                    F
  MD010101  CPP   Z038  LANDER O'BRIEN PARTNERSHIP                I
```

Figure 3. Panel Displayed in Terse Format

You can display most panels in either of two formats, as follows:

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

If a panel can be displayed in either format, the panel displays the commands that allow you to switch between formats.

```
CustomPac ----------- Sample Panel Display MODE(VE) --------  ROW 1 TO 3 OF 99
COMMAND ==>                                                   SCROLL ==> PAGE

Primary Commands:(? SET Locate Find Next Previous SORT TErse) 1
Line Commands:(Browse Delete Edit Select) 2

S   Order ID   Pack  SREL   CUSTomer STatus
                           CTRY    CONTACT
3
- --------  ---- ----  ------------------------------------------  --------
  MD010059  SERV Z038  EELLS ARCHITECTURAL DESIGN                  INSTALLED
                       C724    J. Eells
                       Updated ON  2002/01/01  By  EELLS
- --------  ---- ----  ------------------------------------------  --------
  MD010069  SERV C150  WALLE BUILDING AND SUPPLY CO.               RECEIVED
                       C616    M. Walle
                       Updated ON  2002/02/27  By  MWALLE
- --------  ---- ----  ------------------------------------------  --------
  MD010023  SERV Z038  T. HOOD USABILITY, INC.                     FINALIZED
                       C001    T. Hood
                       Updated ON  2002/03/29  By  TLHOOD
- --------  ---- ----  ------------------------------------------  --------
```

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 → Fields (field names, synonyms, separators and columns)

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.

? Invokes the dynamic help, if available, for the current panel. See “Dynamic Help” on page 12

SET *synonym* Specifies the field to be acted on by the primary command (LOCATE or FIND). You can specify any of the following values for *synonym*:

SORT	An internal synonym assigned to the current sort field.
OID	Order Number
P	Package Type
SR	SREL (system release)
CUST	Customer Name
ST	Order Status

The SET command is not available on some panels.

L *string [comparison]*

LOCATE command. This 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.

You cannot use LOCATE to find substrings of larger strings. That is, LOCATE does not treat ‘SER’ as a match for ‘SERV’.

The locate command is case sensitive. For example, ‘SERV’ does not match ‘serv’.

The optional *comparison* operator can be any of the following:

Operator	Meaning
EQ	Equal to
NE	Not equal to
LT	Less than
LE	Less than or equal to
GT	Greater than
GE	Greater than or equal to

By default, the comparison operator is EQ.

If a match is found, the panel entry that contains *string* is displayed at the top of the scrollable area.

The following example searches the Package Type field for a character string that matches ‘SERV’.

```
SET  P
L    SERV
```

The following example searches the SREL field for any character string that does not match ‘Z038’.

```
SET  SR
L    Z038 NE
```

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'
```

F *string [EQ]* FIND command. Starting from the top of the panel, this command searches the SET field for a *string* match. *string* can begin in any character position of the field; it can be imbedded in the field.

FIND is not case sensitive; both *string* and the field contents are treated as uppercase characters.

FIND comparisons are based on an EQ comparison code. Therefore, specifying EQ is optional. For example, to search the Customer Name field for ‘FINANCIAL’, enter the following:

```
SET  CUST
F    FINANCIAL
```

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'
```

If a match is found, the panel entry that contains *string* is displayed at the top of the scrollable area.

N NEXT command. This command repeats the last FIND or LOCATE command, searching forward.

P PREVIOUS command. This command repeats the last FIND or LOCATE command, searching backward.

SORT *synonym* **[A|D]**
The panel display is presented in the specified sequence. *synonym* can be any of the following values:

OID Sort the Order Number field
P Sort the Package Type field
SR Sort the SREL (System Release) field
CUST Sort the Customer Name field
ST Sort the Order Status field

To sort the display in ascending or descending order, append a blank and an A or D to the field name. Otherwise, the sequence is that which was pre-programmed for the field.

Usually, the Date field is pre-programmed so that the latest date is shown first, in descending order.

TERSE This command, abbreviated as TE, displays 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.

VERBOSE This command, abbreviated as VE, displays 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.

Line Commands

Line commands (shown in area **2**) are specific to the panel being displayed. If the list of available line commands is enclosed within (..), you can select multiple rows. If the list of available line commands is enclosed within < .. >, you can select only one row. Enter line commands in the S (selection) field in area **3** .

Most 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 is means “Back-up”. When a command variation exists for a particular panel, this book notes the variation.

Fields (Field Name, Synonyms, Separators and Columns)

Fields are shown on the panel in area **3** .

Field Name: Generally, each field in a panel display has a name. For the examples shown in this section, the field names are:

Order ID	CustomPac internal order number
Pack	Package type
SREL	System release (Z038, C150, P004 or P115)
CUSTomer	Customer name
STatus	Order status

Field names appear above the field columns, which contain the data. Some field names have synonyms that you can use with primary commands to take an action on the field. Synonyms are identified in uppercase letters in the field name. For example, OID is the synonym for Order ID.

Field Separator: Field separators are shown beneath the field name. The field separator for the current SORT field is displayed in yellow. The field separator for the current SET field is displayed in turquoise. For a description of SORT and SET, see “Primary Commands” on page 10.

Field Column: Field columns contain the panel data entries, as follows:

Selection Field
Leftmost field on the display. This field is omitted if the panel does not require a selection field, as in “output only” displays.

Primary Field Leftmost field, after the Selection Field. An output field is yellow; an input field is red.

Auxiliary Fields
If present, this field follows the Primary field. An output field is turquoise or green; an input field is red.

Dynamic Help

Many of the dialog panels have a dynamic help facility. When you invoke help, you can “scroll” through information. You can set a PF key to ‘HELPME’ or ‘?’ and use it instead of the usual ISPF help key. Or, you can simply enter ? at any time to invoke the dynamic help facility.

Diagnostic Messages

For descriptions of messages that can be displayed during error conditions, see Appendix C, “Diagnostic Messages” on page 163.

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 driving system, as described in this chapter. For subsequent orders, you do not need to reinstall the dialog because IBM ships dialog updates with each order. (Version checking is carried out during the Receive function. If necessary, the dialog automatically generates an ″Auto-Upgrade″ job to update itself during the Install step.)

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. Unload dialog samples. Sample JCL for installing the dialog is shipped on the RIM tape. You can unload and modify these samples to suit your needs. See “Unloading LOADRIM from the RIM Tape” on page 14.
3. Run the LOADRIM job to unload the dialog data sets and store them on the driving system. See “Unloading the Dialog Data Sets and Allocating the Order Inventory Data Set” on page 15.
4. Select a method of invoking the dialog. See “Starting the Dialog” on page 16.

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

As part of installing the dialog, you will have to supply values for the following:

CustomPac.Qualifier	High level qualifer for your dialog data sets (the master dialog data sets). For example: CPP.DIALOG Do not use an order number in the *CustomPac.Qualifier*. Also, do not choose any qualifier that you plan to use for installing the software and operational data sets shipped in the order. This qualifier must be unique, and used only for the purpose of allocating the dialog’s data sets.
OrderID	Order number.
Tapeser	Tape serial number of the RIM tape.
Tapeunit	Tape device type.
Volser	Volume serial number of the DASD device on which the data set is to be created.

Allocating and Cataloging the Dialog Data Sets

You use the installation dialog on your driving system to create the jobs needed to install your order. You will run most of these jobs on the driving system and a few others on the target system.

Installing and Starting the Dialog

After you IPL the target system, you can use the installation 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 each data set 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:
- *CustomPac.Qualifier*.SCPPLOAD
- *CustomPac.Qualifier*.SCPPCENU
- *CustomPac.Qualifier*.SCPPEENU
- *CustomPac.Qualifier*.SCPPHENU
- *CustomPac.Qualifier*.SCPPMENU
- *CustomPac.Qualifier*.SCPPPENU
- *CustomPac.Qualifier*.SCPPSENU
- *CustomPac.Qualifier*.SCPPTENU
- *CustomPac.Qualifier*.SCPPVENU

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 HSM 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 SCPP*n*ENU data sets, the following dialog data sets must remain in their original formats (PDS or PS):

Table 1. Dialog Data Sets Must Remain in Their Original Formats

Dialog Data Set	Required Format
userid.CPPTEMPx.SCPPWORK	PS (physical sequential)
hlq.orderid.LOG	PS (physical sequential)
hlq.orderid.REPORT(MERGE)	PDS (partitioned data set)

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.

Unloading LOADRIM from the RIM Tape

To install the dialog on your driving system, you must first unload the LOADRIM job from the RIM tape. Then, use LOADRIM to unload the rest of the dialog data sets from the RIM tape, as described in "Unloading the Dialog Data Sets and Allocating the Order Inventory Data Set" on page 15.

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).

Unload LOADRIM from SYS1.OrderID.DOCLIB, as follows:

1. Create a job to unload the LOADRIM job; Figure 5 shows a job that you can use. Just modify the following values for your order:
   - OrderID
   - tapeser
   - tapeunit
   - volser
   - ODOC data set name (Work.Library.JCL)
2. Run the job.

```
//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
//ODOC     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=ODOC
  S M=LOADRIM
/*
```

Figure 5. Unloading the LOADRIM Job from the RIM Tape

Unloading the Dialog Data Sets and Allocating the Order Inventory Data Set

With the LOADRIM job unloaded, you now use LOADRIM to allocate and load the dialog data sets. Before you do so, however, you must customize the LOADRIM job. Provide values for the following:

- JOB statement information
- CustomPac.Qualifier
- volser
- tapeser
- tapeunit
- orderid
- SYSDA, if it is not defined as an esoteric name, or is not defined to include DASD devices that can contain permanent data sets.
- Choose either of the ICENU DD statements in LOADRIM, based on the block format (VB or F) that you use for CLISTs at your installation. Ensure that the unused ICENU DD statement is commented out.

When you are done customizing the LOADRIM job, submit it for execution.

LOADRIM contains four steps, which do the following:

1. STEP00 deletes previous CustomPac dialog files, if any, from the driving system.
2. STEP01 allocates and loads the dialog's ISPF data sets from the RIM tape and stores these data sets on the driving system.

3. STEP02 allocates and loads the VSAM files that contain the dialog help panels and messages (SCPPHENU and SCPPEENU) and stores them on the driving system. Do not concatenate these data sets to SYSHELP or SISPMENU DD statements; they are not TSO/E help or ISPF message data sets.
4. STEP03 allocates an order inventory data set (SCPPVENU) on the driving system. SCPPVENU will contain the control information for all shipped ServerPac orders. You create this data set only once, when you first install the installation dialog.

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

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 17
- "Option 2: Start the Dialog from the ISPF Primary Option Menu" on page 18
- "Option 3: Run CPPCISPF from the TSO/E Command Line" on page 19.

Regardless of which option you choose to start the dialog, you should not attempt to access the dialog in more than one session in ISPF split screen mode. Doing so causes an abend to occur, forcing you to log off the system before you can return to the dialog.

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 6.

```
 ------------------------------ TSO/E LOGON ------------------------------

Enter LOGON parameters below:                   RACF LOGON parameter

Userid    ==> IBMUSER

Password  ==>                                 New Password  ===>

Procedure ==> IKJACCNT                        Group Ident   ===>

Acct Nmbr ==>

Size      ==> 9000

Perform   ==>

Command   ==>
Enter an 'S' before each option desired below:
        -Nomail         -Nonotice      S -Reconnect       -OIDcard

PF1/PF13 ==>Help   PF3/PF15 ==>Logoff   PA1 ==>Attention   PA2 ==>Reshow
You may request specifc help information by entering a '?' in any entry field
```

Figure 6. Panel: TSO/E Logon

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 = 16001). Doing so causes the system to use private area storage above 16 MB.

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:

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

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 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).

Option 1: Use a CLIST with LIBDEF Statements

Copy and modify the sample member CPPCSAMP in data set SCPPCENU, as shown in Figure 7 on page 18.

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

```
exec 'OBRIEN.MD053718.SCPPCENU(CPPCSAMP)'
```

```
PROC 0 DEBUG
  /*-------------------------------------------------------------------*/
  /* SAMPLE CLIST TO SETUP ENVIRONMENT AND START CPAC DIALOG           */
  /*                                                                   */
  /* NOTE: Change  CustomPac.Qualifier to your environment             */
  /*-------------------------------------------------------------------*/

  IF &DEBUG = DEBUG THEN CONTROL  MSG LIST CONLIST SYMLIST FLUSH
                    ELSE CONTROL  NOMSG

  ATTN LOGOFF               /* IF ATTENTION INTERRUPT OCCURS   */
                            /* THEN LOGOFF                     */

  /*-------------------------------------------------------------*/
  /* ALLOCATE (CPP) APPLICATION LIBRARIES                        */
  /*-------------------------------------------------------------*/

  ISPEXEC CONTROL ERRORS CANCEL  /* ERROR MODE IS SET          */
                                 /* DIALOG TERMINATE ON  ERROR */

  ALTLIB ACTIVATE APPLICATION (CLIST) +
         DATASET('CustomPac.Qualifier.SCPPCENU') UNCOND
  SET &ALTLIBRC = &LASTCC;

  IF  &ALTLIBRC NE 0 THEN +
     WRITE &SYSICMD: ALTLIB(ACTIVATE) RC = &ALTLIBRC;
  ELSE DO
     ISPEXEC LIBDEF ISPMLIB DATASET ID('CustomPac.Qualifier.SCPPMENU')
     ISPEXEC LIBDEF ISPPLIB DATASET ID('CustomPac.Qualifier.SCPPPENU')
     ISPEXEC LIBDEF ISPSLIB DATASET ID('CustomPac.Qualifier.SCPPSENU')
     ISPEXEC LIBDEF ISPTLIB DATASET ID('CustomPac.Qualifier.SCPPTENU')
     ISPEXEC LIBDEF ISPLLIB DATASET ID('CustomPac.Qualifier.SCPPLOAD')

     /*-----------------------------------------------------------*/
     /* START CPAC DIALOG                                         */
     /*-----------------------------------------------------------*/

     ISPEXEC SELECT CMD(%CPPCISPF CustomPac.Qualifier { ISPF4X(Y)} ) <<<<<

     /*-----------------------------------------------------------*/
     /* CLEANUP                                                   */
     /*-----------------------------------------------------------*/

     ISPEXEC LIBDEF ISPMLIB
     ISPEXEC LIBDEF ISPPLIB
     ISPEXEC LIBDEF ISPSLIB
     ISPEXEC LIBDEF ISPTLIB
     ISPEXEC LIBDEF ISPLLIB

     ALTLIB DEACTIVATE APPLICATION(CLIST)
     SET &ALTLIBRC = &LASTCC;
     IF  &ALTLIBRC NE 0 THEN +
        WRITE &SYSICMD: ALTLIB(DEACTIVATE) RC = &ALTLIBRC;
  END

  EXIT CODE(0)
```

Figure 7. Starting the Dialog: Using a CLIST with LIBDEF Statements

Option 2: Start the Dialog from the ISPF Primary Option Menu

To start the dialog from the ISPF primary option menu, use a TSO/E logon proc to include the dialog ISPF libraries, as described in “Option 3: Run CPPCISPF from

the TSO/E Command Line". Then, modify an existing ISPF selection panel (for example, ISR@PRIM) to include the following:

```
)BODY

     C  CustomPac - Manage and Install CustomPac Orders

)PROC

     &ZSEL = TRANS(&ZCMD,;
                   .....
                   .....
     C,'CMD(%CPPCISPF CustomPac.Qualifier)'
                   .....)
```

After making this change, you can start the CustomPac dialog by selecting option C on the ISPF Primary Option Menu.

If you use 44-character data set names, you must include the ISPF4X(Y) parameter with the CPACISPF command, as shown:

```
)BODY

     C  CustomPac - Manage and Install CustomPac Orders

)PROC

     &ZSEL = TRANS(&ZCMD,;
                   .....
                   .....
     C,'CMD(%CPPCISPF CustomPac.Qualifier ISPF4X(Y))'
                   .....)
```

Option 3: Run CPPCISPF from the TSO/E Command Line

The CPPCISPF CLIST is shipped with the dialog in the SCPPCENU library. To run it, you can build a TSO/E logon proc to include the dialog's ISPF libraries: SCPPCENU, SCPPPENU, SCPPMENU, SCPPSENU, SCPPTENU, and SCPPLOAD. Figure 8 on page 20 shows a sample logon proc.

```
//CPPUSER EXEC PGM=IKJEFT01,DYNAMNBR=99
//*
//SYSPRINT DD  TERM=TS,SYSOUT=*
//SYSTERM  DD  TERM=TS,SYSOUT=*
//SYSIN    DD  TERM=TS
//SYSHELP  DD  DISP=SHR,DSN=SYS1.HELP
//         DD  DISP=SHR,DSN=ISP.SISPHELP
//SYSEXEC  DD  DISP=SHR,DSN=ISP.SISPEXEC
//         DD  DISP=SHR,DSN=....
//SYSPROC  DD  DISP=SHR,DSN=ISP.SISPCLIB
//         DD  DISP=SHR,DSN=CustomPac.Qualifier.SCPPCENU
//         DD  DISP=SHR,DSN=....
//ISPPLIB  DD  DISP=SHR,DSN=ISP.SISPPENU
//         DD  DISP=SHR,DSN=CustomPac.Qualifier.SCPPPENU
//         DD  DISP=SHR,DSN=....
//ISPMLIB  DD  DISP=SHR,DSN=ISP.SISPMENU
//         DD  DISP=SHR,DSN=CustomPac.Qualifier.SCPPMENU
//         DD  DISP=SHR,DSN=....
//ISPSLIB  DD  DISP=SHR,DSN=ISP.SISPSENU
//         DD  DISP=SHR,DSN=CustomPac.Qualifier.SCPPSENU
//         DD  DISP=SHR,DSN=....
//ISPTLIB  DD  DISP=SHR,DSN=ISP.SISPTENU
//         DD  DISP=SHR,DSN=CustomPac.Qualifier.SCPPTENU
//         DD  DISP=SHR,DSN=.....
//ISPLLIB  DD  DISP=SHR,DSN=CustomPac.Qualifier.SCPPLOAD
//         DD  DISP=SHR,DSN=.....
```

Figure 8. Sample TSO/E Logon Proc

After logging on to TSO/E, you can start the installation dialog by entering the CPPCISPF command from the TSO/E Options Processor panel, as shown in Figure 9.

```
---------------------------  TSO COMMAND PROCESSOR  ---------------------------
ENTER TSO COMMAND, CLIST OR REXX EXEC BELOW:

===> CPPCISPF CustomPac.Qualifier
```

Figure 9. Starting the Dialog with the TSO/E Options Processor

If your dialog data set names are longer than 42 characters, include the ISPF4X(Y) parameter on the CPPISPF command, as shown:

```
---------------------------  TSO COMMAND PROCESSOR  ---------------------------
ENTER TSO COMMAND, CLIST OR REXX EXEC BELOW:

===> CPPCISPF CustomPac.Qualifier ISPF4X(Y)
```

Be aware that if you include the ISPF4X(Y) parameter, your TSO/E session runs with a TSO/E profile of NOPREFIX. ISPF saves the TSO/E prefix before invoking the installation dialog, and restores the prefix when the dialog ends. However, if your session is terminated or ISPF ends abnormally for some reason, you will have to enter the PROFILE PREFIX command when you logon again to restore your prefix.

Chapter 3. Receiving a New Order

To begin receiving the order, select option R from the Main Installation panel (Figure 10) and press Enter.

```
CPPPPOLI --------------- (C) IBM Corporation 1990-2002 ----------------------
OPTION ==> R


CustomPac INSTALLATION - Select The Option Of Your Choice

        The HLQ of your MASTER Datasets is : CPP.MASTER


        R   RECEIVE      - Receive an Order

        I   INSTALL      - Install Orders
        ==>            (Order Number OR blank for ALL NEW Orders)

        O   ORDERS       - Display Orders
```

Figure 10. Panel: Main Installation

The dialog displays the Order Details panel (Figure 11) for you to enter information about the order.

```
CPPP6101 ---------------------- Order Receive -------------------------------
COMMAND ==> _

ORDER DETAILS

        Order Number  ==> MD053718

        TAPE VolSer   ==>             TAPE Unit  ==> 3490

        Order HLQ     ==> CPP.MD053718

        DASD VolSer   ==>             DASD Unit  ==> SYSDA

        ------------------------------------------------------------
        Do You want to Use                Edit JOB Stream
        VB Clists                  ==> N  Before Submitting     ==> Y

        Is this Order a SystemPac
        or a ServerPac             ==> Y
        ------------------------------------------------------------
```

Figure 11. Panel: Order Details

In the Order Details panel, fill in the fields as follows:

Order Number

Enter your order number, as it was supplied by IBM (two alphabetic characters followed by six numerics). In Figure 11, for example, the order number is MD053718.

To find your order number, check the cover of *ServerPac: Installing Your Order*. If that book is not at hand, you can receive the order using the order number from the human-readable tape label on the RIM tape. (If you lost your copy of *ServerPac: Installing Your Order*, you can retrieve the book from the softcopy after the RIM tape is loaded.)

TAPE Volser 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 a volume serial in the format R*xxxxx*, where ″R″ stands for ″RIM tape″ and ″*xxxxx*″ is the remainder of the volume serial. The exact label for the RIM tape can be found in *ServerPac: Installing Your Order* or on the human-readable label on the RIM tape.

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. The default is 3480.

Order HLQ 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 Order HLQ ==> STOB4.MD053718.

Do not use the CustomPac.Master-qualifier.

IBM recommends that you use the same user catalog to define the Order HLQ that you used to define the CustomPac dialog data sets, and, preferably, the same volser. For more information, see “Allocating and Cataloging the Dialog Data Sets” on page 13.

DASD Volser Enter the serial number of the DASD volume that will receive the order data sets.

This field is not validated; the value you enter is used as is, directly in the generated JCL for the RECEIVE job.

DASD Unit Enter the device type (for example, 3390) or esoteric name (for example, PERMDASD) to be used to allocate the data sets. The default is SYSDA.

Do You Want To Use VB Clists
Enter Y if you want to use the variable-block versions of the dialog’s CLISTs, which are supplied on the RIM tape in both FB and VB formats. N is the default.

Edit JOB Stream Before Submitting
Do you want to examine or edit the job before submitting it? Enter either N or Y, based on your preference, as follows:

Y After generating the job, the dialog opens an ISPF edit session for you to edit the JCL. You must then submit the job manually.

N After generating the job, the dialog automatically submits it for execution.

Y is the default.

Is this Order a SystemPac or a ServerPac
Enter Y. The default is N.

Press Enter. The Generate Jobstream panel (Figure 12) appears.

```
CPPP6103 ---------------------- Order Receive ------------------------------
COMMAND ==> _

GENERATE JOBSTREAM

   Enter JOBCARDs

 > //RECEIVE  JOB (accounting information),                               <
 > //         'WAYNE O''BRIEN',NOTIFY=&SYSUID,                            <
 > //         CLASS=A,MSGCLASS=K,MSGLEVEL=(1,1),REGION=4M                 <
 > //* ------------------------------------------------------------------ <

   Installation  ISPLLIB ==> ISP.V$R$M$.SISPLOAD
                         ==>
       ISPF      ISPMLIB ==> ISP.V$R$M$.SISPMENU
                         ==>
     Libraries   ISPPLIB ==> ISP.V$R$M$.SISPPENU
                         ==>
                 ISPSLIB ==> ISP.V$R$M$.SISPSENU
                         ==>
                 ISPTLIB ==> ISP.V$R$M$.SISPTENU
                         ==>
```

Figure 12. Panel: Generate Jobstream

On this panel, do the following:
- Enter JCL information for receiving the order
- Specify the ISPF libraries used on the driving system.

Notes:

1. To ensure that you have enough storage, define a region size of at least 4M.
2. Add only the ISPF libraries.
3. Change the ISPF data set names to match those in use on your system.

Before you generate the RECEIVE job, you must specify (or verify) the JOB statement and the ISPF system libraries to be used, as follows:

JOB Statement
: Four lines are provided for a JOB statement (as shown in Figure 12). Code unused fields, if any, as comments ***//****. The dialog checks this statement for correct syntax.

ISPLLIB
: Name of your SISP**L**LIB data set.

ISPMLIB
: Name of your SISP**M**LIB data set.

ISPPLIB
: Name of your SISP**P**LIB data set.

ISPSLIB
: Name of your SISP**S**LIB data set.

ISPTLIB
: Name of your SISP**T**LIB data set.

You must provide at least one data set name for each ISPF library type, and you can optionally provide a second data set name.

Press Enter. If, on the Order Details panel (Figure 11 on page 21), you chose not to edit the jobstream before submitting it, the dialog automatically submits the job.

Otherwise, the dialog displays the generated jobstream (Figure 13 on page 24) so that you can review and edit it before submitting it.

Receiving a New Order

```
CPPPEDIF - MD053718 ---------------------------------------- COLUMNS 000 000
COMMAND ==> _                                                SCROLL ==> CSR
****** ***************************** Top of Data ******************************
000001 //RECEIVE  JOB (accounting information),
000002 //         'WAYNE O''BRIEN',NOTIFY=&SYSUID,
000003 //         CLASS=A,MSGCLASS=K,MSGLEVEL=(1,1),REGION=4M
000004 //* ------------------------------------------------------------------
000005 //*
000006 //JOBLIB   DD DISP=SHR,DSN=CPP.master-qualifier.SCPPLOAD
000007 //*
000008 //STEP00  EXEC PGM=IDCAMS
000009 //*
000010 //*   ************************************************************
000011 //*   *    DELETE EXISTING ORDER LIBRARIES                       *
000012 //*   ************************************************************
000013 //*
000014 //SYSPRINT DD  SYSOUT=*
000015 //*
000016 //SYSIN    DD  *
000017   DELETE  CPP.MD053718.LOADLIB
000018   DELETE  CPP.MD053718.SCPPAENU
000019   DELETE  CPP.MD053718.SCPPBENU
000020   DELETE  CPP.MD053718.SCPPCENU
000021   DELETE  CPP.MD053718.SCPPEENU
```

Figure 13. Panel: Display Generated Jobstream

To submit the job, enter SUBMIT. The job loads your order from the RIM tape to your DASD.

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 member of a data set) 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. Also, do not attempt to access the dialog in more than one session in ISPF split screen mode.

If you have more than one order to install, or the installation of another order is still in progress, you must ensure that level of the dialog shipped with the order you want to install is the same for all the orders being installed. The first two digits of the Package Version printed on the cover of *ServerPac: Installing Your Order* identify the level of the dialog needed to install the order.

You cannot install an order using a higher level of the dialog than it was shipped with. If the level of the dialog shipped with the order you want to install is not the same for all the orders being installed, you must do one of the following:

- Install or complete the installation of the orders that need the lowest level of the dialog first, and install the orders needing higher levels of the dialog later. If you do this, you must install them in order by using the first two digits of the Package Version. IBM recommends that you install them in order by using all six digits of the Package Version.
- If your copy of *ServerPac: Installing Your Order* for one of the orders does not indicate a Package Version on the cover, the order requires a lower level of the dialog than is described by this book. Install such packages in order by using the date printed on the cover of *ServerPac: Installing Your Order* before installing any orders for which there is a Package Version.
- Install another entire copy of the dialog. If you do so, understand that the dialog cannot track all of your orders through the same order inventory.

To begin installing the order, select option I on the Order Processing panel (Figure 14).

```
CPPPPOLI --------------- (C) IBM Corporation 1990-2002 ----------------------
OPTION ==> I


CustomPac INSTALLATION - Select The Option Of Your Choice

        The HLQ of your MASTER Datasets is : CPP.MASTER


        R   RECEIVE      - Receive an Order

        I   INSTALL      - Install Orders
        ==>          (Order Number OR blank for ALL NEW Orders)

        O   ORDERS       - Display Orders
```

Figure 14. Panel: Order Processing

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 28).

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.

When you select an order to install, the dialog determines whether a dialog upgrade is needed to install the order. If so, the dialog displays a panel showing what is to be upgraded. For instructions on carrying out this process, see Appendix A, “Performing an Auto-Upgrade” on page 143.

Be sure to delete existing data set *userid*.CPPTEMPx.SCPPWORK whenever you begin to install a new ServerPac order. Otherwise, if this data set remains allocated from a previous ServerPac installation, it might not be large enough for a new ServerPac order, causing problems to occur in the dialog (such as *x*37 abends).

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

To rename data sets, use the dialog’s Modify System Layout function, which is described in Chapter 8, “Modifying the System Layout” on page 61.

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 15.

```
CPPP6071  ------------------------ ORDER LIST -------------- Row 1 to 5 of 5
COMMAND ==>

PRIM Cmds:(? SET L F N P REFresh OFile SORT VErbose VERsion)
LINE Cmds:<Select Edit Delete Finalize Products Report Output>

 S ORDerNum PROFile  SYS name SREL PACtype  Prod DATE  ST Chg USER Chg DATE
 - -------- -------- -------- ---- -------- ---------- -- -------- ----------
   AD000077                   Z038 SERV     2001/11/15 S  KENJI    2001/12/01
 S MD053718                   Z038 SERV     2001/04/01 S  OBRIEN   2001/04/12
   TE000129          DB2      P115 EXP      2002/01/23 R  KENJI    2002/02/10
   TE000130          SSP      P004 EXP      2001/12/10 R  KATHH    2002/01/10
   TS001055                   Z038 SERV     2001/09/12 S  TONYH    2002/01/12
 ****************************** BOTTOM OF DATA ********************************
```

Figure 15. Panel: Order List

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

R RECEIVED. The order has been received, but has not yet been installed.

S STARTED. The installation process has been started for this order.

After you have installed an order and reset its status to I (INSTALLED), you can no longer view the order in this panel. To view the order’s installation jobs again

through the dialog, you must reset the status field to R or S through the O option (Display Orders) on the Order Processing panel (Figure 14 on page 25). Or, if you use the GENSKEL command described in “Generating the Installation Jobs” on page 124, you can view the order’s installation jobs in the SCPPBENU data set for the order.

If an order has status F (finalized), or the dialog level has since changed, you cannot view the installation jobs for the order.

If you have more than one order to install, install them in the order in which they were created (oldest order first). For the order creation date, see the cover of *ServerPac: Installing Your Order* for the order you are installing. In Figure 15 on page 26, order number MD053718 has been selected.

The following primary commands are valid for this panel:

?, SET, L, F, N, P, SORT, TE, VE
: These are standard commands for panels that display lists. See “Primary Commands” on page 10.

REFRESH
: This command, abbreviated as REF, rebuilds the display using the same order selection criteria as were previously entered. Any changes to the Order Inventory made by other users of the installation dialog are included in the refreshed display.

OFILE
: This command, abbreviated as OF, writes the entire list of orders to a user-defined file.

VERSION
: This command, abbreviated as VER, displays the current version number of the dialog.

The following line commands are valid for this panel:

S Selects an order for installation.

E Edits an existing order. All order records are editable, but only those records that were added by the customer are fully editable.

D Deletes an order from the order inventory. The dialog prompts you to confirm the deletion.

F Finalizes the updates for an order. Use this command when all the installation jobs have completed and the order is properly installed.

P Displays the products and features for the order, along with their program numbers, versions, and FMIDs. This function is not available for orders that you add yourself. To see information for orders that you added, display the Order Information panel in verbose mode.

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. This function is not available for customer-added orders because such orders cannot be installed.

Displaying the Installation Menu

When you select an order to install, the Installation Menu is displayed (Figure 16). This panel is the starting point for all of the functions that are needed to install your order.

```
CPPPFLOW --------------- (C) IBM Corporation 1990-2002 -----------------------
OPTION ==> _

Installation

Order ( MD053718 ) The Following Functions MUST be Executed in Sequence

   C    Configure        Select Configuration for Installation and Merge
   *    Variables        Define Installation Variables
   *    Zones            Define Zone Configuration
   *    Modify           Modify System Layout
   *    Alias            Define Alias to Catalog Relationships
   *    SSA              Define SSA to Catalog Relationships
   *    Installation     Select and Submit Installation Jobs
   *    Save             Save Used Configuration
   *    Update           Update Order Inventory Status
   DI   Display          Display a List of Dataset Names
   DT   Display          Display a Summary of Order Tables
```

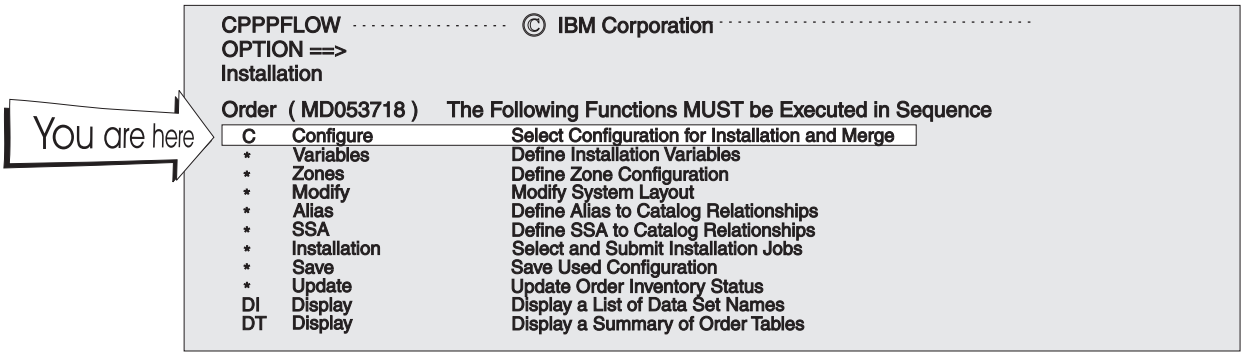
Figure 16. Panel: Installation Menu

At the beginning of a ServerPac installation, the only available functions are C (configure), DI (display a list of data set names), and DT (for shipped order information only). Each of the other functions (now marked with asterisks) become available after the previous function is completed.

To continue the installation, enter C on the command line and press Enter. Proceed to Chapter 5, “Selecting a Configuration for the Order” on page 29.

For a review of the Installation Menu’s other options, see “Using the Installation Menu” on page 5 or select the Help option of this menu.

Chapter 5. Selecting a Configuration for the Order



When you use the dialog to select an order, its shipped configuration is added to the dialog. You must select and create a configuration to start the installation.

Choosing the Installation Type

For an operating system order, option C (Configure) displays the Type of Installation panel shown in Figure 17. For subsystem orders, skip ahead to “Creating the Configuration” on page 31.

```
CPPP6015  ------------- CREATE Configuration ( MD053718 ) ---------------------
OPTION ==> _

  Select the Install type :

F - Full System Replacement installs a complete new IPL-able
    standalone system including all SMP/E-maintained libraries, SMP/E
    environment, operational data sets, and CustomPac sample data sets.
    The supplied operational data sets must be merged with or replaced
    by production operational data sets before the new system is used
    in production.

S - Software Upgrade installs only the SMP/E-maintained libraries,
    SMP/E zones, and CustomPac sample data sets.  Operational data sets,
    including system control files (like LOGREC and VTAMLST), a security
    system database, and a master catalog must already exist.  These
    existing operational data sets must be updated as required for new
    products and product changes before the first IPL.

For more information about Software Upgrade, enter ? in the option field
```

Figure 17. 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 an F (full system replacement) or S (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)

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 18) installs only system software and related data sets (category 1 above) while preserving your pre-existing operational data sets (category 2 above). All operational data sets are assumed to already exist and to be usable by 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 18, 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.

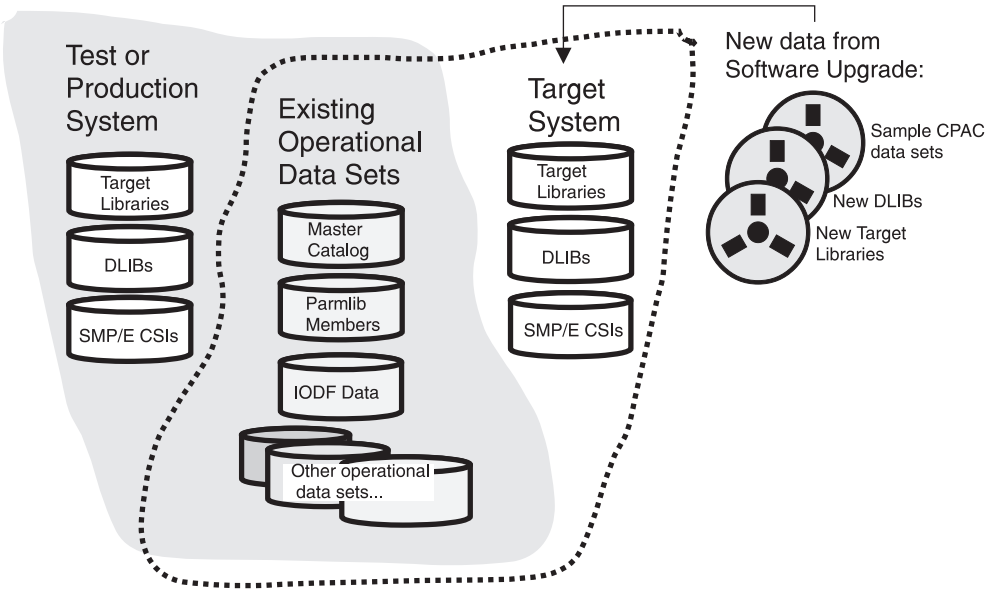


Figure 18. Software Upgrade Option Preserves Your Existing Operational Data

If you select software upgrade or full system replacement and later wish to change the installation type, you must return to the C (Configure) panel to reselect the installation type. So, consider saving your configuration to avoid losing your changes. Saving your configuration can reduce the amount of data that you would need to re-enter, depending on how far along you are in the installation process.

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 19 to prompt you to select a JES element.

```
CPPP6016 ------------- JES Element Selection ( MD053718 ) --------------------
COMMAND ==>


Choose JES elements to be installed:


              JES Elements to Install ==>            (JES2, JES3, or BOTH)


Specify options for merging JES SMP/E target and DLIB zones:


  Merge JES2 SMP/E Zones into BCP Zones ==>     (Y or N)

  Merge JES3 SMP/E Zones into BCP Zones ==>     (Y or N)



  Note: If you wish to merge a JES element's zones, it must have been
  selected for installation above.  For more information, enter ? in the
  Command field.
```

Figure 19. Panel: JES Element Selection

Select at least one JES element for installation: JES2 (and SDSF) or JES3. 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 zone, no separate zone is created for the JES element. For example, if you merge JES3 with the BCP zone, the dialog does not create separate zones for JES3 (MVST111 and MVSD111).

If you plan to migrate to subsequent releases of JES2 (and SDSF) or JES3 when you migrate to the next level of z/OS, IBM recommends 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 unload or create data sets for the JES you omit.

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 20 on page 32.

Selecting a Configuration for the Order

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

Select Configuration

PRIM Cmds:(? SET L F N P SORT CReate)
LINE Cmds:(Select)

S CONFiguration                      Comment
- ----------------------------------- ---------------------------------------
* CPP.MD053718                       Always Selected for Order
- ----------------------------------- ---------------------------------------
* CPP.MASTER                         MASTER Configuration
- ----------------------------------- ---------------------------------------
S CPP.MD058475                       First saved config.
  CPP.MD058476                       Second saved config.

****************************** Bottom of data ********************************
```

Figure 20. Panel: Select Configuration

The master configuration is displayed, along with any other configurations you have saved. The shipped configuration is always automatically selected.

Use the CR (CREATE) command to create a work configuration. If you are using the dialog for the first time, begin by using the configuration that IBM supplies. Later in the installation, you will be able to save this configuration for use with subsequent ServerPac orders. If you are merging this order with a saved configuration, see “Merging a Configuration with a Previous Order” on page 33 for further considerations.

When you create the work configuration, the dialog displays the configuration profile. Figure 21 shows an example of a configuration profile.

```
CPPP6014 ------ CREATE Configuration ( MD053718 ) ROW 2 TO 14 OF 15
COMMAND ==>                                          SCROLL ==> HALF

Configuration Profile

PRIM Cmds:(? F N P SAVE)

------------------------------------------------------------------------
************************************************************************
* SAVE CONFIGURATION                                                   *
************************************************************************

TABLE(NEWA2CD) SAVED - ALIAS TO CATALOG RELATIONSHIPS
TABLE(NEWCD2S) SAVED - CATALOG TO SMS RELATIONSHIPS
TABLE(NEWDEVT) SAVED - DEVICE TYPES
TABLE(NEWFTBL) SAVED - INSTALLATION FLOW
TABLE(NEWITBL) SAVED - INSTALLATION JOBS
TABLE(NEWLTBL) SAVED - LOGICAL VOLUME DATA
TABLE(NEWPTBL) SAVED - PHYSICAL VOLUMES
TABLE(NEWMTBL) SAVED - MERGE DATA SETS
TABLE(NEWVTBL) SAVED - INSTALLATION VARIABLES
TABLE(NEWZTBL) SAVED - ZONE CONFIGURATION TABLE

****************************** BOTTOM OF DATA ************************
```

Figure 21. Panel: Configuration Profile

The display shows which variables and jobs have been merged, if any, and the tables that have been saved. In the profile, the following mnemonics identify source data for the merge:

CPPSENUC Saved configuration skeleton library

CPPTENUC Saved configuration table library
CPPSENUM Master skeleton library
CPPTENUM Master table library

Enter SAVE (or press the END key) to save the configuration profile. The Create Configuration panel is displayed again, with the message ″Work Configuration Created,″ as shown in Figure 22.

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

Select Configuration

PRIM Cmds:(? SET L F N P SORT CReate)
LINE Cmds:(Select)

CPP0601004I WORK Configuration Created

S CONFiguration                      Comment
- ---------------------------------- ----------------------------------------
* CPP.MASTER.MD053718                Always Selected for Order
- ---------------------------------- ----------------------------------------
  CPP.MASTER                         MASTER Configuration
- ---------------------------------- ----------------------------------------
  CPP.MD058475                       First saved config.
  CPP.MD058476                       Second saved config.
```

Figure 22. Panel: Select Configuration (Configuration Created)

Press the END key to return to the dialog's Main Menu.

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. Old customized values and jobs replace new shipped values and jobs unless doing so would cause an invalid or illogical situation, in which case the new shipped values are used. Data set types (PDS, PDSE, or HFS) are derived from the new order, with the exception of any PDSE data sets in the saved order (these remain PDSE data sets in the new configuration).

You can merge one saved configuration, or the master configuration, or both, with the shipped order configuration. If you select both the master and a saved configuration, the master is first merged with the shipped configuration and the saved configuration is then merged with the result.

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 23 on page 34 shows the panel that is displayed.

```
CPPP6013       ---------- CREATE Configuration ( MD053718 ) -----------------
COMMAND ==>

            ------------------------------------------------------------
           |   ORDER  : STOB4.MD053718                                  |
           |                                                            |
           |    The following configurations will be MERGED with the    |
           |    Shipped Order Configuration                             |
           |                                                            |
           |    MASTER : Not Selected                                   |
           |    CONFIG : CPP.MD058475.CONFIG                            |
           |                                                            |
           |    REPORT : CPP.MD058475.REPORT                            |
           |    (data set merge report)                                 |
           |                                                            |
           |                                                            |
            ------------------------------------------------------------
          You MUST Confirm the MERGE By Typing MERGE and pressing ENTER

          Press the END or RETURN key to CANCEL the MERGE request
```

Figure 23. Panel: Merge Configurations - Confirmation

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, processing does not continue until you delete the existing work configuration (a panel is displayed to request that you delete the existing configuration).

Modify the configuration as required, and save it. For subsequent installations, you can merge the configuration you saved from previous installations.

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

Information Used by ServerPac When Merging Configurations

When you create a configuration for your new order, the dialog allows you to re-use 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 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. For example, assume that data set A in the previously saved configuration had 25 secondary blocks and you increased that amount to 30. Data set A in the new release of the product shipped with the new order has secondary blocks of 0. The secondary blocks value for data set A in the configuration being created is set to 0.

When you merge the data sets into the new order, the dialog checks the previously saved configuration for user-added 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 37).

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. Which Values are Used in a Merged Configuration?

Data Set Value	Dialog Action
Data Set Name	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 “Merging and Unmerging Data Sets” on page 94) 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.
Renameable	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 command 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.
DSORG	If the DSORG value of the data set in the previously saved configuration is different from the DSORG value of the same data set in the new shipped configuration, the dialog uses values from the new shipped configuration for the data set. For a merged data set, if the DSORG value 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 RECFM value of the data set in the previously saved configuration is different from the RECFM value of the same data set in the new shipped configuration, the dialog uses the Primary Blocks, Secondary Blocks, Directory Blocks, and Block size values from the new shipped configuration. For a merged data set, if the RECFM value 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 of merged data set based on the removal of the component data set.

Table 2. Which Values are Used in a Merged Configuration? (continued)

Data Set Value	Dialog Action
LRECL	If the LRECL value of the data set in the previously saved configuration is different from the LRECL value of the same data set in the new shipped configuration, the dialog uses the primary blocks, secondary blocks, directory blocks, and block size values from the new shipped configuration. For a merged data set, if the LRECL value 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 of merged data set based on the removal of the component data set.
Optimized Blocksize	This value indicates whether the data set can be reblocked. If the value in the new shipped configuration is NO, the dialog leaves this value as NO. Otherwise, the dialog uses the value from the previously saved configuration.
Blocksize	If the Optimized Blocksize value is YES, the dialog uses the block size from the previously saved configuration. For a merged data set, if the block size of a component data set changes to exceed the block size of the merged data set, the dialog automatically increases the block size of the merged data set accordingly.
Primary Blocks	The dialog uses the larger of the following values: • Amount of space for the saved configuration • Amount of space for the new shipped order configuration. This value is the total amount of space used, adjusted when necessary for differences in block size. If the new shipped order value is larger, then added to this value is the amount of space you added to the primary blocks value in the previously saved configuration, compared to what was originally shipped.
Secondary Blocks	If the value in either the previously saved configuration or the new shipped order value is 0, the dialog uses a value of 0 (zero) for the configuration being created. Otherwise, the dialog uses the larger of the following values: • Amount of space for the saved configuration • Amount of space for the new shipped order configuration. This value is the total amount of space used, adjusted when necessary for differences in block size. If the new shipped order value is larger, then added to this value is the amount of space that you added to the secondary extent value in the previously saved configuration, compared with the originally shipped value. A shipped value of zero means no secondary space allocation is allowed.
Directory Blocks	The dialog uses the larger of the following values: • Previously saved configuration value • New shipped order value. If the new shipped order value is larger, then added to this value is the amount you added to the directory blocks value in the previously saved configuration, compared to the originally shipped value.

Table 2. Which Values are Used in a Merged Configuration? (continued)

Data Set Value	Dialog Action
Logical Volume	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: • Physical Volume value • Physical Volume Control Unit Address value. This is the device number for the volume, as assigned through the hardware configuration definition (HCD). • 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.
SMS-Managed	If the saved configuration being processed was saved using an OS/390 Release 9 or later level of the dialog, the SMS-managed status of each data set is set from the saved configuration, unless doing so would conflict with the SMS-eligible or SMS-required attributes. If the saved configuration was saved using an OS/390 Release 8 or earlier level of the dialog, and contained HFS or PDSE data sets, the HFS and PDSE data sets are set to SMS-managed and the remaining data sets are set to non-SMS-managed, unless doing so would conflict with the SMS-eligible or SMS-required attributes. If the saved configuration was saved using an OS/390 Release 8 or earlier level of the dialog, and did not contain HFS or PDSE data sets, the SMS-managed status of each data set is set from the shipped configuration.

Using Merge Configuration Reports

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

- "Summary Report"
- "Merge Report"
- "Data Set Merge Report" on page 44.

These reports are described in the sections that follow.

Summary Report: The Summary Report summarizes the data in the tables that were merged from the previously saved order configuration and the new shipped order. The dialog displays this report on your screen at the end of merge processing.

You can save the Summary Report to a data set by entering the SAVE primary command on the report display's command line. The SAVE command saves the report in a data set with the following naming convention:

hlq.*orderid*.LOG

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)

Selecting a Configuration for the Order

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 SST, in alphabetical order.
2. Low-Level qualifier (LLQ) of the saved data set, in alphabetical order.
3. High-level qualifier (HLQ) and middle-level qualifier (MLQ) of the saved data set, in alphabetical order.

The following is an example of the report:

```
SST  STATUS      SAVED DATA SET NAME SHIPPED DATA SET NAME SVLVOL SHLVOL SHPVOL CCUU ED DEVICE  RB BLKSZ(DELTA) PRIM(DELTA) SEC(DELTA) DIRB(DELTA)
aaaa bbbbbbbbbb ccccccccccccccc... ddddddddddd...       eeeeee ffffff gggggg hhhh i jjjjjjjj k  lllllllllll  mmmmmmmmm  nnnnnnnnn ooooooooo
```

The fields in the report are described as follows:

SST
Subsystem name. This can be one of the following values:

Value	Meaning
DB2	DB2 SREL
CICS	CICS SREL
IMS	IMS SREL
MVS	MVS SREL
NCP	NCP SREL

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 with a status of NEW is reported on, only the Saved LVol field is not filled in, the rest of the fields are filled in with the data for the data set from the new shipped order.

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.

DSORG
There is a DSORG conflict between the new shipped order and 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
There is an LRECL conflict between the new shipped order and 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
There is a RECFM conflict between the new shipped order and 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).

There are three possible causes for this status:

- The data set in the saved order configuration is required for software upgrade only, and the data set in the new shipped order is required only for full system replacement, or it is required for both software upgrade and full system replacement.
- The data set in the saved order configuration is required only for full system replacement, and the data set in the new shipped order is required only for software upgrade, or it is required for both software upgrade and full system replacement.
- The data set in the saved order configuration is required for both software upgrade and full system replacement, and the data set in the new shipped order is required for software upgrade only, or full system replacement only.

DSNAME
There is a data set name conflict between the new shipped order and the same data set in the saved order configuration. The possible causes for this conflict are as follows:

- A user-added data set in the saved order configuration has the same name as an IBM-supplied data set in the shipped 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 added 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 There is an IPLVOL 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 required on the IPLVOL, but the same data set in the new shipped order is **not** required on the IPLVOL.
- The data set in the saved order configuration was **not** required on the IPLVOL, but the same data set in the new shipped order is required on the IPLVOL.

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 must be cataloged in the master catalog because the operating system requires it. However, ServerPac requires some additional data sets to be cataloged in the master 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).

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 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.

CCUU
Specifies the device number of the physical volume that is displayed in the 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 CCUU 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 CCUU field contains 'SMS,' this field is meaningless.

RB
Specifies the reblock 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.

If this field is blank, the reblock value has not changed during the merge. If this field is not blank, the saved order configuration was originally shipped with a reblock value of 'Y' and you changed the value to 'N', and the new shipped configuration has a reblock value of 'Y'. The resulting reblock value is 'N'.

BLKSZ(DELTA)
Specifies the block size 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 block sizes. *delta* is 1-12 characters.

This field is set in the following situations:

- You entered the CHANGE command for the saved order configuration to optimize the block size of a group of data sets for the device type.
- You changed a specific data set's block size.
- The data set block size in the new shipped order differs from the data set's block size in the saved order configuration.

PRIM(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.

SEC(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.
- 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.

DIRB(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. *delta* is the difference, if any, between these two values. *delta* is 1-12 characters.

If you did not change the value of the directory blocks in the saved order configuration, *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 Saved Dirblks 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 Dirblks 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:

hlq.orderid.REPORT(DSMERGE)

The following is an example of the report:

```
STATUS      Merged DSname       Component DSname     RECFM  LRECL  DSORG  BLKSZ  PRI  SEC  DIR  R  C  I  N  M  D  S  E
U           SYS1.PANELS                              FB       80  PO      8800   75    7   50  Y  Y  N  Y  Y  Y  N  Y
A,I                             SYS1.PANELS                                                  Y  N  N  Y  Y  Y  N  Y
                                GIM.SGIMPENU                                                 Y  N  N  Y  N  Y  N  Y
                                ISP.SISPPENU                                                 Y  N  N  Y  N  Y  N  Y
D                               ABC.SABDPENU                                                 Y  Y  N  Y  N  Y  N  Y
                                DEF.SDEFPENU                                                 Y  Y  N  Y  N  Y  N  Y
P           SYS1.CLIST                               FB       80  PO-E    8800   60    10  40  Y  Y  N  Y  Y  Y  N  Y
                                SYS1.CLIST                                                   Y  Y  N  Y  Y  N  N  Y
                                GIM.SGIMCLS0                                                 Y  Y  N  Y  N  Y  N  Y
                                ABC.SABDCENU                                                 Y  Y  N  Y  N  Y  N  Y
A,B         SYS1.MSGS                                FB       80  PO     17200   60    10  40  Y  Y  N  Y  Y  Y  N  Y
                                SYS1.MSGS                                                    Y  Y  N  Y  Y  Y  N  Y
                                GIM.SGIMMENU                                                 Y  Y  N  Y  N  Y  N  Y
                                ABC.SABDMENU                                                 Y  Y  N  Y  N  Y  N  Y
U           SYS1.SKELS                               FB       80  PO     17200   60    10  40  Y  Y  N  Y  Y  Y  N  Y
C                               SYS1.SKELS                                                   Y  Y  N  Y  Y  Y  N  Y
                                GIM.SGIMSENU                                                 Y  Y  N  Y  N  Y  N  Y
                                ISP.SISPSENU                                                 Y  Y  N  Y  N  Y  N  Y
```

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:

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:

- **R** — Can the data set be reblocked?
- **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 (PDS or PDSE) 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. ServerPac 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.

B Data set's block size increased. This occurred because of an increase in the block size of one or more of its component data sets, or because of an increase in the overall block size of the merged data set.

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).

D Data set was deleted from the shipped configuration. If the data set was a component data set of a merged data set, the component data set is deleted. If the data set is a merged data set, it is unmerged of its component data sets and the component target merge data set is deleted.

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-changeable PDS.

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.

---

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.

DSORG
Data set organization of the merged data set. Possible values are:
PO PDS data set
PO-E PDSE data set
HFS HFS data set

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

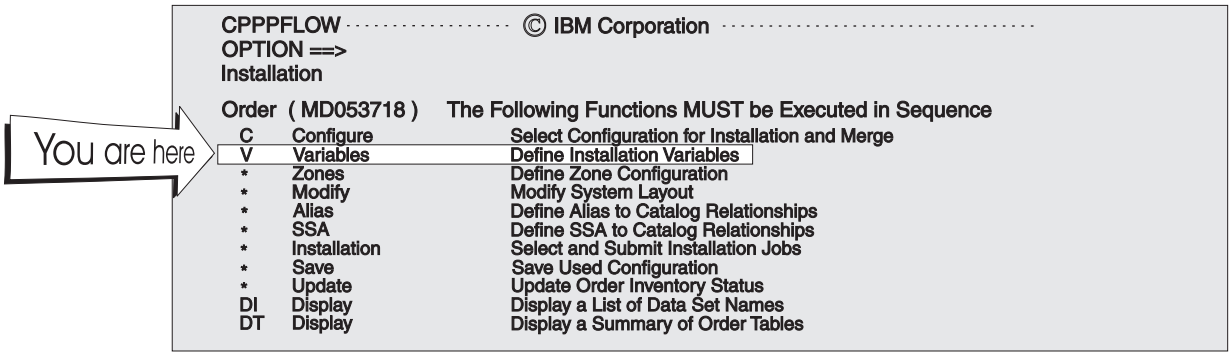
BLKSZ
Block size of the merged data set. This value is the same for all component data sets in the merged data set.

PRI
Primary space allocation for the merged data set, including the space required for its component data sets.

SEC
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.

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 24).

```
CPPP6111  ----------- Installation Variables ( MD053718 ) - Row 1 to 26 of 62
COMMAND ==>                                                  SCROLL ==> PAGE

Variable Selection List                                      SHOW( *        )

PRIM Cmds:(? SET L F N P CANcel SAVE SHow VARname)
LINE Cmds:(Browse Delete Edit Insert Repeat Ship)

 S     Synonym            STA  Contents
 - --- -----------------  ---  ----+----0----+----0----+----0----+----0----
   ==> GEN SYSTEMPAC
       UNIT SYSDA           D  SYSDA
       TGT UNIT TYPE        D
       TARGET VOLSER        D
       ASSEMBLER NAME       D  ASMA90
       SMPTLIB PREFIX       D  SYS1.MVS
       SMPTLIB UNIT         D  3390
       SMPTLIB VOLSER       D  MVSCAT

   ==> HFS INFORMATION
       INSTALL DIRECTORY    D  /Service

   ==> MVS NEW ADR
       ADR NEW MCON         D  0F2

   ==> MVS NEW DSN
       TIMEZONE GMT         P  W.05.00.00
       SYSNAME              D  CPAC
       RACF OLD PDSN        D  DRIVSYS.RACFP.DSN
       RACF OLD BDSN        D  DRIVSYS.RACFB.DSN
       RACF OLD PVOL        D  MVSRES
       RACF OLD BVOL        D  MVSRES

   ==> MVS NEW VOL
       TARGET RACF VOLSE    D  MVSCAT
```

Figure 24. Panel: Variable Selection List - Variable Synonyms

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.

Defining Installation Variables

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 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. If you do so, do not enter a line command for the variable at the same time.

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

The following primary commands are valid for this panel:

?, SET, F, L, N, P
These are standard commands for panels that display lists. See “Primary Commands” on page 10.

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:

***** All variables.
C Customized variables. You cannot edit or delete these variables.
D Default variables
E Erased variables
I Inserted variables
P Pre-defined varaibles
U User-defined varaibles

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 24 on page 47 shows an example of the synonym format of this panel.

VARNAME
This command, abbreviated as VAR, displays variables by their names.

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 51.

D Delete a user variable. You must confirm your DELETE request. See “Deleting User Variables” on page 55.

You cannot delete CustomPac-shipped variables.

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

See “Editing Variable Definitions” on page 52.

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

I Insert a user variable. See “Inserting User Variables” on page 54.

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 54.

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 56).

Use S carefully on this panel; S usually means SELECT in the other dialog panels. See “Line Commands” on page 12.

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 on page 50 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.

Defining Installation Variables

Table 3. Variables That Require Some Planning...

Variable Synonym	Default Value	Description
SYSNAME	**Default**: CPAC	MVS 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. Also, you must change the value of the SYSCLONE variable so that it uses the last 2 characters of the SYSNAME value. 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.
SYSCLONE	**Default**: AC	This is the SYSCLONE value, which must equal the last 2 characters of the SYSNAME variable.
SYSTEM LOGGER HLQ	**Default**: IXGLOGR	This variable sets the high-level qualifier that System Logger will use to create staging data sets and log data sets for log streams.
SMPTLIB VOLSER	**Default**: MVSCAT	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.
SHORT VOLSER SPL	**Default**: MVSC1	First 5 characters for names of spool volumes. This value must match the value specified in the allocation values for the HASPACE data set.
INSTALL DIRECTORY	**Default**: /Service	Directory under which the HFS elements are to be restored and the file systems are to be mounted. The directory path name is limited to 20 characters, which can be mixed case, if desired. In a multilevel directory path, the lowest directory from the root will be created automatically. Higher directories will not be created. The default value is /Service.
AUTH.LINKLIB	**Default**: USER.LINKLIB	During the installation, modules are copied into this library. You must allocate and APF-authorize this library on the driving system or use an existing APF-authorized library. A data set with the same name must not exist on the target system.

Notes:

1. Use the Modify System Layout function instead of the Define Variables function to make global changes to block sizes or high-level qualifiers.

2. 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*.
3. 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. 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 25 is displayed.

```
CPPP6113 ------------ Installation Variables ( MD053718 ) --------------------
COMMAND ==>

BROWSE Variable Definition - Value

     Variable      :  F90GDQ01

     Synonym       :  PREFIX DIALOG DSN

     Status        :  PREDEFINED

     Default Value

             :  CUSTNAME.MD053718

     Current Value

             :  STOB4.MD053718

                                  ( Press ENTER for Description Fields )
```

Figure 25. Panel: Browse Variable Definition - Value

Then, press Enter to display the variable's description fields. The panel shown in Figure 26 on page 52 is displayed.

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

BROWSE Variable Definition - Usage

      Variable Description

             :  You MUST change this entry to the same prefix
             :  (Custname.Order number) as you used for the
             :  output datasets of the job described in the
             :  Installation Guide under 'DOWNLOAD RIM TAPE'.
             :
             :  EG. If the dialog datasets are named
             :
             :  GLANDA.VS4.SCPPxENU
             :
             :  Then, this variable should be set to
             :
             :  GLANDA.VS4
             :
```

Figure 26. 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.

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 27 on page 53 is displayed.

```
CPPP6115 ------------ Installation Variables ( MD053718 ) --------------------
COMMAND ==>

UPDATE Variable Definition - Value

     Variable      :  F00ODD01

     Synonym       :  DSN CONSOL00

     Status        :  MERGED/DEFAULT

     Default Value

             :  SYS1.PARMLIB(CONSOL00)

     Current Value

            ==> VS4.PARMLIB(CONSOL00)

                                  ( Press ENTER for Description Fields )
```

Figure 27. Panel: Update Variable Definition - Value

Then, press Enter to display the variable's description fields. The panel shown in Figure 28 is displayed.

```
CPPP6116 ------------ Installation Variables ( MD053718 ) --------------------
COMMAND ==>

UPDATE Variable Definition - Usage

      Variable Description

            ==> Location of the driving system's CONSOL00
            ==> member
            ==>
            ==>
            ==>
            ==>
            ==>
            ==>
            ==>
            ==>
            ==>
```

Figure 28. Panel: Update Variable Definition - Usage

You can change the following fields:

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 29 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 29. 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.

  Because shipped CustomPac variables begin with the letter “F”, you should not use F as the first character of your variable name.

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.

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 30 on page 55.

```
CPPP6118 ------------ Installation Variables ( MD053718 ) --------------------
COMMAND ==>

INSERT a USER Variable - Usage

      Variable Description

            ==> Describe your variable
            ==> in these fields...
            ==>
            ==>
            ==> You have 15 fields
            ==> to use for description.
            ==>
            ==>
            ==>
            ==>
            ==>
            ==>
            ==>
            ==>
            ==>
```

Figure 30. 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 31 shows the panel that is displayed when you enter line command D to delete a user-defined variable.

```
CPPP611D ------------ Installation Variables ( MD053718 ) --------------------
COMMAND ==>

DELETE a USER Variable

                           Variable : $TESTVAR


              Status  : USER          Synonym : MY TEST VARIABLE

              Default : TESTVAR

              Current : TESTVAR

          You MUST Confirm DELETION By Typing DELETE and pressing ENTER

          Press the END or RETURN key to CANCEL the DELETE request
```

Figure 31. Panel: Delete a User Variable - Confirmation

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 or modified CustomPac-shipped 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 121.

Restoring a Variable to Its Shipped Value

Figure 32 shows the panel that is displayed when you enter line command S to restore a variable to its shipped value.

```
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 32. Panel: Restore a Variable to the Shipped Value - Confirmation

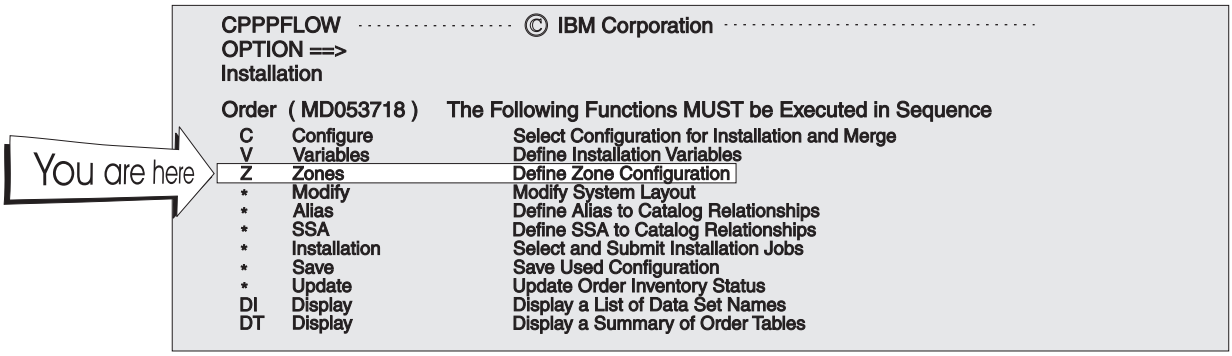
Your request restores the following values for the variable to the shipped CustomPac values:

- 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 unique names for the target zones and DLIB zones in your order's SMP/E CSI data set. Doing so will allow you to use SMP/E's cross-zone processing, such as SMP/E's reporting and management functions.

If you plan to rename the CSI data set, you must use the Modify System Layout function (see Chapter 8, "Modifying the System Layout" on page 61). Then, return to this step in the dialog to work with the renamed CSI data set.

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 33).

```
CPPP6391 ----------- Define ZONE Information ( MD053718 ) --- Row 1 to 5 of 5
COMMAND ==>                                                   SCROLL ==> HALF
PRIM Cmds:(? SET L F N P SORT CANcel SAVE)
LINE Cmds:(feaTures)

All DLIB Zones will be allocated in CSI : SMPE.MVS.DLIB.CSI
All TLIB Zones will be allocated in CSI : SMPE.MVS.TARGET.CSI

              S  NickName        DLIB Zone        Target Zone        SST
              -  --------        ---------        -----------        ---
                   100            MVSD100           MVST100         MVS
                   200            MVSD200           MVST200         MVS
                   300            MVSD300           MVST300         MVS
                   400            MVSD400           MVST400         MVS
                   500            MVSD500           MVST500         MVS
****************************** Bottom of data ********************************
```

Figure 33. Panel: Define Zone Names

How Zone Names Are Used in Your Order

All DLIB zones are physically defined in the same DLIB CSI data set. All target zones are physically defined in the same target library 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 that your installation has ordered z/OS and COBOL/II. Because z/OS includes LE, it cannot be installed with COBOL/II in the same zone. The following zone nicknames might be used:

```
Nickname 100 . . .  z/OS (including LE)
Nickname 105 . . .  OS/COBOL II
```

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: MVS, CIC, DB2, IMS or NCP (″MVS″ is used to represent the z/OS operating system).
- 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:

```
CICD500  . . .  for the distribution zone
CICT500  . . .  for the target zone
```

For descriptions of the zones that came with your order, see the topic, “Zones Shipped with Your Order,” in *ServerPac: Installing Your Order*.

Changing the SMP/E Zone Names in Your Order

In the panel (shown in Figure 33 on page 57), 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. 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:

?, SET, F, L, N, P
These are standard commands for panels that display lists. See “Primary Commands” on page 10.

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).

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

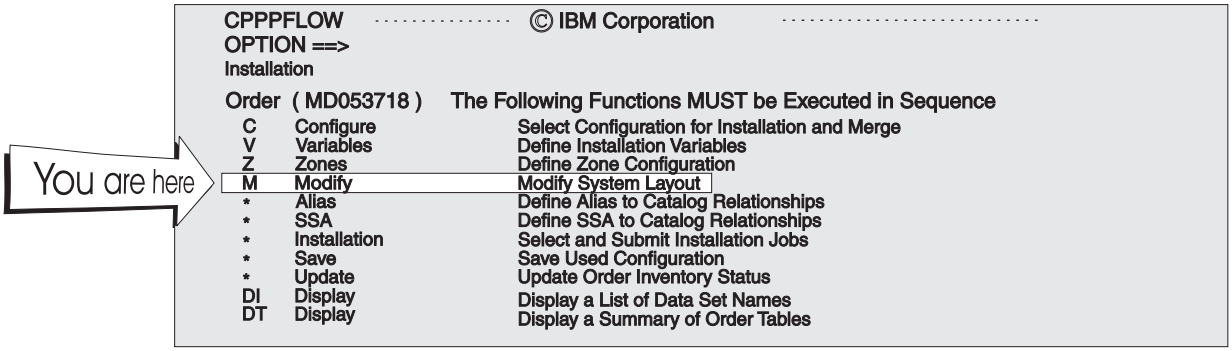
Figure 34 shows the panel that is displayed when you attempt to end the Zone Configuration function when the DLIB and target zone names you have specified are in error. You have used the same zone name more than once.

```
CPPP6393 ------------------------------------------------------------------------
COMMAND ==>
Confirm Processing Requirements

                     The Zone Configuration table contains at

                           least one duplicate zone name



           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 34. 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 M to begin the next dialog function. The Modify System Layout Options panel is displayed, as shown in Figure 35.

```
CPPP605T --------- Modify System Layout Options ( MD053718 ) ----------
OPTION ==>


A   Create a Recommended System Layout (Automatically assign target and
    DLIB data sets to physical volumes by data set type)

C   View and change data sets by selected attributes
T   View and change device type table (DEVT)

D   Data Set Summary (SUMD)
M   Merged Data Set Summary (SUMD M)
S   Shipped and Merged Data Set Summary (SUMD S)
U   User Data Set Summary (SUMD U)

V   Physical Volume Summary (SUMP)
L   Logical Volume Summary (SUML)

P   Product, Feature, and Element Summary

---------------------- Session Control Options ----------------------
K   Keep Changes made in this dialog session so far (SAVE)
B   Back Out changes from this dialog session (CANcel)
```

Figure 35. 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.

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

- 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 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).

Modifying the System Layout

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 and z/OS.e 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 80
- Option T in "Displaying Device Types" on page 103.

If automatic assignment and the View and Change Facility are not appropriate for your installation, you can use the Summary Display commands as you did before. These commands allow you to build the new data set layout by assigning data sets to logical volumes and then assigning the logical volumes to physical volumes or SMS storage classes. The Summary Display commands are described in Appendix B, "Using the Dialog's Summary Display Commands" on page 145. Here, your tasks will vary, depending on how much your target system's configuration differs from the IBM shipped system layout or a configuration that you merged in from a previous order. At a minimum, it is likely that you will need to move some data sets to volumes other than those in the shipped configuration.

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:

Option	Description
K	Keep any changes that you have made since the last SAVE.
B	Back out (discard) any changes that you have made since the last SAVE, and exit the Modify System Layout function.

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 and z/OS.e 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
- 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)
- If the data set should reside on a particular volume in the configuration (for example, the first volume or one of the last volumes).

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. When you do so, use volumes that do not contain your target or DLIB data sets.

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.

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.

It is recommended that you use 3390-3 or larger volumes for z/OS orders because these orders typically include some very large data sets. At a minimum, use at least 3390-2 volumes for z/OS orders. You may use smaller volumes for subsystem orders because these orders usually do not contain very large data sets.

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
DLIB Volume	DLIB data sets
BOTH Volume	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.

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 in groups, 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 that should reside on the first target volume
- All other element types and data sets having no element type
- Data sets 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.

Setting the Scope of Automatic Assignments

When you select ″Create a Recommended System Layout″ (Option A) from the Modify System Layout Options panel, the panel shown in Figure 36 on page 65 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 all 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.

Default Device Type ==> 3390-3  (For example, 3390-3)
```

Figure 36. 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 80.

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 your current assignments. NEW preserves all of your existing assignments; PARTIAL preserves your existing assignments, except for those volumes that you choose to make available for reassignment (through the eXclude line command).

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).

Modifying the System Layout

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.

Or, use NEW when the placement of new data sets is not important to you as long as the placement of existing data sets is not changed.

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 and z/OS.e Planning for Installation*, 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.

If you have not used automatic assignment before and your target volume names do not follow an ascending alphanumeric naming pattern (like OSRES1, OSRES2... or OSRESA, OSRESB...), 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: In the Modify System Layout Options panel, the Default Device Type field specifies 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.

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

It is recommended that you use 3390-3 or larger volumes for z/OS orders because these orders typically include some very large data sets. At a minimum, use 3390-2 volumes for z/OS orders. You may use smaller volumes for subsystem orders because these orders usually do not contain very large data sets.

Displaying the Current Volume Configuration

After you select a setting for automatic assignment, the dialog displays the current volume configuration, as shown in Figure 37.

```
CPPP625C  ---- Automatic Data Set Assignment ( MD053718 ) ---- ROW 1 TO 7 OF 7
COMMAND ==>                                                   SCROLL ==> PAGE

Current Volume Configuration                                 Scope==> ALL

Primary Commands: (? Reset Create)
   Line Commands: (Select Insert List Move After Before eXclude)


    Phys.   Volume  Sequence  Device  Reserved  Used +   Volume     Existing
 S  Volume  Type    Number    Type    Space    Reserved  Threshold  Data
 -  ------  ----    --------  ------  -------- --------  ---------  --------
    MVSRES  TARGET  T01       3390-3    N      315 %       85%        N
    MVSDLB  DLIB    D01       3390-3    N      224 %       85%        N
 ****************************** Bottom of Data ***************************
```

Figure 37. Panel: Current Volume Configuration

As shipped by IBM, a new 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.

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 alpanumerical 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. 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.

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").

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 M for the volume to be moved, and A for the volume that is to precede it. To move a volume before another, enter M and B.

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.

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 M, A, and B 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, repositioning volumes will be more difficult. Here, 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 CR on the Current Volume Configuration display to create a new configuration.

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

- For the ALL setting, you use line command X to select volumes for removal from the work configuration (the volumes are not actually removed from the work configuration until after you enter the CREATE command to create the configuration). The dialog does not use excluded volumes for data set assignments. When you create the new configuration (through the CREATE command) and display it again, excluded volumes do not appear in the panel.
- For the NEW setting, you 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. 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 X 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 CREATE 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 CREATE 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 CREATE command) and try again. This action resets all changes back to the values stored in the saved configuration if one was used. Otherwise, this action restores the configuration to the order's shipped values.
- In the NEW setting, the volume will re-appear when you exit the Recommended System Layout option after creating the new configuration.

Selecting Volumes for Changes

If you select a volume for changes, the dialog displays the panel shown in Figure 38, allowing you to change the volume and save your changes.

```
CPPP625D  ---- Automatic Assignment - Attributes ( MD053718 ) --------------------
COMMAND ==>

Display and Change Volume Attributes


          Volume Serial ==> MVSRS1

             Device Type ==> 3390-3   (For example, 3390-3)
             Volume Type  :  TARGET   (Target, DLIB or Both)

        Reserved Space ==> 0      (In Cylinders)

         Existing Data ==> N      (Y or N)
```

Figure 38. Panel: Display and Change Volume Attributes

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

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 73
- "Example 3: Using NEW with a Saved Configuration" on page 75
- "Example 4: Using PARTIAL with a Saved Configuration" on page 78.

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 39 is displayed.

```
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 all 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.

Default Device Type ==> 3390-3  (For example, 3390-3)
```

Figure 39. Panel: Modify System Layout Options

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.

In this panel, the Default Device Type field specifies the type of device to be used when the dialog creates volumes for data set assignments. Check to ensure that the specified device is available and appropriate for installing the order. 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.

Enter A to select the ALL setting and Press Enter. The current volume configuration is shown (Figure 40 on page 71).

```
CPPP625C  ---- Automatic Data Set Assignment ( MD053718 ) ---- ROW 1 TO 2 OF 2
COMMAND ==>                                                   SCROLL ==> PAGE

Current Volume Configuration                                 Scope==> ALL

Primary Commands: (? Reset Create)
   Line Commands: (Select Insert List Move After Before eXclude)


    Phys.   Volume  Sequence  Device  Reserved  Used +   Volume     Existing
 S  Volume  Type    Number    Type    Space    Reserved  Threshold  Data
 -  ------  ----    --------  ------  -------- --------  ---------  --------
    MVSRES  TARGET  T01       3390-3    N      315 %       85%        N
    MVSDLB  DLIB    D01       3390-3    N      224 %       85%        N
 ****************************** Bottom of Data ***************************
```

Figure 40. Panel: Current Volume Configuration

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 CR command on the Current Volume Configuration panel). Otherwise, the volume might become overallocated (for example, if the default is 3390-3 and you change it to 3390-2).

To have the dialog create the new configuration, enter the primary command CR and press ENTER. The panel shown in Figure 41 is displayed, allowing you to confirm this action before continuing.

```
CPPP625E  ---- Automatic Assignment Confirmation ( MD053718 ) -----------------
COMMAND ==>                                                   Scope: ALL

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 41. Panel: Automatic Assignment Confirmation

To continue, press Enter. The CustomPac progress panel is displayed (as shown in Figure 42 on page 72) as volumes are assigned.

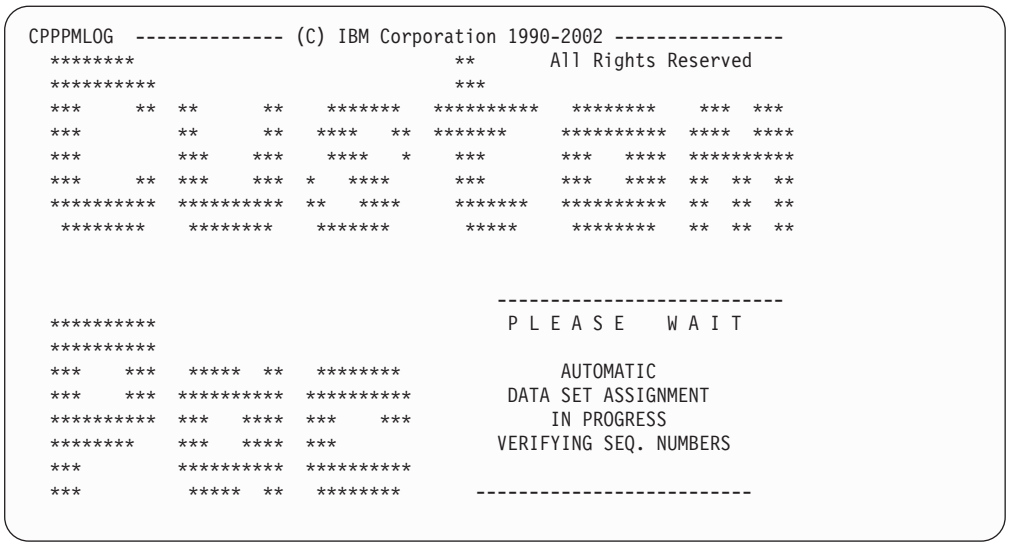


Figure 42. Panel: Automatic Assignment Progress Panel

After Recommended System Layout completes, the Current Volume Configuration panel (Figure 43) is displayed again to show you the new configuration.

```
CPPP625C  ---- Automatic Data Set Assignment ( MD053718 ) ---- ROW 1 TO 7 OF 7
COMMAND ==>                                                    SCROLL ==> PAGE

CPP06625014I Automatic data set assignment complete.

 Current Volume Configuration                                  Scope==> ALL

 Primary Commands: (? Reset Create)
    Line Commands: (Select Insert List Move After Before eXclude)


     Phys.   Volume  Sequence  Device  Reserved  Used +   Volume     Existing
 S   Volume  Type    Number    Type    Space    Reserved  Threshold  Data
 -   ------  ----    --------  ------  -------- --------  ---------  --------
     MVSRES  TARGET    T01     3390-3    N       84%        85%        N
     TARG02  TARGET    T02     3390-3    N       83%        85%        N
     TARG03  TARGET    T03     3390-3    N       85%        85%        N
 s   TARG04  TARGET    T04     3390-3    N       62%        85%        N
     MVSDLB  DLIB      D01     3390-3    N       83%        85%        N
     DLIB02  DLIB      D02     3390-3    N       83%        85%        N
     DLIB03  DLIB      D03     3390-3    N       55%        85%        N
     ****************************** Bottom of Data ***************************
```

Figure 43. Panel: Current Volume 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 default 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 CH PVOL command to move the data sets to other volumes. For more information, see "Viewing and Changing Data Sets" on page 80.

When the new configuration is created, it is more difficult to rename the volumes. To do so, you must exit this panel and return to the Modify System Layout Options panel (shown in Figure 35 on page 61). Then, select Option V to display the Summary of Physical Volumes and modify the volume names accordingly (as described in "Displaying a Summary of Physical Volumes" on page 156).

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 44 is displayed.

```
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 all 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.

Default Device Type ==> 3390-3  (For example, 3390-3)
```

Figure 44. Panel: Modify System Layout Options

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.

In this panel, the Default Device Type field specifies the type of device to be used when the dialog creates volumes for data set assignments. Check to ensure that the specified device is available and appropriate for installing the order. 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 45 on page 74 is displayed, showing the current configuration.

```
CPPP625C  ---- Automatic Data Set Assignment ( MD053718 ) ---- ROW 1 TO 7 OF 7
COMMAND ==>                                                   SCROLL ==> PAGE

Current Volume Configuration                                 Scope==> ALL

Primary Commands: (? Reset Create)
   Line Commands: (Select Insert List Move After Before eXclude)


    Phys.   Volume  Sequence  Device  Reserved  Used +   Volume     Existing
 S  Volume  Type    Number    Type    Space    Reserved  Threshold  Data
 -  ------  ----    --------  ------  -------- --------  ---------  --------
    MARNA1  TARGET  T01       3390-3    N       92%        85%        N
    MARNA2  TARGET  T02       3390-3    N       85%        85%        N
    MARNA3  TARGET  T03       3390-3    N       86%        85%        N
    MARNA4  TARGET  T04       3390-3    N       27%        85%        N
    OSDLB1  DLIB    D01       3390-3    N       88%        85%        N
    OSDLB2  DLIB    D02       3390-3    N       86%        85%        N
    OSDLB3  DLIB    D03       3390-3    N       38%        85%        N
    ****************************** Bottom of Data ***************************
```

Figure 45. Panel: Current Volume Configuration

When you re-use 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 workconfiguration (the volumes are not actually removed from the work configuration until after you enter the CREATE 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 CR and press ENTER. The panel shown in Figure 46 is displayed, allowing you to confirm this action before continuing.

```
CPPP625E  ---- Automatic Assignment Confirmation ( MD053718 ) -----------------
COMMAND ==>                                                   Scope: ALL

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 46. 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 the 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 45 on page 74) is displayed again, to show you the new configuration.

Press Enter. The panel shown in Figure 47 is displayed, showing the current configuration.

```
CPPP625C  ---- Automatic Data Set Assignment ( MD053718 ) ---- ROW 1 TO 9 OF 9
COMMAND ==>                                                    SCROLL ==> PAGE

Current Volume Configuration                                  Scope==> ALL

Primary Commands: (? Reset Create)
   Line Commands: (Select Insert List Move After Before eXclude)


    Phys.   Volume  Sequence  Device  Reserved  Used +   Volume     Existing
 S  Volume  Type    Number    Type    Space    Reserved  Threshold  Data
 -  ------  ----    --------  ------  -------- --------  ---------  --------
    MARNA1  TARGET    T01     3390-3    N       85%        85%        N
    MARNA2  TARGET    T02     3390-3    N       83%        85%        N
    MARNA3  TARGET    T03     3390-3    N       84%        85%        N
    MARNA4  TARGET    T04     3390-3    N       83%        85%        N
    TARG05  TARGET    T05     3390-3    N       26%        85%        N
    OSDLB1  DLIB      D01     3390-3    N       84%        85%        N
    OSDLB2  DLIB      D02     3390-3    N       85%        85%        N
    OSDLB3  DLIB      D03     3390-3    N       83%        85%        N
    DLIB04  DLIB      D04     3390-3    N       12%        85%        N
    ****************************** Bottom of Data ***************************
```

Figure 47. Panel: Current Volume Configuration

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 48 on page 76 is displayed.

```
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 all 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.

Default Device Type ==> 3390-3  (For example, 3390-3)
```

Figure 48. 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.

In this panel, the Default Device Type field specifies the type of device to be used if the dialog creates more volumes for data set assignments. Check to ensure that the specified device is available and appropriate for installing the order. 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 49 is displayed, showing the current configuration.

```
CPPP625C  ---- Automatic Data Set Assignment ( MD053718 ) ---- ROW 1 TO 7 OF 7
COMMAND ==>                                                   SCROLL ==> PAGE

Current Volume Configuration                                 Scope==> NEW

Primary Commands: (? Reset Create)
   Line Commands: (Select Insert List eXclude)


    Phys.   Volume  Sequence  Device  Reserved  Used +   Volume     Existing
 S  Volume  Type    Number    Type    Space    Reserved  Threshold  Data
 -  ------  ----    --------  ------  -------- --------  ---------  --------
    MARNA1  TARGET  T01       3390-3    N       92%        90%        N
    MARNA2  TARGET  T02       3390-3    N       85%        90%        N
    MARNA3  TARGET  T03       3390-3    N       86%        90%        N
    MARNA4  TARGET  T04       3390-3    N       27%        90%        N
    OSDLB1  DLIB    D01       3390-3    N       88%        90%        N
    OSDLB2  DLIB    D02       3390-3    N       86%        90%        N
    OSDLB3  DLIB    D03       3390-3    N       38%        90%        N
    ****************************** Bottom of Data ***************************
```

Figure 49. Panel: Current Volume Configuration

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 allows its use of volumes to increase to 90% of 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 CR 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 the 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 49 on page 76) is displayed again.

```
CPPP625C  ---- Automatic Data Set Assignment ( MD053718 ) ---- ROW 1 TO 9 OF 9
COMMAND ==>                                                    SCROLL ==> PAGE

CPP0625014I Automatic data set assignment complete.

Current Volume Configuration                                  Scope==> NEW

Primary Commands: (? Reset Create)
   Line Commands: (Select Insert List eXclude)


    Phys.   Volume  Sequence  Device  Reserved  Used +   Volume     Existing
 S  Volume  Type    Number    Type    Space    Reserved  Threshold  Data
 -  ------  ----    --------  ------  -------- --------  ---------  --------
    MARNA1  TARGET    T01     3390-3    N       92%        90%        N
    MARNA2  TARGET    T02     3390-3    N       90%        90%        N
    MARNA3  TARGET    T03     3390-3    N       90%        90%        N
    MARNA4  TARGET    T04     3390-3    N       90%        90%        N
    TARG05  TARGET    T05     3390-3    N       26%        85%        N
    OSDLB1  DLIB      D01     3390-3    N       90%        90%        N
    OSDLB2  DLIB      D02     3390-3    N       90%        90%        N
    OSDLB3  DLIB      D03     3390-3    N       90%        90%        N
    DLIB04  DLIB      D04     3390-3    N       12%        85%        N

    ****************************** Bottom of Data ***************************
```

Figure 50. Panel: Current Volume Configuration

The new configuration is shown. Observe the following results:

- 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 re-using a saved configuration and want to preserve some of your existing data set assignments, while allowing the dialog to reassign other existing data sets. The PARTIAL setting allows you to redistribute data sets if, after several installations with the NEW setting, volumes in the configuration become overallocated (due to the normal growth of some configuration data sets over time).

Select ″Automatic Data Set Assignment″ (Option A) from the Modify System Layout Options panel. The panel shown in Figure 51 is displayed.

```
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 all 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.

Default Device Type ==> 3390-3  (For example, 3390-3)
```

Figure 51. Panel: Modify System Layout Options

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.

In this panel, the Default Device Type field specifies the type of device to be used if the dialog creates more volumes for data set assignments. Check to ensure that the specified device is available and appropriate for installing the order. 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 on page 79 is displayed, showing the current configuration.

```
CPPP625C  ---- Automatic Data Set Assignment ( MD053718 ) ---- ROW 1 TO 7 OF 7
COMMAND ==>                                                   SCROLL ==> PAGE

Current Volume Configuration                                 Scope==> PARTIAL

Primary Commands: (? Reset Create)
   Line Commands: (Select Insert List Move After Before eXclude)


    Phys.   Volume  Sequence  Device  Reserved  Used +   Volume     Existing
 S  Volume  Type    Number    Type    Space    Reserved  Threshold  Data
 -  ------  ----    --------  ------  -------- --------  ---------  --------
    MARNA1  TARGET  T01       3390-3    N       92%        90%        N
 X  MARNA2  TARGET  T02       3390-3    N       85%        90%        N
    MARNA3  TARGET  T03       3390-3    N       86%        90%        N
    MARNA4  TARGET  T04       3390-3    N       27%        90%        N
    OSDLB1  DLIB    D01       3390-3    N       88%        90%        N
    OSDLB2  DLIB    D02       3390-3    N       86%        90%        N
    OSDLB3  DLIB    D03       3390-3    N       38%        90%        N
    ****************************** Bottom of Data ***************************
```

Figure 52. Panel: Current Volume Configuration

To make the data sets on an existing volume (MARNA2) available for automatic assignment, enter the X line command to the left of the volume. The dialog will reassign the data sets on this volume.

Enter the primary command CR on the Current Volume Configuration display (Figure 52) to create a new configuration. The Automatic Assignment Confirmation panel is displayed, allowing you to confirm this action before continuing.

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 53) is displayed again.

```
CPPP625C  ---- Automatic Data Set Assignment ( MD053718 ) ---- ROW 1 TO 8 OF 8
COMMAND ==>                                                   SCROLL ==> PAGE

CPP0625014I Automatic data set assignment complete.

Current Volume Configuration                                 Scope==> PARTIAL

Primary Commands: (? Reset Create)
   Line Commands: (Select Insert List Move After Before eXclude)


    Phys.   Volume  Sequence  Device  Reserved  Used +   Volume     Existing
 S  Volume  Type    Number    Type    Space    Reserved  Threshold  Data
 -  ------  ----    --------  ------  -------- --------  ---------  --------
    MARNA1  TARGET    T01     3390-3    N       92%        90%        N
    MARNA3  TARGET    T02     3390-3    N       89%        90%        N
    MARNA4  TARGET    T03     3390-3    N       85%        90%        N
    TARG05  TARGET    T04     3390-3    N       76%        85%        N
    OSDLB1  DLIB      D01     3390-3    N       90%        90%        N
    OSDLB2  DLIB      D02     3390-3    N       89%        90%        N
    OSDLB3  DLIB      D03     3390-3    N       90%        90%        N
    DLIB04  DLIB      D04     3390-3    N       55%        85%        N

    ****************************** Bottom of Data ***************************
```

Figure 53. Panel: Current Volume Configuration

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 reasssigned.
- 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.

Viewing and Changing Data Sets

The dialog provides you with a general-purpose view and change facility for working with the data sets in your configuration. With this facility, you can view subsets of data sets in your configuration by various attributes. Then, you can enter change or merge commands for these data sets, or save the lists.

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

- Identify your ISPF panel libraries, so that you can consolidate them through the MERGE command
- Identify your link list libraries, so that you add or remove secondary allocation amounts for these data sets
- Identify all 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.

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 54 on page 81.

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 panels in your configuration.
3. On the resulting display, you can enter CHANGE or MERGE 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. If you change or merge data sets, your actions become effective when you save the changes and exit the Modify System Layout function of the dialog.

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

- Data set names and high level qualifiers
- DASD volumes to which data sets are assigned
- Making unrenameable data sets renameable.

For information about the CHANGE command, see “Making Changes to Data Sets” on page 84.

Figure 54 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).

```
CPPP605R  ------ Select Data Set View ( MD053718 ) ------ Row 1 to 30 of 30
COMMAND ==>                                                SCROLL ==> PAGE

Select a Data Set List View:

  Line Commands: (Select)


 S  Display             Data Set List Description
 -  ---------------     ------------------------------------------------------
    Allocate New DS     Whether the data set is to be allocated
    APF Required        APF Authorization Required (Yes or No)
    BLKSIZE             Data Set Block Size
    Curent LVOL         Assigned Logical Volume
    Current PVOL        Assigned Physical Volume
    Cylinders           Current Data Set Size in Cylinders
    Data Set Type       DLIB, Target, Operational
    Device Type         Assigned Device Type
    DDDEF Name          Owning Product DDDEF Name
    DSNTYPE             HFS, LIBRARY, or PDS
    DSORG               Data Set Organization
    Element Type        Data Set Element Type (LMOD, PNLENU, EXEC, etc.)
    LNKLST Eligible     Eligible for placement in the Link List (Yes or No)
    LPA Eligible        Eligible for placement in LPA (Yes No)
    LPA Required        Required in LPA List (Yes or No)
    LRECL               Logical Record Length
    Master Catlg        Must be in Master Catalog (Yes, No, or Overridden)
    New Data Set        Whether data set is new in this order (Yes or No)
    Product Name        Name of the product, feature, or element
    Renameable          Whether rename is allowed (Yes, No, or Overridden)
    RECFM               Record Format (FB, VB, U, etc.)
    Switchable          Whether data set may be either a PDS or PDSE (Yes or No)
 S  SMP/E SYSLIB        Data set in the SMP/E SYSLIB concatenation (Yes or No)
    SMS-Eligible        Whether data set may be SMS-managed (Yes or No)
    SMS-Managed         Whether data set is SMS-managed (Yes or No)
    SMS-Required        Whether data set must be SMS-managed (Yes or No)
    SST                 Subsystem Type (MVS, CICS, DB2, IMS, NCP)
    TVOL                Special target volume placement (FIRST or LAST)
    Unit                Assigned Unit
    Volume Number       Volume Sequence Numbers (Tnn, Dnn, and Bnn)
    ************************* Bottom of Data ***************************
```

Figure 54. 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 54, 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.

Select an attribute to display (with line command S) and press Enter. The dialog displays a second panel with the values found for the selected attribute. In Figure 55 on page 82, for example, the value 'YES' is selected for the attribute ″SMP/E SYSLIB.″

```
CPPP605S  ---- Select Values to Display ( MD053718 )  -- Row 1 to 2 of 2
COMMAND ==> L                                          SCROLL ==> PAGE


Select list for:  SMP/E SYSLIB

Select values for which data sets are to be listed:

 Primary Commands: (List)
    Line Commands: (Select SS)

 S  Values
 -  ---------------
    No
 S  Yes
 ****************************** Bottom of Data **********************
```

Figure 55. Panel: Select Values to Display

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, enter L or LIST on the command line, 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 56, the dialog displays the data sets that appear in SMP/E's assembler SYSLIB concatenation in the SYSLIB DDDEF.

```
CPPP605U  ----------- Data Set List ( MD053718 ) ------- Row 1 to 13 of 36
COMMAND ==>                                              SCROLL ==> PAGE

Data Set List for: SMP/E SYSLIB

Primary Commands:(? SET L F N P CHange OFile OList FC)
   Line Commands:(Merge eXpand Conflict Unmerge Attribs Space Resolve)

                                                         Physical
   S Data Set Name                Selected Value         Volume
   - ---------------------------- ---------------------- --------
     ASM.AASMMAC1                 YES                    P085D2
     ASM.AASMMAC2                 YES                    P085D2
     ASM.SASMMAC1                 YES                    P085R2
     ASM.SASMMAC2                 YES                    P085R2
     ASM.SASMSAM1                 YES                    P085R2
     CEE.AAFHSRC1                 YES                    P085D2
     CEE.ACEESRC1                 YES                    P085D2
     CEE.AEDCSRC6                 YES                    P085D1
     CEE.AIGZSRC1                 YES                    P085D2
     CEE.SCEEMAC                  YES                    P085R2
     CPAC.CMDPROC                 YES                    P085C1
     FFST.V120ESA.AEPWSRC1        YES                    P085D2
     FFST.V120ESA.SEPWMAC1        YES                    P085R2
   ************************** Bottom of Data **************************
```

Figure 56. Panel: Select Values to Display

From this panel, you can make a number of changes to the data sets shown. For example, you could change all the displayed link list data sets to set their secondary space allocation to zero (see "Making Changes to Data Sets" on page 84). Your changes affect only the data sets shown in the list.

The following primary commands are valid for this panel:

?, SET, L, F, N, P

These are standard commands for panels that display lists. See “Primary Commands” on page 10.

CHANGE

This command, abbreviated as CH, is used to make changes to data sets in display lists. Use CHANGE to modify the various attributes and space requirements of multiple data sets, including the following attributes:

- Data set name or high level qualifier
- Whether a data set can be renamed
- Volume to which a data set is assigned.

For information about the CHANGE command, see “Making Changes to Data Sets” on page 84.

OFILE

This command, abbreviated as OF, writes this data set list to a user-defined file.

To dynamically allocate the user file and open it, enter the OFILE command as follows:

```
OF OPEN  data set { OLD | SHR | NEW | MOD }
```

where:

- *data set* 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.
- OLD, for an existing data set is used. This is the default.
- SHR, for an existing data set is used.
- NEW, to allocate and catalog a new data set
- MOD, to use the data set if it exists, or allocate and catalog a new data set, if needed.

The OFILE command requires an output data set to which a 120-byte fixed length record can be written. The output record has the following logical structure:

Field Size	Description
44	Data set name
01	Data set merged flag
01	Data set changed flag
04	Record format (RECFM)
04	Data set organization (DSORG)
05	Logical record length (LRECL)
05	Block size
06	Logical volume
08	Physical volume or SMS storage class
04	Physical device address
08	Physical unit esoteric name
08	Physical unit IBM device type
04	Space required (in cylinders)
18	Reserved for IBM use

To send the list of data sets to the file, enter the OFILE command without any keywords. Each data set entry is written to a separate output record.

To close the file and free the dynamic allocation, enter the OFILE CLOSE command (abbreviated as OF C).

OLIST
This command, abbreviated as OL, writes the list of data sets to the ISPF LIST data set.

FC
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 98).

The following line commands are valid for this panel:

Merge-related commands, as follows:

M Presents a list of data sets from the displayed list that are eligible for merging into the selected target data set. For more information, see “Merging and Unmerging Data Sets” on page 94.

X Expands the display of a merged data set to show its component data sets. All 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 94.

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 94.

A Displays a panel on which you can change a particular data set’s attributes (name, type, and logical volume). See “Modifying a Data Set’s Attributes” on page 100.

S Displays a panel on which you can change a particular data set’s space requirements (block size, primary and secondary extents, directory blocks). See “Modifying a Data Set’s Space” on page 102.

R Resolves the symbolic variables in a data set name and displays the resolved name. If the resolved name contains a symbolic variable, the symbol has either not been properly defined, or resolving the symbol would cause the resulting data set name to violate data set naming conventions.

Making Changes to Data Sets

You can use the CHANGE command to change the data sets displayed in a list, such as in the dialog’s View and Change Facility. Use this command to do the following:

- “Changing Data Set Names” on page 86
- “Making Unrenameable Data Sets Renameable” on page 88

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 would be changed by the command. At this point, changes are only simulated; no data sets have actually been changed.

For example, Figure 57 shows a candidate list that simulates a change to data set types (for the CHANGE TYPE command).

```
CPPP6050 ------------- Modify System Layout ( MD053718 ) --  ROW 1 TO 4 OF 22
COMMAND ==>                                                   SCROLL ==> PAGE

GLOBAL Change - Candidate List                Change: Attribute

PRIM Cmds:(? SET L F N P SORT CANcel)
LINE Cmds:(eXclude)
                                                          P.Volume/ Seq  Logical
S DSName           (Old  New)               DSORG  SMS  STORCLASS  No.  Volume
- ---------------------------------------- -----  ---  ---------  ---  ------
  SYS1.ANUCLEUS                            PO      N   MVSRES     D01  DLIB01
  SYS1.NUCLEUS                             PO-E    N   MVSRES     D01  DLIB01
  ---------------------------------------- -----  ---  ---------  ---  ------
  ISP.SISPPENU                             PO      N   MVSRES     T01  IPLVOL
  ISP.SISPPENU                             PO-E    N   MVSRES     T01  IPLVOL
  ---------------------------------------- -----  ---  ---------  ---  ------
  SYS1.ISAMLPA                             PO      N   OVFLOW     B01  BOTH01
  ASMT.V1R2M0.AASMSHF2                     PO-E    Y   OVFLOW     B01  BOTH01
  ---------------------------------------- -----  ---  --------   ---  ------
```

Figure 57. 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 57 are currently in PDS format. Committing this change, however, would cause the data sets to be converted to PDSE format (PO-E).

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

Figure 58 on page 86 shows an example of a candidate list that is displayed for changes to data set space values (for the CHANGE SPACE command).

```
CPPP6057 ------------- Modify System Layout ( MD053718 ) --  ROW 1 TO 4 OF 22
COMMAND ==>                                                   SCROLL ==> PAGE

GLOBAL Change - Candidate List                Change: Space

PRIM Cmds:(? SET L F N P SORT CANcel)
LINE Cmds:(eXclude)

S DSName           (Old  New)                 BLKSZ  PRIM   SEC  DIRB
- ------------------------------------------- -----  ----- ----- ----
  AOP.AAOPHFS                                 27998    144    21   10
  AOP.AAOPHFS                                 27998    216    21   10
  ------------------------------------------- -----  ----- ----- ----
  ASMT.V1R2M0.AASMBOK2                        24576   1714   184  100
  ASMT.V1R2M0.AASMBOK2                        24576   2571   184  100
  ------------------------------------------- -----  ----- ----- ----
  ASMT.V1R2M0.AASMSHF2                        27998    728   121  160
  ASMT.V1R2M0.AASMSHF2                        27998   1092   121  160
  ------------------------------------------- -----  ----- ----- ----
  ASMT.V1R2M0.SASMBOK2                        24576    838    98   80
  ASMT.V1R2M0.SASMBOK2                        24576   1257    98   80
  ------------------------------------------- -----  ----- ----- ----
```

Figure 58. Panel: Global Change - Candidate List for Data Set Space Values

Any changes that you make to merged data sets through the 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:

?, SET, F, L, N, P, SORT
These are standard commands for panels that display lists. See “Primary Commands” on page 10.

CANCEL
This command, abbreviated as CAN, discards any changes that you have made to the data sets.

The following line command is valid for this panel:

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.

Changing Data Set Names

You can use the CHANGE DSNAME command to modify a string of characters in a data set name. The dialog checks the new data set name to ensure that it is a valid MVS data set name and conforms to ServerPac standards.

You can abbreviate the CHANGE DSNAME command as CH DSN or CH D.

To change high level qualifiers, use the CHANGE DSN *HLQ* command. Be aware that if you change the high level qualifier of a data set, you might need to re-establish its catalog and SMS relationships.

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 “Making Unrenameable Data Sets Renameable” on page 88.

Enter the CHANGE DSNAME command as follows:

```
CH DSN source target
```

where:

source	Specifies the character string to be replaced.
target	Specifies the new character string.

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.

When renaming a data set, limit the names of non-VSAM data sets to 35 characters, and limit the names of VSAM data sets to 29 characters. These limits allow data set names to be expanded during some phases of the installation:

- For non-VSAM data sets, names of no more than 35 characters allow the dialog to add an eight-character SSA, plus the period between qualifiers, without exceeding the data set name limit of 44 characters.
- For VSAM data sets, names of more than 29 characters allow the dialog to add an eight-character SSA plus a period, and allow the system to add ″.INDEX″ and ″.DATA″ to the data set component names without exceeding the VSAM data set component name limit of 44 characters.

Changing Data Set HLQs: You can use the CHANGE DSN *HLQ* command to change the high level qualifiers of renameable data sets. Unrenameable data sets cannot be renamed unless you first override this attribute through a CHANGE RENAME command (see “Making Unrenameable Data Sets Renameable” on page 88).

To change the high level qualifiers of data sets, enter the CHANGE DSN *HLQ* command from any data set list panel, as follows:

```
CH DSN *HLQ* target
```

where *target* specifies the new high level qualifier of the data sets. 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.

The CHANGE DSN *HLQ* command allows you to change a list of data sets with various high level qualifiers to use a new high level qualifier. For example, 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 add a secondary high level qualifier of ″MARNA″ to all data sets having a high level qualifier of SYS9. To do so, display the SYS9 data sets and enter the CHANGE DSN *HLQ* command, as follows:

```
CH DSN *HLQ* SYS9.MARNA
```

Your changes cannot exceed the 44-character limit for data set names. If they do, an error message is issued.

Making Unrenameable Data Sets Renameable

Only data sets that are allowed to be renamed are displayed in the candidate list for a CHANGE DSNAME command. Data sets that normally cannot be renamed include the following:

- CSSLIB
- LINKLIB
- PROCLIB
- MIGLIB
- LPALIB
- SVCLIB
- NUCLEUS

For a complete list of unrenameable data sets in the configuration, enter the dialog's View and Change Facility and display data sets with a renameable attribute of NO.

You can use the CHANGE RENAME command to make data sets renameable. 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 set display is updated to show the renameable attribute of these data sets as ″Overridden.″

To reverse the preceding action, display only the data sets having a renameable value of ″overridden.″ Then, enter the CHANGE RENAME command as follows:

```
CH RENAME N
```

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.

Changing Data Set Types

You can use the CHANGE DSNTYPE command to convert your shipped order's PDS data sets to PDSE format (and back again). You can abbreviate the CHANGE DSNTYPE command as CH TYPE or CH T.

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.

The dialog displays only those data sets that are allowed to be changed. The dialog does not, for example, allow you to convert your order's PDSE data sets to PDS data sets because they contain members that cannot be loaded into a PDS. You can convert a PDSE data set to a PDS only when the PDSE was originally shipped as a PDS data set.

The dialog allows you to change a data set's type when the data set meets all of the following requirements:
- The data set was originally shipped as a PDS (DSNTYPE=PDS)
- Record format (RECFM) is not U
- Logical volume is not IPLVOL.

You can use the dialog's View and Change Facility to display a list of data sets that cannot be changed. In View and Change, select ″Switchable″ and then select ″No″ to get the list.

The dialog does not enforce all product requirements. You must determine whether data sets are allowed to be PDSEs before changing them.

Some system data sets are shipped in PDS format and must remain as such. The following system data sets, for example, 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.

Examples of Using the CHANGE DSNTYPE Command: To change PDS data sets to PDSE data sets, enter the CHANGE DSNTYPE command as follows:

```
CH TYPE PDS PDSE
```

To change PDSE data sets to PDS data sets, enter the CHANGE DSNTYPE command as follows:

```
CH TYPE PDSE PDS
```

Changing the SMS Management Status

You can use the CHANGE SMS command to change the SMS management status of data sets in your work configuration. You can abbreviate CHANGE SMS as CH SMS.

The dialog displays only those data sets that are allowed to be changed.

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 “Assigning an SMS Storage Class” on page 159.

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. Be aware that you cannot assign data sets that must reside on the IPLVOL logical volume to SMS-managed logical volumes.

You cannot use the dialog to assign catalog data sets to SMS management. To use SMS to manage your catalogs, you must do one of the following:

- Modify the ServerPac installation jobs to allocate the catalogs properly
- Use pre-allocated SMS-managed catalogs
- Have your ACS routines redirect the allocation of the catalogs to SMS-managed volumes.

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.
- SMS-managed data sets on your target system are not easily accessible from the driving system after you run clean-up jobs, DELDSN and DELSSA.
- When you re-assign a data set to SMS management, the dialog does not automatically remove the VOLUME parameter from JCL in 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.

The installation jobs and post-installation jobs for your ServerPac order are described in *ServerPac: Installing Your Order*.

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. Y or YES is accepted in any combination of uppercase and lowercase letters.

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. N or NO is accepted in any combination of uppercase and lowercase letters.

Overridding the Master Catalog Requirement for Data Sets

Some data sets in your order are required to be defined in your system's master catalog. If necessary, you can usually override this requirement through the dialog's CHANGE MCAT command.

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'. You cannot change data sets having a Master Catalog attribute of 'No'.
- 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.

Changing the Physical Volume for Data Sets

You can use the CHANGE PVOL command to reassign data sets to a different DASD volume.

Enter the CHANGE PVOL command as follows:

```
CH PVOL TARGET|DLIB|OPERATIONAL volser
```

where:

TARGET|DLIB|OPERATIONAL
: Specifies the type of data sets are to be reassigned. You can use the following abbreviations: T or TARG, D or DLIB, and O or OP.

volser
: Specifies the physical volume to which the data sets are to be reassigned.

If you specify an undefined physical volume, the device type is set to 3390-3 and the device number is set to CCUU.

You cannot use this command to reassign SMS-managed data sets or data sets that must reside on the IPL volume.

Changing Logical Volumes

You can use the CHANGE LVOL command to reassign data sets to a different logical volume. You can abbreviate the CHANGE LVOL as CH LV or CH L.

The dialog displays only those data sets that are allowed to be reassigned.

Enter the CHANGE LVOL command as follows:

```
CH LV source target
```

where:

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.

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.

Example of Using the CHANGE LVOL Command: 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
```

Restrictions on the CHANGE LVOL Command: You cannot assign non-SMS-eligible data sets to SMS-managed logical volumes. Nor can you assign SMS-required data sets to logical volumes that are assigned to physical volumes.

Also, observe that the following logical volume names are reserved for the system's use:

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.

You cannot specify either of these names in the source or target positions of a CHANGE command. If you do so, your request is rejected with an error message.

Changing the Data Set BLKSIZE to OPTIBLOCK

You can use the CHANGE OPTIBLOCK command to optimize the block size of partitioned (PO) or sequential (PS) data sets. This command modifies the block size to optimize DASD space utilization.

IBM recommends that you use the CHANGE OPTIBLOCK command for every order.

The dialog displays only those data sets that are allowed to be changed.

You can abbreviate the CHANGE OPTIBLOCK command as follows:

```
CH OB
```

If you specified a block size of 0 (zero) for a data set (through the Modify Data Set Space panel), OPTIBLOCK processing determines an efficient block size for the device on which the library is to be allocated.

You cannot reblock target data sets having a record format (RECFM) of U and a block size of 32760. These data sets are optimized already.

To commit your changes, press END. To cancel your changes, press CANCEL.

Example of Using the CHANGE OPTIBLOCK Command: To optimize the block size of all data sets in the current Display List, enter the following command:

```
CH OB
```

Changing Data Set Space Values

You can use the CHANGE SPACE command to change the following values for data sets:

- Amount of primary space needed
- Amount of secondary space needed

- Whether the secondary space used is a fixed percentage of the primary space
- Number of directory blocks needed (only for partitioned data sets).

You can abbreviate the CHANGE SPACE command as CHANGE SP or CHANGE S.

The dialog displays only those data sets that are allowed to be changed.

Enter the CHANGE SPACE command as follows:

```
CHANGE SPACE  privalue secvalue dirbs
```

where:

privalue
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 (perhaps, because you intend to change other parameters), specify an asterisk (*).

secvalue
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).
- 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).
- To set secondary space to zero, specify P0.
- To leave the secondary space unchanged (perhaps, because you intend to change other parameters), specify an asterisk (*).

IBM recommends increasing the primary space allocation when you use P0.

dirbs
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).
- To leave the number of directory blocks unchanged (perhaps, because you intend to change other parameters), specify an asterisk (*).

Restrictions on the CHANGE SPACE Command: Observe the following restrictions for the CHANGE SPACE command:

- You cannot use the CHANGE SPACE command for VSAM data sets. You can change these data sets individually through line command S; see “Modifying a Data Set’s Space” on page 102.

- 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.
- 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.
- If the shipped secondary space allocation for a data set is zero, it must remain at zero.
- 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 of Using the CHANGE SPACE Command: 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:

```
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
```

Assume that for all data sets in the current display list, you want to remove the secondary space altogether (for example, 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
```

Merging and Unmerging Data Sets

The dialog allows you to simplify your new configuration by merging some of the data sets in your order. 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 133), 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 100 and “Modifying a Data Set’s Space” on page 102).

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 80). 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 59 is displayed.

```
CPPP605M ------------- Modify System Layout ( MD053718 ) ---  ROW 1 TO 9 OF 9
COMMAND ==>                                                   SCROLL ==> PAGE
Data Set Merge Candidates for ASU.AASUPENU

PRIM Cmds:(? SET L F N P SORT Merge)
LINE Cmds:(Select Conflict)

                                       Element        RECFM
S  DSName                                Type           |   DSORG   R C I
-  ------------------------------------ ------------   -----  -----   - - -
   BFS.SBFSPLIB                        PNLENU         FB     PO      Y N N
   EOY.SEOYPENU                        PNLENU         FB     PO      Y N N
   GIM.SGIMPENU                        PNLENU         FB     PO      Y N N
   ICQ.ICQPLIB                         PNLENU         FB     PO      Y N N
   IOE.SIOEPNLE                        PNLENU         FB     PO      Y N N
   SYS1.DGTPLIB                        PNLENU         FB     PO      Y N N
   SYS1.SBPXPENU                       PNLENU         FB     PO      Y N N
   SYS1.SCBDPENU                       PNLENU         FB     PO      Y N N
   SYS1.SICEPENU                       PNLENU         FB     PO      Y N N
   ************************** BOTTOM OF DATA ****************************
```

Figure 59. Panel: Data Set Merge Candidates

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 ’S’ 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 SMP/E 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 R column displays a Y if reblocking of the data set is allowed.
- The C column displays a Y if the data set must be cataloged in the master catalog.
- The I column displays a Y if the data set must reside on the IPLVOL volume.

Not all data sets can be merged. The dialog restricts you from certain 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 link pack area (LPA) with libraries that are merely eligible to reside in LPA.

- 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.

Also, the dialog prevents you from merging the following types of data sets:
- Operational data sets, such as PARMLIB and VTAMLST
- SMP/E data sets
- VSAM data sets
- HFS data sets
- User data sets.

And, 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)
- DSNTYPE (PDS or PDSE)
- Eligibility to be managed by SMS
- Common 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. The candidate list also excludes any data sets that contain a member that matches (conflicts with) a member name within the selected data set. To see which naming conflicts exist for a particular data set, enter line command C.

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.

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 80, 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.

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.

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 convert 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).
- Block size, if the target data set is RECFM=FB. Otherwise, the component data sets assume the largest of the component data sets' block sizes.
- Logical volume, unless one or more of the component data sets is assigned to the IPLVOL logical volume. If so, the merged data set is assigned to IPLVOL.

- Physical volume or SMS storage class, unless one or more of the component data sets is assigned to the IPLVOL logical volume. If so, the resulting physical volume is the one to which IPLVOL is assigned.
- 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 its 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 62). 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.

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 FC primary command on the Select Values to Display panel to find it among your merged data sets. The FC 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.

To search on a fully qualified data set name, enter the FC command followed by the 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 FC command followed by 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. 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.

If you specify a data set that is not a component of a merged data set, the dialog displays the message ″component not found.″

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). The dialog also adjusts

these data set values in the merged data set, if applicable. For example, assume that one component data set in a merged data resides on the IPLVOL volume, thus requiring the entire merged data set to reside on the IPLVOL volume. If you unmerge the IPLVOL-resident data set from the merged data set, the merged data set reverts to the logical volume of the target data set.

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 60 is displayed.

```
CPPP605U ------------- Data Set List ( MD053718 )  ----  ROW 1 TO 10 OF 10
COMMAND ==>                                                SCROLL ==> PAGE

Data Set List for:

Primary Commands:(? SET L F N P CHange OFile OList FC)
   Line Commands:(Merge eXpand Conflict Unmerge Attribs Space Resolve)
            ------------------------------------------------------
  DSName    |CPPP605X :(Attribs Space Unmerge)   Row 1 to 3 of 3 |   R C I
-  ---------|                                                    |   - - -
   ANF.AANFE |                                                    |   Y N N
   ANF.AANFL | Expanded Merged Data Set:                          |   Y N N
   ANF.AANFM | ANF.AANFEXEC                                       |   Y N N
   ANF.AANFM | S   DSName                                         |   Y N N
X  ANF.AANFP | -   ----------------------------------             |   Y N N
   ANF.AANFS |   * ANF.AANFPROC                                   |   Y N N
   ANF.SANFE |     ASU.AASUEXEC                                   |   Y N N
   ANF.SANFL |     ASU.AASUPROC                                   |   Y N N
   ANF.SANFM |                                                    |   Y N N
   ANF.SANFM |                                                    |   Y N N
   ANF.SANFP  ----------------------------------------------------   Y N N
   ANF.SANFSAMP                                SAMP       FB   PO    Y N N

    *************************** BOTTOM OF DATA ***************************
```

Figure 60. Panel: Expansion of a Merged Data Set

Select individual component data sets for unmerging by entering a U to the left of the component data set and press ENTER. A message is displayed to indicate whether the unmerge action was successful.

Entering the data set modification line commands A or S causes read-only versions of those panels to display for browsing only. You cannot change data set attributes or space parameters from the expansion pop-up window.

As shown in Figure 60, 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 U, A, or S 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 in the pop-up display and press Enter.

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 133). The dialog saves the data for each merged data set and its component data sets.

Modifying a Data Set’s Attributes

When you select a data set from a data set list panel through line command A, the panel shown in Figure 61 is displayed. This panel shows the attributes of a specific data set.

```
CPPP605D ------------- Modify System Layout ( MD053718 ) ---------------------
COMMAND ==>

Data Set Modification - Attributes


        Data set Name ==> ISP.AISPALIB
              Current  :  ISP.AISPALIB
              Shipped  :  ISP.AISPALIB


        Placement      :  D
        DSNTYPE       ==> PDS        Current : PDS     Shipped : PDS
        SMS-Managed   ==> NO         Current : NO      Shipped : NO
        SMS-Eligible   :  YES
        SMS-Required   :  NO

        L.Volume      ==> DLB009     Current : DLB009  Shipped : DLB009
        P.Volume       :  MVSDLB
        Storage Class  :

         Device Number :  CCUU
         Device Type   :  3390-3
```

Figure 61. Panel: Data Set Modification - Attributes

The Placement field contains a 1-character value that indicates where the data set resides, as follows:

D DLIB volume
T Target library volume
C Catalog volume. For example, page data sets and dump data sets.
U User-defined data set; not shipped as part of the order.

For an SMS-managed data set, the Storage Class field is filled in. Otherwise, the P.Volume field indicates the physical volume to which the data set’s logical volume is assigned.

Depending on the data set’s type (VSAM, sequential, or partitioned), you can change the following fields on the Data Set Modification - Attributes panel (Figure 61):

- Data set name
- DSNTYPE (for PDS and PDSE data sets only)
- Logical volume.

The fields in the Data Set Modification - Attributes panel are described as follows.

Data Set Name

Specifies the name of the data set. If the Data Set Name field contains a value (that is, it is not blank), you can rename the data set. Unrenameable data sets cannot be renamed unless you first override this attribute through a CHANGE

RENAME command. For information about unrenameable data sets, see “Making Unrenameable Data Sets Renameable” on page 88.

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 “Changing Data Set Names” on page 86.

DSNTYPE

Specifies the data set type: PDS or library (PDSE). For data sets that are eligible (see “Changing Data Set Types” on page 88), the Data Set Modification - Attributes panel (Figure 61 on page 100) allows you to change PDS data sets to PDSE data sets, and vice versa. Type over the DSNTYPE field with the new value, as follows:

PDS To change a PDSE data set to a PDS data set (if the PDSE was originally shipped as a PDS data set).

LIBRARY To change a PDS data set to a PDSE data set

For data sets that are not eligible to be converted, the Data Set Modification - Attributes panel omits the DSNTYPE field. The dialog does not, for example, allow you to convert your order’s PDSE data sets to PDS data sets because they contain members that cannot be loaded into a PDS.

You can use the dialog’s View and Change Facility to display a list of data sets that cannot be changed. In View and Change, select ″Switchable″ and then select ″No″ to get the list.

The dialog does not enforce all product requirements. You must determine whether data sets are allowed to be PDSEs before changing them.

For considerations about changing the data set type of data sets in your configuration, see “Changing Data Set Types” on page 88.

SMS-Managed

Specifies the *SMS status* of a data set, that is, specify whether SMS is to manage 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. For more information, see “Changing the SMS Management Status” on page 89.

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 80). Be aware that you cannot assign data sets that must 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 “Changing the SMS Management Status” on page 89.

Logical Volume

Specifies the logical volume to which the data set is assigned. If the logical volume is IPLVOL, the L.Volume field is blank and cannot be reset.

Observe the following considerations:

- You cannot re-assign a data set to a logical volume that contains data sets of a different type (target, DLIB, or operational).

- 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 "Changing Logical Volumes" on page 91.

Modifying a Data Set's Space

When you select a data set from a data set list through line command S, the panel shown in Figure 62 is displayed. This panel allows you to increase the space allotted for shipped data sets.

```
CPPP605E ------------- Modify System Layout ( MD053718 ) ---------------------
COMMAND ==>

Data Set Modification - Space


        Data set Name  :  SYS1.PSEGLIB

        RECFM           :  FB
        DSORG           :  PO-E
        LRECL           :  80
        REBLOCK ALLOWED :  Y             Current :  Y      Shipped :  Y
        BLKSIZE         :  3120          Current :  3120   Shipped :  3120

               Primary and Secondary Space is Specified in Blocks

        PRIM Space   ==> 13464      Current :  13464  Shipped :  13464
        SECD Space   ==> 2253       Current :  2253   Shipped :  2253
        DIR.Blocks   ==> 39         Current :  39     Shipped :  39

                    Calculated Space Value in CYLs is 50
```

Figure 62. Panel: Data Set Modification - Space

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 Modification - Space panel (Figure 62):

- REBLOCK ALLOWED
- BLKSIZE
- Primary Space
- Secondary Space
- Directory Blocks

You cannot decrease the size of a shipped data set to less than its original, shipped amount. You can decrease *individual* factors in a data set's storage allocation, such as its number of blocks, or the size of the blocks, to less than the shipped values. If you do so, however, the dialog automatically adjusts the other storage factors to ensure that the total size of the data set does not decrease to less than the original, shipped amount.

The fields in the Data Set Modifcation - Space panel are described as follows.

REBLOCK ALLOWED
Specifies (Y or N) whether you can use the global CHANGE OPTIBLOCK command to optimize the block size for this data set (see "Changing the Data Set BLKSIZE to OPTIBLOCK" on page 92).

Some data sets are shipped with the REBLOCK ALLOWED field set to N. You cannot change REBLOCK ALLOWED to Y for these data sets.

You cannot reblock target data sets having a record format (RECFM) of U and a block size of 32760. These data sets are considered to be optimized already.

BLKSIZE
Specifies the block size for the data set. BLKSIZE can be any value that is valid for the RECFM and LRECL. If you specify a new block size, but do not adjust the primary and secondary space of the data set, ServerPac automatically recalculates these values.

If you specify a block size of 0 (zero), OPTIBLOCK processing determines an efficient block size for the device on which the library is to be allocated.

Some data sets are shipped with the BLKSIZE field set to N. You cannot change BLKSIZE to Y for these data sets.

Primary Space
Specifies the primary space allocation for the data set. This field can contain any value from 1 to 99999. For a VSAM data set or an HFS data set, this value represents a number of cylinders. For all other data set types, this value represents the number of blocks of the specified block size.

You cannot decrease a data set's primary space amount from its shipped value.

Secondary Space
Specifies the secondary space allocation for the data set. This field can contain any value from 0 to 99999. For a VSAM data set or an HFS data set, this value represents a number of cylinders. For all other data set types, this value represents a number of blocks of the specified block size.

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. However, you cannot reset a secondary space value of 0 through the global CHANGE SPACE command.

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, and the dialog does not allow you to specify secondary space for them.

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*.

Displaying Device Types

Figure 63 on page 104 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.

```
CPPP606#  --------------------- Device Type Table ---------- Row 1 to 13 of 13
COMMAND ==>                                                   SCROLL ==> PAGE

PRIM Cmds:(? SET L F N P SORT)
LINE Cmds:<Delete Edit Insert>

                                BYTEs Per     TRacKs Per     CYLs Per
        S  DEV Name   DEV Type      trk           cyl          device
        -  --------   --------   ---------     ----------     --------
           3380         3380       47476          15            885
           3380-1       3380       47476          15            885
           3380-2       3380       47476          15           1770
           3380-3       3380       47476          15           2655
           3390         3390       56664          15           1113
           3390-1       3390       56664          15           1113
           3390-2       3390       56664          15           2226
           3390-3       3390       56664          15           3339
           3390-9       3390       56664          15          10017
           9345         9345       46456          15           1440
           9345-1       9345       46456          15           1440
           9345-2       9345       46456          15           2156
****************************** BOTTOM OF DATA *************************
```

Figure 63. Panel: Device Type Table

This panel shows the direct-access storage devices (DASD) you can use with ServerPac. You cannot delete or edit the IBM-defined devices in this list. However, you can add entries for real or emulated devices having the same geometry as an IBM-defined device (that is, the same track length in bytes and the same number of tracks per cylinder), and edit and delete those entries.

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 10.

The following line commands are valid for this panel:

D Delete a user-defined device. You must confirm the delete request (see “Deleting Device Types” on page 105). You cannot delete IBM-supplied DASDs.

E Edit a user-defined device. You can do this only if the device is not currently referenced by any data sets (see “Inserting or Editing Device Types”). You cannot edit IBM-supplied DASDs.

I Insert a user-defined device. If you have a non-IBM DASD that emulates an IBM DASD (for example, a solid-state device that emulates a 3390 DASD while having a smaller capacity), you can add this device to the table as a customer-supplied device. For more information, see “Inserting or Editing Device Types”.

Inserting or Editing Device Types

Figure 64 on page 105 shows the panel that is displayed when you enter I (INSERT) or E (EDIT) for a device type on the Device Type Table panel.

```
CPPP606I ---------------------- Device Type Table -----------------------------
COMMAND ==>

            Device NAME     ==> STAGEDEV (Only for Internal Use)
            Device TYPE     ==> 3390

            Cyls/Device     ==> 200
```

Figure 64. Panel: Device Type Insertion/Edit

The fields are described as follows:

Device Name
Specifies the name by which the DASD is to be known.

Device Type
Specifies the IBM DASD family that the device emulates, which must be a defined IBM device type. For a 3390-2 device, for example, the device type is 3390 and the device name is 3390-2.

The dialog uses this value to determine the number of bytes per track and number of tracks per cylinder. For non-IBM devices, the number of bytes per track and tracks per cylinder must match an IBM device.

Cyls/Device
Specifies the number of cylinders for each DASD. Obtain this value from your DASD supplier; it need not match the IBM device being emulated.

Deleting Device Types

Figure 65 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.

```
CPPP606D ---------- Device Type Deletion, Confirmation Request ---------------
COMMAND ==>

DELETE REQUESTED
                                DEVICE ATTRIBUTES

           Device NAME: STAGEDEV     Bytes/Track : 56664
           Device TYPE: 3390         Tracks/Cyl  : 15
                                     Cyls/Device : 200

         You MUST Confirm DELETION By Typing DELETE and pressing ENTER

         Press the END or RETURN key to CANCEL the DELETE request
```

Figure 65. Panel: Device Type Deletion

You can delete only non-IBM 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.

Confirming Processing Requirements

The panel in Figure 66 on page 106 is displayed if you attempt to exit the Modify System Layout function when one or more of the following situations exist:

- At least one physical volume has an invalid device number. The logical volume table is shipped with the device numbers set to CCUU. You must change CCUU to a valid hexadecimal device numbers.

- At least one physical volume is over-allocated. The total space needed to allocate data sets exceeds the unused capacity of the volume.
- Problems were encountered with physical volumes.
- Problems were encountered with symbolic data set names.
- SMS is not active on the driving system.

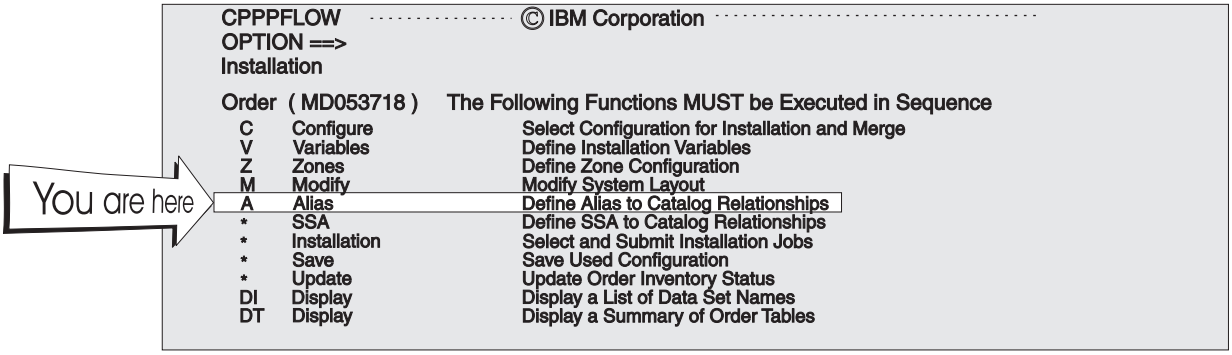
```
CPPP6058 ------------------------------------------------------------------------
COMMAND ==>

CONFIRM Processing Requirements

                  ------------------------------------------------
                  |                                              |
                  |    PROBLEM with Physical Addresses ....... YES   |
                  |    PROBLEM with Overallocated Volumes  ... NO    |
                  |    PROBLEM with Physical Volumes   ....... NO    |
                  |    PROBLEM with Symbolic Data set Names .. NO    |
                  |    PROBLEM with SMS Active on Driver ..... YES   |
                  |                                              |
                  ------------------------------------------------

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

           Press the ENTER key to continue editing the table
```

Figure 66. Panel: Confirm Processing Requirements

To continue editing the logical volume table, 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.

Chapter 9. Defining HLQ-to-Catalog Relationships



From the Installation Menu, enter A to begin the next dialog function, Define Alias to Catalog Relationships.

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 aliases in the driving system master catalog for the SSAs you chose to use when installing the order.

Use the Defining Alias-to-Catalog Relationships panel 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 Defining SSA-to-Catalog Relationships panel 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.

Catalog	High Level Qualifiers

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 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 80). The list of master catalog data sets is also provided in the appendix ″Information About the Data Sets in Your Order″ in *ServerPac: Installing Your Order*.

You can override the master catalog requirement for data sets in your configuration. For more information, see “Overridding the Master Catalog Requirement for Data Sets” on page 90.

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 Define SSAs 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, jobs rename 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:

  ```
  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 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.

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 67 on page 110 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. Without the SSA, your jobs would update the driving system data sets.

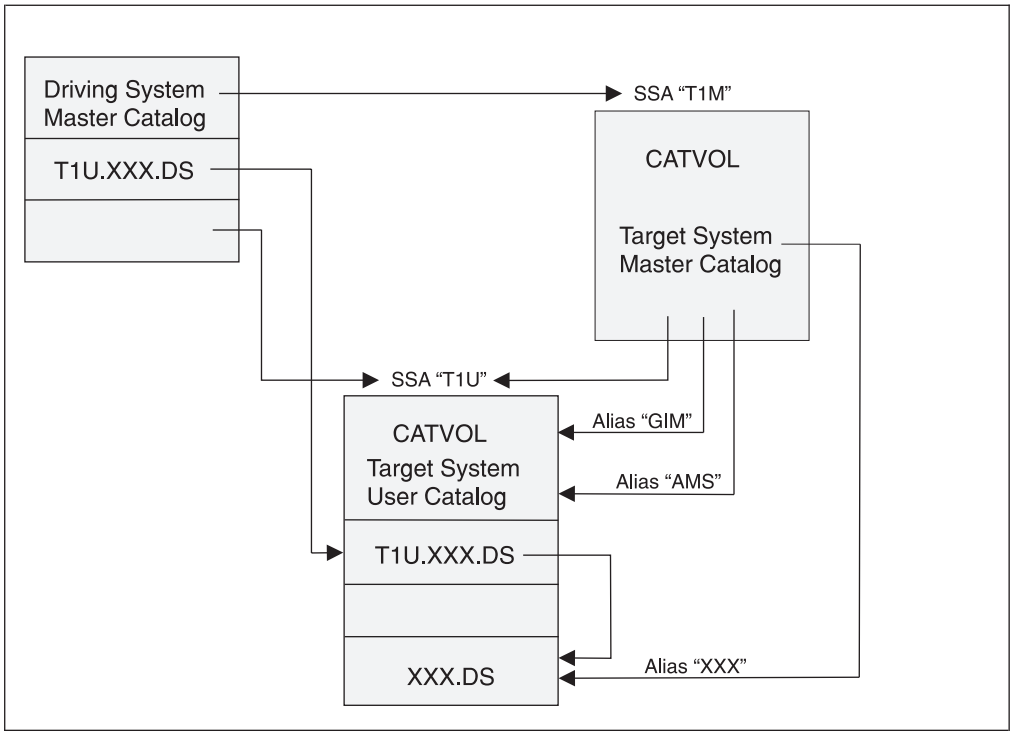


Figure 67. Default Catalog Structure for Full System Replacement

Figure 67 shows the minimum required system.

Through the SSA option, you can change the default catalog structure. Figure 68 shows a structure that includes a second user catalog, ″T1n″.

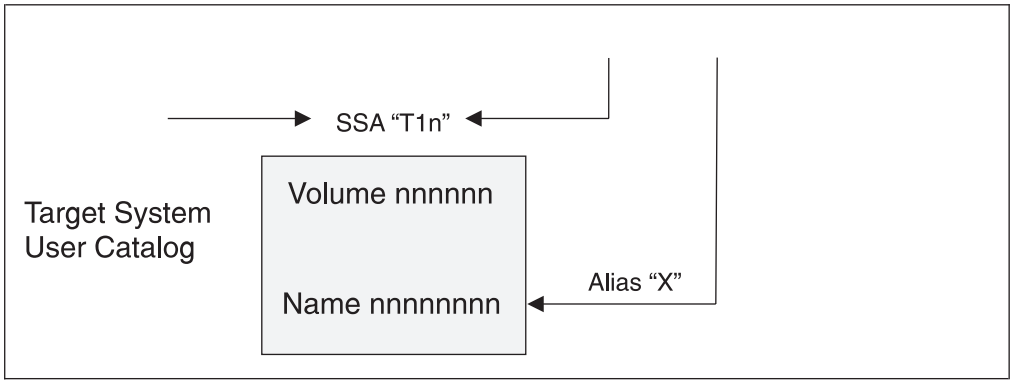


Figure 68. ServerPac Installation Dialog Flow

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 ServerPac-supplied default user catalog.

You must supply these values to identify the second user catalog:
- The SYSTEM SPECIFIC ALIAS NAME referring to this catalog
- The desired USER CATALOG DS name
- The DASD VOLSER on with this catalog is to reside
- The DASD DEVICE TYPE on which this catalog is to reside
- The PRIMARY and SECONDARY space with which this catalog will be allocated (in cylinders)
- The ALIAS referring to this catalog.

Defining Catalog Data Set Names

The Defining Alias-to-Catalog Relationships 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 6) displays the panel shown in Figure 69.

```
CPPP6021  -------------- ALIAS to CATALOG ( MD053718 ) ----  ROW 1 TO 9 OF 9
COMMAND ==>                                              SCROLL ==> PAGE

Define CATALOG Data set Names

PRIM Cmds:(? SET L F N P SORT CANcel SAVE)
LINE Cmds:(Delete Insert Repeat)

     S  Alias    STA TARGET System Catalog DSName                  Type
     -  -------- --- ------------------------------------------  ----
        COB2         ???????.CATALOG
        GIM          ???????.CATALOG
        ICQ          ???????.CATALOG
        CPAC      M  ?MASTER.CATALOG                              MCAT
        ISP          ???????.CATALOG
        ISR          ???????.CATALOG
        NETVIEW      ???????.CATALOG
        SMPE         ???????.CATALOG
        SYS1      M  ?MASTER.CATALOG                              MCAT
************************** BOTTOM OF DATA ****************************
```

Figure 69. Panel: Define Catalog Data Set Names

The catalog names are initially shown as "???????" because they are not yet defined. You can type over the Catalog DSName field with the catalog name with which the alias is to be associated. Blank out the rest of the line after the catalog name.

IBM recommends that you limit catalog names to 35 characters. This practice allows the dialog to add an eight-character SSA, plus the period between qualifiers, to the catalog name without exceeding the data set name limit of 44 characters.

To associate the master catalog with an alias, type over ?MASTER.CATALOG with the actual master catalog name and 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
```

The master catalog is always associated with the high-level qualifier used for the NUCLEUS data set. To IPL, this data set must be named SYS1.NUCLEUS; however, if you renamed it temporarily (for example, to SYS2.NUCLEUS), the master catalog is associated with the high-level qualifier you used (″SYS2″).

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, rename the data set that must be in master catalog to use SYS1 (or another of the high level qualifiers that you use for data sets that will be 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 list the data sets having the

attribute ″Master Catalog″ (for more information, see “Viewing and Changing Data Sets” on page 80). The list of master catalog data sets is also provided in the appendix ″Information About the Data Sets in Your Order″ in *ServerPac: Installing Your Order*.

You can override the master catalog requirement for data sets in your configuration. For more information, see “Overridding the Master Catalog Requirement for Data Sets” on page 90.

The STA (status) field indicates the type of alias that is associated with the catalog. This field can show any of the following values:

Value	Meaning
(blank)	Required. Associate the alias with a master catalog or a user catalog.
M	Required. Associate the alias with a master catalog.
U	User-defined. The alias is not required to install the ServerPac package, but you might require it to be defined as part of the installation process. You can associate the alias with a master catalog or a user catalog.

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 10.

CANCEL
This command, abbreviated as CAN, discards any changes that you have made since the last checkpoint and exits the Define Alias to Catalog Relationships 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 (you cannot delete a required alias). You must confirm your delete request on the panel that results. Confirm deletion by entering DELETE in the **COMMAND ==>** field and pressing Enter.

This command removes only the alias-to-catalog definition. If a physical connection already exists (perhaps because you are re-installing the package), the physical connection is not deleted. Deleting the physical connection must be done 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 113.

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 113.

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:

M Associate the subsystem product'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 have valid catalog data set names. If not, the panel described in "Confirming Processing Requirements" on page 114 is displayed to prompt you for a correct name.

When this function completes, the panel shown in Figure 70 is displayed.

```
CPPP6021 -------------- ALIAS to CATALOG ( MD053718 ) ------- Row 1 to 2 of 2
COMMAND ==> _                                                 SCROLL ==> CSR

Define CATALOG Data set Names

PRIM Cmds:(? SET L F N P SORT CANcel SAVE)
LINE Cmds:(Delete Insert Repeat)

        S  Alias    STA TARGET System Catalog DSName                  Type
        -  -------- --- ----------------------------------------- ----
           SPAC         OS390.CATALOG
           SYS1         ?MASTER.CATALOG                           MCAT


****************************** Bottom of data ********************************
```

Figure 70. Panel: Define Catalog Data Set Names (Updated)

Inserting a User-Defined Alias

If you attempt to insert a user-defined alias (line command I), the panel in Figure 71 is displayed.

```
CPPP6023  -------------- ALIAS to CATALOG ( MD053718 ) -------------------
COMMAND ==>

INSERT (REPEAT) Alias Details

         ALIAS Name     ==> HARRIGAN

         Catalog DSNAME ==> CATALOG.ICK.GLASS9
```

Figure 71. Panel: Specify Alias and Catalog Names

The following fields are required:

ALIAS User-defined alias, to be defined as part of the ServerPac installation process. The alias can be related to a target system master catalog or a user catalog.

CATALOG Catalog data set name, which can be the target system master catalog or a user catalog.

Defining HLQ-to-Catalog Relationships

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:

```
?SYS1
```

To use the master catalog name, enter the following:

```
?MCAT
```

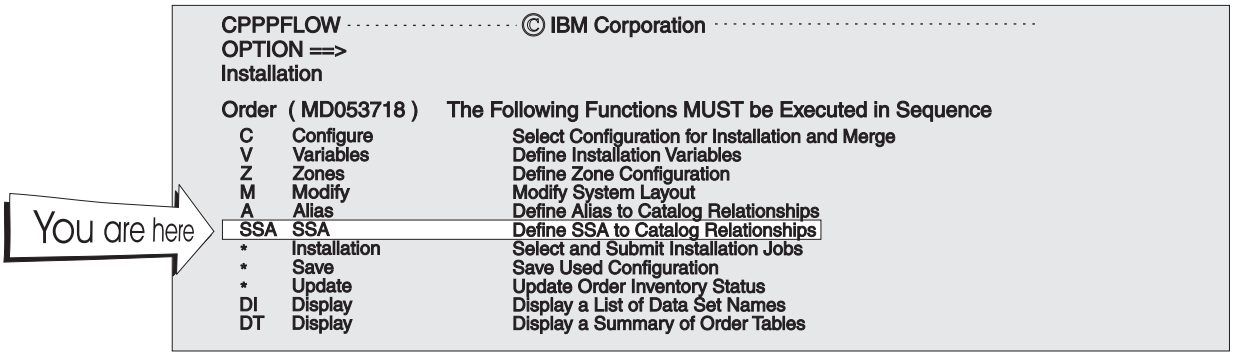
Confirming Processing Requirements

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 catalog DSNname field is blank).
- At least one alias has an invalid catalog DSName.

To continue editing the alias data, 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, Define SSA to Catalog Relationships.

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 108.

SSAs are limited to 8 characters.

The SSAs you choose must be unique; they must not match any aliases that are already defined in the master catalog for the driving system or target system. Also, the SSAs must not match any of the data set high-level qualifiers of the products within your order.

Before specifying SSAs for the catalogs, use a worksheet such as the following to plan the catalog names and their associated SSAs.

Catalog Name	Associated System-Specific Aliases

Notes:

1. If your order defines data sets with names that are already cataloged in the standard order of catalog search, you must define SSAs for the catalogs in which the order's data sets will reside before you run the installation jobs. Also, for a software upgrade installation, the target system master catalog must exist.
2. Data set names are limited to a total of 44 characters, including up to nine characters for the SSA and its closing period (.).

3. VSAM cluster names are limited to 38 characters by ServerPac.
4. To define SSAs, you must be able to update the driving system's master catalog.
5. If you enter the "N" for the Define SSA field, the dialog attempts to allocate and catalog all data sets on the driving system with the data set names that you defined in the Modify System Layout function.

When you leave the Define SSA to Catalog Relationships function, your changes are automatically saved. The dialog checks to ensure that all catalog names have valid SSA entries. If not, the panel described in "Confirming Processing Requirements" on page 120 is displayed.

Selecting the Catalog

Use the Catalog Selection List panel (Figure 72) 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.

```
CPPP6031 ---------------- SSA to CATALOG ( MD053718 ) ------  ROW 1 TO 4 OF 4
COMMAND ==>

CATALOG Selection List

PRIM Cmds:(? SET L F N P SORT CANcel SAVE)
LINE Cmds:<Select>

                                                              Allocate  Define
                                                                  |  |
S Catalog Name                                SSA Name Type VOLume |  | Unit
- ---------------------------------------- -------- ---- ------ -  - ----
  TONY.CATALOG                                ?        UCAT AMHCAT Y  Y 3390
  NET.CATALOG                                 ?        UCAT NETCAT Y  Y 3390
  SMOMP.CATALOG                               ?        UCAT SMCAT  Y  Y 3390
  TSO.CATALOG                                 ?        UCAT TSOCAT Y  Y 3390
  VS4.MASTCAT                                 ?MCAT    MCAT MVSCAT Y  Y 3390
****************************** BOTTOM OF DATA ********************************
```

Figure 72. Panel: Catalog Selection List

For a software upgrade installation, the target system's master catalog must already exist (the Allocate 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, a message warns you that you have not defined at least one SSA. This warning is normal. If you try to exit this panel before completing the SSA definitions, the message reappears.

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 10.

CANCEL
This command, abbreviated as CAN, discards any changes that you have made since the last checkpoint and exits the Define SSA to Catalog Relationships 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 define the following physical attributes:
- SSA
- Residency (VOLSER)
- Space
- Physically Allocate the Catalog
- Physically Define the SSA.

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 6).

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 118.

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 73.

```
CPPP6033 --------------- SSA to CATALOG ( MD053718 ) -------------------------
COMMAND ==> _

Define SSA and CATALOG Data

          Catalog : TONY.CATALOG
          Type    : UCAT


          Define SSA       ==> Y    ( Y or N )
          Allocate Catalog  ==> Y    ( Y or N )

          SSA Name       ==> SMPESSA

          Catalog Volume    ==> AMHCAT   (? for List of Available Volumes)

          If allocating the catalog, the following information is required:


          Primary Space    ==> 12        (1-999 Cylinders)
          Secondary Space  ==> 12        (1-999 Cylinders)
```

Figure 73. Panel: Define SSA and CATALOG Data for Full System Replacement

In the panel, the fields are as follows:

Catalog Name of the catalog for which an SSA is to be defined.

Type Type of catalog. MCAT indicates a master catalog; UCAT indicates a user catalog.

Defining System-Specific Aliases (SSAs)

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 physically allocated. Set this value to N (no) if the catalog already exists on the target system; it must not be allocated again.

For a full system replacement, the data sets must be uniquely named.

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.

Catalog Volume
Specifies the volume serial of the DASD on which the catalog is to reside. For a pop-up list of available volumes, enter a question mark (?) in the DASD Volser field and select one by entering S before the desired volume serial.

If you previously specified this volume for another catalog, 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.

Space
Specifies the primary and secondary space to be allocated to the catalog. If you are building a new system in the same environment as your driving system, consider using (as a starting point) the size of the catalog on your driving system, plus some additional space for anything you might be adding.

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, define your SSAs with the panel shown in Figure 74 on page 119.

```
CPPP6036 --------------- SSA to CATALOG ( PC000226 ) -------------------------
COMMAND ==> _

Define SSA and CATALOG Data

          Catalog : TONY.CATALOG
          Type    : UCAT

          SSA Name ==> SMPESSA     (Required)

          Allocate Catalog ==> (Y or N)


 If allocating the catalog, the following information is required:


          Catalog Volume   ==> AMHCAT    (? For List of Available Vols)
          Primary Space    ==> 1         (1-999 Cylinders)
          Secondary Space  ==> 1         (1-999 Cylinders)
```

Figure 74. 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. MCAT indicates a master catalog; UCAT indicates a user catalog.

Define the following fields:

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.

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 physically allocated. Set this value to N (no) if the catalog already exists on the target system; it must not 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 available volumes, enter a question mark (?) and select one by entering S before the desired volume serial.

If you previously specified this volume for another catalog, 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 physically allocated. If you are building a new system in the same environment as your

driving system, consider using (as a starting point) the size of the catalog on your driving system, plus some additional space for anything you might be adding.

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 you attempt to exit the Define SSA to Catalog Relationships function without defining at least one catalog alias, the panel shown in Figure 75 is displayed.

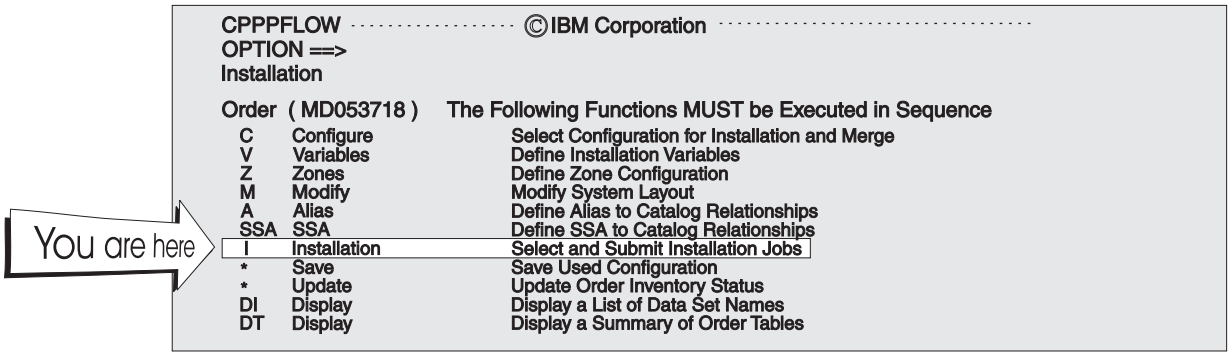
```
CustomPac ---------------- SSA to CATALOG ( MD053718 ) ------------------------
COMMAND ==>

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 75. Panel: Confirm Processing Requirements

To continue editing the alias data, press Enter.

To exit the function, press the END key. Subsequent processing of the dialog resumes at the Define SSA to Catalog Relationships function.

Chapter 11. Submitting the Installation Jobs



From the Installation Menu, enter I to begin the next dialog function, Select and Submit Installation Jobs. The Job Selection List is displayed (Figure 76), showing the installation jobs, plus any additional jobs you might have defined.

IBM recommends that you use the GENSKEL command to tailor all of the installation jobs at one time. When GENSKEL completes, the dialog saves the jobs in a back-up data set. You can select the jobs from the back-up data set through line command B (rather than line command S). GENSKEL saves you considerable time during installation, and allows you to use your TSO/E session for other tasks while the jobs are being tailored. For more information, see “Generating the Installation Jobs” on page 124.

```
CPPP6121 -------------- Installation JOBs ( MD053718 ) ---------- Row 1 of 159 ------
COMMAND ==>                                                  SCROLL ==> HALF

JOB Selection List                                           SS$( EXCLUDE )

PRIM Cmds:(? SET L F N P GENskel OFile OList SUMmary SS$ VAREdit)
LINE Cmds:(Backup Delete Edit Insert Log Output Select SS-block Vars)

S      Description                              STEP     MC STAtus     RC
-- --- ---------------------------------------  -------- -- ---------- ----
   SRC DEFAULT JOBCARD

==> INSTALLATION JOBS
   DOC RUNNING INSTALLATION JOBS
   DOC DIALOG VERIFY
   DOC INSTALLATION SETUP JOBS
   JOB INITIALIZE REQUIRED DASD                  OFFLINIT 00
   JOB UNLOAD DOCLIB FROM TAPE TO DASD           UNLODOC  00
   JOB UNLOAD SCPPLENU FROM TAPE TO DASD         UNLDSCPP 00
   JOB UNLOAD INSTGUID FROM TAPE TO DASD         UNLDBOOK 00
   DOC DEFINE CATALOGS AND RESTORE
   JOB RACF PROFILES ON DRIVING SYSTEM           RACFDRV  00
   JOB DEFINE CATALOGS                           DEFCAT   00
   JOB DEFINE SYSTEM-SPECIFIC ALIASES            DEFSSA   00
   JOB ALLOCATE AND CATALOG DS                   ALLOCDS  00
```

Figure 76. Panel: Job Selection List

At this stage of the installation process, your primary source of instruction changes to *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 133.

Submitting the Installation Jobs

The panel displays only 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 "Table of Jobs" 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 status and return codes of the jobs. For a system abend, the RC field shows "SYST."

As Figure 76 on page 121 shows, the installation jobstream has three types of ″components,″ as follows:

SOURCE DATA
: This component, identified by **SRC** on the panel, is the default job statement. The source data always appears first in the jobstream. You can browse it (by selecting it), or edit it through ISPF EDIT.

DOCUMENTATION
: This component, identified by **DOC** on the panel, indicates a part of the tailored documentation for your order. You browse the documentation by selecting it.

EXECUTABLE JCL
: This component, identified by **JOB** on the panel, indicates a customizable job for your order. If you enter S for the job, the dialog tailors the job and displays it. If you enter B for the job (and have run GENSKEL), the dialog displays the previously-tailored job. After you display a job, you can submit it for execution.

  When editing jobs, observe the following:
  - You can edit IBM-supplied jobs in the back-up library (SCPPBENU).
  - You can edit user-supplied jobs in the skeleton library (SCPPSENU).

The following primary commands are valid for this panel:

?, SET, F, L, N, P
: These are standard commands for panels that display lists. See "Primary Commands" on page 10.

GENSKEL
: This command, abbreviated as GEN, 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 replacement or software upgrade). For more information, see "Generating the Installation Jobs" on page 124.

OFILE
: This command, abbreviated as OF, writes a list of the installation jobs to a user-defined file (see page 83).

OLIST
: This command, abbreviated as OL, 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 126).

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$( )″ field shows the current status of this setting. For example, Figure 76 on page 121 shows shows SS$(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 Define Installation Variables function (described in Chapter 6, “Defining Installation Variables” on page 47). 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; valid only for a job component. If you have run GENSKEL, the previously-tailored job is displayed. You can edit the job and submit it for execution (see “Using Line Command B” on page 127).

D Delete command; valid only for a user-defined job component. The job is deleted, but the processing log entries, if any, remain. You must confirm your DELETE request (see “Deleting a User-Defined Job” on page 132).

E Edit command; valid only for an SRC or user-defined job component. This command causes the job to be displayed. You can edit the job and submit it for execution (see “Editing a User-Defined Job” on page 131).

I Insert command; causes a user-defined job to be inserted into the jobstream. See “Inserting a User-Defined Job” on page 129.

L Log command; displays 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 126).

O Activate output logging. The job output is displayed through ISPF Browse and the maximum return code that was issued for the job is placed in the RC field. If output logging is not active, only the processing status of the job is reported (for example, 'ON OUTPUT QUEUE').

S Select. 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 (see “Using Line Command S” on page 128).

- 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 is a block command that marks the start and end of a block of jobs with the SS command pair. The marked block may 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 (see “Using Line Command S” on page 128).

When you select several job steps to be executed within the same job, the steps are generated so that they execute in the correct sequence. There is only one job statement, generated before the first step in the sequence. Sometimes the installation process includes steps that are not based on CustomPac skeletons, but rather, from product specific generation jobs.

Do not use the block selection method for steps with a blank MC field.

V VARS command; valid only for a job component. The Installation Variables function is invoked, showing only CustomPac variables (those prefixed with **F**) relevant to the selected job (see Chapter 6, “Defining Installation Variables” on page 47).

All variables are reloaded on exit from the dialog, so that changes to data values are available for immediate use.

For information about running the jobs in the Job Selection List, see *ServerPac: Installing Your Order*.

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 Edit and Edit Macros*.

Generating the Installation Jobs

When you enter the GENSKEL primary command from the Job Selection list panel, the panel shown in Figure 77 on page 125 is displayed.

```
CPPP6126 -------------- Installation JOBS ( MD053718 ) ----------------
COMMAND ==>

GENERATE File Tailored Installation Jobs


         This function generates a BATCH job which will file tailor
         ALL Installation Jobs in one pass, and save the jobs to the
         BACKUP dataset.

         If a job already exists in the backup dataset

         REPLACE Job  ==> Y   (Y or N)

         Note:  After submitting the GENSKEL job, you must exit
         the dialog to release GENSKEL processing. Also,
         to avoid dataset contention, you may not invoke
         the dialogs until the GENSKEL job has completed.
```

Figure 77. Panel: Generate File-Tailored Installation Jobs

You must tailor each of the installation jobs before you submit them. Rather than doing so in the foreground (which can lock your screen for an extended time), 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 back-up 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 display the panel shown in Figure 78.

```
CPPP6127 ------------ Pre-Process Installation Jobs -------------------
COMMAND ==>

GENERATE JOBSTREAM

   Enter JOBCARDs

 > //GENSKEL   JOB (accounting information),                          <
 > //          'WAYNE O''BRIEN',NOTIFY=&SYSUID,                       <
 > //          CLASS=A,MSGCLASS=K,MSGLEVEL=(1,1),REGION=4M            <
 > //* ------------------------------------------------------------- <

   Installation  ISPLLIB ==> ISP.SISPLOAD
                         ==>
       ISPF      ISPMLIB ==> ISP.SISPMENU
                         ==>
     Libraries   ISPPLIB ==> ISP.SISPPENU
                         ==>
                 ISPSLIB ==> ISP.SISPSENU
                         ==>
                 ISPTLIB ==> ISP.SISPTENU
                         ==>
```

Figure 78. Panel: Generate Installation Jobs - Enter JCL Information

Before you submit the generate job, you must supply (or verify) the JOB statement and the ISPF system libraries to be used, as follows:

JOB Statement

Four lines are provided for a JOB statement (as shown in Figure 78). Code unused fields, if any, as comments ***//****. The dialog does not validate the syntax of this statement.

Submitting the Installation Jobs

ISPLLIB Name of your SISP**L**LIB data set.

ISPMLIB Name of your SISP**M**LIB data set.

ISPPLIB Name of your SISP**P**LIB data set.

ISPSLIB Name of your SISP**S**LIB data set.

ISPTLIB Name of your SISP**T**LIB data set.

You must provide at least one data set name for each ISPF library type, and you can optionally provide a second data set name.

The default GENSKEL job assumes that you have SYSDA defined. If you do not, you must modify the JCL to specify a volume serial or an available esoteric or generic device name for your system.

Press Enter to generate the JCL for the job (in an ISPF EDIT session). Then, submit the job with the SUBMIT command.

For z/OS orders, GENSKEL processing can take as much as 30 minutes or longer to complete. Subsystem orders might need only several minutes to complete.

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. 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 two installation variables as follows:

- Set variable synonym OUTPUT LOGGING to YES
- Set variable synonym JOBNAME to the TSO/E userid of the user who will select the jobs with the O command. (TSO OUTPUT copies the joblog from spool, which requires the jobname to be the USERID plus a character.)

The process for setting installation variables is described in Chapter 6, "Defining Installation Variables" on page 47.

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.

Displaying the Processing Log

If you enter the SUMMARY primary command at the Job Selection List, the Processing Log panel is shown (Figure 79 on page 127). 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.

```
CustomPac -------------- Installation JOBs ( MD053718 ) -----  ROW 1 TO 5 OF 5
COMMAND ==>                                                   SCROLL ==> HALF

Processing LOG

PRIM Cmds:(? SET L F N P SORT)
LINE Cmds:(Output)

       S  STEPname  JOB name job ID     RC   UserID    DATE stamp
       -  --------  -------- --------  ----  --------  -----------------
          $IDCAMS   STOB4DCT JOB04090  0012  WSOBRIEN  97/09/01 09:06:23
          OFFLINIT  STOB4A00 JOB04092  0000  WSOBRIEN  97/09/01 10:08:46
          DEFCAT    STOB4D00 JOB04097  0000  WSOBRIEN  97/09/01 13:21:12
****************************** BOTTOM OF DATA ********************************
```

Figure 79. Panel: Processing Log

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 10.

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 80 is displayed.

```
CustomPac - BACKUP MEMBER(OFFLINIT) ------------------------- COLUMNS 001 072
COMMAND ==>                                                   SCROLL ==> HALF
****** ***************************** TOP OF DATA ******************************
000100 //STOB4A00 JOB (7928),'PROGRAMMER NAME',
000200 //         CLASS=S,MSGCLASS=K,MSGLEVEL=(0,0)
000300 //*
000600 //*--------------------------------------------------------------------
000700 //* GDE: SERVERPAC INSTALLATION
000800 //* DOC: INITIALIZE ALL NEEDED DASDS.
000900 //*
001000 //*      BEFORE RUNNING THIS STEP, BE SURE THAT THE FOLLOWING
001100 //*      DEVICES HAVE BEEN PUT OFFLINE :
001200 //*        A00
001300 //*        B00
001400 //*        C00
001500 //*      AFTER HAVING COMPLETED THIS STEP, BE SURE THAT ABOVE
001600 //*      DEVICES ARE PUT ONLINE.
001700 //*
001800 //* NOTE: THIS JOBS REQUIRES AN OPERATOR RESPONSE FOR EACH DASD TO BE
001900 //*       INITIALIZED .
002000 //*
002100 //* MRC: THE MAXIMUM EXPECTED RETURN CODE IS: 0
002200 //*--------------------------------------------------------------------
002300 //OFFLINIT EXEC PGM=ICKDSF,COND=(4000,LT)
```

Figure 80. Panel: Edit Back-Up Member

This edit session acts directly on the named member in the back-up library (SCPPBENU).

If you delete all of the records from the member, you cannot exit the panel until you enter the CANCEL primary command. A null member is not allowed in the back-up library.

Standard editing commands have the following effects when entered for a back-up job:

CANCEL The edit session is ended; nothing is saved.

END/RETURN If the back-up member has no records, the command is ignored, and you must use the CANCEL command.

REPLACE The contents of the edit session are saved in the back-up member. If a back-up member does not exist, one is created. If a back-up member already exists, the member is replaced.

SAVE If the back-up 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 81 is displayed.

```
CPPPEDIF  - JOBSTREAM(DEFCAT) ------------------------------- COLUMNS 001 072
COMMAND ==>                                                   SCROLL ==> HALF
****** ***************************** TOP OF DATA ******************************
000001 //USER  JOB (ACCTNUM,EXP),'PGMRNAME',
000002 //     USER=RACFUSR,
000003 //     GROUP=RACFGRP,
000004 //     PASSWORD=RACFPWD,
000005 //         TIME=1440,
000006 //         NOTIFY=&SYSUID,
000007 //         REGION=6500K,
000008 //         CLASS=A,
000009 //         MSGCLASS=X,
000010 //         MSGLEVEL=(1,1)
000011 //*
000012 //*
000013 //JOBLIB   DD DISP=SHR,DSN=CUSTNAME.AD000115.LOADLIB
000014 //*
000015 //*--------------------------------------------------------------------
000016 //* GDE: SERVERPAC MVS INSTALLATION
000017 //* DOC: DEFINE THE TARGET SYSTEM'S CATALOG(S) INTO THE DRIVING
000018 //*      SYSTEM'S MASTER CATALOG.
000019 //*
000020 //*      IMPORT/CONNECT EVENTUAL TARGET SYSTEM USER CATALOG(S) INTO
000021 //*      THE TARGET SYSTEM'S MASTER CATALOG.
000022 //*
000023 //* MRC: THE MAXIMUM EXPECTED RETURN CODE IS: 0
000024 //*
000025 //*--------------------------------------------------------------------
```

Figure 81. Panel: Edit Jobstream

This ISPF Edit session allows you to edit the job's file-tailored source (a temporary file).

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 Performs the same function as the dialog's BACKUP command.

SAVE This command is disabled.

SUBMIT Submits the job for execution (as expected), but also writes the job number to the dialog's processing log.

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. If the member already exists, the BACKUP command is rejected with the message "'BACKUP MEMBER EXISTS". When you end the session, the new member is shown in the STEP column in the dialog.

The BACKUP command creates members in the SCPPBENU library only. You cannot use BACKUP to create members in other libraries.

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"
- "Editing a User-Defined Job" on page 131
- "Deleting a User-Defined Job" on page 132.

Inserting a User-Defined Job

When you attempt to insert a user-defined job into the jobstream, the panel in Figure 82 is displayed.

```
CPPP6122 -------------- Installation JOBs ( MD053718 ) --------
COMMAND ==>

INSERT a USER Defined JOB



      User STEP Name   ==> $
                           :
             User Names are ALWAYS a $ plus 1 to 7 characters


      Max Return Code  ==> 00

      Data Description ==>
```

Figure 82. 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, you receive a "duplicate" message.

You must use a dollar sign ($) character as the first character of the Step name. The other 7 characters can be any characters, if the resulting name is a valid member name.

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.

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 131).

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:

```
 BROWSE -- STOB4.MD053718.SCPPSENU($IDCAMS) --------- LINE 00000000 COL 001 080
 COMMAND ===>                                                 SCROLL ===> PAGE
******************************** TOP OF DATA ********************************
//STEP001 EXEC PGM=IDCAMS                                                00000100
//*                                                                      00000200
//*     ************************************************************     00000300
//*     * THIS JOB REPROS THE TEST LOGS FOR THE PREVIOUS SYSTEM  *     00000400
//*     * TO STOBB'S USERID DATASETS, THEN DELETES THEM          *     00000500
//*     *                                                        *     00000600
//*     * THE TEST LOGS CONTAIN INSTALLATION VERIFICATION DATA   *     00000700
//*     ************************************************************     00000800
//*                                                                      00000900
//SYSPRINT DD  SYSOUT=*                                                  00001000
//*                                                                      00001100
//SYSIN    DD  *                                                         00001200
  REPRO    INDATASET(SYSSTOBB.TESTLOG.AYNUK) +                          00001300
           OUTDATASET(STOB4.TESTLOG.AYNUK)                              00001400
                                                                        00001500
  REPRO    INDATASET(SYSSTOBB.TESTLOG.ALIUK) +                          00001600
************************************************************************ 001700
*  CPP0612001W User JOB $IDCAMS EXISTS as a member of the File Tailoring* 001800
*  Library, REVIEW The Contents of the Member                           * 001900
************************************************************************ 002000
******************************** BOTTOM OF DATA ********************************
```

Figure 83. Panel: Browse Existing User Job

You must confirm that the member in the skeleton library can be used as source for the step user-defined job (Figure 84 on page 131). Do so by entering USE in the **COMMAND ==>** field and pressing enter.

```
CPPP6123 -------------- Installation JOBs ( MD053718 ) ---------------
COMMAND ==>

INSERT a USER Defined JOB

                              W A R N I N G


                The JOB you have tried to insert EXISTS as a
                        member in the SOURCE Library
                   You must verify this member can be used


          Confirm the Member can be USED, Type USE and press ENTER

          Press the END or RETURN key to CANCEL the INSERT request
```

Figure 84. Panel: Insert a User-Defined Job - Confirmation

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 85 is displayed.

```
CPPPEDIF - SOURCE MEMBER($IDCAMS) -------------------------- COLUMNS 001 072
COMMAND ==>                                                  SCROLL ==> HALF
****** ***************************** TOP OF DATA ******************************
000100 //STEP001 EXEC PGM=IDCAMS
000200 //*
000300 //*     ************************************************************
000400 //*     * THIS JOB REPROS THE TEST LOGS FOR THE PREVIOUS SYSTEM  *
000500 //*     * TO STOBB'S USERID DATASETS, THEN DELETES THEM          *
000600 //*     *                                                        *
000700 //*     * THE TEST LOGS CONTAIN INSTALLATION VERIFICATION DATA   *
000800 //*     ************************************************************
000900 //*
001000 //SYSPRINT DD  SYSOUT=*
001100 //*
001200 //SYSIN    DD  *
001300   REPRO    INDATASET(SYSSTOBB.TESTLOG.AYNUK) +
001400            OUTDATASET(STOB4.TESTLOG.AYNUK)
001500
001600   REPRO    INDATASET(SYSSTOBB.TESTLOG.ALIUK) +
001700            OUTDATASET(STOB4.TESTLOG.ALIUK)
001800
001900   DELETE   SYSSTOBB.TESTLOG.AYNUK
002000   DELETE   SYSSTOBB.TESTLOG.ALIUK
****** **************************** BOTTOM OF DATA ****************************
```

Figure 85. Panel: Edit Source Member

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 76 on page 121), 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. A null 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. You cannot submit source data for execution.

Deleting a User-Defined Job

If you enter line command D to delete a user-defined job, the panel in Figure 86 is displayed.

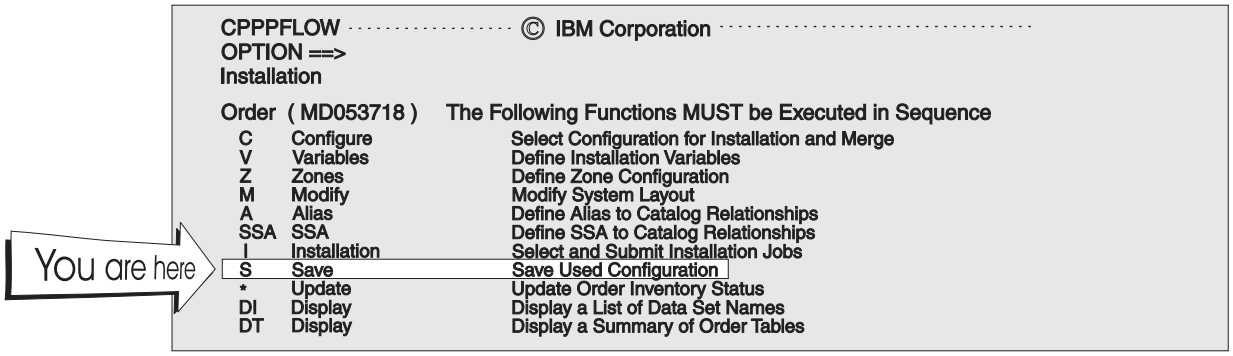
```
CPPP6124 -------------- Installation JOBs ( MD053718 ) -----------------------
COMMAND ==>

DELETE a USER Defined JOB

                             $IDCAMS

            JOB : COPY TEST LOGS FOR PREVIOUS INSTALL

            Delete Member from the Skeleton Library ==> N


     You MUST Confirm DELETION By Typing DELETE and pressing ENTER

     Press the END or RETURN key to CANCEL the DELETE request
```

Figure 86. Panel: Delete a User-Defined Job - Confirmation

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.

Chapter 12. Saving the Configuration



After you install a ServerPac order, you can use the Save Used 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 the master configuration or a saved work configuration, or both
- Changed data values for variables
- Added your own user variables
- Added your own installation jobs

To keep these settings available for a future order, save the configuration. You can choose to save it as a saved work configuration or the master configuration.

Figure 87 shows the panel that you use to save the work configuration. To display this panel, select option S (Save Used Configuration) from the Installation Menu.

```
CPPP6041 -------------- SAVE Configuration ( MD053718 ) ----------------------
COMMAND ==> _

Specify SAVE Library

        Enter the High Level Qualifier of the Library to which the
        Order Configuration will be Saved

                    ==> CPP.MD053718.CONFIG

        The default qualifier used is 'OrderHLQ'.
        You may enter a Comment to identify the Configuration. This
        is recommended if you use a qualifier other than the default.

                    ==> DEBBIE'S Z/OS REL.1 SET-UP WITH RECOMMENDED LAYOUT

        MASTER HLQ is  : CPP.Master-Qualifier
```

Figure 87. Panel: Specify Save Configuration Library

Enter the high level qualifier to be used for the saved work configuration. The high level qualifier must be unique, and cannot refer to any other order or saved work configuration libraries. IBM recommends using your order qualifier as the high level qualifier, plus an index level of CONFIG.

Saving the Configuration

The configuration data set is appended with either of the following low level qualifiers:

SCPPSENU For skeleton libraries
SCPPTENU For table libraries.

For example, if the order qualifier is CPP.MD053718, the recommended high level qualifier is:

```
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 Reference*.

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.1 SET-UP WITH RECOMMENDED LAYOUT
```

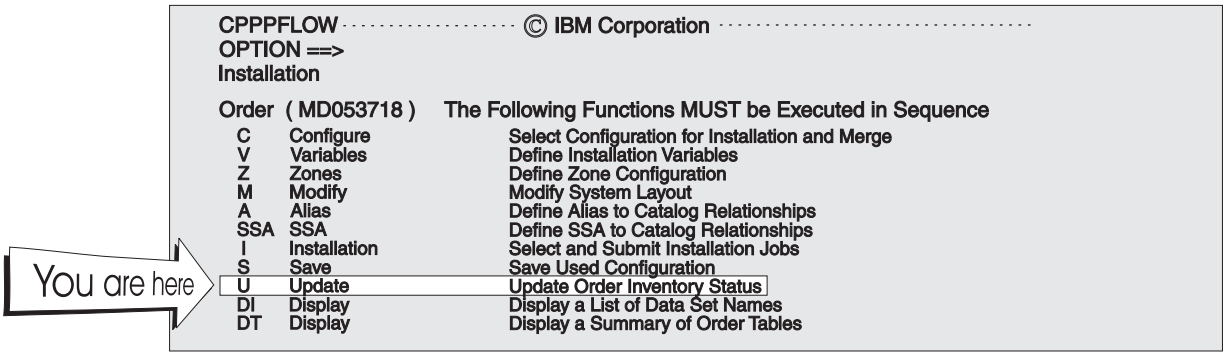
If the target libraries do not exist, the dialog prompts you to confirm that the target libraries can be automatically allocated. If a saved work configuration already exists in the target libraries, the dialog prompts you to confirm that the configuration can be deleted (see Figure 88). Processing cannot continue until you allow the existing configuration to be deleted.

```
CPPP6042 -------------- 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 88. 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. Updating the Order Inventory



In the last step of the installation, you update the order inventory, which allows you to track and manage your orders.

To display the Order Information panel, select option O from the Main Installation panel or option U from the Installation Menu.

The following information is provided for each order:
- Current processing status
- Where the order was loaded
- Products and features in the order.

If no orders are in the order inventory, you are prompted to receive an order.

Selecting an Order

Figure 89 shows the Order Selection panel, which allows you to specify the orders to be displayed.

```
CPPP607B  ---------------------- ORDER SELECTION ------------------------------
COMMAND ==>

ENTER Selection Criteria



                Display ALL Orders  ==> Y    (Y or N)

------------------------ OR ------------------------------------------------

                Select Orders by Status

                    Received        ==> Y    (Y or N)
                    Started         ==> Y    (Y or N)
                    Installed       ==> N    (Y or N)
                    Finalized       ==> N    (Y or N)
```

Figure 89. Panel: Order Selection

To display all orders, specify Y in the Display ALL Orders ==> field and press the Enter key.

Updating the Order Inventory

To display only those orders having a specific status, specify N in the Display ALL Orders ==> field and specify a Y for each status type to be included in the order display list.

Any field left blank defaults to N. If all status fields are specified as N (the default), all orders are shown, regardless of what you specify in the Display All Orders ==> field.

The available status selections are:

R Received. An IBM-supplied order has been received (through the Receive an Order function), but has not yet been installed.

A Customer Added. You have manually added the order.

S Started. Installation has started for the order.

I Installed. The installation jobs have been run for the order.

F Finalized. You have confirmed that the order is correctly installed and have, therefore, chosen to finalize the order.

If no orders meet your selection criteria, a message is displayed and the panel is redisplayed to allow you to enter a different selection.

You can also display this panel by entering the STATUS command from one of the Order Display panels. Here, your new selection criteria is used to re-build the order display list.

Displaying an Order

When you complete the Order Selection panel, a list of orders that matches your selection criteria is displayed in the Order Display panel (Figure 90).

```
CPPP6071  ------------------------ ORDER LIST --------------- Row 1 to 7 of 7
COMMAND ==> _                                                 SCROLL ==> CSR

PRIM Cmds:(? SET L F N P REFresh OFile SORT VErbose VERsion)
LINE Cmds:<Select Edit Delete Finalize Products Report Output>

 S ORDerNum PROFile  SYS name SREL PACtype  Prod DATE  ST Chg USER Chg DATE
 - -------- -------- -------- ---- -------- ---------- -- -------- ----------
   AD000077                   Z038 SERV     2000/04/15 S  KENJI    2000/05/01
 P MD053718                   Z038 SERV     2000/04/12 S  OBRIEN   2000/04/17
   TE000129          DB2      P115 EXP      2000/05/23 R  KENJI    2000/06/10
   TE000130          SSP      P004 EXP      2000/05/23 R  KATHH    2000/06/10
   TE000144          DB2      P115 EXP      2000/06/04 S  KENJI    2000/06/23
   TS001034                   Z038 SERV     2000/04/25 S  TONYH    2000/06/23
   TS001055                   Z038 SERV     2000/03/12 S  TONYH    2000/04/12
****************************** BOTTOM OF DATA ******************************
```

Figure 90. Panel: Order List (Terse Mode)

The following primary commands are valid for this panel:

?, SET, L, F, N, P, SORT, TE, VE
These are standard commands for panels that display lists. See “Primary Commands” on page 10.

REFRESH
This command, abbreviated as REF, rebuilds the display using the previous order selection criteria. Any changes to the Order Inventory made by other users accessing the dialog are included in the refreshed display.

OFILE
This command, abbreviated as OF, writes the list of orders to a user-defined file (see page 83).

VERSION
This command, abbreviated as VER, displays the current version of the dialog.

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. All order records are editable, but only those records that were added by the customer are fully editable.

F Finalize. Updates the order with a status of FINALIZED. Use this command when all the installation jobs have completed and the order is properly installed.

P Products. Displays the products and features in the order, including the individual program names and numbers, their versions, and the number of FMIDs in each product or feature. This function is not available for customer-added orders. To see information for customer-added orders, view the Order Information panel (verbose mode).

R Report. Writes all information associated with an order and its products and features to a customer-specified data set.

O Output. Displays a list of the installation jobs and any associated job output. This function is not available for customer-added orders because such orders cannot be installed.

Editing an Order

Figure 91 shows the panel that is displayed when you select an order for editing through line command E on the Order Display panel.

```
 CustomPac -------------------- ORDER INFORMATION ----------------------------
 COMMAND ==>

 PRIM Cmds:(?)

Order Number ==> MD053718 Profile Number ==>
SREL ==> C150 PAC Type ==> OMIS


Customer Number ==> 11997111
Customer Name ==> CPAC LTD


Production Date ==> 03 / 04 / 99 System Name ==> VRAC


Status ==> A CUSTOMER ADDED
Change Date ==> 03 / 04 / 99 Change User ==> USER


Comment ==> NEW DEVICE SUPPORT
```

Figure 91. Panel: Editing an Order

Update the order information in the panel and press ENTER to save the changes. For an IBM-supplied order, you can change only the System Name, Status, and

Comment fields. You cannot change the other fields (Order Number, Profile Number, SREL, PAC Type, Customer Number, Customer Name, Production Date).

The fields are described as follows:

Order Number
This value is supplied by IBM for IBM orders. For customer-added orders, you must specify a value (2 alphabetic characters, followed by 6 numerics).

Profile Number
This value is supplied by IBM for IBM orders. For customer-added orders, you can optionally specify a value for this field or leave it blank.

SREL
System release of the order. These are the SRELs defined by IBM:
P115 DB2
C150 CICS
P115 IMS
Z038 MVS (represents a z/OS order)
P004 NCP

PAC Type
Package type of the order. Valid values are:
CPP ProductPac
CRMO Selected Follow-On Service
CRS RefreshPac
EXP ServerPac or SystemPac Full Volume Dump format
EXPDD ServerPac or SystemPac Dump by Data Set format
FPAC FunctionPac
HCHK Health Check
OMIS OMIS
SERV ServerPac

Customer Number
Your customer number.

Customer Name
Your customer name.

Production Date
Production date. This value must be a valid date in the following format:
`DD/MM/YYYY`

System Name
This optional field is reserved for your use; it is not set by IBM. You can reset this field as needed.

Status
The current install status of the order. Possible values are:
R Received (not valid for a customer-added order).
A Added by customer (not valid for an IBM-supplied order).
S Started
I Installed
F Finalized

For the meaning of each status code, see “Selecting an Order” on page 135.

If the new status entered does not normally follow the current status, you must confirm the ″jump″ in status (see “Verifying the Status of an Order” on page 141). The normal status sequence is:

- Received → Started
- Customer Added → Started
- Started → Installed
- Installed → Finalized

Change User
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.

Change Date
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.

Comment
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 Information panel (Figure 90 on page 136), you can view the products and features of a particular order by entering line command P. Figure 92 shows the panel that is displayed.

```
CPPP6076  ---------------- ORDER DETAILS ( MD053718 ) -------- ROW 1 TO 6 OF 6
COMMAND ==>                                                   SCROLL ==> PAGE

Shipped PRODUCTS/FEATURES

PRIM Cmds:(? SET L F N P SORT OFile)
LINE Cmds:<Fmids>

     S Product/Feature Name                     PGM#     VERsion FMID#
     - ---------------------------------------- -------- ------- -----
     F C/C++ NO DEBUG                           5647-A01  020500     8
       COBL LB CMP DBG ENU 1.04.0               5668-958  010400     8
       DFSMS DSS/HSM                            5647-A01  020500     2
       DFSORT                                   5647-A01  020500     8
       z/OS BASE                                5647-A01  020500   110
       SDSF                                     5647-A01  020500     2
 ***************************** Bottom of data ****************************
```

Figure 92. Panel: Shipped Products/Features

This panel shows the products and features in the order, including the individual program names and numbers, their versions, and the number of distinct FMIDs in each product or feature.

This panel shows only IBM-supplied orders because customer-added orders have no associated products or features. For information on customer-added orders, you can view the Order List panel (verbose mode).

The following primary commands are valid for this panel:

?, SET, L, F, N, P, SORT
These are standard commands for panels that display lists. See “Primary Commands” on page 10.

OFILE
This command, abbreviated as OF, writes a list of the products and features to a user-defined file (see page 83).

FINALIZE
This command, abbreviated as FI, changes the order status to FINALIZED.

OUTPUT
This command, abbreviated as OUT, displays a list of the installation jobs and any associated job output. See “Displaying the Processing Log” on page 126.

REPORT
This command, abbreviated as REP, writes the information for an order and its products and features to a user-specified data set. See “Requesting an Order Report”.

VERSION
This command, abbreviated as VER, displays the current version number of the installation dialog.

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 92 on page 139, you can view the FMIDs for a particular product or feature by entering line command F. Figure 93 shows the panel that is displayed.

```
CPPP6079  -------------- ORDER DETAILS ( MD053718 ) -------- Row 1 to 1 of 1
COMMAND ==>                                                 SCROLL ==> PAGE

Shipped FMIDs for PRODUCT/FEATURE C/C++ NO DEBUG

PRIM Cmds: (? F N P)
LINE Cmds:<NONE>

        FMID
        ------- ------- ------- ------- ------- ------- ------- -------
        HCKVB00 HLB4701 HLC4731 HTV4721 H24P111 JCKVB03 JLB4702 JTV4722
***************************** Bottom of data ******************************
```

Figure 93. Panel: Shipped FMIDs for a Product/Feature

The following primary commands are valid for this panel:

?, F, N, P
These are standard commands for panels that display lists. See “Primary Commands” on page 10.

Requesting an Order Report

From the Order Information panel (Figure 90 on page 136), you can request that a report (order data, products and features, FMIDs) for an order be written to a data set by entering line command R. Figure 94 on page 141 shows the panel that is displayed.

```
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 94. Panel: Specify a Report Data Set

Specify a data set name and volume serial for the report data set. For a fully qualified name, enclose the name in single quotation marks; an unqualified name takes the TSO/E prefix as its high level qualifier. 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 An existing sequential data set is to be used.

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 95 on page 142 shows the panel that is displayed when you attempt to change to a status that does not normally follow the current status. This can occur, for example, if you edit the status field (see "Editing an Order" on page 137) or enter line command F in the Order Display list to finalize an order (see "Displaying an Order" on page 136).

```
CPPP6076 -------------------- ORDER  INFORMATION -----------------------------
COMMAND ==>

STATUS CHANGE REQUESTED

                                STATUS ATTRIBUTES


                           Old Status : STARTED

                           New Status : RECEIVED


          You MUST Confirm UPDATE By Typing STATUS and pressing ENTER

          Press the END or RETURN key to CANCEL the UPDATE request
```

Figure 95. Panel: Status Verification

The normal status sequence is:
- Received → Started
- Customer Added → Started
- Started → Installed
- Installed → Finalized

You entered a status that will cause a “jump” in 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.

Appendix A. Performing an Auto-Upgrade

If an upgrade of the dialog is required, the panel in Figure 96 is displayed, showing what is to be upgraded.

```
CPPP6161 ---------------- Upgrade Installation Dialog -----------------
COMMAND ==>                                              SCROLL ==> HALF

VERSION UPGRADE Checklist

PRIM Cmds:(? F N P CANcel)

------------------------------------------------------------------------
Version CHECK
-------------

Current Installation Dialogs run under Version Date : 19980101

Shipped ORDER MD053718 Requires a HIGHER level Installation Dialog than
that currently in use.

As part of the installation process your MASTER libraries will be
AUTOMATICALLY updated to the required level

The following actions will be taken against your MASTER libraries -

---- LIBRARY(SCPPLOAD) CustomPac LOAD Modules   ------------------------

     MASTER DSNAME(CPP.MASTER.SCPPLOAD)
```

Figure 96. Panel: Version Checking Upgrade Checklist

Press the End key to continue the upgrade. The panel in Figure 97 is displayed.

```
CPPP6164 ------------- Upgrade Installation Dialog --------------------
COMMAND ==>

GENERATE JOBSTREAM

   Enter JOBCARDs

 > //UPGRADE  JOB (accounting information),                            <
 > //         'WAYNE O''BRIEN',NOTIFY=&SYSUID,                         <
 > //         CLASS=A,MSGCLASS=K,MSGLEVEL=(1,1),REGION=4M              <
 > //* ------------------------------------------------------------------ <

   Installation  ISPLLIB ==> ISP.V$R$M$.SISPLOAD
                         ==>
       ISPF      ISPMLIB ==> ISP.V$R$M$.SISPMENU
                         ==>
     Libraries   ISPPLIB ==> ISP.V$R$M$.SISPPENU
                         ==>
                 ISPSLIB ==> ISP.V$R$M$.SISPSENU
                         ==>
                 ISPTLIB ==> ISP.V$R$M$.SISPTENU
                         ==>
```

Figure 97. Panel: Define Jobcard and ISPF Libraries

Complete the jobcard, and supply the data set names of your installation's ISPF libraries. The dialog does not verify your input.

Press Enter. The dialog creates a job to upgrade your master libraries and invokes ISPF EDIT to allow you to view and further customize the JCL. Save the JCL through the CREATE command in case the job fails and you need to rerun it.

Otherwise, press the END key to cancel the upgrade of the master libraries. You cannot install the order, however, until you have upgraded the master libraries by re-selecting the Install Order option and allowing the upgrade to continue.

The upgrade job accesses the master libraries during execution. Therefore, other TSO/E users cannot have the master libraries allocated to their TSO/E sessions when you run the upgrade job. Also, depending on how you allocated the master libraries, you must do one of the following before running the upgrade job:

- Exit the dialog — if you use LIBDEFs on entry to the dialog
- Free the libraries — if you use an allocation CLIST to allocate the libraries
- Log off — if you allocate the libraries in your logon proc.

Use the SUBMIT command to queue the upgrade job for execution. The job might run for several minutes before completing.

When the upgrade job completes, you must re-enter the dialog and select the Install option. Normal order installation processing is invoked, and the master libraries are upgraded.

Appendix B. Using the Dialog's Summary Display Commands

The Modify System Layout function of the dialog retains the summary display commands from previous releases that allowed you to build the new data set layout in a manual, stepwise approach. These commands are described in this appendix, as follows:

Displaying a Summary of Features and Elements

When you select Option P of the ″Modify System Layout Options″ panel, the Summary of Features/Elements panel shown in Figure 98 is displayed.

```
CPPP6051 ------------- Modify System Layout ( MD053718 )  -  ROW 1 TO 8 OF 16
COMMAND ==>                                                  SCROLL ==> PAGE

SUMMARY Of Features/Elements

PRIM Cmds:(? SET F L N P SORT CANcel SAVE DEVT SUMD SUML SUMP)
LINE Cmds:<Dslist Select>

        S  Feature/Element                                Data sets
        -  ---------------------------------------       ---------
           BCP                                             70 (  6)
           BDT                                              9 (  0)
           BDT FILE-TO-FILE                                 8 (  0)
           BM BOOKSERVER         2.01.0                     9 (  1)
           BOOKMANAGER BUILD ENU                           44 (  4)
           BOOKMANAGER READ  ENU                           16 (  3)
           C/C++                                           61 (  1)
           CUSTOMPAC JES2 SYSTEM DATASETS                   3
           CUSTOMPAC JES3 SYSTEM DATASETS                   7
           CUSTOMPAC OPERATIONAL AND SAMPLE DATASETS       29
           CUSTOMPAC SMP/E DATASETS                        30
```

Figure 98. Panel: Summary of Features/Elements

This panel allows you to manually customize individual data sets, logical volumes, and physical volumes. The panel lists the products, features, and elements shipped in your ServerPac order, and the following CustomPac specific data set groups:

- CustomPac SREL-specific SMP/E data sets
- CustomPac operational and sample data sets
- CustomPac JES2 data sets
- CustomPac JES3 data sets
- CustomPac SMP/E data sets

If you are performing a software upgrade installation, the CustomPac operational data sets do not appear in the list.

Figure 98 shows several entries with two values listed in the number of data sets column. In these cases, the first value represents the number of data sets that were originally shipped with the feature or element. The second number (in parentheses) is the actual number of data sets for the feature or element as a result of a previous merging of data sets. A value of zero for this second value means that all of the data sets for the feature or element have been merged into (become component data sets of) another data set.

In a shipped configuration, each feature or element has its own logical distribution volume, logical target volume, and sometimes a logical catalog volume. One physical volume is associated with the logical distribution volumes for all features and elements in your ServerPac order; one physical volume is associated with logical target volumes; and one is associated with all logical catalog volumes, as shown in Figure 99.

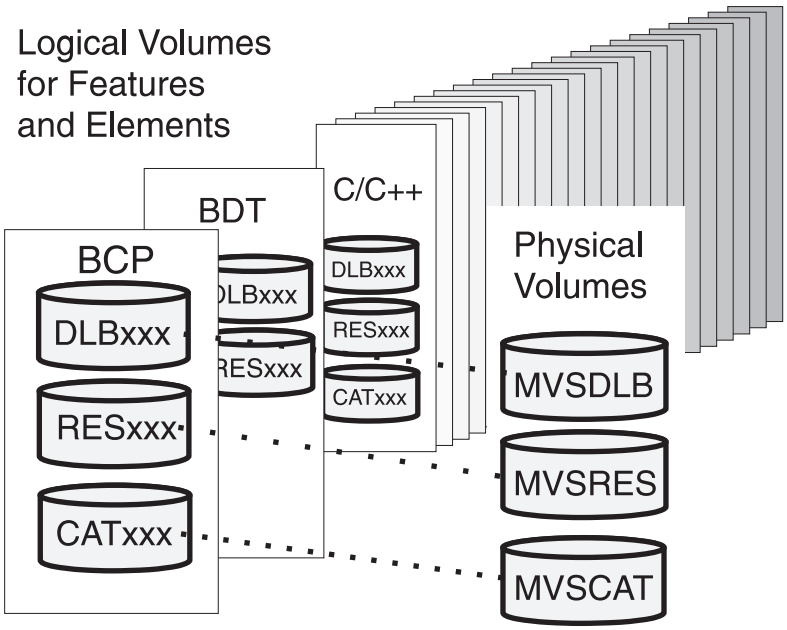


Figure 99. Default Mapping of Logical Volumes to Physical Volumes

In your work configuration, you can reassign data sets to different logical volumes, assign each logical volume to an SMS storage class or physical volume, and change the device types and addresses for physical volumes.

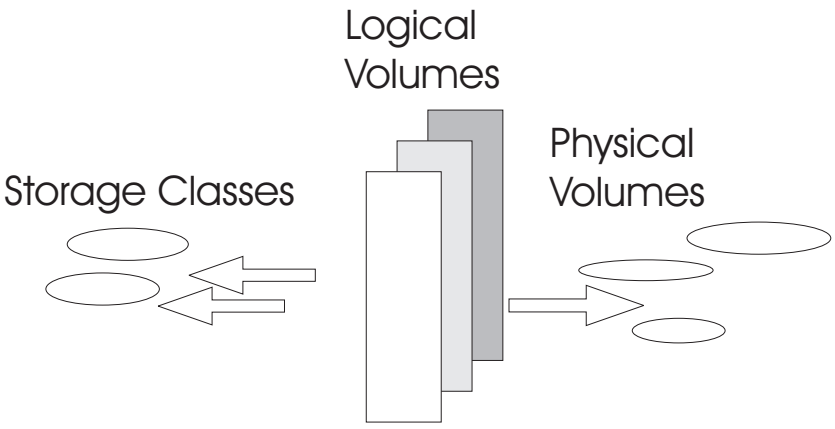


Figure 100. Mapping Logical Volumes to Physical Volumes and SMS Storage Classes

Think of a logical volume as simply a means of grouping data sets by DASD residency.

Generally, ServerPac groups data sets using the following logical volume names:

CATxxx Data sets that reside on a catalog volume.

DLBxxx Non-SMS-managed data sets that reside on a DLIB volume.

IPLVOL Data sets that reside on the IPL volume (for z/OS orders).

RESxxx Non-SMS-managed data sets that reside on a target volume.

SMxxxx SMS-managed data sets, as follows:

- **SMDxxx** SMS-managed data sets on a DLIB volume.
- **SMHxxx** SMS-managed hierarchical file system (HFS) files.
- **SMRxxx** SMS-managed data sets on a target volume.
- **SMZxxx** SMS-managed CSI data sets.

You are free to define your own logical volume names or transfer data sets between logical volumes. Before you begin, however, it is recommended that you gather the information you will need for each feature or element. Table 4 shows one approach you could use for gathering this information.

Table 4. A Way of Organizing Your Volume Information...

Feature or Element	Logical volume	Physical volume	SMS Storage Class	VOLSER	Device type	Device Address

From the Summary of Features/Elements panel, you can enter a series of commands to invoke the various panels that allow you to modify the system layout, as follows:

- “Displaying the Logical Volumes for a Feature or Element” on page 149
- “Displaying a Summary of Data Sets” on page 151
- “Displaying a Summary of Logical Volumes” on page 160
- “Displaying a Summary of Physical Volumes” on page 156
- “Displaying Device Types” on page 103

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 10.

CANCEL
This command, abbreviated as **CAN**, discards any changes that you have made since the last checkpoint and exits the Modify System Layout function. (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).

DEVT
Displays a list of device types and their physical attributes (for example, track capacities). In this panel, you can specify which DASD are to be used with ServerPac. This panel is described in “Displaying Device Types” on page 103.

SUMD {M|S|U}

This command displays a list of data sets, based on the following additional filters that you supply:

(blank) Display all data sets.

M Display only merged data sets.

S Display both ServerPac shipped data sets and merged data sets.

U Display only user-defined data sets.

The Summary of Data Sets panel is displayed, allowing you to:

- Merge or unmerge ServerPac-shipped data sets (you cannot merge or unmerge user-defined data sets)
- Modify the attributes of particular data sets or modify their space information
- Make global changes to multiple data sets
- Write a list of the data sets to data set ISPFLIST, or to a user-defined file.

While in the user-defined data set list (SUMD U), you can also insert or delete user-defined data sets. This panel is described in “Displaying a Summary of Data Sets” on page 151.

SUML

Displays the Summary of Logical Volumes panel, which lists the logical volumes for an order. Use this panel to assign data sets or groups of data sets to a logical volume. This panel is described in “Displaying a Summary of Logical Volumes” on page 160.

SUMP

Displays the Summary of Physical Volumes panel, which lists the physical volumes that are referred to by your system. Use this panel to change addresses and device types. This panel is described in “Displaying a Summary of Physical Volumes” on page 156.

The following line commands are valid for the Summary of Features/Elements panel:

D Displays the data sets for the selected feature or element. You can display this information with varying detail by including either of the following qualifiers:

- VERBOSE, abbreviated as VE, to increase the level of detail.
- TERSE, abbreviated as TE, to reduce the level of detail.

This panel allows you to do any of the following:

- Merge or unmerge ServerPac-shipped data sets (you cannot merge or unmerge user-defined data sets)
- Modify the attributes of particular data sets or modify their space information
- Make global changes to multiple data sets
- Write a list of the data sets to data set ISPFLIST, or to a user-defined file.

This panel is described in “Displaying a Summary of Data Sets” on page 151.

S Displays the Logical Volume By Feature/Element panel, which lists the logical volumes that are to be used by the selected feature or element, as part of your shipped order.

This panel allows you to add or remove data sets on a logical volume, or change the attributes of these data sets (see “Displaying the Logical Volumes for a Feature or Element”).

At various points in the Modify System Layout function, you can enter commands to cause changes. These commands are described in “Making Changes to Data Sets” on page 84.

The only required input to the Summary of Features/Elements panel is your specifications for the physical volumes. You provide them by entering the SUMP primary command, which displays the Summary of Physical Volumes panel, described in “Displaying a Summary of Physical Volumes” on page 156.

The panel described in “Confirming Processing Requirements” on page 105 is displayed if you attempt to exit the Modify System Layout function before completing a required panel. This panel prompts you for input.

Displaying the Logical Volumes for a Feature or Element

When you select an entry from the Summary of Features/Elements panel (through line command S), the panel shown in Figure 101 is displayed. This panel shows the logical volumes used by the feature or element.

```
CPPP6054   ------------- Modify System Layout ( MD053718 ) ---  ROW 1 TO 7 OF 7
COMMAND ==>                                                   SCROLL ==> PAGE

Logical Volume By FEATURE/ELEMENT

PRIM Cmds:(? SET L F N P SORT)
LINE Cmds:<Assign Dslist>

FEATURE/ELEMENT  : BCP

   Logical   CYLs    Largest    No. of   Physical   Storage     Dev.   SMS-
S  Volume    Used    Dataset   Datasets   Volume     Class      Type   Eligible
-  ------    ----    -------   --------  --------   --------    -----   -------
   CAT001     155       155         1      MVSCAT              3390-3   Yes
   DLB001     465       128        45      MVSDLB              3390-3   Yes
   IPLVOL      39        39         1      MVSRES              3390-3   No
   RES001     517       166        23      MVSRES              3390-3   Yes
   SMD001      10        10         1               SMSDCLAS            Yes
   SMH001     650       650         1               SMSHCLAS            Yes
   SMR001      10        10         1               SMSRCLAS            Yes

****************************** BOTTOM OF DATA ********************************
```

Figure 101. Panel: Logical Volume By Feature/Element

The list of logical volumes used by the product, feature, or element is displayed, along with information about each logical volume.

Along with other information, each logical volume’s current assignment is displayed. You can assign a logical volume to either a physical volume or a storage class, but not both. For non-SMS managed logical volumes, the panel shows the assigned physical volume. For SMS-managed logical volumes, the panel shows the assigned SMS storage class.

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 10.

The following line commands are valid for this panel:

A Assigns the data sets for the selected logical volume to a different logical volume. For more information, see “Assigning Data Sets for a Feature or Element”.

D Displays the data sets for the selected logical volume. The subsequent panel allows you to do the following:
- Make global changes
- Merge or unmerge ServerPac-shipped data sets (you cannot merge or unmerge user-defined data sets)
- Write a list of the data sets to data set ISPFLIST, or to a user-defined file.

For more information about the data set list, see “Displaying a Summary of Data Sets” on page 151.

Assigning Data Sets for a Feature or Element

When you select a logical volume from the Logical Volume By Feature/Element panel (through line command A), the panel shown in Figure 102 is displayed.

```
CPPP605C  ------------- Modify System Layout ( MD053718 ) ----------------------
COMMAND ==>

ASSIGN a Feature/Element



         FEATURE/ELEMENT :  BCP

         LOGICAL Volume  :  CAT017



         You may assign  ALL  of the data sets on the LOGICAL Volume
         to a different LOGICAL Volume (ONLY for the feature/element
         shown)


         LOGICAL Volume ==>
```

Figure 102. Panel: Assign a Feature/Element

Enter the logical volume name to which the data sets for the selected feature or element are to be assigned. If the logical volume name that you enter is already known to ServerPac, the physical attributes of the device to which the logical volume is assigned are inherited by the data sets assigned to it. Those physical attributes are:
- Device type
- Device address
- Device capacity (track/cylinder/pack size)

If space recalculation is required (because the new logical volume is assigned to a physical volume that has a different device capacity to the physical volume of the old logical volume), the recalculation occurs automatically.

ServerPac has two special, reserved logical volumes:
- CSIVOL
- IPLVOL

You cannot assign data sets to, or from, either of these logical volumes. If you attempt to do so, your request is rejected.

Displaying a Summary of Data Sets

From the Modify System Layout Options panel (Figure 35 on page 61), enter options D, M, S, or U to display the Summary of Data Sets panel. You can display the data set list in either terse mode or verbose mode. Figure 103 shows the terse mode.

```
CPPP6052 ------------- Modify System Layout ( MD053718 ) -  ROW 1 TO 10 OF 10
COMMAND ==>                                                  SCROLL ==> PAGE

SUMMARY OF DATA SETS

PRIM Cmds:(? SET L F N P SORT CHange OFile OList FC VARiable VErbose)
LINE Cmds:(Merge eXpand Conflict Unmerge Attribs Space Resolve)

S  DSName                                X F RECFM DSORG LRECL BLKSZ  R
-  -----------------------------------   - - ----- ----- ----- -----  -
   ISP.AISPALIB                          *    FB    PO      80 23440  Y
   ISP.AISPEXEC                          *    FB    PO      80 23440  Y
   ISP.AISPGENU                            *  FB    PO      80 23440  Y
   ISP.AISPMACS                               FB    PO      80 23440  Y
   ISP.AISPMENU                               FB    PO      80 23440  Y
   ISP.AISPMOD1                               U     PO       0 32760  N
   ISP.AISPPENU                               FB    PO      80 23440  Y
   ISP.AISPPUBS                          *    FB    PO    4096 16384  Y
   ISP.AISPSLIB                               FB    PO      80 23440  Y
   ISP.AISPTENU                               FB    PO      80 23440  Y
*************************** BOTTOM OF DATA ***************************
```

Figure 103. Panel: Summary of Data Sets (Terse Mode)

The content of this panel depends on the panel from which you displayed the list, and the command that you used to display it (D, M, S, or U). Table 5 shows how this panel display is filtered, based on the panel of origin and the command used display the Summary of Data Sets panel.

Table 5. Possible Outputs for Summary of Data Sets Panel

Command	Originating Panel	Resulting Display
SUMD primary command	Modify System Layout Options	Merged, shipped, and user-defined data sets.
SUMD M primary command	Modify System Layout Options	Merged data sets.
SUMD S primary command	Modify System Layout Options	Shipped data sets and merged data sets.
SUMD U primary command	Modify System Layout Options	User-defined data sets.
D line command	Modify System Layout Options	Data sets for the selected feature or element.
D line command	Logical Volume by Feature/Element	Data sets for the selected logical volume for the specified feature or element.
D line command	Summary of Logical Volumes	Data sets for the selected logical volume.
D line command	Summary of Physical Volumes	Data sets for the selected physical volume.

In the Summary of Data Sets panel, observe the following:

- The X (“expandable”) column displays an asterisk if the data set is a merged data set. That is, the data set resulted from the merging of two or more data sets. A merged data set remains eligible for further merging.
- The F (“flag”) column displays an asterisk whenever:
  - The data set’s space information or attributes have been modified through line command A or line command S.
  - The data set has been merged or unmerged
  - The data set’s name or space information have been changed through a global command, such as the global change command, CH.

  The F setting is temporary; it is reset to blank when you exit the Summary of Data Sets panel.
- The R (“reset block size”) column displays a Y if resetting the block size is permitted. Be aware that, with the exception of record format FB (RECFM=FB) data sets, you cannot reblock a data set to less than its original size as shipped from IBM.

Use the Summary of Data Sets panel to do any of the following:

- Merge or unmerge ServerPac-shipped data sets (you cannot merge or unmerge user-defined data sets)
- Modify the attributes of particular data sets or modify their space information
- Make global changes to multiple data sets
- Write a list of the data sets in the ISPF LIST data set or an user-defined file.

Also, you can use the SUMD U command from the User Defined panel to add or delete user-defined data sets.

The following primary commands are valid for this panel:

?, SET, F, L, N, P, SORT, TE, VE
: These are standard commands for panels that display lists. See “Primary Commands” on page 10.

CHANGE
: This command, abbreviated as CH, is used to make changes to data sets in display lists. Use CHANGE to modify the various attributes and space requirements of multiple data sets, including the following attributes:
  - Name (or part of a name)
  - BLKSIZE (to OPTIBLOCK)
  - Logical volume name
  - Primary and secondary space.

  See “Making Changes to Data Sets” on page 84.

OFILE
: This command, abbreviated as OF, writes a list of all data sets to a user-defined file; see page 83.

OLIST
: This command, abbreviated as OL, writes a list of all data sets to the ISPF LIST data set.

FC
: 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 98).

VARIABLE
This command, abbreviated as VAR, displays the list of installation variables for your order.

The following line commands are valid for this panel:

M Presents a list of data sets that are eligible for merging into the selected target data set. For more information, see “Merging and Unmerging Data Sets” on page 94.

X Expands the display of a merged data set to show its component data sets. All 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 94.

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 94.

A Changes a particular data set’s attributes (name, type, and logical volume). See “Modifying a Data Set’s Attributes” on page 100.

S Changes a particular data set’s space requirements (block size, primary and secondary extents, directory blocks). See “Modifying a Data Set’s Space” on page 102.

R Resolves the symbolic variables in a data set name and displays the resolved name. If the resolved name contains a symbolic variable, the symbol has either not been properly defined, or resolving the symbol would cause the resulting data set name to violate data set naming conventions.

For the Display All User Data Sets (SUMD U) panel, two additional line commands are valid:

I Inserts a user-defined data set in the work configuration. You cannot use this command for VSAM data sets. See “Inserting a User-Defined Data Set”.

D Deletes a user-defined data set from the work configuration without prompting you for confirmation. This command only removes the data set from the configuration; it does not delete the physical data.

Inserting a User-Defined Data Set

You can associate your own data sets with a ServerPac order. For example, assume that you have particular data sets that you plan to always bring into your system replace environment. The dialog allows you to define such data sets and reuse them in later orders.

To add a user-defined data set, enter the SUMD U command from the Summary of Features/Elements panel. On the resulting panel (Summary User Defined Data Sets), enter line command I to insert a user-defined data set. The panel shown in

Figure 104 is displayed. This panel allows you to define the attributes, block size, and space requirements for a user-defined data set.

To save your definitions for the data set, press ENTER. Then press END to save the data set. The Summary of User Defined Data Sets panel is redisplayed, showing the data set you added.

```
CPPP605I  -------- Modify System Layout ( MD053718 ) --- --------------
COMMAND ==>

Define a USER Dataset

        Dataset Name     ==> USER.DEFINED
        L.Volume         ==> LVUSER

        DSORG            ==>           (PO, PS)
        RECFM            ==>           (U, F-B-S-AM, V-B-S-AM)
        LRECL            ==> 0
        REBLOCK ALLOWED  ==> Y
        BLKSIZE          ==> 0

               Primary and Secondary Space is Specified in Blocks

        PRIM Space   ==> 0
        SECD Space   ==> 0
        DIR.Blocks   ==> 0

                    Calculated Space Value in CYLs is 0
```

Figure 104. Panel: Define a User Data Set

This panel allows you to define the following characteristics for a user data set:

- Data set name
- Logical volume
- Data set organization (DSORG)
- Record format (RECFM)
- Logical record length (LRECL)
- Whether the global CHANGE OPTIBLOCK command can be used
- Block size (BLKSIZE)
- Primary space allocation
- Secondary space allocation
- Number of directory blocks to be used for members of the data set.

These options are described as follows:

Data Set Name

Specifies the name of the data set. This name must be unique.

The dialog does not create SMP/E DDDEF entries for user-defined data sets.

Logical Volume

Specifies the logical volumes to which the data set is to be assigned.

If you specify a logical volume name that is not already known to ServerPac, you must later use the SUML primary command (from the Summary of Features/Elements panel) to assign the logical volume to a physical volume. Or, use the CH PVOL command to assign the data set to a physical volume, in which case the dialog will assign a logical volume name for you.

The following logical volumes are reserved for the system's use:

CSIVOL Reserved for the CSI data sets that are used to hold the DLIB and target zones for the ordered Features/Elements.

IPLVOL Reserved for data sets that are required for system IPL.

You cannot assign data sets to either of these logical volumes. If you do so, your request is rejected with an error message.

DSORG
Specifies the data set organization; either PO (partitioned organization) or PS (physical sequential).

RECFM
Specifies the record format. You can specify any of the following formats:

U Undefined

F Fixed. You can specify any of the following attributes:
- **B** Blocked
- **S** Standard block size
- **A** ANSI control characters
- **M** Machine control characters

V Variable. You can specify any of the following attributes:
- **B** Blocked
- **S** Spanned records
- **A** ANSI control characters
- **M** Machine control characters

LRECL
Specifies the logical record length (LRECL).

REBLOCK ALLOWED
Specifies (Y or N) whether the global CHANGE OPTIBLOCK command can be used to optimize the BLKSIZE for this data set (see “Changing the Data Set BLKSIZE to OPTIBLOCK” on page 92).

BLKSIZE
Specifies the block size for the data set. BLKSIZE can be any value that is valid for the RECFM and LRECL. Even if you have specified REBLOCK ALLOWED (Y), you must specify a block size because the space value is calculated in blocks.

Primary Space
Specifies the primary space allocation for the data set. This field can contain any value from 1 to 99999. This value represents a number of blocks multiplied by the BLKSIZE and rounded up to the nearest track (the panel displays this value in cylinder increments).

Secondary Space
Specifies the secondary space allocation for the data set in blocks of the specified block size. This field can contain any value from 0 to 99999.

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. However, you cannot reset a secondary space value of 0 through the global CHANGE SPACE command.

Directory Blocks
See the description of the Directory Blocks field in “Modifying a Data Set’s Space” on page 102.

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 35 on page 61), 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 105 is displayed.

```
CPPP605K ------------- Modify System Layout ( MD053718 ) ---  ROW 1 TO 8 OF 8
COMMAND ==>                                                  SCROLL ==> PAGE

SUMMARY Of Physical Volumes

Primary Commands:(? SET L F N P SORT DEVT)
Line Commands:<Assign Dslist>

   PVolume/  Seq.       Device   Warn-   Exist         ----- Cylinders ----
S  STORCLAS  No.  CCUU  Type     ings    Data   RSVD   Shipped  Used  Free
-  --------  ---  ----  -------- ------  -----  ----   -------  ----  -----
   MVSCAT         04C7  3390-3   OVR<<S  Y        0    2706        0    633
   MVSDL1    D01  CCUU  3390-3   OVR<<S  N        0    2939        0    400
   MVSDL2    D02  CCUU  3390-3   OVR<<S  N        0    1323        0   2016
   MVSRS1    T01  CCUU  3390-3           N        0    2871        0    468
   MVSRS2    T02  CCUU  3390-3           N        0    2065        0   1274
   MVSRS3    T03  CCUU  3390-3           N        0    2724        0    615
   SMSDCLAS                                          1115
   SMSRCLAS                                          2157
****************************** BOTTOM OF DATA ******************************

            ------------------------------------------------
            | CPP0605059S Volume (MVSCAT) is overallocated.  |
            ------------------------------------------------
```

Figure 105. Panel: Summary of Physical Volumes

For descriptions of the fields in this panel, press HELP (?).

If this is the first time that you have displayed this panel for a new order, enter the SUMP command to define the physical device address of each DASD volume. You can do this at a later stage in the dialog, if you prefer, but you must do it before you attempt to run any jobs that install the data sets on your DASD volumes.

To accommodate libraries that can use secondary extents, 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 157.

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 C, “Diagnostic Messages” on page 163.

OFF<<S
: Volume cannot be accessed because it is offline. For more information, see the description of message CPP0605056S in Appendix C, “Diagnostic Messages” on page 163.

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 C, “Diagnostic Messages” on page 163.

VOL<<S
Information about the volume could not be retrieved. For more information, see the description of message CPP0605058S in Appendix C, “Diagnostic Messages” on page 163.

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” and the description of message CPP0605059S in Appendix C, “Diagnostic Messages” on page 163.

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 10.

DEVT
Displays the currently-defined device types and their storage capacities (in cylinders).

The following line commands are valid for this panel:

A You can use this line command to assign physical volumes and SMS storage classes, as follows:

- For a physical volume, line command A displays a panel that allows you to specify a physical volume, as described in “Assigning a Physical Volume” on page 158.
- For a storage class, line command A displays a panel that allows you to specify a storage class, as described in “Assigning an SMS Storage Class” on page 159.

D Displays 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)
- Modify the attributes of particular data sets or modify their space information
- Make global changes to multiple data sets
- Write a list of the data sets to the ISPF LIST data set or to a user-defined file.

See “Displaying a Summary of Data Sets” on page 151.

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 105 on page 156). 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:

- Add another volume and move data sets from the over-allocated volume to the new volume.
- Change the device type to one having a larger capacity.
- Move data sets to another physical volume. See the topic, “Recommended Data Set Placement” in *z/OS and z/OS.e 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 106.

To add another volume, follow this process:

1. Enter the END command (or press PF3 using the default PFK 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.
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 A for the volumes. Assign a physical VOLSER 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.

Assigning a Physical Volume

When you select a physical volume from the Summary of Physical Volumes panel (through line command A), the panel shown in Figure 106 is displayed.

```
CPPP605J ------------- Modify System Layout ( MD053718 ) ---------------------
COMMAND ==>

ASSIGN a Physical Volume


      PHYSICAL Volume  :  MVSCAT    PHYSICAL Address  :  04C7
      DEVICE Name      :  3390-3    (Only for Internal Use)

      Volume Contains Existing Data : NO

      PHYSICAL Volume ==> MVSCAT    PHYSICAL Address ==> 04C7

      If you change the PHYSICAL Volume or PHYSICAL Address it must
      NOT already be known to CustomPac

      DEVICE Name     ==> 3390-3    (? For List of Available Devices)

      Reserved Space  ==> 0         (Cylinders)
      Volume Contains Existing Data ==> Y          (Y or N)
```

Figure 106. Panel: Assign a Physical Volume

Enter the following physical volume attributes:

Physical Volume
A unique name for the physical volume; you cannot use a name that is already defined to ServerPac.

Physical Address
A unique device number for the volume, in hexadecimal. Each physical volume that you define in the dialog must have a unique device number.

Device Name
A device name that is defined to ServerPac. To see the device names that are defined to ServerPac, enter DEVT in the **COMMAND ==>** line. A pop-up window — Defined Device Types — displays the currently-defined device names and their storage capacities (in cylinders).

For a list of available device names, enter a question mark (?) in the Device Name field. By default, the device name is 3390-3.

If space recalculation is required because the new physical volume has a different device capacity, the dialog recalculates the space automatically.

Reserved Space
Amount of space, in cylinders, that you require to be reserved on the volume. Specify a value from 0 to 999. 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.

Volume contains existing data
Use this field to specify whether the volume already contains data. Valid values are Y or N (yes or no). The default is N.

IBM recommends that you defragment any existing volumes that you plan to use for data sets supplied with your ServerPac. 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 HFS 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.

If you selected a Software Upgrade (and are therefore using your existing catalog structure for your ServerPac order as described in “Choosing the Installation Type” on page 29), and you are not using existing volumes, ensure that any data sets to be scratched for the new system retain their existing catalog entries. This action is necessary for all data sets that are not processed through the Modify System Layout function of the dialog.

Assigning an SMS Storage Class

When you select a storage class from the Summary of Physical Volumes panel (through line command A), the panel shown in Figure 107 on page 160 is displayed.

```
CPPP605Q ------------- Modify System Layout ( MD053718 ) ---------------------
COMMAND ==>

ASSIGN a Storage Class


      STORAGE CLASS  :  SMSDCLAS

      NEW STORAGE CLASS ==> SMSDCLS2

      The STORCLAS you specify must be defined to SMS
```

Figure 107. 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.

Displaying a Summary of Logical Volumes

To see the logical volumes that are used by a particular feature or element, use the Summary of Logical Volumes panel. From the Modify System Layout Options panel (Figure 35 on page 61), enter Option L to display this panel. You can also access this panel by entering the SUML command from the Summary of Features/Elements panel.

The panel shown in Figure 108 is displayed.

```
CPPP6056 ------------- Modify System Layout ( MD053718 ) -  ROW 1 TO 8
COMMAND ==>                                                  SCROLL ==> PAGE

SUMMARY Of Logical Volumes

PRIM Cmds:(? SET L F N P SORT)
LINE Cmds:<Assign Dslist>

       Logical   Physical  Storage    SMS-      SMS-
    S  Volume     Volume    Class     Eligible  Required
    -  ------    --------  -------    --------  --------
       CATVOL    MCAT01                Yes       No
       CSIVOL    SYSRS2                Yes       No
       DLB001              STORCLS2    Yes       No
       DLB002              STORCLS2    Yes       No
       IPLVOL    SYSRES                No        No
       TVOL01              STORCLS2    Yes       No
       TVOL02              STORCLS2    Yes       No
       USRVOL              USRSCLAS    Yes       Yes
******************************** Bottom of data *********************
```

Figure 108. Panel: Summary of Logical Volumes

Depending on whether the feature or element's data sets are managed by SMS, the panel displays the physical volume or SMS storage class of each logical volume. If the logical volume's data sets are eligible to be SMS-managed, the panel shows a value of Yes for the logical volume in the SMS-eligible field. If the logical volume's data sets are required to be SMS-managed, the panel shows an additional Yes in the SMS-Required field.

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 10.

The following line commands are valid for this panel:

A Assigns the data sets for the selected logical volume to a specific physical volume or SMS storage class (if the logical volume’s data sets are eligible for SMS-management). For more information, see “Assigning a Physical Volume or Storage Class for a Logical Volume”.

D Displays the ″Summary of Data Sets″ for the selected logical volume. This panel allows you to do any of the following:
- Merge or unmerge ServerPac-shipped data sets (you cannot merge or unmerge user-defined data sets)
- Modify the attributes of particular data sets or modify their space information
- Make global changes to multiple data sets
- Write a list of the data sets to the ISPF LIST data set or to a user-defined file.

For more information, see “Displaying a Summary of Data Sets” on page 151.

Assigning a Physical Volume or Storage Class for a Logical Volume

When you select a logical volume from the Summary of Logical Volumes panel (through line command A), the panel shown in Figure 109 is displayed.

```
CPPP605B ------------- Modify System Layout ( MD053718 ) ---------------------
COMMAND ==>

Assign a Physical Volume or Storage Class for Logical Volume: DLB001

The current assignment is shown below.


       Assign EITHER a physical volume OR a storage class below:


          Physical Volume ===> DLIBR6

             -- or --

           Storage Class ===>


****************************** Bottom of data ****************************
```

Figure 109. Panel: Assign a Physical Volume or Storage Class

Specify the physical volume or SMS storage class to which the data sets for the logical volume are to be assigned.

For an SMS storage class, specify the 1-8 character name of the storage class to be used to allocate the data sets for this logical volume. You must define this storage class in the active SMS configuration before you run the installation jobs that allocate data sets.

Based on your selection (physical volume or storage class), the dialog renames the logical volume according to the following conventions:

- If you assign a logical volume to a storage class, the dialog renames the logical volume to SM*xnnn*, where *x* is R (for target library), D (for DLIB), C (for catalog), or H (for HFS), and *nnn* is the original number of the volume.
- If you assign a logical volume to a physical volume, the dialog renames the logical volume to *xxxnnn*, where *xxx* is RES (for target library), DLB (for DLIB), CAT (for catalog), or HFS, and *yyy* is the original number of the volume.
- If you assign the CSIVOL logical volume to a storage class, the dialog renames the logical volume to SMZ*nnnnn*, where *nnnnn* is a dialog-assigned value. If you later re-assign the SMZ*nnnnn* volume to a physical volume, the dialog restores the name of the logical volume to CSIVOL, unless such a volume already exists in the configuration. Here, the dialog renames the logical volume to CATxxx, where *xxx* is a dialog-assigned value.

For a physical volume, if the physical volume name that you specify is known to ServerPac, the physical attributes of the device are inherited by the data set profiles that are assigned to it. These attributes are:

- Device type
- Device address
- Device capacity (track/cylinder/pack size)

If the physical volume name that you enter is not known to ServerPac, you must use the SUMP command (from the Summary of Features/Elements panel) to define the device address (which will have been set to CCUU).

If space recalculation is required because the new physical volume has a different device capacity than the old physical volume, the recalculation occurs automatically.

Appendix C. 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 set-up has been defined for the system on which the dialog is running.

System Programmer Response: Manually pre-allocate the data set or vary the volume online.

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 tables needed for a full saved configuration, or the library is corrupted.

The library is missing one or more of the following:

CPPDEVT Device Types Table
CPPITBL Installation Jobs Table
CPPVTBL Installation Variables Table

System Programmer Response: Review the saved configuration SCPPTENU library.

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.

CPP0601006I Report output has been saved in data set '*dsname***'**

Explanation: You used the SAVE command to save the ouput of the Create Configuration process in the specified data set, *dsname*.

System Programmer Response: None.

CPP0601007E A JES element must be selected for its zones to be merged.

Explanation: 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.

System Action: None.

System Programmer Response: Do either of the following:

- If you want to install the JES element, select it for installation and determine whether to merge its zones with the BCP zones.
- If you do not want to install the JES element, do not choose the option to merge its zones.

For considerations about merging JES zones, see "Selecting a JES for the Configuration" on page 31.

CPP0601008E Select a merge option for JES*n*.

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 31.

CPP0602001E NOT a Valid Catalog Data Set Name

Explanation: You entered a catalog data set name that is not valid.

System Programmer Response: Correct the catalog data set name.

CPP0602002S Catalog information for at least one entry is INVALID or NOT DEFINED

Explanation: At least one alias is associated with an invalid catalog data set name or the catalog data set name has not yet been defined.

System Programmer Response: Enter a valid MVS catalog data set name for all aliases.

CPP0602003I Changes to the TABLE have been SAVED

Explanation: Your changes to the order's alias-to-catalog relationships have been saved.

System Programmer Response: None.

CPP0602004I Processing CANCELLED by User *<changes>*

Explanation: You entered the CANCEL command; your changes to the order's alias-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.

CPP0602005E DELETE Request Refused, This Alias Is NOT USER DEFINED, It is Needed By CustomPac to Install Your Package

Explanation: You attempted to delete an alias that is required to install your order. You can delete only user-defined aliases.

System Programmer Response: Review your deletion request.

CPP0602006W Catalog Connection FORCED to MCAT, Either Alias MUST be in Master Catalog or Master Catalog DSNAME Specified

Explanation: The catalog data set name you specified is the same as the master catalog data set name, or must 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 - Mark MASTER catalog, N . uNmark MASTER catalog. However, the catalog target for the selected alias would conflict with that 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 volser. 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.

CPP0603011E 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.

CPP0603012W Conflicting units stored for *volser***. This must be resolved to proceed beyond the SSA option. Press Enter to continue.**

Explanation: The unit specified for volume *volser* 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.

CPP0604001S 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.

CPP0604002E 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.

CPP0604003E 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.

CPP0604004E 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.

CPP0604005I 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.

CPP0604006I SAVE Request SUCCESSFUL

Explanation: The work configuration was successfully copied to a saved or master configuration.

System Programmer Response: None.

CPP0605001I 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 cancelled 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 (LVT) 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 '*nnn*<<*n*' and an associated message.

System Programmer Response: See the description of the associated message.

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 DEVICE NAME is NOT Defined in the CustomPac DEVICE TYPE Tables

Explanation: You attempted to assign a physical volume by changing the device name, but the device name you entered is not defined in the device type table.

System Programmer Response: Assign the physical volume to a device name that has been defined in the device type table. Use the ? or DEVT commands to display a list of available device names.

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.

CPP0605016I Data set CANNOT be renamed.

Explanation: Your attempt to rename a data set was rejected. The data set is not renameable, nor has it been overridden.

Some data sets are normally marked unrenameable in the dialog. You can use the View and Change option in Modify System Layout to display a list of the unrenameable data sets in your order.

System Action: None.

System Programmer Response: To rename the data set, you must first make it renameable through the CHANGE RENAME command, as described in “Making Unrenameable Data Sets Renameable” on page 88.

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.

CPP0605020E INVALID BLKSIZE, RECFM is V .. BLKSIZE must be at least the LRECL + 4

Explanation: You specified a DCB RECFM of V, but the BLKSIZE is less than the LRECL + 4. For RECFM=V data sets the BLKSIZE must be at least the LRECL + 4.

System Programmer Response: Reset the BLKSIZE to a value of at least the LRECL + 4.

CPP0605021S INVALID BLKSIZE, Specified BLKSIZE is NOT supported by the PHYSICAL DEVICE (BLKSIZE is > Track Length)

Explanation: The BLKSIZE you specified is not valid for the physical device to which this data set is mapped. The BLKSIZE is greater than the physical track length of the device.

System Programmer Response: Review the BLKSIZE of the data set, or the physical device to which it is mapped.

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.

CPP0605023W BLKSIZE has been CHANGED, CHECK that the PRIMARY SPACE Value is still valid for the NEW BLKSIZE

Explanation: You changed the BLKSIZE for the data set.

System Action: If you did not also change the primary space value, it is automatically re-calculated.

System Programmer Response: Review the primary space value.

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.

CPP0605025I Please Verify that the Space Allocation is Optimised after the selection of a Different Device Type (Use Optiblock)

Explanation: You assigned a physical volume to a DASD device that belongs to a different DASD family. The bytes-per-track and tracks-per-cylinder values might have changed. The data sets assigned to this physical volume have space values that were optimized for the original device.

System Programmer Response: Review the space requirements of the data sets that are mapped to this physical volume. If necessary, use the OPTIBLOCK command to re-optimize the space usage.

CPP0605026E INVALID RECFM

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.

CPP0605028S 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 re-assign 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.

CPP0605030I Resolved Data Set Name *"dsname"*

Explanation: You entered line command R for this data set. *dsname* is the resulting data set name after symbolic substitution.

System Programmer Response: None.

CPP0605031E Global CHANGE, Incorrect Option.

Explanation: You entered the CHANGE command with an incorrect option.

The following options are valid: DSN, LV, TYPE, OB, SPACE, SMS, RENAME, PVOL, MCAT.

System Programmer Response: Enter a valid change command. For correct syntax, see “Making Changes to Data Sets” on page 84.

CPP0605032E Global CHANGE, Missing Parameter(s)

Explanation: Your entered the CHANGE change command without specifying one or more required parameters.

The following parameters are valid: DSN, LV, TYPE, OB, SPACE, SMS, RENAME, PVOL, MCAT.

System Programmer Response: Re-enter the command, including all required parameters. For examples, see “Making Changes to Data Sets” on page 84.

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 84.

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.

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.

CPP0605040E INVALID Data set Name or Data set Name Not Defined

Explanation: The OFILE OPEN data set name you have entered is not valid for MVS.

System Programmer Response: Correct the OFILE OPEN data set name.

CPP0605041E INVALID Member Name

Explanation: You entered the OFILE OPEN command with an incorrect member name.

System Programmer Response: Re-enter the command with the correct member name.

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.

CPP0605047I 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.

CPP0605048I 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: Re-enter 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 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*.

CPP0605051I 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.

CPP0605052I 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: Re-enter the SUMD command. To filter the display output, specify a valid filter (U, S, or M) after the SUMD command.

CPP0605055S Volume (*volser*) actual device type (*devtype*) does not match specified device type (*udevtyp*).

Explanation: You specified a device type (*udevtyp*) for volume *volser* that does not match the actual device (*devtype*). These values must match.

In the panel, the volume is indicated by 'DEV<<S'.

System Action: The dialog prevents you from installing the order until you resolve this condition.

System Programmer Response: Redefine the device, specifying the correct device type.

CPP0605056S Volume (*volser*) is offline.

Explanation: Volume *volser* is required, but cannot be accessed because it is offline.

In the panel, the offline volume is indicated by 'OFF<<S'.

System Action: The dialog prevents you from installing the order until you resolve this condition.

System Programmer Response: Make the volume available.

CPP0605057W Volume (*volser*) 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.

CPP0605058S Volume (*volser*) information not retrievable.

Explanation: Information about the volume *volser* 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 this message persists after you rebuild the VTOC index, contact IBM for support.

CPP0605059S Volume (*volser*) is overallocated.

Explanation: The number of cylinders to be allocated on volume *volser* 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:

- Add another volume and move data sets from the overallocated volume to the new volume.
- Use the SUMP command to select a device type that has a larger capacity.
- Move data sets to another physical volume. See the topic, "Recommended Data Set Placement" in *z/OS and z/OS.e 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 'Existing Data on Volume' field from Y to N.

For help in changing the device type or moving a data set to another physical volume, see the descriptions that accompany Figure 106 on page 158.

To add another volume, follow this process:

1. Press the END key 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. Press the END key to return to the Summary of Features/Elements panel.
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 A for each of the volumes. Assign a physical VOLSER to the logical volume. Press the END key.
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.

CPP0605060I Driving System DFP level is *dfplevel*.

Explanation: This message identifies the level of DFSMSdfp being used on the driving system.

System Action: None.

System Programmer Response: None.

CPP0605061E SPACE value CANNOT be LESS than SHIPPED VALUE.

Explanation: You attempted to to decrease the space for a shipped data set to less than its original, shipped amount. This action is not allowed.

System Action: Your request is ignored.

System Programmer Response: Resubmit your request, specifying an amount of space that is equal to, or greater than, the original, shipped amount.

CPP0605062E DIRECTORY blocks CANNOT be LESS than SHIPPED VALUE.

Explanation: You attempted to decrease the number of directory blocks for a shipped data set to less than its original, shipped number. This action is not allowed.

System Action: Your request is ignored.

System Programmer Response: Resubmit your request, specifying a number of directory blocks that is equal to, or greater than, the original, shipped number.

CPP0605063E Data Set CANNOT be reblocked to a LOWER block size than the SHIPPED block size

Explanation: You attempted to decrease the block size for a shipped data set to less than its original, shipped block size. This action is not allowed.

System Action: Your request is ignored.

System Programmer Response: Resubmit your request, specifying a block size that is equal to, or greater than, the original, shipped block size.

CPP0605064E NEW Data Set SIZE *new_size* must be EQUAL to or GREATER than SHIPPED SIZE *shipped_size*

Explanation: You attempted to reduce the size of a shipped data set from its original, shipped size. This action is not allowed.

System Action: Your request is ignored.

System Programmer Response: Resubmit your request, specifying an amount of space that is equal to, or greater than, the original, shipped amount.

CPP0605065W The configuration contains one or more PDSE or HFS data sets. SMS activation is required on the driving system.

Explanation: The shipped configuration contains one or more PDSE or HFS data sets. These data sets cannot be allocated because SMS is not active on the

driving system. SMS must be active in at least a null configuration.

System Action: Dialog processing stops.

System Programmer Response: To complete the Modify System Layout option, you can do either of the following:

- Reset all PDSE data sets in the configuration to PDS data sets, if the PDSE data sets are eligible to be converted (for details, see "Changing Data Set Types" on page 88).
- Exit the installation dialog and activate SMS on the driving system. Return to the dialog at the Modify System Layout option.

CPP0605069E Only 'PDS PDSE' or 'PDSE PDS' can be specified on the CH TYPE command.

Explanation: You specified an incorrect value on the CHANGE DSNTYPE command.

System Action: The system ignores your request.

System Programmer Response: To change PDS data sets to PDSE data sets, enter the CHANGE DSNTYPE command as follows:

```
CH TYPE PDS PDSE
```

To change PDSE data sets to PDS data sets, enter the CHANGE DSNTYPE command as follows:

```
CH TYPE PDSE PDS
```

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 and Storage Class are mutually exclusive.

Explanation: You entered both a physical volume and a storage class for the logical volume being assigned. Only one may be specified.

System Programmer Response: Specify either a physical volume or a storage class, but not both.

CPP0605073E All data sets on a logical volume must be either SMS-managed or unmanaged. Change either the logical volume or the value of SMS-managed.

Explanation: Mixing SMS-managed data sets and non-SMS data sets on the same logical volume is not allowed. A volume can be either SMS-managed or unmanaged, but not both.

System Action: Modify System Layout cannot be completed.

System Programmer Response: To complete Modify System Layout, do either of the following:

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.

CPP0605075E 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.

CPP0605076E Name not allowed. Specify SM*xxxx* for SMS-managed logical volumes. Do not specify SM*xxxx* 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.

CPP0605077E Invalid syntax. The correct syntax is: CH PVOL TARGET|DLIB|OPERATIONAL *new_volser*

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 “Changing the Physical Volume for Data Sets” on page 91.

CPP0605078E 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 “Making Unrenameable Data Sets Renameable” on page 88.

CPP0605079E 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. For more information, see “Changing Data Set Names” on page 86.

CPP0605080E 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 vaules, and for values outside the range, use a pair of SS commands to select the largest range, and individual S commands to select the additional values for which data sets are to be displayed.

CPP0605081I No values were found to display.

Explanation: Your search resulted in no matches.

System Action: None.

System Programmer Response: None.

CPP0605082E 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.

CPP0605083E Invalid syntax. The correct syntax is: CH MCAT Y|N

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 “Overridding the Master Catalog Requirement for Data Sets” on page 90.

CPP0605084E 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.

CPP0605109E Logical Volume IPLVOL cannot be placed on the same physical disk used by the Standalone Dump Bootstrap.

Explanation: You attempted to assign logical volume IPLVOL to the physical volume that is to be used for the standalone dump program. You cannot place the IPL text and the standalone dump program on the same physical volume.

The standalone dump program is placed on the physical volume that contains the data set SYS1.PAGEDUMP.

System Programmer Response: Specify a different physical volume.

CPP0605110E Logical Volume *l-vol* Cannot be placed on the same physical disk as the System IPL 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.

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.

CPP0605150W The configuration contains SMS-managed data sets. SMS activation is required on the driving system.

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.

CPP0605200I Data Set merge request successful

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.

CPP0605201I 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.

CPP0605202E 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 display):
  1. Enter a U for the data set to be unmerged.
  2. Press Enter.

CPP0605203W 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: Re-establish 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 107 and Chapter 10, "Defining System-Specific Aliases (SSAs)" on page 115.

CPP0605205E EXPAND line command may only be used on a merged data set

Explanation: You have attempted to display the component data sets of a data set that has no component data sets. Only a merged data set has component data sets.

System Programmer Response: Limit your expansion selections to merged data sets.

CPP0605206I Merged data set has been unmerged

Explanation: You have successfully unmerged a merged data set of all of its component data sets.

System Programmer Response: None.

CPP0605207I Component data set unmerged

Explanation: You have successfully unmerged the selected component data set from the merged data set. The merged data set is left with at least one remaining component data set.

System Programmer Response: None.

CPP0605208I Last component data set unmerged; therefore, the merged data set is unmerged

Explanation: You have successfully unmerged the last component data set from the merged data set.

System Programmer Response: None.

CPP0605209E Selected data set *dsname* is not valid for merge processing.

Explanation: The data set you selected (*dsname*) is not eligible for merging.

System Programmer Response: Review the rules for merging data sets in “Merging and Unmerging Data Sets” on page 94.

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 *dsname1* is merged. Data set *dsname2* 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 94.

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 sucessfully merged into data set *merged-dsname*.

System Programmer Response: None.

CPP0605215E Component data set not found

Explanation: The string you entered on the FC command does not match any component data sets.

System Programmer Response: Review your selection.

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: You attempted to display the product information for a customer added order. However, such orders have no product information.

CPP0607006I Order has NO Product Information

Explanation: The order you selected has no product information to display.

CPP0607007I Order is Customer Added, it Cannot be Installed

Explanation: You attempted to install a customer added order through the installation dialog. However, you cannot install such orders through the dialog.

CPP0607008W Order *ordernum* **is IN USE By Another User, Try Again Later**

Explanation: The order you are attempting to install, *ordernum*, is currently in use by another user or session.

System Programmer Response: Try again later.

CPP0607010W Order Cannot be Selected for Install, Status MUST be R,C or S .... Re-Set Status if Install IS Required

Explanation: In the Order Installation function, you have set the order status to I (Installed) or F (Finalized). However, you selected this order for installation.

System Programmer Response: To install the order, reset the status to R,C, or S.

CPP0607011I 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.

CPP0607012E 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.

Specify a different report data set name and try the request again.

CPP0607013I Report Written to *dsname*

Explanation: The order information was successfully written to the specified report data set *dsname*.

System Programmer Response: None.

CPP0607014E 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.

CPP0607015E 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:
- LRECL=80, if an FB file is used
- LRECL=84 or greater, if a VB file is used.

CPP0607016E 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.

CPP0607017I Synchronization DELETE has Completed Successfully *ordernum*

Explanation: The order you have selected, *ordernum*, 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 re-submit 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:

R Received (not valid for a customer-added order).
A Added by customer (not valid for an IBM-supplied order).
S Started
I Installed
F Finalized

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 in the Order Inventory, to INSERT a Customer Added Order Select 'Display ALL Orders=YES'

Explanation: The order inventory does not contain any orders.

System Programmer Response: Define a customer added order by selecting display of all orders, (INSERT of a customer added order will be forced), or press the END key to cancel processing.

CPP0607024I NO Orders Waiting to be Installed

Explanation: There are no orders to be installed.

System Programmer Response: If you wish to re-install 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.

CPP0607040E Invalid data set name, or data set name not specified

Explanation: The OFILE OPEN data set name you specified is not valid for MVS.

System Programmer Response: Correct the OFILE OPEN data set name.

CPP0607041E Invalid member name

Explanation: You entered the OFILE OPEN command with an incorrect member name.

System Programmer Response: Re-enter the command with the correct member name.

CPP0607042E 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.

CPP0607043E 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.

CPP0607044E 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.

CPP0607045I 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.

CPP0607046E 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.

CPP0607047I OFILE data set is active '*dsname***'**

Explanation: The OFILE output data set *dsname* is open and available for your use.

System Programmer Response: None.

CPP0607048I 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.

CPP0607049E Data Set operation invalid or not specified (OPEN CLOSE)

Explanation: You entered the OFILE command with an invalid operation.

System Programmer Response: Re-enter 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

CPP0607050I 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 re-run 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 re-run 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.

CPP0610003E An Order is Already Selected, Use DE-Select FIRST

Explanation: You already selected an order record to be replaced by this receive, only one order record can be replaced.

System Programmer Response: To replace the order record, de-select the previously selected record and re-select this record.

CPP0610004E Record was not Selected so Cannot be DE-Selected

Explanation: You attempted to de-select an order record that was not previously selected.

System Programmer Response: Review your de-selection request.

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 HLQ is not allowed to be the same as Master HLQ

Explanation: You entered a high level qualifier (HLQ) for your order's data sets. However, this value matches the HLQ used for the dialog's MASTER data sets, which is not allowed.

System Programmer Response: Enter a unique HLQ for your order's data sets. IBM recommends that you include your order number as part of the qualifier to ensure that it is unique.

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.

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
E	ERASED
I	INSERTED
P	PRE-DEFINED
U	USER-DEFINED

System Programmer Response: Re-enter 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.

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.

CPP0612004I 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.

CPP0612005S 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.

CPP0612006S 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.

CPP0612007E 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.

CPP0612008E 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.

CPP0612009I ″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.

CPP0612010I 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.

CPP0612011I ″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.

CPP0612012I 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.

CPP0612013W 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.

CPP0612014E 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 (SDSF ?), use this 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.

CPP0612019I JOBCAT card was processed successfully.

Explanation: You entered line command SS for a block of jobs. More than one job in the selected block contained a JOBCAT statement. All but the first occurence of the JOBCAT statement have been removed.

System Programmer Response: None.

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. To process this request, the dialog requires exclusive access to 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 for MVS.

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: Re-enter 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: Re-enter 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 *ordernum* Status Set to INSTALLED

Explanation: The status of order *ordernum* is now set to INSTALLED. You cannot re-enter 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 re-occurs, contact IBM for assistance.

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 re-occurs, contact IBM for assistance.

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.

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 re-occurs, 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 cancelled the upgrade.

System Action: You cannot install the order unless you the 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 2000
- 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 *version*.

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 CPPERCDS 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 CPPERCDS exec. If the failure occurred in the RECATDS job, ensure that CREATE is the first parameter that is passed to the CPPERCDS exec.

Rerun the step that invokes exec CPPERCDS.

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 identified for this high level qualifier.
- If the high level qualifier is to be defined in the configuration catalog, delete the alias that points to the high level qualifier in the driving system.

Restart the job that contains the step that failed.

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 CPPERCDS 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 CPPERCDS.

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 *dsname* 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
dsname 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*.

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*.

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 *orderhlq*.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*.

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 *orderhlq*.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.

CPP0621022E 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 re-running 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 re-running 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 re-running 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 DFSMSdfp 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)*. 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, re-run the GENSKEL command.
  - Re-run 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 *volser*.

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 the new data set.
  - If you previously used the GENSKEL command to tailor all of the jobs at one time, re-run the GENSKEL command.
  - Re-run 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 Existing data was specified for *volser* **but it could not be accessed.**

Explanation: The dialog attempted to retrieve used space from the volume *volser* for which ″Existing Data″ 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 ″Existing Data″ to N for this volume and continue.

Use caution in resetting volumes from Existing Data YES to Existing Data NO. 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 "Changing the Physical Volume for Data Sets" on page 91). 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 Existing Data, 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. If you can move all of the data sets to other volumes, set the Existing Data field to N.

  Use caution in resetting volumes from Existing Data YES to Existing Data NO. Doing so causes the volume to be initialized by the installation jobs.

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 *dsname* requires *nnnnnnn* cylinders and cannot be placed 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 Existing Data 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, re-enter 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 Existing Data, move some data sets to volumes that are not eligible for automatic data set assignment.

When you have resolved the problem, re-enter 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 inadvertantly 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.

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 Action: None.

System Programmer Response: None.

CPP0627002S Unrecognized parameter.

Explanation: The CHKSMPLV program was called with an unrecognized parameter.

System Action: CPPSMPLV ends with return code 12.

System Programmer Response: Contact IBM for assistance.

CPP0627003E GIMAPI ended with an unexpected return code. The return code was *return-code***.**

Explanation: The CHKSMPLV called the SMP/E authorized programming interface routine, GIMAPI, which returned a non-zero return code. In the message, *return-code* is the GIMAPI return code.

System Action: CPPSMPLV ends with return code 8.

System Programmer Response: Check the following sources for information related to the problem:
- Contents of the GIMAPI message buffer in the SYSPRINT data set.
- Messages in the job log.

If this information is not sufficient for resolving the problem, contact IBM for assistance.

CPP0628001S Unable to ALLOCATE*dataset-name* **RC=***return-code*

Explanation: The dialog could not access the master SCPPLOAD data set *dataset-name*.

System Action: The dialog ends with the return code shown in this message.

System Programmer Response: Contact IBM for assistance.

CPP0628002E ISPF Dialog error *function-name* **RC=***return-code*

Explanation: An ISPF dialog error has occured.

System Action: The dialog ends with the return code shown in this message.

System Programmer Response: Contact IBM for assistance.

CPP0639001I CustomPac ZONE Table has been INITIALISED With SHIPPED Values

Explanation: You have restored all DLIB and target zone names to the original, shipped values. Any customization that you might have done has been discarded.

System Programmer Response: None.

CPP0639002I RESTORE Confirmation has been denied, SHIP Command will NOT be Executed

Explanation: You requested that all DLIB and TLIB 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 the 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

  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 re-run 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.

CPP0670009W 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 *dsname* **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 the control statements required for priming mode processing.

CPP0670029W DLIBZONE statement ignored since no targetzones 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.

CPP0987001W *member-name* **Year has only** *number* **days. SSI=***value*

Explanation: The indicated member has an incorrect year in the SSI information portion of its directory entry. All of the IBM-supplied modules in data set SCPPLOAD should have valid SSI information.

System Action: None.

System Programmer Response: Remove any non-IBM supplied modules from SCPPLOAD. If this message is issued for an IBM-supplied module, 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.

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 CPPCMSG 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/1 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 CPPCMSG 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 CPPCMSG interface.

The program calling the interface has specified a RESTORE service call, however no preceeding 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 CPPCMSG 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: For the installation type, enter in the Option field either 'F' for a full system replacement or 'S' for a software upgrade, and press Enter. For information about these installation types, see Chapter 5, "Selecting a Configuration for the Order" on page 29).

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.

CPP9999950I 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.

CPP9999951W 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: Enter a valid command.

CPP9999952W INVALID Line Command *″command-name″*

Explanation: The line command shown is not valid for the row being selected.

System Programmer Response: Enter a valid command.

CPP9999953E Invalid PARM Information *parm***.**

Explanation: The external PARM information *parm* supplied to the program was missing or in error.

System Programmer Response: Report this problem to IBM.

CPP9999954I Table REFRESHED

Explanation: The current panel was refreshed.

System Programmer Response: None.

CPP9999955I 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.

CPP9999956I SORT Completed

Explanation: Your SORT command has completed successfully.

System Programmer Response: None.

CPP9999957I SET Successful for field *field-name*

Explanation: Your SET command has completed successfully; the field has been set.

System Programmer Response: None.

CPP9999958I 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.

CPP9999961I 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.

CPP9999962I 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.

CPP9999963I 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.

CPP9999964I 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.

CPP9999965I 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.

CPP9999966E 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 quote.

System Programmer Response: Add an ending quote to the search criteria.

CPP9999967I 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.

CPP9999968I Synchronization DELETE Has Completed Successfully *text*

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).

text might show more information.

System Programmer Response: None.

CPP9999969I Synchronization INSERT Has Completed Successfully *text*

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 created has been inserted in your display (synchronized).

text might show more information.

System Programmer Response: None.

CPP9999970I DELETE Request Successful *text*

Explanation: You successfully deleted the data object. *text* might show more information.

System Programmer Response: None.

CPP9999971I DELETE Request Cancelled *text*

Explanation: Your request to delete the data object was cancelled for one of the following reasons:
- You did not confirm your request.
- You ended the request by pressing the END key.

text might show more information.

System Programmer Response: None.

CPP9999973I INSERT Request Successful *text*

Explanation: You successfully inserted or created the data object. *text* might show more information.

System Programmer Response: None.

CPP9999974I INSERT Request Cancelled *text*

Explanation: Your request to insert or create the data object was cancelled for one of the following reasons:
- You did not confirm your request.
- You ended the request by pressing the END key.

text might show more information.

System Programmer Response: None.

CPP9999976I UPDATE Request Successful *text*

Explanation: Your attempt to update or edit the data object was successful. *text* might show more information.

System Programmer Response: None.

CPP9999977I UPDATE Request Cancelled *text*

Explanation: Your attempt to update or edit the data object was cancelled for one of the following reasons:
- You did not confirm your request.
- You ended the request by pressing the END key.

text might show more information.

System Programmer Response: None.

CPP9999979I 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.

CPP9999985S MULTIPLE Selection is NOT Available, ONLY the FIRST Selection is VALID (ALL OTHER Selections have been CLEARED)

Explanation: You selected more than one data object, which is not allowed in this display.

System Action: Only the first data object is selected; the other selections are ignored.

System Programmer Response: Review the selection.

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 dynamic 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.

CPP9999993I 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.

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ServerPac
Using the Installation Dialog
Dialog Level: 15 (September 2002)

Publication No. SA22-7815-04

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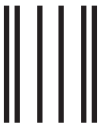

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