IBM

Integrated Supply Chain

ServerPac: Introduction

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ServerPac is the only entitled system-replacement deliverable for z/OS®. ServerPac is installed with the dialog that is currently used to install products and service in the CustomPac family.

This presentation, which is targeted for beginners, provides you with an introduction to ServerPac. The presentation will describe the ServerPac offering, its default structure and basic functions of the ServerPac dialog used for installation, such as receiving your order, creating and saving configurations, specifying variables, modifying system layout, setting the catalog structure, generating and submitting the installation jobs, and problem reporting. The presentation will also cover what preliminary information you should obtain before getting started, and provide you with a list of references that offer helpful tips and answers to frequently asked questions.

Agenda

- Introduction to ServerPac

- Planning for ServerPac

- Preparing for ServerPac

- Installing ServerPac

- Saving your ServerPac configuration

- Maintaining your ServerPac system

- Summary

This presentation begins with an introduction to ServerPac to help you understand its characteristics. These characteristics might cause you to change your software installation methodology.

In the Planning phase, there may be some tasks that you can do that can facilitate a ServerPac installation even before you obtain a ServerPac. There are some activities that can help you determine what products you may want to order in your ServerPac. Once you are ready to place your order, you can do it using ShopzSeries.

While you are waiting for your ServerPac to arrive, you may start to look at details about what your configuration should look like.

To actually install your ServerPac, you will use the ServerPac Dialog which will allow you to tailor the default ServerPac configuration to match your own configuration. The dialog will generate a customized installation jobstream based on your tailored configuration.

Once you are satisfied with your tailored configuration, you may save it so it may be used as a starting point for subsequent ServerPac installs.

If you modify your environment in between ServerPac installs, you may want to keep your ServerPac configuration up to date and re-save it. You will also want to install preventive service before your next ServerPac install.

IBM

Section

Introduction

ServerPac: Introduction

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What is ServerPac?

- ServerPac is a system-replace deliverable
- Supports the z/OS® environment by system/subsystem type
  - ▶ z/OS or subsystems (WebSphere®, DB2®, CICS®, IMS™, NCP)
- Ordered using ShopzSeries
  - ▶ Product Catalog Refreshed Monthly
- Provides DLIBs, Target Libs, and all SMP/E Libs
- Provides integrated service up to the latest RSU level
- Provides un-integrated service in RECEIVED status
- Provides the ServerPac Installation Dialog used for installation
- Delivered over the Internet or on 3480,3480C,3490E,3590, and 3592 tape
  - ▶ Choose Internet or, if you must use physical delivery, then choose the highest density tape media your environment can support.
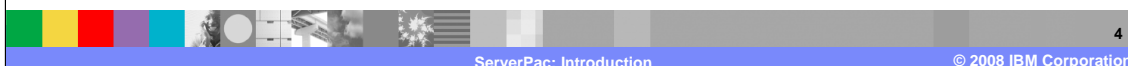
ServerPac, when installed, replaces a complete z/OS system or subsystem. ServerPac is provided by system or subsystem type; that is, you get a separate ServerPac for each z/OS or subsystem. However, an exception is that you can get WebSphere Application Server either in a separate ServerPac or with a z/OS ServerPac since it resides in the z/OS SREL.

You can order a ServerPac using ShopzSeries or by contacting IBM or your Business Partner. You select the products you want included in your ServerPac system or subsystem from the product catalog. The product catalog for ServerPac is refreshed monthly to include products that have been supported or withdrawn from ServerPac in the previous month.   Each September, ServerPac supports the new release of the operating system. For all other months, ServerPac will support additional products in the z/OS environment that have become available and upgrade the service integrated to the next RSU level.

The ServerPac packages can be downloaded from the Internet or distributed on 3480, 3480 compressed, 3490E, 3590, or 3592 tape media. The download package is in GIMZIP archive format, while tapes are delivered in IEBCOPY dump-by-data-set format. **You should choose Internet. If you must use physical delivery, then choose the highest density tape media your environment can support.**

A ServerPac package contains:
- System tapes with the installation dialog, order data, target and DLIB data sets, and CSIs
- *ServerPac: Installing Your Order* book which is customized to your order
- *ServerPac: Using the Installation Dialog* (SA22-7815)
- Other product-specific materials such as
  - Publications – hardcopy installation books, softcopy books on CD or DVD, or Web links
  - CD or DVD containing associated workstation client code

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Driving system and target system

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- Driving system
  - System image used to install the new system, product or service.
  - Pre-IPL installation jobs are run on this system.

- Target system
  - System image that will run the new software libraries for the system, product or service being installed.
  - Target System DASD must be accessible from the Driving System.
  - Post-installation jobs are run on this system.

- Driving system requirements
  - Minimum driving system requirements needed to install your ServerPac, such as:
    - operating system level
    - installer authorization and security level
    - software levels needed for Internet delivery, and so on.
  - Refer to the *z/OS Planning for Installation* guide for the complete list of driving system requirements.
  - Customized Offerings Driver (5655-M12) can satisfy these requirements

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

Your driving system must meet the minimum requirements to install your ServerPac. Review the *z/OS Planning for Installation* book for the detailed requirements. You can use the Customized Offerings Driver (5655-M12) to satisfy these requirements if necessary.

You log on to the driving system and run jobs there to create or update the target system, therefore the DASD for your target system must be accessible to the driving system.

The *target system* is the system software libraries and other data sets that you are installing.

Once the target system is built, it can be IPLed on the same hardware (same LPAR or same processor) or different hardware than that used for the driving system. ServerPac post-install jobs and installation verification jobs are run on the new target system after IPL.

Customized Offering Driver

- The Customized Offerings Driver (COD) is a load-and-go driving system that can be used to install a z/OS ServerPac or CBPDO if you need a driving system that meets the requirements for installing z/OS.
  - ▶ No charge, entitled with z/OS license
- The current level of the COD, V2.4 (5655-M12):
  - ▶ Supports z/OS V1.9 driving system requirements
  - ▶ Supports ServerPac Internet Delivery requirements
  - ▶ Based on a subset of z/OS V1.8 and includes SMP/E V3.4
  - ▶ Can be restored on 3380-3 or 3390-3 DASD or higher
  - ▶ Orderable through ShopzSeries
    - Select "Driving System" package category
  - ▶ Delivered on 3480, 3590, or 3592 tape media

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The Customized Offerings Driver (COD) is a load-and-go system that can be used as a driving system to install your z/OS ServerPac or CBPDO if you do not have an existing driving system or it does not meet the driving system requirements. This system is only intended for this purpose and must be discarded when your installation is complete. There is no charge for the COD. It is entitled with your z/OS license.

The current level of the Customized Offerings Driver (COD) is V2.4, which replaces the previous level COD V2.3.1. This version of the COD supports the driving system requirements for z/OS V1.9 and is enhanced to be based on a z/OS V1.8 JES2 system. It also includes SMP/E V3.4 which supports ServerPac and CBPDO Internet Delivery. The COD is updated periodically since it must always support the minimum driving system requirements for z/OS.

You can locate the PSP Bucket for this level of the COD using
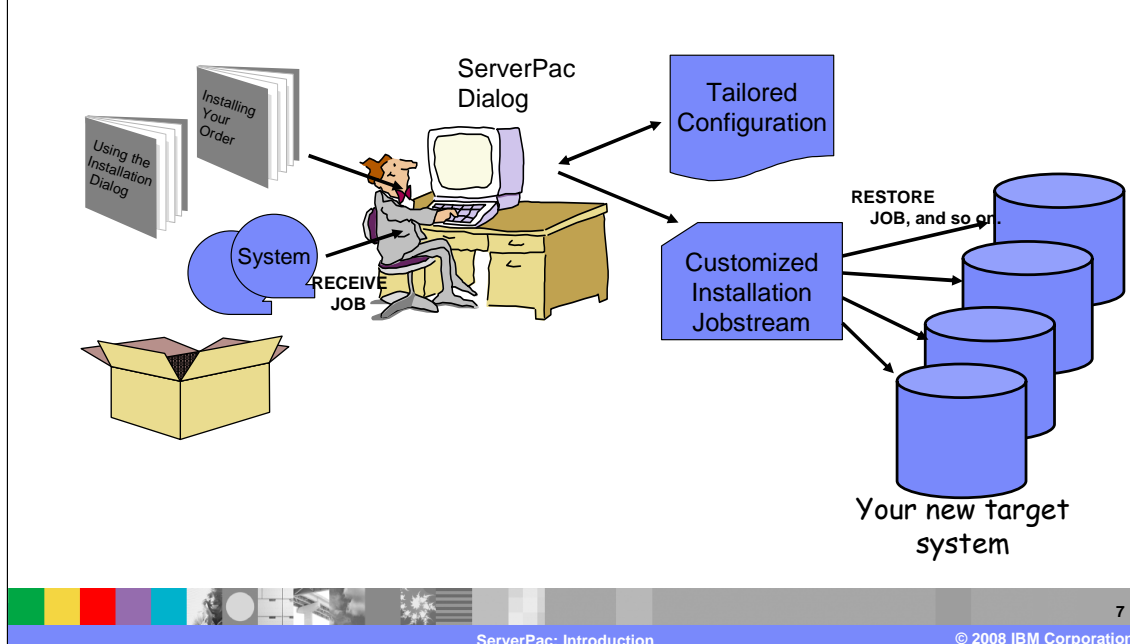
UPGRADE: CUSTOMDRIVER

SUBSET: MARCH2008

The COD can be ordered for 3380 or 3390 DASD types, however the COD can only be restored on 3380-3 or 3390-3 or higher DASD devices due to the size of the operating system.

You can order the COD through ShopzSeries by selecting the "Driving System" package category. The supported delivery options for the COD are 3480, 3590, and 3592 tape media.

ServerPac installation overview

Using the Installation Dialog

Installing Your Order

ServerPac Dialog

Tailored Configuration

System

RECEIVE JOB

Customized Installation Jobstream

RESTORE JOB, and so on.

Your new target system

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If you chose tape delivery when you ordered your ServerPac, you will receive a box containing the ServerPac system tapes, the ServerPac documentation, and any publications or client code CDs for the products included in your order.

The ServerPac Installation Dialog is used to install the ServerPac order, so the first step is to unload the Dialog from tape. Then, you receive the order into the Dialog, and use the Dialog to tailor the ServerPac configuration to match your own system environment. The Dialog will use the tailored configuration to generate a customized installation jobstream that will create your new target system from the System tapes.

ServerPac Internet delivery
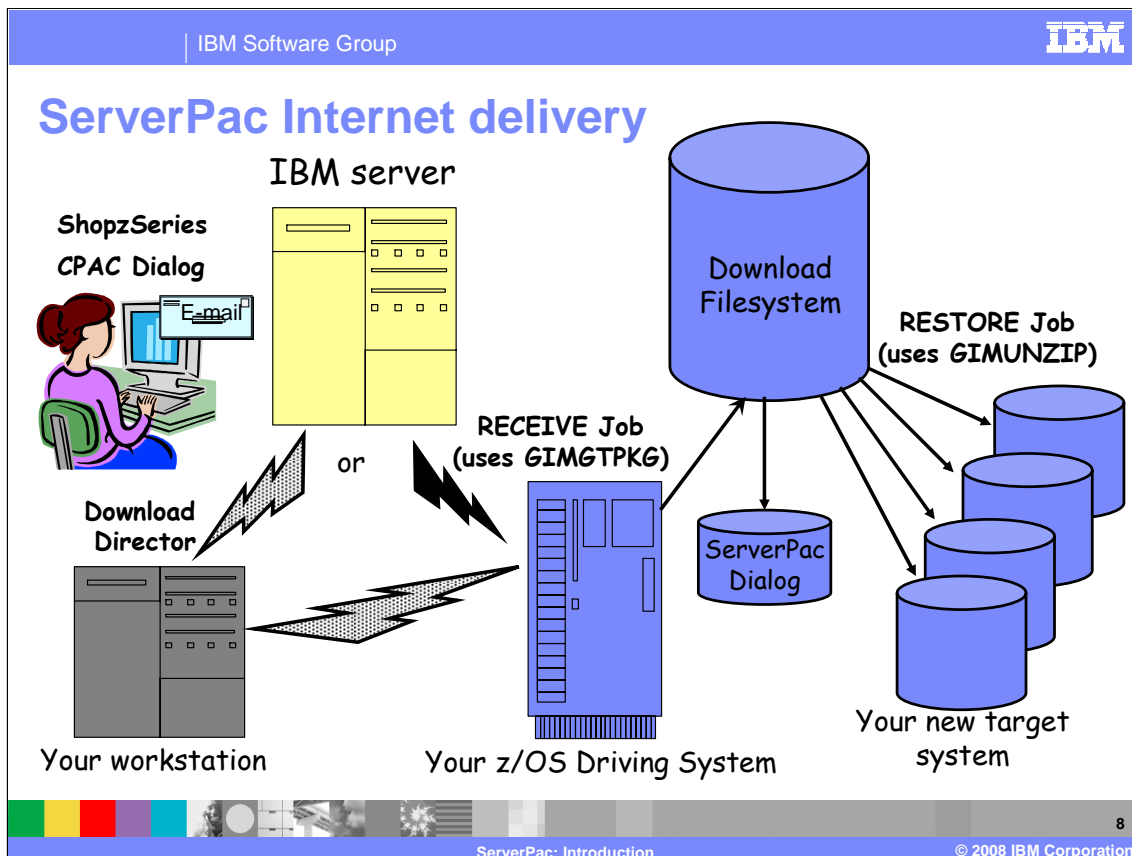
Here is the high-level overview of Internet delivery for ServerPac. You must place your order using ShopzSeries to choose Internet delivery. When your order is ready for download, you will receive an e-mail from IBM.

When you logon to ShopzSeries to access your order, the download pages are dynamically built. You can either download your order directly to host using the ServerPac Dialog or download it to your workstation first using Download Director in ShopzSeries and then upload it to the host.

The Dialog "Server" option will generate a RECEIVE job that uses the SMP/E GIMGTPKG utility to retrieve your order directly from the IBM server. GIMGTPKG will place the data in your Download File System.

The Dialog "File System" option will generate a RECEIVE job that will retrieve your order from the Download File System after you have uploaded it from your workstation, if you chose to download it to your workstation first.

Later, the Dialog RESTORE job will use the SMP/E GIMUNZIP program to load your new target system's volumes from the Download File System.

When you have finished, you can delete the Download Filesystem. However, you should consider dumping it first, just in case.

ServerPac documentation

- *ServerPac: Using the Installation Dialog*
  - ▶ Publication SA22-7815
  - ▶ Getting Started, Hints and Tips, Descriptions of Dialog Functions

- *ServerPac: Installing your Order*
  - ▶ Customized per order
  - ▶ Products Ordered, Installation Job Checklist, Post Install Customization, General Product Information, Variables Description/Worksheet, Package Reports Information
  - ▶ Supplied with your order
  - ▶ Available in hardcopy, PDF, and BOOK formats

- ServerPac FAQs
  - ▶ http://www-03.ibm.com/systems/z/resources/faq/
  - ▶ ServerPac FAQs located in *Software and Solutions* section

ServerPac contains the following documents in the package.

ServerPac: Using the Installation Dialog (SA22-7815)

This book contains everything you need to know about the ServerPac Dialog. It contains information regarding:
- How to get started with and using the Dialog
- Complete description of Dialog functions
- Hints and tips for using the Dialog
- Handy reference for Dialog Primary Commands
- Dialog messages

ServerPac: Installing Your Order

This installation guide is customized to each order and contains information regarding:
- Products you ordered
- Installation job checklist and descriptions
- Post-install customization and IVPs
- General Product Information such as data sets, jobs done by IBM, status
- Variables Description/Worksheet
- Package Reports Information

This document is provided in PDF and BOOK formats with your order. The PDF format is also provided on your order's ShopzSeries download page if you chose to use the Internet.

ServerPac FAQs

This document contains Frequently Asked Questions about ServerPac. It resides on the z/OS Support Web site in the FAQs section. The ServerPac FAQs is the first link within the "Software and Solutions" section.

http://www3.ibm.com/systems/z/resources/faq/

You can also directly access the ServerPac FAQs document using the following link.

http://www-03.ibm.com/systems/z/faq/pdf/ServerPac_FAQ.pdf

Additional information

- z/OS installation and migration Web page
  - ▸ http://www.ibm.com/servers/eserver/zseries/zos/installation/
  - ▸ contains links to
    - ShopzSeries
    - Installation publications
- *z/OS Planning for Installation*
  - ▸ Publication GA22-7504
- *z/OS Migration*
  - ▸ Publication GA22-7499
- PSP Buckets
  - ▸ https://techsupport.services.ibm.com/server/390.psp390
  - ▸ ServerPac Upgrade: ZOSV1R9
  - ▸ ServerPac Subset: SERVERPAC

Further information can be found in these publications and Web sites:

The z/OS Installation Web site provides a lot of information to assist you with planning for your z/OS upgrade. This Web site contains information regarding ordering of z/OS and related products, links to ShopzSeries, which is the online ordering capability, and links to installation related publications. This Web site can be found at the address shown here.

Two of the installation publications that you will use during the planning and installation of your ServerPac are:
• *z/OS Planning for Installation* - GA22-7504
• *z/OS Migration* – GA22-7499

PSP buckets are easily retrieved from the Internet from PSP buckets Web site listed here. You should always retrieve and review the latest PSP buckets for the products you are installing. The *ServerPac: Installing Your Order* (IYO) document provides the PSP bucket names (Upgrade and Subset) so you can easily retrieve them.

Service integration schedule

Monthly refreshes

GA

200709	200710	200711	200712	200801	200802
PUT0703	PUT0703	PUT0703	PUT0703	PUT0703	PUT0703
RSU0708	RSU0709	RSU0710	RSU0711	RSU0712	RSU0801
HIPER	HIPER	HIPER	HIPER	HIPER	HIPER
PEFIX	PEFIX	PEFIX	PEFIX	PEFIX	PEFIX
I/T Service	I/T Service	I/T Service	I/T Service	I/T Service	I/T Service
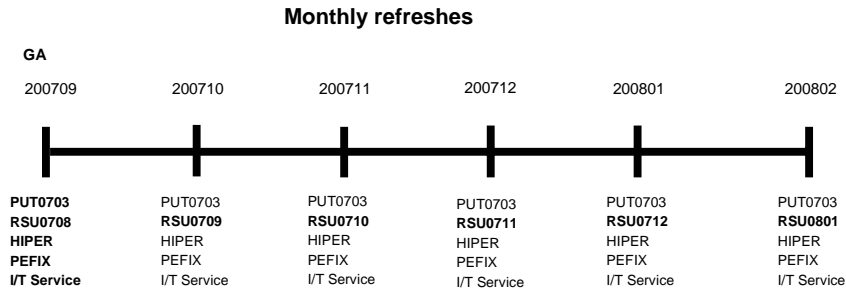
The latest RSU is always integrated along with Integration Tested PTFs, HIPER PTFs, and PE Fix (PRP) PTFs

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As ServerPac builds the distribution and target libraries, the level of service integrated is based on when the order is being produced.

When ServerPacs are built for GA of an operating system release, the minimum service level is either PUT0y03 & RSU0y08 (where y is the year). As ServerPac is refreshed each month, only the next RSU service level is integrated. PUT service levels are only integrated on the operating system GA boundaries.

In all cases, Integration Tested service, HIPER, and PRP (PE fixing) PTFs are always integrated. All other service that was not integrated is pre-RECEIVEd into the SMPPTS data set shipped with your order. So, the service level of your ServerPac depends on when the order was produced. You can determine when the order was produced by checking the date on the cover of your Installing Your Order document or in the package reports supplied in your ServerPac.

Dialog tailoring options

- ServerPac dialog provides the capability to tailor your ServerPac configuration to your environment
  - Global Variables - asmblr, jobcard, drvsys data, and so on.
  - Volumes - names, device type, number
  - Data Sets - names, placement on volume, space
  - Catalogs - names, SSAs
  - Aliases - associate to catalog
  - Zones – names
- Installation Jobs are generated based on tailored configuration
  - Jobs can be edited before submission
  - Jobs are categorized by
    - Installation jobs
    - Post installation - From driving system
    - Pre-IPL jobs and actions
    - IPL your new target system
    - Post installation - From target system
    - Installation verification
    - Completing the installation

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ServerPac is delivered with defaults for naming conventions and system layout. Data set names for target and distribution libraries are those specified in the product's program directory. The ServerPac Dialog allows you the flexibility to modify the default system layout to conform to your own environment. You can change various items such as:

• data set names and space allocations

• zone names

• DASD volume serials and device types

• where data sets reside (which volume, which catalog)

• catalogs - (names, aliases, allocation, add user catalogs)

Once you have tailored your ServerPac configuration to match your environment, the ServerPac installation dialog will generate a customized jobstream based on the information you provided. The installation jobstream is divided by:

• **Installation Jobs** – These jobs are run on the driving system and install your order. When complete, your order has been restored to DASD.

• **Post Installation** - From Driving System – These are post-installation jobs, such as RACF setup, that must run on the driving system.

• **Pre-IPL Jobs and Actions** – These are jobs that prepare the system for IPL such as setting up IODF, Parmlib, stand-alone dump, and so on.

• **IPL your new Target System** – This section describes the steps to IPL your new target system and messages displayed during IPL.

• **Post Installation** - From Target System – These are post-installation jobs that must run on the target system. They perform initial setup of many of the products contained in your order.

• **Installation Verification** – These are product-supplied jobs, which verify successful installation, that must run on the target system.

• **Completing the Installation** – These are jobs that perform installation cleanup, such as SSA removal, that are run after a successful installation of your new target system.

System-specific aliases
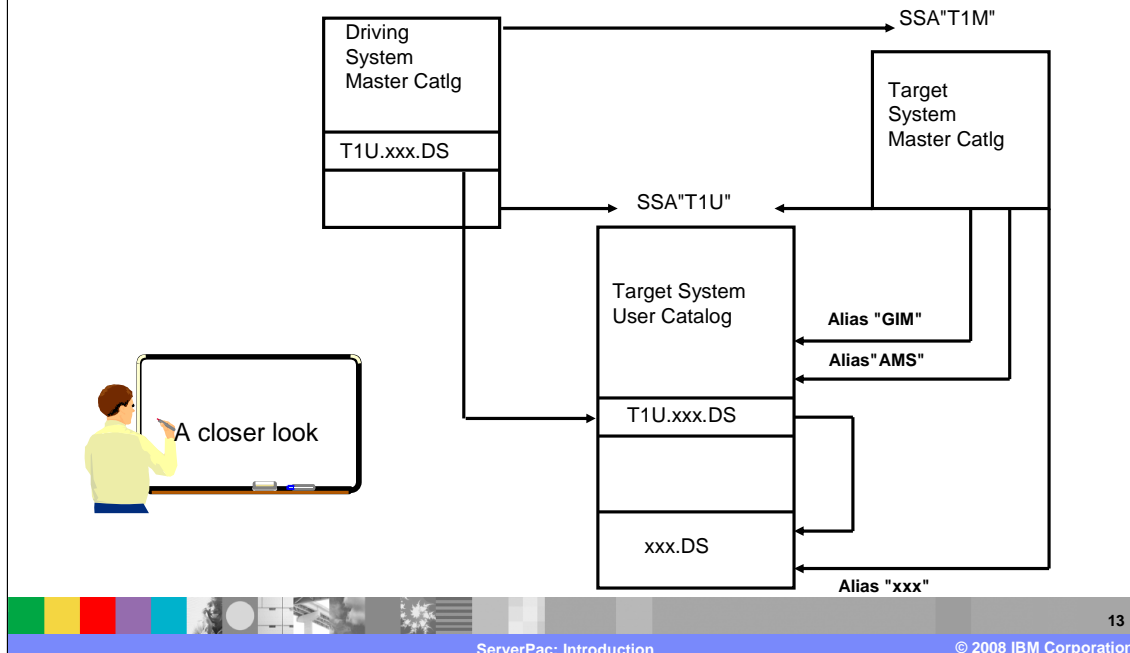
ServerPac uses the system-specific alias (SSA) method to access the new target system data sets from the driving system, using the driving system's master catalog.

An alias for each target system catalog is defined in the driving system's master catalog. All target system data sets are allocated using the system-specific alias for the catalog where it should reside as the high-level qualifier. This ensures the data set is cataloged in the appropriate catalog and will avoid system enqueues during allocation.

The data sets are then renamed to their "true name" in the target system master catalog and a data set alias for the "SSA name" is also defined for each data set in the target system master catalog. The system-specific alias for target system user catalogs is also defined in the target system master catalog so that target system data sets can still be located by their "SSA name" when the target system is IPLed.

NOTE: Cleanup jobs are provided and can be used to remove SSAs, however these jobs should be run **after** you have finished with the ServerPac installation.

ServerPac SMP/E zone structure

SMPE.GLOBAL.CSI

GLOBAL
Zone

z/OS Zone
JES2 Zone
JES3 Zone
WAS Zone

z/OS Zone
JES2 Zone
JES3 Zone
WAS Zone

SMPE.MVS.TARGET.CSI   SMPE.MVS.DLIB.CSI

Default

SMPE.GLOBAL.CSI

GLOBAL
Zone

z/OS Zone
JES2 Zone
JES3 Zone
WAS Zone

z/OS Zone
JES2 Zone
JES3 Zone
WAS Zone

SMPE.MVS.TARGET.CSI   SMPE.MVS.DLIB.CSI

**Delete JES3
Merge JES2**

SMPE.GLOBAL.CSI

GLOBAL
Zone

z/OS Zone
WAS Zone

z/OS Zone
WAS Zone

SMPE.MVS.TARGET.CSI   SMPE.MVS.DLIB.CSI

Result

Dialog JES Selection
➔ Select JESs you want
➔ Select whether to merge
selected JESs zone into z/OS
zone

When ServerPac is manufactured, JES2 and JES3 are placed in their own zones to facilitate a staged migration of JES. Thus, the default target and DLIB CSIs is shipped with a minimum of three zones - z/OS, JES2, and JES3. Additional zones are created for any product or element that can not co-exist in the z/OS zone.

The Dialog allows you to choose which JES (or both) should be installed. You can also choose to merge the selected JES zones into the z/OS zone. The generated Installation jobstream will delete the unused JES (and SDSF if JES2), and merge the remaining JES zone into the z/OS zone if necessary.

WebSphere Application Server can optionally be ordered along with the operating system in the same ServerPac. It can also be ordered as its own ServerPac. If it is in the same ServerPac as the operating system, it is always placed in a separate zone to facilitate migration on different schedules than the operating system.

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SMPPTS spill data sets

- Due to the ever increasing size of PTFs, the SMP/E SMPPTS data set may exceed a 3390-3 DASD volume depending on the product content of your order.

- When this situation occurs, ServerPac will create up to 99 SMP/E spill data sets to accommodate it.

- Job UPDDDD will define the DDDEFs for each spill data set in each SMP/E zone
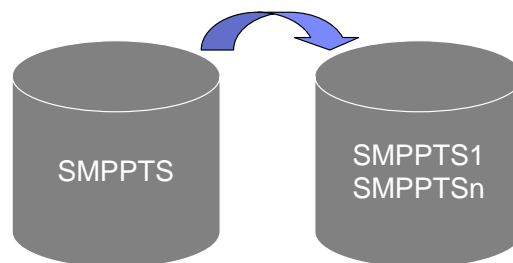
SMPPTS

SMPPTS1
SMPPTSn

Due to the ever increasing size of PTFs, the SMP/E SMPPTS data set may exceed a 3390-3 DASD volume depending on the product content of your order. To accommodate this, ServerPac will provide SMPPTS spill data sets.

Based on the number and size of the unintegrated PTFs in an order, 1 to 99 SMPPTS spill data sets and their associated DDDEFs may be provided with your order. Job UPDDDD will define the DDDEFs for each spill data set created in each SMP/E zone shipped with your order.

File systems in ServerPac

Production center root

ServerPac order root

Product A File System

Product B File System

PAX utility unload

Tape **or** Archive

File system delivery

Driving system root

PAX utility restore

Target system root

Product A File System

Product B File System

Dialog allows you to switch from HFS to zFS

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ServerPac: Introduction

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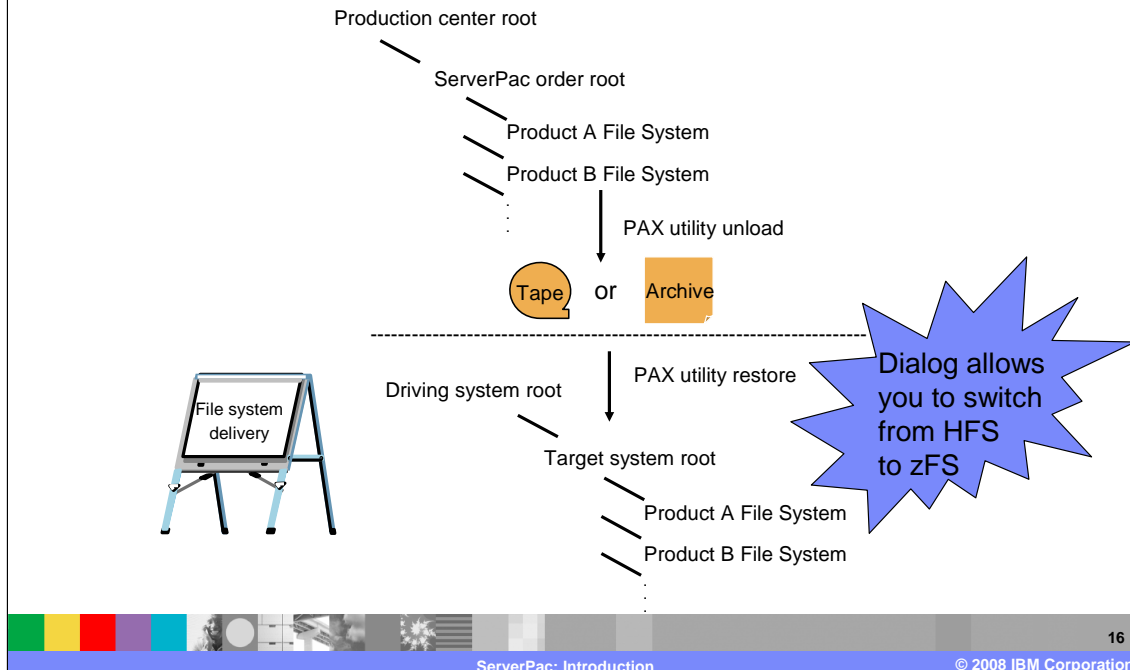
ServerPac delivers target libraries that reside in the Hierarchical File System (HFS). These files are created on the IBM production center's driving system during the order production process. The new HFS root for each order is mounted on the production center's HFS root. For each product in your order that installs into the file system, a separate file system is created and mounted on the new HFS root.

The UNIX system services (USS) PAX utility is used to unload the HFS files for the order onto the tape media for shipment. If you specified Internet delivery, the unloaded file system is placed in a GIMZIP archive as part of the download package.

During the installation of ServerPac, the HFS files are restored from tape or from the download file system and the PAX utility is again used to re-create the file system as an HFS or zFS file structure on the new target system based on the type of file system you defined in your configuration.

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Section

Preparation

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Planning for ServerPac

- ## Review the *z/OS Planning for Installation* book
  - ▶ New and changed elements
  - ▶ Driving and target system requirements
  - ▶ DASD space estimates
  - ▶ Recommended system layout
  - ▶ Installation checklist

- ## Review the *z/OS Migration* book
  - ▶ Migration considerations
  - ▶ Toleration/coexistence PTFs

To plan for your next system replace upgrade, you will want to obtain and review the z/OS *Planning for Installation* book. This book contains everything you wanted to know about upgrading to the new level of the operating system and will assist you with creating your installation plan. See Appendix A for a detailed checklist of installation tasks.

You should also review topics such as the:
▪**driving and target system requirements** to ensure your driving system is capable of driving the install. If it is not, you have the option of upgrading your driving system to the appropriate level or you can order and use the Customized Offerings Driver to drive the ServerPac install.
▪**Recommended System Layout** to help you plan your system layout. Your layout is described with the ServerPac dialog and a customized installation jobstream is created. The ServerPac Dialog also provides an option to automatically assign data sets to physical volumes according to the Recommended System Layout. You might want to consider data set consolidation, which is facilitated by the ServerPac Data Set Merge function.

The z/OS Migration book describes all the migration actions you will need to perform based on the level of z/OS you are migrating from. You should review the:
▪**migration considerations** to assist you in migrating you new target system into a changed environment (typically moving from test to production).
▪**toleration and coexistence PTFs** to ensure that your new target system can share resources with other systems that are at an earlier software level.

Preparing for ServerPac

- Separate system replace volumes from other user volumes
  - ▶ Determine if non-delivered libraries still required
    - Non-IBM products
    - Customization
    - No longer marketed IBM products
  - ▶ Isolate non-delivered libraries utilizing:
    - Separate target libraries, SMP/E zones, DASD volumes
    - Use Concatenations, for example LPALSTxx, PROGxx or LNKLSTxx, PARMLIB
- Standardize data set names and placement
  - ▶ Review recommended system layout
- Satisfy driving system requirements
- Get DASD volumes for target system
- Get and review PSP buckets
  - ▶ Upgrade (ZOSV1R9) Subset (SERVERPAC)

To prepare for a system replace, you will want to separate your data from the system software as much as possible. This allows you to eliminate tasks that might need to be performed each time you replace your system. The goal is to make it easier to replace the volumes that contain z/OS system software that is provided in ServerPac.

You should strive to separate the following data from the z/OS system software:

• customization data in system control files (for example, Parmlib)

• non-IBM software

• no longer marketed IBM products

• user exits

• user data

You will want to isolate products you do not want to replace with your system upgrade such as your non-IBM products and your no longer marketed IBM products onto their own volumes and into their own SMP/E zones. Use concatenations as much as possible to separate your user data from IBM-supplied data.

You should determine a standardized naming convention for data sets and volumes that will allow you to exploit extended indirect cataloging. You should choose a volume serial naming convention for your SYSRES logical extension volumes that allow you to use a single SYMDEF statement in your IEASYMxx Parmlib member.

You should ensure the driving system you are using to install your ServerPac meets the minimum driving system requirements. These requirements are described in the *z/OS Planning for Installation* book.

You will need to obtain enough DASD for the new target system to be created. If you are installing an Internet ServerPac order, in addition to the DASD for the new target system, you will need enough DASD for the download file system – about twice the compressed size of your order. The size of your order is found on the order's ShopzSeries download page.

Remember that you will need to get and review ServerPac PSP bucket information, which can be found at: ***https://techsupport.services.ibm.com/server/390.psp390***. You can retrieve it by specifying the values:

UPGRADE ZOSV1R9

SUBSET SERVERPAC

Getting started

- First set up the ServerPac dialog on driving system
  - Recommend use a single dialog for all orders
- Run job LOADRIM to receive the CustomPac dialog
  - On download page for Internet orders
  - In DOCLIB on first system tape for physical orders
- Determine method for invoking the dialog
  - ISPF primary options panel
  - CPPCSAMP - ISPF CLIST using LIBDEFs
  - CPPCISPF - TSO CLIST
- Recommend to have the dialog accessible to target system
  - some installation jobs must run on target system
  - easier if the dialog libraries are not SMS managed
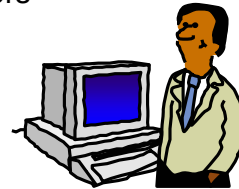
If you are installing a ServerPac for the first time, you will need to install the ServerPac Dialog on your driving system. This only needs to be done once since for subsequent orders the dialog will upgrade itself during the installation of the ServerPac order.

To unload the dialog, either cut/paste the LOADRIM job from the download page onto your z/OS system or unload the dialog from the sample JCL library (DOCLIB) on the ServerPac System tape using the EXTRACT job described in the *ServerPac Using the Installation Dialog* book. Next, edit and submit the LOADRIM job from DOCLIB or from where you pasted it from the download page to unload the Dialog code onto your driving system.

During the installation of the dialog, an order inventory is created on your driving system. This order inventory is a VSAM dataset that stores information about all the orders that have been received and installed by this instance of the dialog. You should use a single instance of the ServerPac Dialog to manage all your orders.

These data sets should be cataloged in a user catalog and reside on a volume that is accessible to both the driving and target systems you create. Some of the installation jobs must run from the target system so it is desirable to have the dialog accessible from the target system. Note that this is much easier to do if the dialog libraries are not SMS-managed.

You have three options for invoking the dialog.

1. **ISPF Primary Option** which requires the dialog libraries to be added to the LOGON PROC and the ISPF Primary Option panel (ISR@PRIM) to be updated to add the dialog option.

2. **ISPF LIBDEF CLIST (CPPCSAMP)** which can be invoked from PDF Option 6 by entering *ex 'your.library.name(CPPCSAMP)'* .

3. **TSO CLIST (CPPCISPF)** which requires the dialog libraries to be added to the LOGON PROC and can be invoked from TSO Ready prompt or from PDF Option 6 by entering *CPPCISPF custompac.qualifier* .

ServerPac Introduction.ppt

IBM Software Group

```
CPPPPOLI  -------------------- IBM Corporation -------------------- 20.10.33
OPTION ==> _

                     CustomPac Order Management Menu


       R    RECEIVE      - Receive an Order

       I    INSTALL      - Install an Order

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

       D    DISPLAY      - Select Orders to Display

       Master dialog data set qualifiers: CUSTMPAC.MASTER

                  This dialog supports electronic delivery.

            ************************************************************
            * 5751-CS4, 5751-CS5, 5751-CS6, 5751-CS7 and 5751-CS9  *
            * Copyright IBM Corp.  1988, 2007                      *
            ************************************************************


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```

After you have installed the ServerPac Installation Dialog, the first step is to "RECEIVE" the order which identifies it to the ServerPac Dialog.

Shown here is the main panel of the ServerPac Dialog. This panel contains the dialog version and indicates that the dialog supports electronic delivery.

Choose the "**R**" RECEIVE option to supply the information necessary to generate the RECEIVE job that will obtain your order from tape or download it from the Internet.

After the order has been successfully received, you then select the "**I**" INSTALL option to proceed with the creation of your configuration and generation of the installation jobstream used to create your new target system.

The "**D**" DISPLAY option can be used to view and manage all orders known to the dialog. This option can be used to view or change the status of an order (Received, Started, or Installed) within the dialog.

Preparing for installation

- Decide which installation mode to use

- Determine variable settings

- Decide whether to merge data sets

- Determine your data set layout

- Understand your data set naming convention

- Decide whether to use your existing master catalog

Here are some items to consider before tailoring your ServerPac configuration to make your ServerPac installation smoother.

Choose an installation mode (Full System Replace or Software Upgrade). This option is specified when you create your ServerPac configuration.

Determine the variable settings needed for your environment. An appendix in the *ServerPac Installing Your Order* book has a description of the variables. Gathering this information in advance can save you time later when you are working within the ServerPac Dialog.

ServerPac provides the capability to merge data sets during installation. This gives you the capability to consolidate data sets that are used in the same way, such as ISPF panels.

The tailoring of your ServerPac configuration can be quicker if you already know your data set to volume mapping. You might want to use the IBM Recommended System Layout, which is described in the *z/OS Planning for Installation* book. In addition, understanding your naming convention for data sets and volumes before using the "Modify System Layout" option will help you get through the dialog faster.

If you chose the Full System Replace Installation mode, a new master catalog is created. You can then merge your existing master catalog into your new master catalog. For Software Upgrade, you use your existing master catalog.

Section

Installation

IBM

Session A - [24 x 80]

```
CPPPFLOW  -------- Installation Options for Order ( IT000174 ) ----------------
OPTION ==> c_


 Complete these options to install the order:

     C    Create          Create the Work Configuration
     *    Variables        Specify Values for Variables
     *    Zones            Specify SMP/E Zone Names
     *    Modify           Modify the System Layout
     *    Alias            Specify Catalogs for High-Level Qualifiers
     *    SSA              Specify Temporary Aliases (SSAs) for Catalogs
     *    Installation     Create and Submit Installation Jobs



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

     *    Save            Save the Current Work Configuration




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```

ServerPac: Introduction   © 2008 IBM Corporation

This is the main panel that guides you through the preparation of a ServerPac configuration for installation. Notice that only the first option is available. As each option is completed, the next option becomes available, which forces you to complete the tasks in order.

The *ServerPac Using the Installation Dialog* book (SA22-7815) contains all the documentation about the dialog including hints and tips to help guide you through the ServerPac install.

IBM

ServerPac configuration

- First step is to create a working configuration
  - ▶ Choose Full System Replace or Software Upgrade
  - ▶ Choose JES and whether to merge it into z/OS zone
  - ▶ Create the work configuration
    - Three types of configurations
      - Shipped - shipped with each order
      - Saved - saved from a previous order
      - Work - working copy during install
    - Use merge configuration option to save time
      - Only if you have saved a previously installed an order
      - Review merge reports to resolve merge conflicts
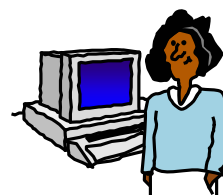
First, you must create a working configuration that you will tailor using the Dialog. The first step in the process is to decide whether to use Full System Replacement or Software Upgrade installation mode.

• **Full System Replace (FSR)** will create a complete system that can be IPLed. A new master catalog is created for this installation mode.

• **Software Upgrade (SU)** will only create the SMP/E-maintained system libraries. An existing master catalog is used for this installation mode.

ServerPac allows you to choose the JES to be installed and whether to merge the selected JESs into the z/OS SMP/E zone. Installation jobs are generated to install JES according to your selections.

When you install a ServerPac order, you create one or more types of configurations There are three types of configurations used by the dialog.

1. Shipped - This is the IBM supplied default configuration that is shipped with each order.

2. Saved - This is a work configuration that was tailored for the installation of a previous order and was saved using the "SAVE" option of the dialog. Any saved configuration can be used to merge with a shipped configuration but only one saved configuration can be selected for merge.

3. Work - This is the working configuration that is used to store all your dialog updates. It describes your system layout, naming conventions, catalog structures, and so on. The installation jobs are generated from this data. When the installation is complete or when you are satisfied with the configuration content, you can save this configuration for future merge.

You will save time if you merge your order with a previously saved configuration. Most of your tailoring of the saved configuration is preserved when creating the new work configuration. Be sure to review the merge reports to resolve any conflicts that were encountered during the merge processing.

```
Session A - [24 x 80]
CPPP6015 ------------- CREATE Configuration ( IT000174 ) -------------------
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



MA       a                                                              02/014
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On this panel, you decide whether to use Full System Replacement or Software Upgrade.

Full System Replace (FSR) installs a complete new IPLable stand-alone system including all SMP/E maintained libraries, SMP/E environment, and operational data sets, such as Page and JES Spool data sets. Since ServerPac creates the full environment in this mode, it is possible for to provide more assistance with setup tasks.   The supplied operational data sets must be merged with or replaced by your production operational data sets before using the system in production.

Software Upgrade (SU) installs only the SMP/E maintained libraries and SMP/E environment. Operational data sets, system control files such as VTAMLST, a security system database, and a master catalog must already exist. You must update the operational data sets and control files as required for new products and product changes before the first IPL. Use Software Upgrade if your environment and data set layout remain fairly consistent across upgrades and you want to use your existing operational data sets.

IBM Software Group

Session A - [24 x 80]

```
CPPP6016  ------------ JES Element Selection ( IT000174 ) --------------------
COMMAND ==> _

Choose JES elements to be installed:


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



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


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

    Merge JES3 SMP/E Zones into BCP Zones ==> N    (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.

MA     a                                                          02/014
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On this panel, you choose the JES to be installed.

You can choose JES2 or JES3 or both. JES2 and JES3 are provided in separate SMP/E zones by default, so you have the option to merge the selected JESs into the z/OS SMP/E zone. Installation jobs are generated to install JES according to your selections.

Session A - [24 x 80]

```
CPPP6011  ----------- CREATE Configuration ( IT000174 ) --------- Row 1 of 9
COMMAND ==>                                             SCROLL ==> CSR

Select Configuration

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


S CONFiguration                       Comment
- ------------------------------------ -------------------------------------
* LUCYM.ESPZR9.IT000174                Always Selected for Order
- ------------------------------------ -------------------------------------
  LUCYM.TSTR10.AM000282.CONFIG         SHARE CONFIG - FIRST SETUP
  LUCYM.GAZR7.GR000024.BETTE.CONFIG    FIRST SETUP FOR BETTE
  LUCYM.ESPR9.IL000002.CONFIG          R9 ENH PITCH CONFIG
  LUCYM.FVT.OS000054.UPG06C.CONFIG     FVT TEST SAVE CONFIG #3
  LUCYM.R2PI.OT000002.UPG06C.CONFIG    FIRST SETUP TEST SAVE CONFIG #3
  LUCYM.FVTR4.PJ000441.GUIDE.CONFIG    GUIDE CONFIG
  LUCYM.ESPR7.RG000026.CONFIG          SHARE FEB 1999 DEMO CONFIG
  LUCYM.ESPZR4.RN140097.CONFIG         SHARE S2002 SANFRANCISCO
s LUCYM.ESPZR6.RP160023.CONFIG         SHARE 2004 DEMO CONFIG
******************************* Bottom of data ********************************
```

```
MA   a                                                                21/004
```

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The CReate primary command is the command used to actually create the work configuration. This step is required in order to proceed with the installation process.

The "**S**" Select line command is used to identify a saved configuration from another order that should be merged to create a work configuration. Selecting a previously saved configuration can greatly reduce the amount of time spent modifying the work configuration. If the saved configuration matches the system you are installing, then the data set names, data set placement, catalog names, and so on are remembered and brought forward to the new work configuration.

Configuration selection is restricted to saved configurations which have been created in the current release or up to three prior releases. An error message is displayed when you attempt to use an older saved configuration.

Two reports are generated when a configuration is merged.

• **Merge report**, located in hlq.orderid.REPORT(MERGE), identifies changes made to the data set information as the result of the merge configuration.

• **Data set merge report**, located in hlq.orderid.REPORT(DSMERGE), identifies possible conflicts with merged data sets as a result of the merge configuration.

Review these reports to resolve any issues identified in the STATUS column. Refer to the ServerPac Using the Dialog book for detailed information regarding these reports and the meaning of the status indicators.

Assign variables and zones

- Variables
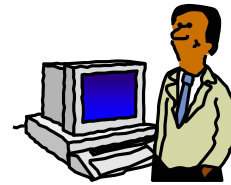 - Driving system information, for example:
    - master catalog name/volume
    - default assembler
    - and so on
  - Jobcard information
- Zones
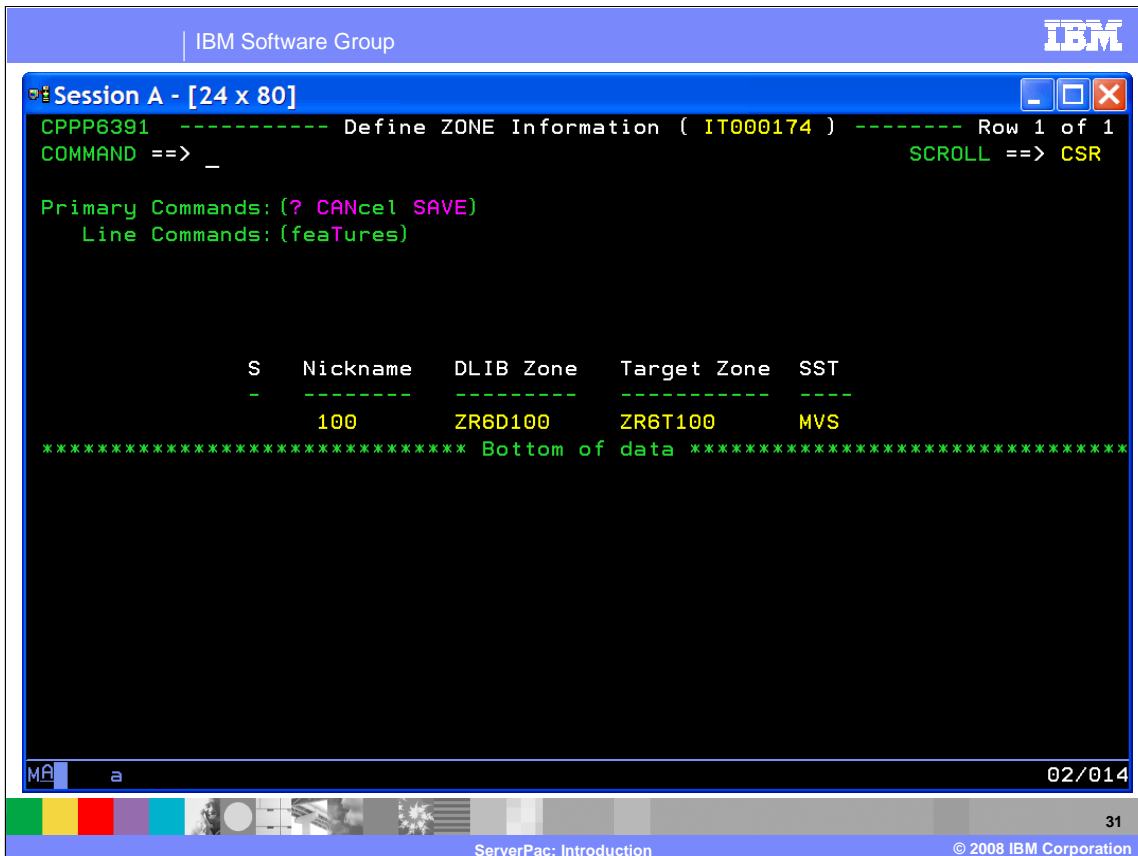 - View zone content
  - Rename zones

After the work configuration is created, you must review the variables used by ServerPac. All variables have defaults supplied that you can update as necessary. The list of variables shown in the "Variables" option reflects the installation mode you chose.

The variables are used by the dialog to obtain information about your driving and target systems such as name and location of master catalog, RACF databases, default assembler, naming conventions (for example for SMPTLIBs, spool volume, work volume), file system directory for installing the target file system, jobcard information, and so on.

After the variables have been assigned, the zone option becomes available. The SMP/E zones that contain the libraries for the products in your order are displayed. You can view the content each zone by using the "feaTures" line command ("**T**" for short). You can also overtype to change the zone names.

You cannot change the contents of a zone nor change the name of the CSI data set from the zones option. You can change the CSI data set names in the Modify System Layout options where you can manipulate data set names. The only way to change the zone content is by using the supplied optional jobs that allow you to merge and delete JES zones.

```
Session A - [24 x 80]                                          _ □ X

CPPP6111  ----------- Installation Variables ( IT000174 ) -------- Row 1 of 72
COMMAND ==> _                                            SCROLL ==> CSR


Variable Selection List                                  SHOW( *         )

Primary Commands:(? SET Locate Find Next Previous CANcel SAVE SHow VARname)
   Line Commands:(Browse Delete Edit Insert Repeat Ship)

  S      Synonym           STA   Contents
  - ---  ----------------  ---   ----+----0----+----0----+----0----+----0----
    ==>  INSTALL OPTIONS
         DYNAMIC DASD INFO  M P  NO

    ==>  GEN SYSTEMPAC
         TARGET VOLSER      M D  USER04
         ASSEMBLER NAME       C  ASMA90
         SMPTLIB PREFIX     M D  LUCYM.ESPZR9.IT000174
         SMPTLIB UNIT         D  3390
         SMPTLIB VOLSER     M D  USER04

    ==>  HFS/ZFS INFO
         INSTALL DIRECTORY  M D  /u/lucym/service

    ==>  MVS NEW ADR
  MA    a                                                       02/014
```

This panel displays the variables that are used to install your order. All of the variables have defaults - make certain that each variable is looked at to determine what needs to be changed to install the order in your shop.

If you are unsure about what the value of the variable should be, use the "**B**" Browse command to display more information about the use of the variable. The actual variable name and how it is used is shown. If you then hit "Enter", you will see the complete description of the variable.

This panel allows you to change the target and distribution zone names by overtyping them with the name you choose. Adding additional zones is not allowed.

There is a minimum set of three zone pairs shipped with each z/OS order.

1. z/OS elements and features

2. JES2 and SDSF

3. JES3

You might receive a fourth zone pair if WebSphere Application Server is included in your operating system ServerPac, or more zone pairs for product features in your order that cannot exist in the same zone as z/OS.

The zones shown on this panel are the result of your choices on the JES selection panel. If you chose to merge the JES zones into the z/OS zone and you did not have WebSphere Application Server in your order, you will only see the resulting z/OS zone pair as shown here.

You can use the "**T**" FeaTures line command to view the contents of the selected zone pair.

Modify System Layout option

- Automatic assignment of data sets to physical volumes helps you get to the Recommended System Layout described in *z/OS Planning for Installation*
    - ▶ A "pushbutton" way to distribute data sets among physical volumes.
    - ▶ Volumes are filled to 85% full the first time they are used and up to 90% full the next time they are used
- View and change facility
    - ▶ View data sets by selected attributes
    - ▶ Extensive attribute list, for example: element type, LNKLST eligible, LPA eligible, required in Master Catalog, and so on.
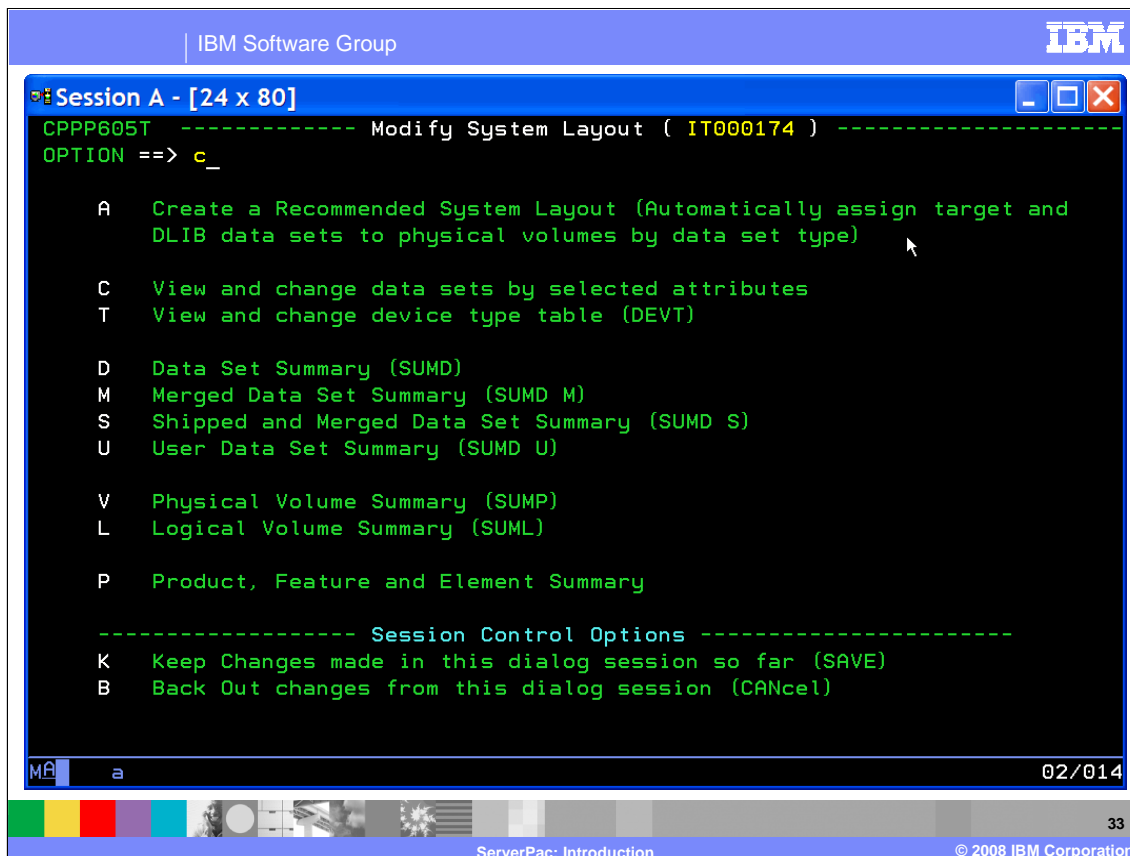   - ▶ Run Change command against the data set list

The Modify System Layout (MSL) option is where you will spend the bulk of your time within the dialog. This is where you can assign data sets to volumes, change data set attributes, and so on.

First, you must decide how you want your data set layout to look. Hopefully, you have done this already during your planning and preparation for your ServerPac. IBM documents a recommended system layout in the *z/OS Planning for Installation* book. The ServerPac Dialog option to create a recommended system layout (RSL) helps you get to this recommended system layout.

Because you might use different device types or order products other than z/OS in your ServerPac, IBM does not ship a "preconfigured" RSL. Instead, one is created just for you, using information you provide in the dialog. Then, the dialog assigns data sets to physical volumes automatically. The intent is to have a quick, easy way to distribute data sets among physical volumes. Logical volumes are assigned in the background.

As data sets are assigned, the dialog will fill each volume up to 85% full the first time they are used, and up to 90% full when they are used later. This will make it less likely that volumes will run out of space, and more likely that like data sets can be located on the same volumes.

The View and Change facility makes it easier to change data sets and their attributes. You can create customized lists of data sets in the configuration, then use these lists as targets for your subsequent CHANGE and MERGE commands. There are many data set attributes you can use to customize your data set lists such as element type, LNKLST eligible, LPA eligible, required in master catalog, and more.

```
CPPP605T ------------- Modify System Layout ( IT000174 ) --------------------
OPTION ==> c_

     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)
```

This is the main panel for the Modify System Layout option. To save the most time within the dialog, use the "**A**" Automatic Assignment function and "**C**" View and Change option to manipulate the data sets to match the system layout you desire.
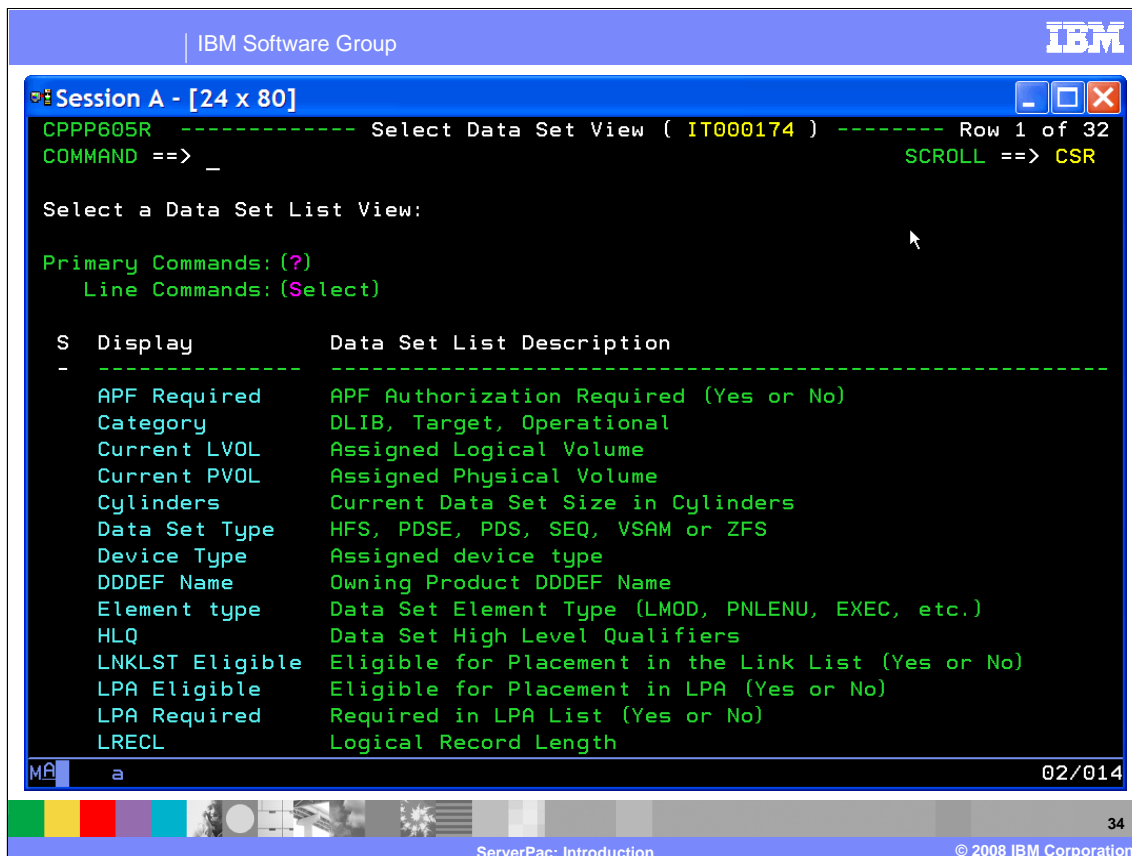
If Automatic Assignment and the View and Change Facility are not appropriate for you, you can use the old method of using Summary Display commands which allow you to build the new data set layout by assigning data sets to logical volumes and then assigning the logical volumes to physical volumes or SMS storage classes.

Use either method described above but not both. If you create a new layout using "**A**" Automatic Assignment and later attempt to manage the configuration through the Summary Display commands, you will have difficulty because the automatic assignments of logical volumes is dramatically different from the shipped or saved configuration.

To aid your work, there are session control options to allow you to set the disposition of your changes as follows:

K - Keep any changes that you have made since the last SAVE.

**B** - Backout any changes that you have made since the last SAVE and exit the Modify System Layout option.

Session A - [24 x 80]

```
CPPP605R ------------ Select Data Set View ( IT000174 ) -------- Row 1 of 32
COMMAND ==> _                                              SCROLL ==> CSR

Select a Data Set List View:


Primary Commands: (?)
   Line Commands: (Select)

 S  Display           Data Set List Description
 -  --------------    -------------------------------------------------------
    APF Required      APF Authorization Required (Yes or No)
    Category          DLIB, Target, Operational
    Current LVOL      Assigned Logical Volume
    Current PVOL      Assigned Physical Volume
    Cylinders         Current Data Set Size in Cylinders
    Data Set Type     HFS, PDSE, PDS, SEQ, VSAM or ZFS
    Device Type       Assigned device type
    DDDEF Name        Owning Product DDDEF Name
    Element type      Data Set Element Type (LMOD, PNLENU, EXEC, etc.)
    HLQ               Data Set High Level Qualifiers
    LNKLST Eligible   Eligible for Placement in the Link List (Yes or No)
    LPA Eligible      Eligible for Placement in LPA (Yes or No)
    LPA Required      Required in LPA List (Yes or No)
    LRECL             Logical Record Length
```

MA   a   02/014

This panel is shown when "**C**" View and Change Facility is selected. This is the list of data set attributes that can be used to set the scope of the view of the data set list. As you can see, it is a rather extensive list which is only partially shown here.

To create a customized data set list view, you must first select an attribute. Then, a panel is shown with values of the attribute that you can select to generate the customized list.

For example, if you want to view data sets by device type, you are shown a panel with a list of available device types used in the work configuration such as 3380-3, 3390-3, and 3390-9. Then, if you select 3390-3, the resulting data set list will show only those data sets in your work configuration that are assigned to 3390-3 volumes.

Change command

- Extensive options in change command
  - ▶ Change data set names
  - ▶ Change space
  - ▶ Change physical volume
  - ▶ Change SMS status
  - ▶ Switch PDS to PDSE and vice-versa
  - ▶ Switch Unrenamable to Renamable and vice-versa
  - ▶ Switch Required in Master Catalog and vice-versa
  - ▶ Switch HFS to zFS and vice-versa
  - ▶ Switch Secondary NO to YES and vice-versa

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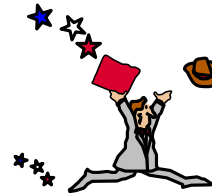
You can use the CHANGE primary command to change the data sets displayed in a list. The scope of the command is limited to the displayed list. Based on parameters you specify on your change command, the dialog checks the data sets in the current list and returns a "candidate" list of data sets that would be changed by the command. You can optionally exclude some of the data sets in the candidate list from scope of the change by using the "**X**" eXclude line command. You can then commit the change by pressing "Enter" then "End". To cancel the change, use the CANcel primary command and press "Enter".

You have extensive options with the CHANGE command, such as:

Change Data Set Names - CH DSN source target

Remember the period if you are attempting to change a HLQ (for example "ABC.").

Change HLQs - CH DSN *HLQ* target

This will change the HLQs of all renameable data sets in the list.

Change DSNTYPE - CH TYPE PDSE|PDS or HFS|ZFS

Change SMS Status - CH SMS Y|N

Change Physical Volume - CH PVOL TARGET|DLIB|OPERATIONAL value

This does not reassign SMS-managed data sets or data sets that must be on the IPL volume. If an undefined physical volume is specified, the device type is set to 3390-3 and the device number is set to CCUU.

Change Space Values - CH S primary secondary dirblocks

This will change primary, secondary, directory blocks by an increase (+n) or decrease (-n) of a percentage value or leave unchanged (*). VSAM data sets cannot be modified with this command but can be changed with the A "Attributes" line command against the selected data set. For IBM supplied data sets, you cannot decrease the primary space to less than the original shipped amount.

Change Secondary Space to Zero - CH S * P0

Change Secondary Space Attribute - CH SECOND Y|N

When you use 'CH SECOND Y', only those data sets in the list shipped as having 'no' secondaries are changed to have secondary space set to a value which is 10% of the primary space. There is no effect on data sets shipped 'with' secondaries.

When you use 'CH SECOND N', only those data sets in the list shipped as having 'no' secondaries but whose secondary allocation was previously changed to 'have' secondaries using the 'CH SECOND Y' command, are changed to a secondary of 0. There is no effect on data sets shipped 'with' secondaries.

Data set merge

- Data sets or file systems can be merged to reduce the number to manage

- Merge data set command is driven from any data set list display which determines the scope of the merge

- You can merge, unmerge, and list merged data sets or file systems

- Installation jobs tailored to match merged data set configuration

- DDDEF name remains same but data set name of merged data set used

- Space allocation for a merged data set or file system includes the accumulation of the space required for its components

- Rules enforced when merging data sets or file systems

The ServerPac Dialog merge capability allows you to simplify your configuration by merging some of the data sets or file systems in your order. You can merge data sets with like attributes to reduce the number of libraries you have to manage. For example, you can merge all the ISPF panel libraries to consolidate them. ServerPac is no longer able to ship a single file system for your order since that would exceed a 3390-3 volume. However, you can use this capability to merge the shipped file systems, if necessary, when availability of DASD space is **not** an issue. This allows you to minimize your post-installation file system management.

The Merge command can be used most efficiently from the View and Change Facility, which can limit the scope of the merge command by customizing the data set list used for the Merge command. From the data set list, use the "**M**" Merge **line** command to select the data set to merge into. When the candidate list of data sets is displayed, you can then select data sets to be merged into the first data set. The first data set will become the Merged data set and the others are the Component data sets. Once all the component data sets are selected, you must enter the MERGE **primary** command and press "Enter" to merge the data sets. Similarly, file systems can be merged in the same manner.

You can view the contents of a merged data set by using the "**X**" eXpand line command against the selected merged data set. You will see a popup window that displays all the component data sets. You have the option of unmerging one or more component data sets from the popup window. To Unmerge all the components of a merged data set, use the "**U**" Unmerge line command against the merged data set. Similarly, merged file systems can be expanded or unmerged in the same manner.

Be aware that not all data sets that can be merged should be merged. The dialog enforces merge rules which prevent you from merge operations that would result in configurations that would be unworkable, or perhaps even be impossible to IPL. Similarly, there are rules for merging file systems that preserve the integrity of the file system structure.

As for other data sets, the space allocated for a merged file system data set will be equal to the sum of the space that would have been allocated for the merge target data set plus the space that would have been allocated for all of the merge component data sets. Merged data sets or file systems and their component data sets are remembered in the saved configuration and are available for merging with future ServerPac orders.

For more information, see the "Merging and Unmerging Data Sets" section in the *ServerPac Using the Installation Dialog* book.

IBM

Setting up catalogs

- **Assign HLQ alias to a catalog**
  - ▸ Every HLQ must be assigned to a catalog
  - ▸ Overtype with required catalog name
  - ▸ Shortcut provided to avoid excessive typing
- **Assign SSA to catalogs**
  - ▸ Every catalog must be assigned a SSA
    - ▪ used to locate target system data sets from the driving system by way of its catalog
  - ▸ Specify whether to allocate new catalogs
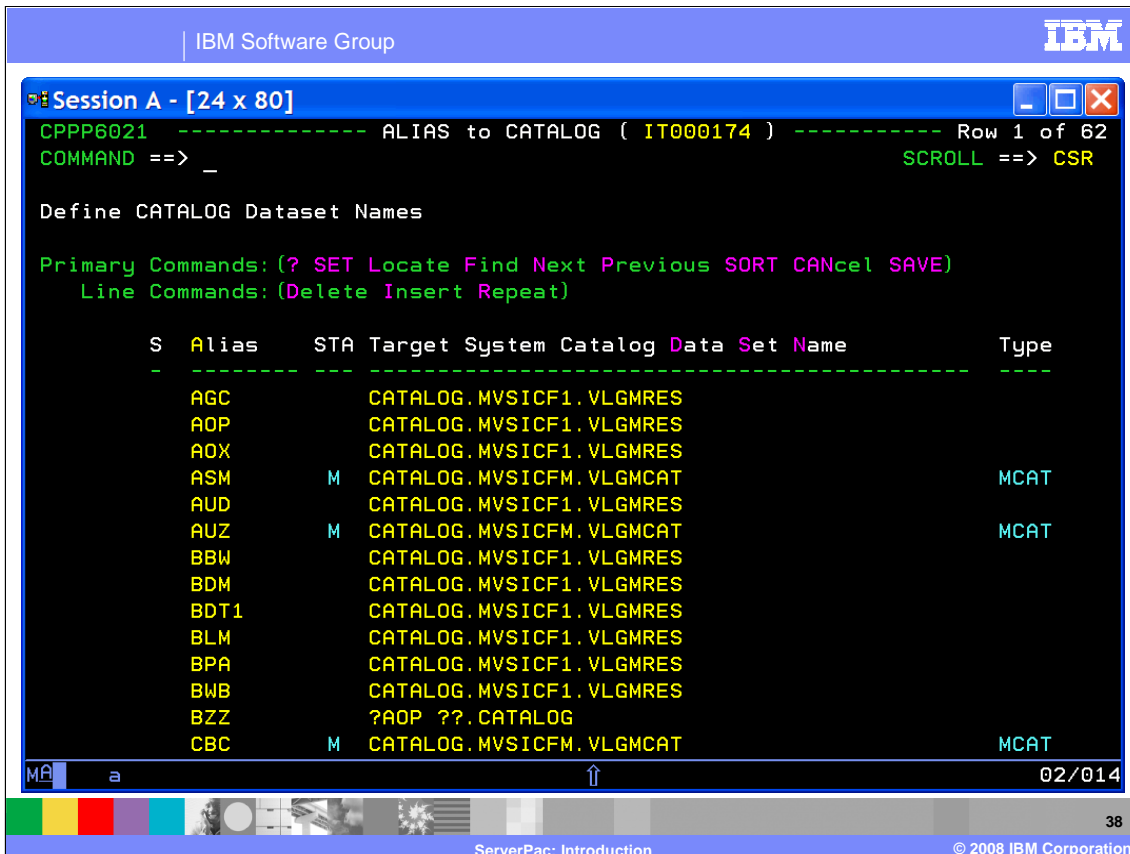 - ▸ Specify allocation parameters for new catalogs

All of the high level qualifiers (HLQs) used in your order must be defined as aliases to a target system catalog. You can not change HLQs here. You can easily change data set HLQs (for example, change to SYS1) with the View and Change facility of the Modify System Layout dialog option.

To assign or change the name of a catalog, you just overtype the existing name. A quick way to assign a catalog is to type a "?" followed by an alias name which resides in the catalog that you want that alias to reside.

Data sets shipped with your order need to be installed by a driving system. It is very likely that data sets meant for the target system are already defined with the same name on your driving system. The SSA option defines system-specific aliases (SSAs), allowing the driving system to access the target system catalogs without danger of destroying datasets on the driving system.

You have the option of allocating the catalogs specified as new and for these you need to specify the required space allocation values. Use a new master catalog for the Full System Replace Installation Mode. If you chose the Software Upgrade Installation Mode, you must specify the use of an existing master catalog and a SSA must be specified.

Session A - [24 x 80]

```
CPPP6021  -------------- ALIAS to CATALOG ( IT000174 ) ----------- Row 1 of 62
COMMAND ==> _                                            SCROLL ==> CSR

Define CATALOG Dataset Names

Primary Commands:(? SET Locate Find Next Previous SORT CANcel SAVE)
   Line Commands:(Delete Insert Repeat)

         S  Alias    STA Target System Catalog Data Set Name         Type
         -  -------- --- ---------------------------------------     ----
            AGC          CATALOG.MVSICF1.VLGMRES
            AOP          CATALOG.MVSICF1.VLGMRES
            AOX          CATALOG.MVSICF1.VLGMRES
            ASM      M   CATALOG.MVSICFM.VLGMCAT                      MCAT
            AUD          CATALOG.MVSICF1.VLGMRES
            AUZ      M   CATALOG.MVSICFM.VLGMCAT                      MCAT
            BBW          CATALOG.MVSICF1.VLGMRES
            BDM          CATALOG.MVSICF1.VLGMRES
            BDT1         CATALOG.MVSICF1.VLGMRES
            BLM          CATALOG.MVSICF1.VLGMRES
            BPA          CATALOG.MVSICF1.VLGMRES
            BWB          CATALOG.MVSICF1.VLGMRES
            BZZ          ?AOP ??.CATALOG
            CBC      M   CATALOG.MVSICFM.VLGMCAT                      MCAT
MA    a                              ⇧                            02/014
```

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This panel shows all of the high level qualifiers (HLQs) used in your order that will be defined as aliases to a catalog. Those aliases with the Status (STA) of "**M**" are required to be in the master catalog.

To assign or change the name of a catalog, you just overtype the existing name.   All the aliases must be assigned to a catalog before you are allowed to continue to the next dialog option. To quickly assign catalog names, use the shortcut **"?alias**". On the panel shown, the BZZ alias will be assigned to the same catalog as AOP using the shortcut of "?AOP".

Session A - [24 x 80]

```
CPPP6031  --------------- SSA to CATALOG ( IT000174 ) ------------ Row 1 of 2
COMMAND ==> _                                               SCROLL ==> CSR

CATALOG Selection List

Primary Commands: (? CANcel SAVE)
   Line Commands: (Select)

                                                        Allocate  Define

S Catalog Name                            SSA Name Type VOLume │  │ Unit
- ---------------------------------------- -------- ---- ------ -  - ----
  CATALOG.MVSICF1.VLGMRES                  LGMTRES  UCAT LGMRES Y  Y 3390
  CATALOG.MVSICFM.VLGMCAT                  LGMTSYS  MCAT LGMCAT Y  Y 3390
******************************* Bottom of data *******************************
```

```
MA      a                            ⇧                            02/014
```

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This panel is displayed when you enter the SSA option. From this panel, you select the catalog, and on the subsequent panel, you can specify the SSA name for the selected catalog. You can also specify if the catalog should be allocated. If the catalog should be allocated, then the volume and space information must also be provided.

Installation jobs

- Installation jobs are generated based on configuration data
  - ▶ Ensure you are satisfied with your configuration
    - use VAR primary command to return to variables options and adjust them
- Three types of installation job entries
  - ▶ SRC - jobcard that can be edited
    - use Select line command to generate SRC entry which can be changed if necessary
  - ▶ DOC - documentation for the following set of jobs
    - use Select line command to generate and view DOC entries
  - ▶ JOB - installation job that can be submitted
    - use Select line command to generate only the selected job which can be submitted
- Use GENSKEL primary command to generate all the installation jobs at once using a batch job
  - ▶ use Backup line command to select job to submit

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Now you are ready to generate the installation jobs for your order. You should be satisfied with your work configuration before proceeding with job generation because they are generated based on your configuration data. However, if you made a mistake, you can quickly get back to the variables option to fix a value using the VARedit primary command.

The installation jobs have three types of entries:

SRC entries can be edited. Currently the only SRC entry is for the jobcard.

DOC entries can be viewed which contain documentation for the following set of jobs

JOB entries can be generated, saved, and submitted. They must be run in sequential order to ensure that the requisite processing is done.

The installation jobs are generated by file-tailoring the order-specific skeletons using the data from your configuration. You can generate a single job at a time (in the foreground) using the "**S**" Select line command. However, there are some jobs that are large and generating them in the foreground can tie up your keyboard for an extended period of time. Therefore, use the GENSKEL primary command to generate all of the jobs in a single batch job. Once the jobs have been generated, they are stored in the SCPPBENU data set. To select and submit these generated installation jobs, use the "**B**" Backup line command (instead of "**S**" Select).

```
Session A - [24 x 80]
CPPP6121  -------------- Installation JOBs ( IT000174 ) --------- Row 1 of 214
COMMAND ==> _                                          SCROLL ==> CSR

JOB Selection List                                     SS$( EXCLUDE )

Primary Commands:(? SET Locate Find Next Previous GENskel OFile OList SUMmary
                 SS$ VARedit)
   Line Commands:(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 INSTALLATION SETUP
   JOB INITIALIZE REQUIRED DASD               OFFLINIT 00
   JOB INITIALIZE SMS VOLUME                  INITSMS  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
   JOB RESTORE DATA SETS                      RESTORE  04
MA   a                        ⇑                               02/014
```

This panel contains the list of jobs that are to be run in order to install your ServerPac. Only the jobs pertinent to your chosen installation mode (Full System Replace or Software Upgrade) are displayed.

The jobs must be run in sequential order to ensure that the requisite processing is done. After you submit a job, its job number is displayed in the STAtus field.

Specifying the "**O**" Output line command uses the TSO OUTPUT command to display the job output and capture the return code for the job. You can use this information to compare it against the MC value which is the maximum valid return code for the job. You should look at every job that does not return a return code of zero.

Section

Completion

IBM

Saving your configuration

- Save your configuration for the next release
  - ▶ All data specified when tailoring your ServerPac configuration is saved.
  - ▶ Remember the name of the configuration you saved

- Use Merge Configuration during your next install
  - ▶ All data from specified save configuration is processed

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ServerPac provides a SAVE function which will save the information you specified during the tailoring of your ServerPac configuration into a user-specified data set.

This saved configuration is then used for future ServerPac installations to prevent a lot of rework when the layout of your system is not changing very often between installations.

When you save a configuration, you can specify a name or comment that is displayed when you create a new configuration for your next ServerPac order. Remember this name!

The saved configuration can then be selected to be merged with the default configuration shipped with a subsequent ServerPac.

Maintaining your ServerPac system

- Update your configuration with any changes to your environment

- Re-Save the configuration for the next release

- Obtain and APPLY preventive maintenance
  - ▸ SMP/E Internet service retrieval
  - ▸ ShopzSeries service order
  - ▸ ServiceLink

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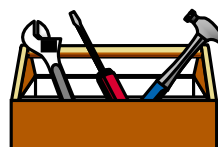
In between your system upgrades, you might want to keep your ServerPac configuration synchronized with changes that occur in your system environment. You can update your configuration and re-save it so it will accurately reflect your environment when you install your next ServerPac.

In addition, you might want to apply preventive maintenance on your new target system between upgrades. You should keep up with RSU maintenance. You can obtain service using the SMP/E Internet Service Retrieval function, the ShopzSeries service option, or ServiceLink.

SMP/E Internet Service Retrieval can be set up to automatically retrieve service if you can connect your z/OS system directly to the Internet.

If you are not able to connect to the Internet directly, you can use ShopzSeries to place service orders where you have the option to download orders to your workstation first then upload to your host system, download directly to your host system, or on physical media.

Alternatively, if you have ServiceLink, that can be used to obtain service orders.

Summary

- ServerPac is a system-replace deliverable

- Provides DLIBs, Target Libs, CSIs with integrated service

- Provides Pre-RECEIVEd un-integrated service

- Uses ServerPac installation dialog

- Refreshed monthly

- Use ShopzSeries to order it

- All SMP/E work has been done by IBM!

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ServerPac is a system-replace offering which delivers DLIBs, target libs, and CSIs with integrated service. All other service is provided in RECEIVED status.
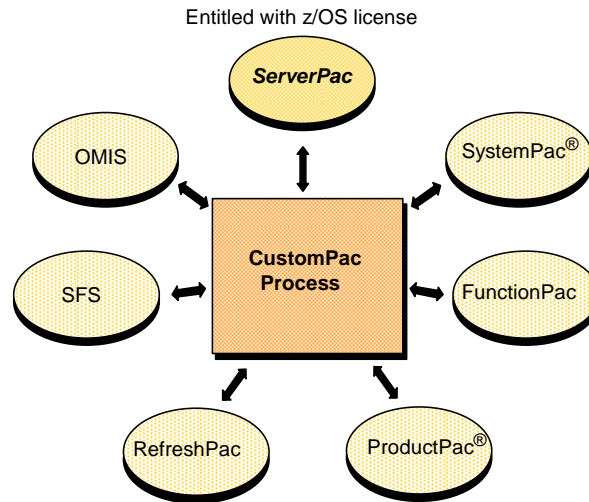
ServerPac is part of the CustomPac family of offerings and uses the ServerPac Installation Dialog. ServerPac can be ordered online with ShopzSeries. ServerPac is refreshed monthly and is the recommended method for z/OS operating system and subsystem installation.

With ServerPac, IBM has done all the SMP/E work and some of the installation tasks which allows you to quickly move on to customization, test, and migration of your new target system into production.

IBM

Section

Appendix

IBM

CustomPac offerings

Entitled with z/OS license

ServerPac

OMIS

SystemPac®

CustomPac Process

SFS

FunctionPac

RefreshPac

ProductPac®

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ServerPac is a part of the CustomPac family of customized packages. The CustomPac process is used to manufacture the following offerings:

• **ServerPac** - ServerPac is a system-replace offering which supports the z/OS environment. ServerPac is the only entitled offering in the CustomPac family. You must be licensed for z/OS to use a ServerPac package.

• **SystemPac** - SystemPac is a system-replace offering which supports the z/OS environment. SystemPac is a fee offering that provides a system customized to your environment based upon information provided to IBM at ordering time. SystemPac also provides some ISV products in the package.

• **FunctionPac** – FunctionPac* can deliver a set of products that are grouped together to provide a set of functions.

• **ProductPac** - ProductPac is an upgrade offering which delivers products and installation jobstream.

• **RefreshPac** - RefreshPac is a service offering which delivers PTFs based on an individual CSI that you provide to IBM.

• **Selective Follow-on Service (SFS)** - SFS is a service offering which provides HIPER and PEFIX PTFs to SystemPac customers. The customer is entitled to three SFS shipments at approximately 30 day intervals.

* This offering is not available in all countries. You can contact your IBM representative to verify whether it is available in your country.

Glossary

- Acronyms
  - ▸ CBPDO – Custom Built Product Delivery Offering
  - ▸ COD – Customized Offerings Driver
  - ▸ DLIB – SMP/E distribution library
  - ▸ FSR – Full system replace installation mode
  - ▸ IVP – Installation verification procedure
  - ▸ IYO – Installing Your Order book
  - ▸ MCAT – Master catalog
  - ▸ RSU – Recommended service upgrade
  - ▸ SREL – System release identifier
  - ▸ SU – Software upgrade installation mode
  - ▸ UID – Using the Installation Dialog book

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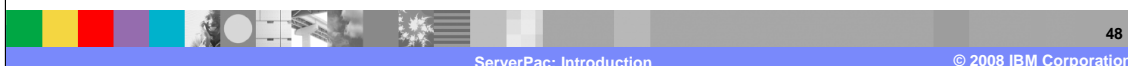
Here are my definitions of some terms and acronyms that may be useful for you.

CBPDO – Custom Built Product Delivery Offering – a product upgrade deliverable which is entitled with your z/OS license

COD – Customized Offerings Driver - a load-and-go driving system

DLIB – SMP/E distribution library

Driving System – the system used to install the target system

FSR – Full System Replace – a ServerPac installation mode that replaces all the system libraries

Integrated Service – PTFs that have been APPLIED and ACCEPTED into target and distribution libraries

IVP – Installation Verification Procedure – verifies a product has been successfully installed

IYO – ServerPac: Installing Your Order book – customized installation guide for ServerPac

MCAT – Master Catalog

Product Upgrade – method for upgrading a product using SMP/E RECEIVE/APPLY/ACCEPT delivered with CBPDO

RSU – Recommended Service Upgrade – monthly recommended PTFs identified by SOURCEID RSUyymm (yy=year, mm=month)

ServiceLink – a fee based service offering

ShopzSeries - a web-based method for placing ServerPac or CBPDO orders that includes software requisite checking

SOURCEID – an SMP/E identifier used to group a set of PTFs

SREL – System Release identifier – an identifier used by SMP/E

SU – Software Upgrade – a ServerPac installation mode that replaces only the SMP/E-maintained system libraries

System Replace – method for upgrading your system or subsystem that replaces all of your system libraries delivered with ServerPac

Target System – the system you are installing

UID – ServerPac: Using the Installation Dialog book – contains information to assist you with using the ServerPac Dialog

ServerPac Introduction.ppt

IBM

Section

End of presentation

End of Presentation – That's it!

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