


z/OS Basics: ServerPac 101

Session 7510



Marna WALLE mwalle@us.ibm.com

z/OS System Build and Install

IBM Poughkeepsie

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If you've never installed a ServerPac before, or it has been a long time since you have, this is the session for you. The speaker will cover the basic concepts of a ServerPac install, and go through at a high level what the tasks are. Some of the more recent important enhancements will be covered, to help you get the most out of your ServerPac install.

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Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.

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z/OS Basics: ServerPac 101 Agenda

- Introduction to ServerPac
- Planning for ServerPac
- Preparing for ServerPac
- Installing ServerPac
- IPLing your target system
- Post-install work from target system
- Saving your ServerPac configuration

Agenda

- ➔ Introduction to ServerPac
 - What is ServerPac?
 - ServerPac Installation Overview
 - ServerPac Internet Delivery
 - ServerPac Documentation



What is ServerPac?

- ServerPac is an entitled system-replace deliverable (CBPDO is an entitled product-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 HIPER and PRP service in APPLIED status
 - Provides un-integrated service in RECEIVED status
 - Since z/OS R10, latest RSU is ACCEPTed
- Provides the ServerPac Installation Dialog used for installation
- Delivered over the Internet (recommended!) or on 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. Another exception is that you can get the Tivoli Monitoring products without z/OS in a ServerPac, since 4Q2009.

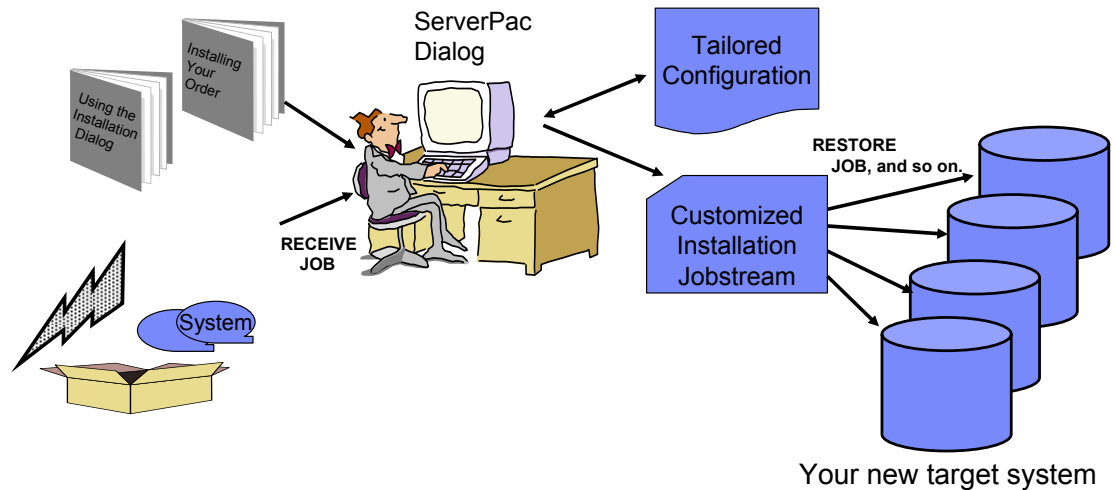
You can order a ServerPac using ShopzSeries or by contacting IBM or your Business Partner. You select the products you want included in your ServerPac system or subsystem from the product catalog. The product catalog for ServerPac is refreshed monthly to include products that have been supported or withdrawn 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. (*** These media types will be removed in October 26, 2010!**) DVD delivery of ServerPac is available as of September 10, 2010. 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:

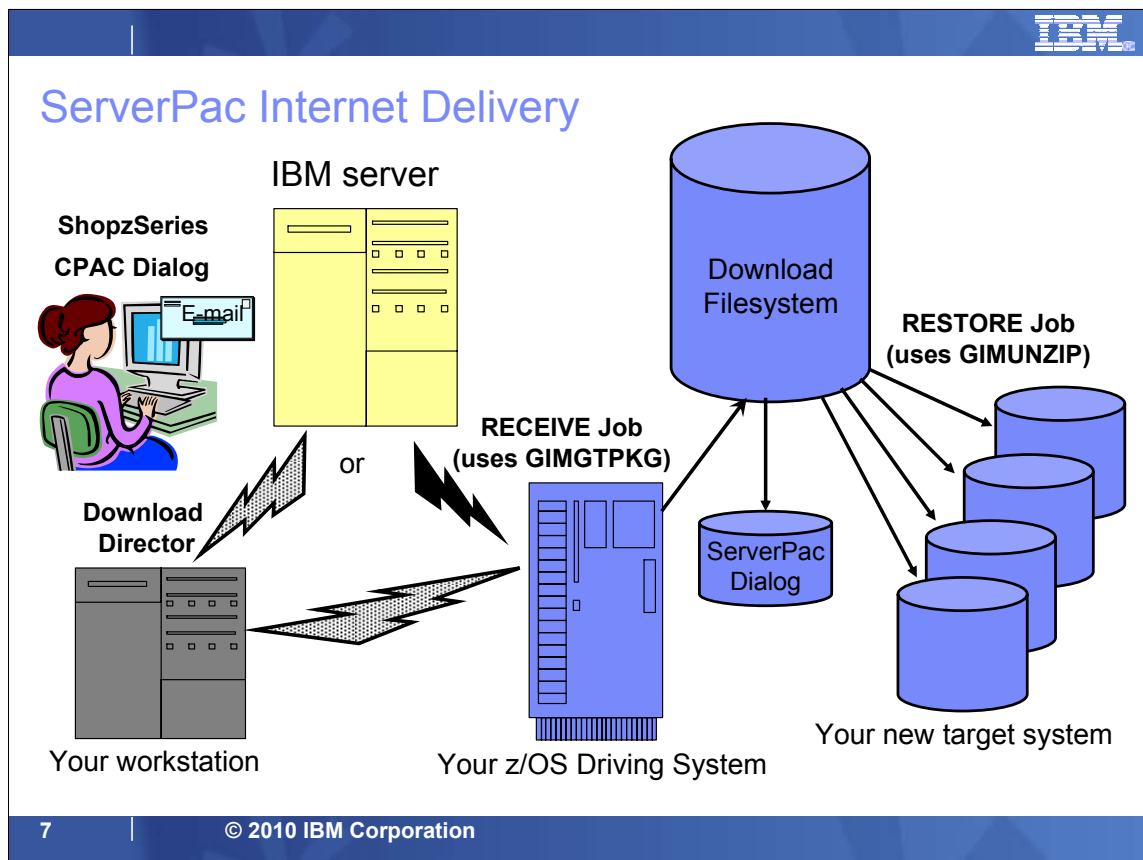
- System tapes with the installation dialog, order data, target and DLIB data sets, and CSIs
- ServerPac: Installing Your Order* book which is customized to your order
- ServerPac: Using the Installation Dialog* (SA22-7815)
- Other product-specific materials such as
 - Publications – hardcopy installation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

ServerPac Installation Overview



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.



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
 - Supplied with your order
 - Available in hardcopy, PDF, and BOOK formats
- ServerPac FAQs
 - http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?infotype=SA&subtype=ST&htmlfid=ZSQ03038USEN&apname=STG_ZS_USEN_FQ



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 at http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?infotype=SA&subtype=ST&htmlfid=ZSQ03038USEN&apname=STG_ZS_USEN_FQ.

Agenda

- ➔ ■ Planning for ServerPac
 - Dialog Tailoring Options
 - System-Specific Alias
 - ServerPac SMP/E Zone Structure for z/OS
 - Usual Reading for Installing a ServerPac



Dialog Tailoring Options

- **ServerPac's dialog provides the capability to tailor your ServerPac configuration to your environment**
 - Global Variables - asmlr, jobcard, drvsys data, and so on.
 - Volumes - names, device type, number
 - Data Sets - names, placement on volume, space
 - Catalogs - names, System Specific Aliases (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



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)

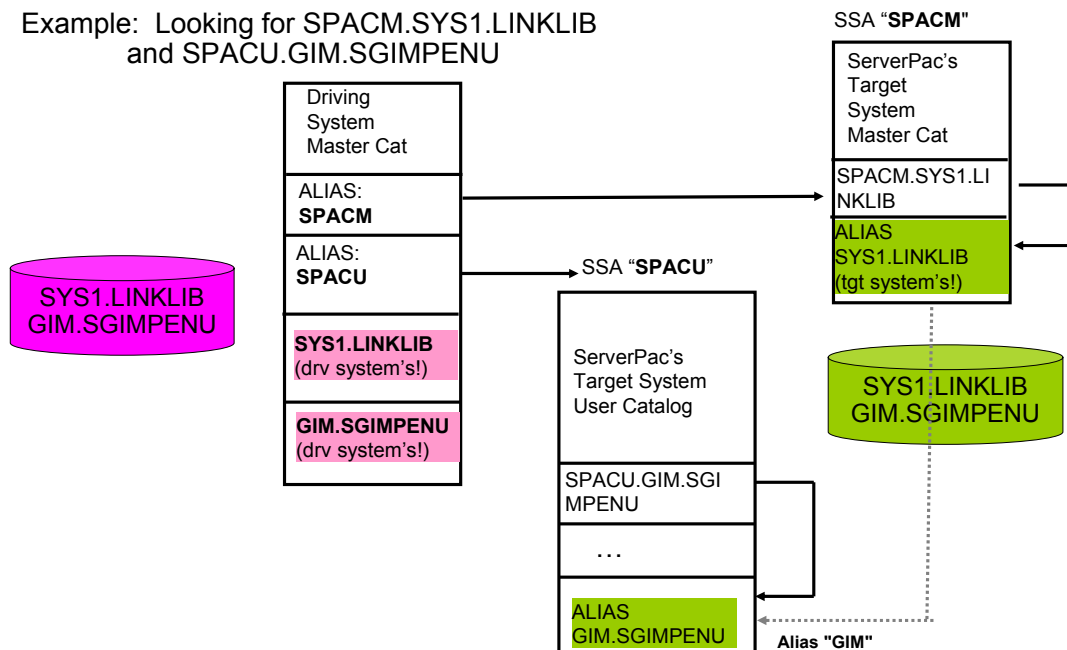
Once you have tailored your ServerPac configuration to match your environment, the ServerPac installation dialog will generate a customized jobstream based on the information you provided. The installation jobstream is divided by:

- **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

Example: Looking for SPACM.SYS1.LINKLIB
and SPACU.GIM.SGIMPENU



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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 for z/OS

- **A z/OS ServerPac contains at least eight SMP/E zones (in addition to GLOBAL):**
 1. z/OS and all additionally ordered products that can reside in the same zone (in the MVSD100 and MVST100 zones).
 2. JES2 (in the MVSD110 and MVST110 zones).
 3. JES3 (in the MVSD111 and MVST111 zones).
 4. SDSF (in the MVSD112 and MVST112 zones).
- All DLIB and target zones names are customizable.
- All DLIB zones for each SREL are physically defined in the same DLIB CSI data set. All target zones for each SREL are physically defined in the same target CSI data set.
- JES2, JES3, and SDSF zones may be merged into the z/OS zone.
- JES2 or JES3 may be removed.
- **New for z/OS R12!**
 - The ServerPac installation dialog now allows SDSF and JES SMP/E zones to be merged, without having to merge either into the z/OS BCP zone.
 - The Zones option in the dialog has been enhanced to propagate the zone names into the SMP/E CSI data set names in Modify System Layout.



Planning for ServerPac – Usual Reading

- Review the *z/OS Planning for Installation* book for z/OS installs:
 - New and changed elements
 - Driving and target system requirements
 - DASD space estimates
 - Recommended system layout
 - Installation checklist
- Review the *z/OS Migration* book when using ServerPac to upgrade z/OS:
 - 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 in that book 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.

Agenda

- ➔ ■ Preparing for ServerPac
 - Activities for Preparing
 - Getting Started with the Dialog
 - Knowing what you're going to use in the Dialog



Preparing for ServerPac Activities

- 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 (can use Customized Offerings Driver)
- Get DASD volumes for target system
- Get and review PSP buckets
 - Upgrade (ZOSV1Rnn) 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. The Customized Offerings Driver (a no-charge driving system) may be used, if needed.

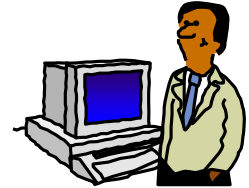
You will need to obtain enough DASD for the new target system to be created. If you are installing an Internet ServerPac order, in addition to the DASD for the new target system, you will need enough DASD for the download file system – about twice the compressed size of your order. The size of your order 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 ZOSV1Rnn (where 'nn' is the z/OS release number)
SUBSET SERVERPAC
```

Getting Started with the Dialog

- **First set up the CustomPac (aka ServerPac) dialog on driving system**
 - Recommended to use a single dialog for all orders
- **Run job LOADRIM for a new CustomPac dialog (if you don't have it already)**
 - 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 CustomPac dialog accessible to target system**
 - some installation jobs must run on target system
 - easier if the dialog libraries are not SMS managed, and are in a user catalog



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`.

Preparing for Installation – Knowing what to use in the Dialogs

You'll be asked for this later on, think about it early:

- Decide which installation mode to use
- Determine variable settings
- Decide whether to merge data sets, SMP/E zones
- 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.

Agenda

- ➔ ■ Installing ServerPac
 - **RECEIVE** option
 - **INSTALL** option:
 - **C** Create
 - **V** Variables
 - **Z** Zones
 - **M** Modify
 - **A** Alias
 - **SSA** SSA
 - **I** Installation



```

IBM Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- IBM Corporation ----- 23.00.41
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: MVSBUILD.SRVRPC

This dialog supports electronic delivery.

*****
* 5751-CS4, 5751-CS5, 5751-CS6, 5751-CS7 and 5751-CS9 *
* Copyright IBM Corp. 1988, 2010 *
*****

ME a 02/013
[ Connected to remote server/host ptpac.pdk.ibm.com using lu/jool M05TC09 and port ]

```



RECEIVE: ServerPac and ShopzSeries...

- **The following screen shots are what you'd see when you've ordered your ServerPac from ShopzSeries electronically.**
 - This example uses the “Store and Forward” download method...but you can easily use the “Direct to Host” method also!
 - The download methods (where the order resides) for the RECEIVE are:
 - **S for Server:** Server indicates that the ServerPac order is to be received from an FTP server.
 - **F for File System:** File System indicates that you used the “Store and Forward” download method (download to workstation) and then uploaded the order to the host outside the Dialog. The RECEIVE job generated by this option will retrieve the order directly from the File system and not attempt a download.
 - **T for Tape:** Tape indicates that the ServerPac order is to be received from tape.

- **DVD support, as of September 10, 2010:**
 - For DVD orders, you can choose either **F** or **S**. If you have set up an FTP server such that the source directory points to the workstation directory where the order is copied, choose **S**; otherwise, enter **F**.

The screenshot shows the IBM ShopzSeries 'My orders' page. The page has a navigation menu on the left with links like 'My orders', 'My profile', 'My hardware systems', etc. The main content area is titled 'My orders' and includes tabs for 'Create new order', 'Draft orders', 'In process', and 'Completed'. Below these tabs, there is a section for 'In process orders' with a table. A yellow arrow points to the 'Download' link in the table's status column.

Select	Order reference number - Order name	Status
<input type="checkbox"/>	600497772 - Market eServerPac - RP Customer number: 4600326 IBM order number: 2009877808	Physical None Internet Download

RECEIVE: ServerPac and ShopzSeries...

Country/region [select]

IBM® Search

Home Solutions ▾ Services ▾ Products ▾ Support & downloads ▾ My IBM ▾

Welcome Mr. Mark Fyffe [Not you?] [IBM Sign in]

ShopzSeries > My current order >

Download U00507272 - Marist eServerPac - R9

Download expires on 1 Jul 2008

Order Packing List
View the contents of your order (0.008 MB)

Preparing to Install your Order
View instructions for downloading your order

Installation Documentation
View or Download to your workstation

ServerPac Material (Host)
Download directly to host

ServerPac Material (Workstation)
Download to your workstation

Additional Publications
Download to your workstation using IBM Download Director
Download to your workstation using HTTPS

Product Publications
View or download unlicensed publications for your order

My ShopzSeries
Welcome Marna L. Walle
Sign out

Clicked on this for next slide...

Example used for this presentation!

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The screenshot shows the IBM ShopzSeries website interface. At the top, there is a navigation bar with the IBM logo and a search box. Below this, a breadcrumb trail reads "ShopzSeries > My current order >". The main heading is "Download U00507272 - Marist eServerPac - R9". Underneath, it says "Installation Documentation - View or Download to your workstation" and "Download expires on 1 Jul 2008". There are three download links listed: "Information Roadmap" (0.003 MB), "z/OS Planning for Installation" (with a "View Now" link), and "ServerPac: Using the Installation Dialog" (with a "View Now" link). Below these are "ServerPac: Installing Your Order" (2.0 MB) and "ServerPac: Installing Your Order" (2.0 MB) with a "View Now" link. A yellow arrow points to the "ServerPac: Installing Your Order" link with the text "You'll need this book!". On the left side, there is a vertical menu with links like "My orders", "My current order", "My profile", etc. On the right side, there is a "My ShopzSeries" box with a welcome message for "Marna L. Walle" and "Sign out" and "Edit profile" links. At the bottom, there are utility links like "E-mail this page", "Print this page", and "IBM Bookmarks". The footer contains "22" and "© 2010 IBM Corporation".

The screenshot shows the IBM ShopzSeries website interface. At the top, there's a navigation bar with 'Home', 'Solutions', 'Services', 'Products', 'Support & downloads', and 'My IBM'. Below this is a search bar and a welcome message for 'Mr. Mark Fyffe'. The main content area is titled 'Download U00507272 - Marist eServerPac - R9'. It lists 'ServerPac Material (Workstation) - Download to your workstation' with a download expiration date of 1 Jul 2008. There are three main sections: 'Instructions for downloading to your workstation' (0.013 MB), 'ServerPac Material' (5119 MB), and 'Required information for ServerPac Dialog' (0.002 MB). The dialog information section contains two options: 'Dialog Option 1: Install a new ServerPac Dialog that supports Internet delivery' (0.016 MB) and 'Dialog Option 2: Migrate existing ServerPac Dialog to support Internet delivery, if not done previously' (0.017 MB). A yellow callout box with arrows points to the 'Dialog Option 1' section, containing the text 'Important! For those with no dialog yet.'

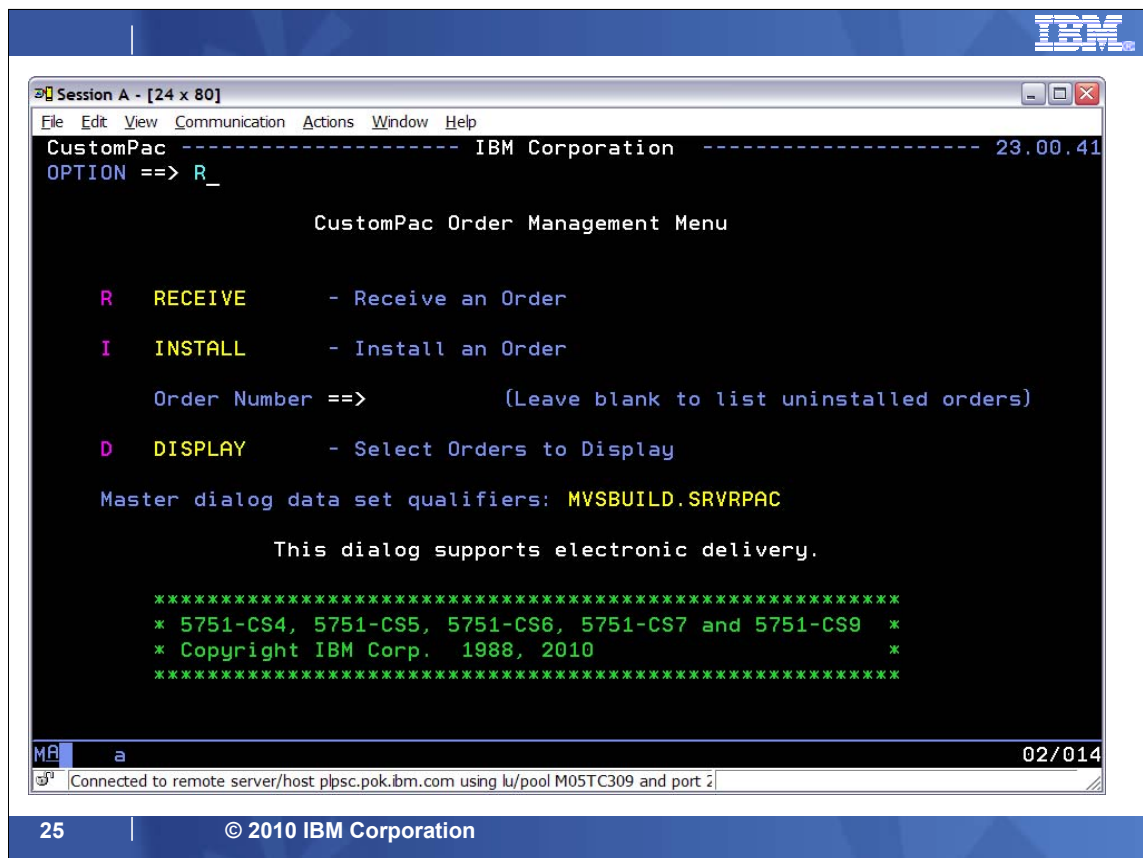
The EUPDATE job is being removed from the download page in z/OS R12. It will be shipped in CPAC.SAMPLIB for those that may need it.



RECEIVE: ServerPac and ShopzSeries...

- **At this point, first-time ServerPac users would run LOADRIM, to install a new set of ServerPac dialogs.**
 - After the dialogs are installed and invoked, you go to the RECEIVE step.

- **If you have existing dialogs that were at the proper level, we wouldn't need to install new dialogs, and could move right on to the RECEIVE step.**



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.

Select:
F: for "Store and Forward" (electronic, DVD)
S: for "Direct to Host" (electronic, DVD)
T: for tape orders (non-electronic, non-DVD)


```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- Receive an Order -----
COMMAND ==>

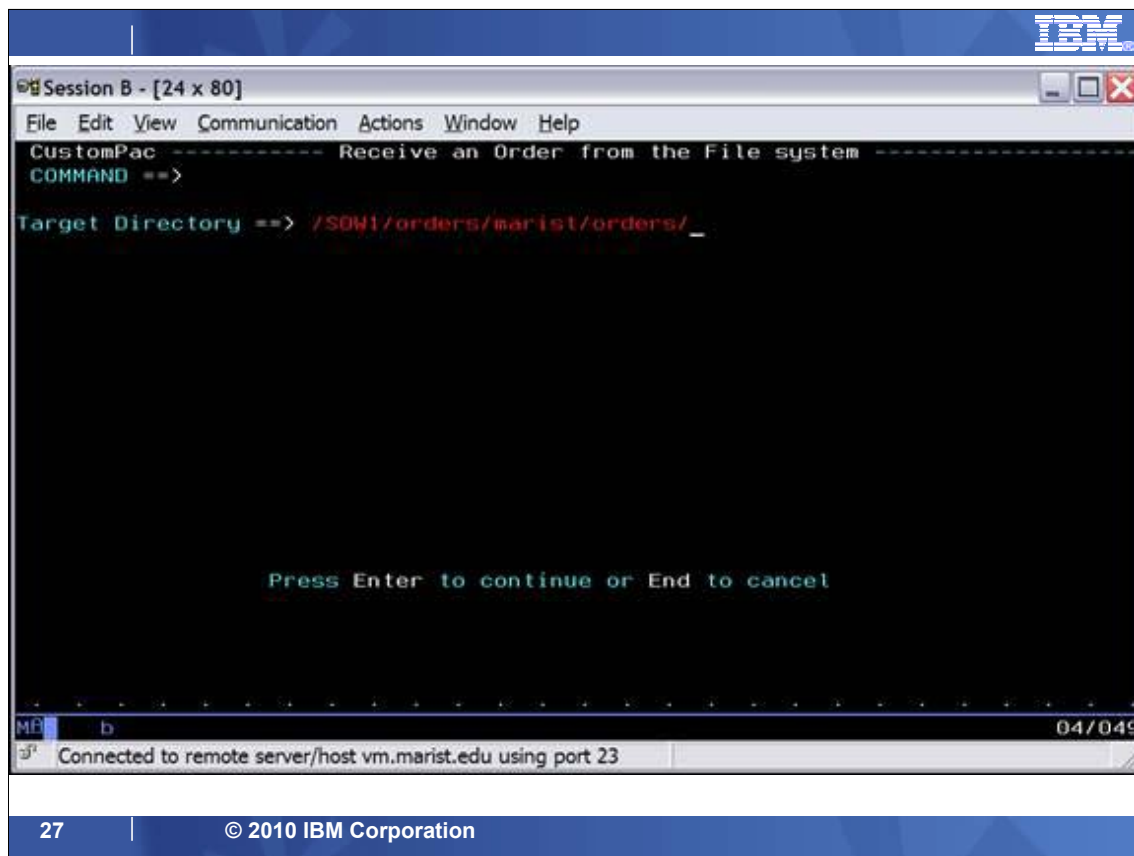
Receive the order from ==> F      F - File system
                               S - Server
                               T - Tape

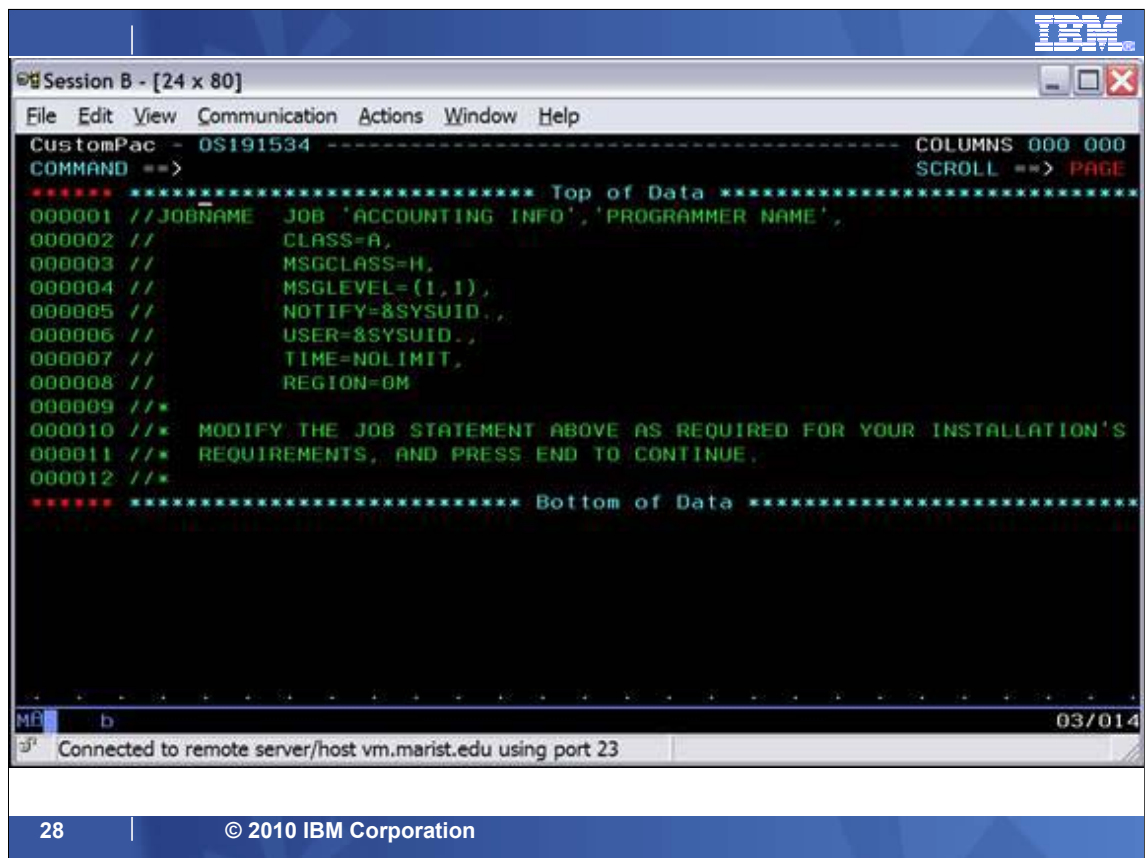
Order Number              ==> OS191534

----- Order Dialog Data Set Allocation Information -----
Data Set Qualifiers      ==> IBMUSER.SORDER      (Must be unique)
Volume Serial            ==> VPMVSE      (Blank for SMS-managed data sets)
- or -
STORCLAS                 ==>              (Blank for non-SMS-managed data sets)
Dialog CLIST Record Format ==> FB          (FB or VB)

Press Enter to continue or End to cancel

MA b                                                                04/033
Connected to remote server/host vm.marist.edu using port 23
26 | © 2010 IBM Corporation
  
```

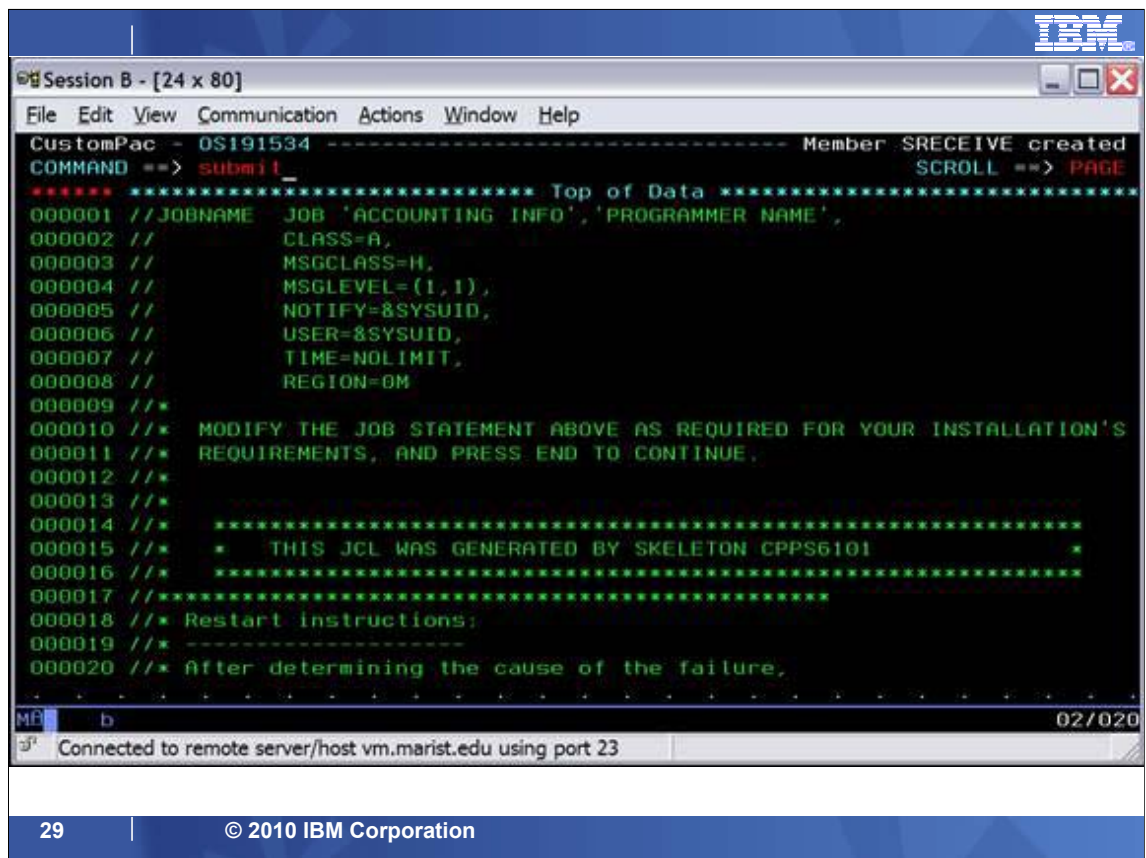




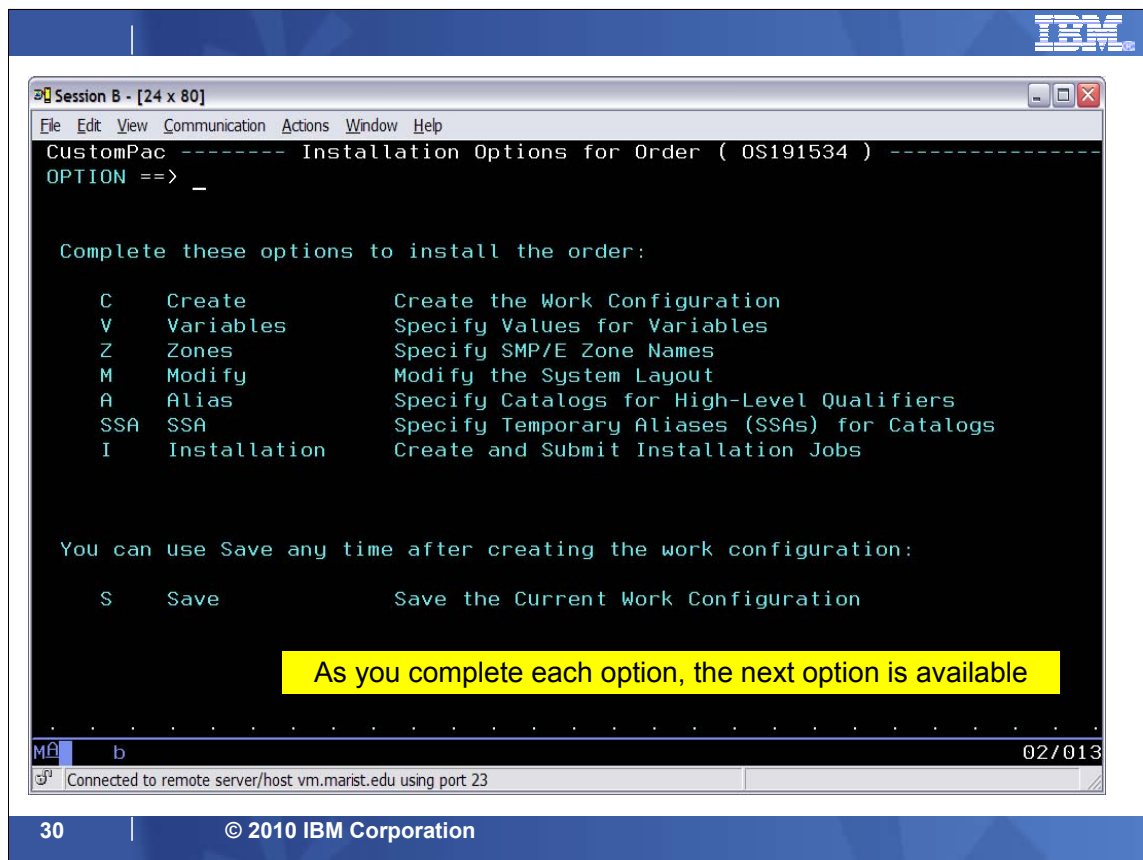
The screenshot shows a terminal window titled "Session B - [24 x 80]" with an IBM logo in the top right corner. The window contains a job definition for "ACCOUNTING INFO". The text is as follows:

```
CustomPac - 0S191534 ----- COLUMNS 000 000
COMMAND ==> SCROLL ==> PAGE
***** Top of Data *****
000001 //JOBNAME JOB 'ACCOUNTING INFO', 'PROGRAMMER NAME',
000002 // CLASS=A,
000003 // MSGCLASS=H,
000004 // MSGLEVEL=(1,1),
000005 // NOTIFY=&SYSUID.,
000006 // USER=&SYSUID.,
000007 // TIME=NOLIMIT,
000008 // REGION=0M
000009 /**
000010 /*** MODIFY THE JOB STATEMENT ABOVE AS REQUIRED FOR YOUR INSTALLATION'S
000011 /*** REQUIREMENTS, AND PRESS END TO CONTINUE.
000012 /**
***** Bottom of Data *****
```

At the bottom of the terminal window, there is a status bar showing "MP b" on the left, "03/014" on the right, and "Connected to remote server/host vm.marist.edu using port 23" in the center.



```
IBM
Session B - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac - 0S191534 ----- Member SRECEIVE created
COMMAND ==> submit_ SCROLL ==> PAGE
***** Top of Data *****
000001 //JOBNAME JOB 'ACCOUNTING INFO', 'PROGRAMMER NAME',
000002 // CLASS=A,
000003 // MSGCLASS=H,
000004 // MSGLEVEL=(1,1),
000005 // NOTIFY=&SYSUID,
000006 // USER=&SYSUID,
000007 // TIME=NOLIMIT,
000008 // REGION=0M
000009 /**
000010 /** MODIFY THE JOB STATEMENT ABOVE AS REQUIRED FOR YOUR INSTALLATION'S
000011 /** REQUIREMENTS, AND PRESS END TO CONTINUE.
000012 /**
000013 /**
000014 /** *****
000015 /** * THIS JCL WAS GENERATED BY SKELETON CPPS6101 *
000016 /** *****
000017 /*******
000018 /** Restart instructions:
000019 /** -----
000020 /** After determining the cause of the failure,
+ + + + +
MP b 02/020
Connected to remote server/host vm.marist.edu using port 23
```

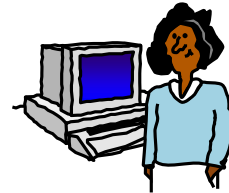


This is the main panel that guides you through the preparation of a ServerPac configuration for installation. Notice that only the first option is available when you first enter the dialog. As each option is completed, the next option becomes available, which forces you to complete the tasks in order.

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.

“C”reate: ServerPac Configuration

- **First step is to create a working configuration**
 - Choose **Full System Replace** or **Software Upgrade**
 - Choose JES and whether to merge JES, SDSF 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
- **As mentioned before...for z/OS R12!**
 - The ServerPac installation dialog now allows SDSF and JES SMP/E zones to be merged, without having to merge either into the z/OS BCP zone.



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 Replacement (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 and SDSF into the z/OS SMP/E zone, or to merge SDSF and JES zones. 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.

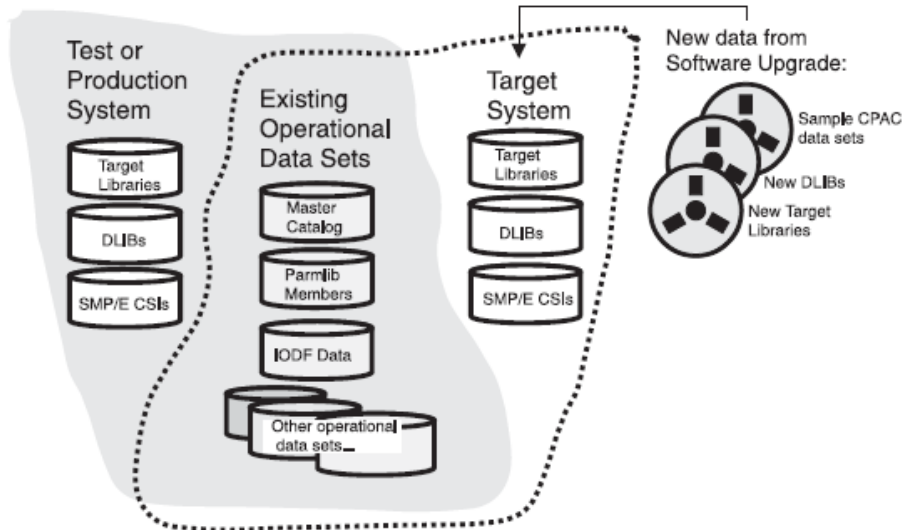


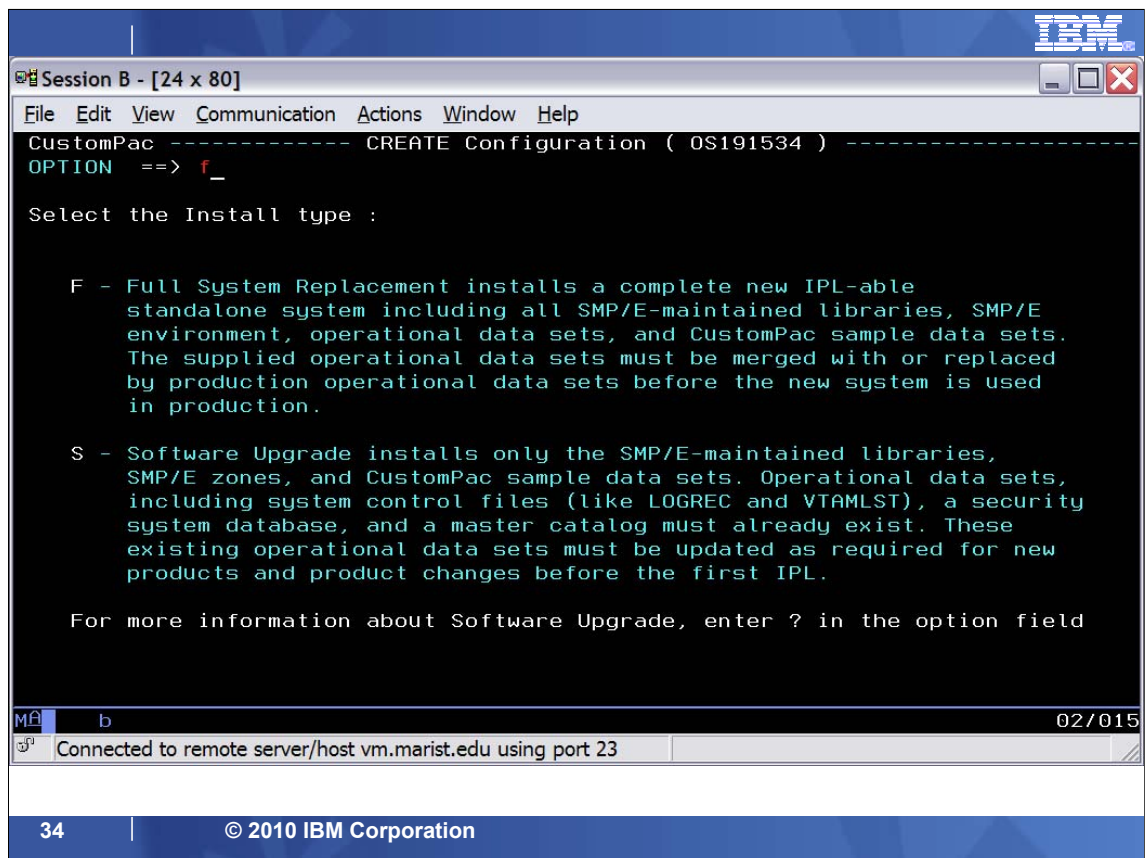
“C”reate: ServerPac System Replacement Offering

- There are two types of ServerPac installation available to install z/OS
 - A **full system replacement** installs a complete z/OS system.
 - It installs all the data sets you need to IPL, to log on to the target system, and to run a z/OS image in order to complete other installation and customization tasks.
 - The installed 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.
 - Depending on your environment, you might need to merge your existing operational data sets with the data sets created by ServerPac. You can do this before or after first IPL.
 - A **software upgrade** installs only system software and related data sets (such as distribution and target libraries, SMP/E CSI data sets, and sample libraries).
 - It does not create the set of new operational data sets required to IPL (such as page data sets, system control files, and a master catalog).
 - With a software upgrade, 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.
 - A software upgrade is possible for z/OS but not for the subsystems.

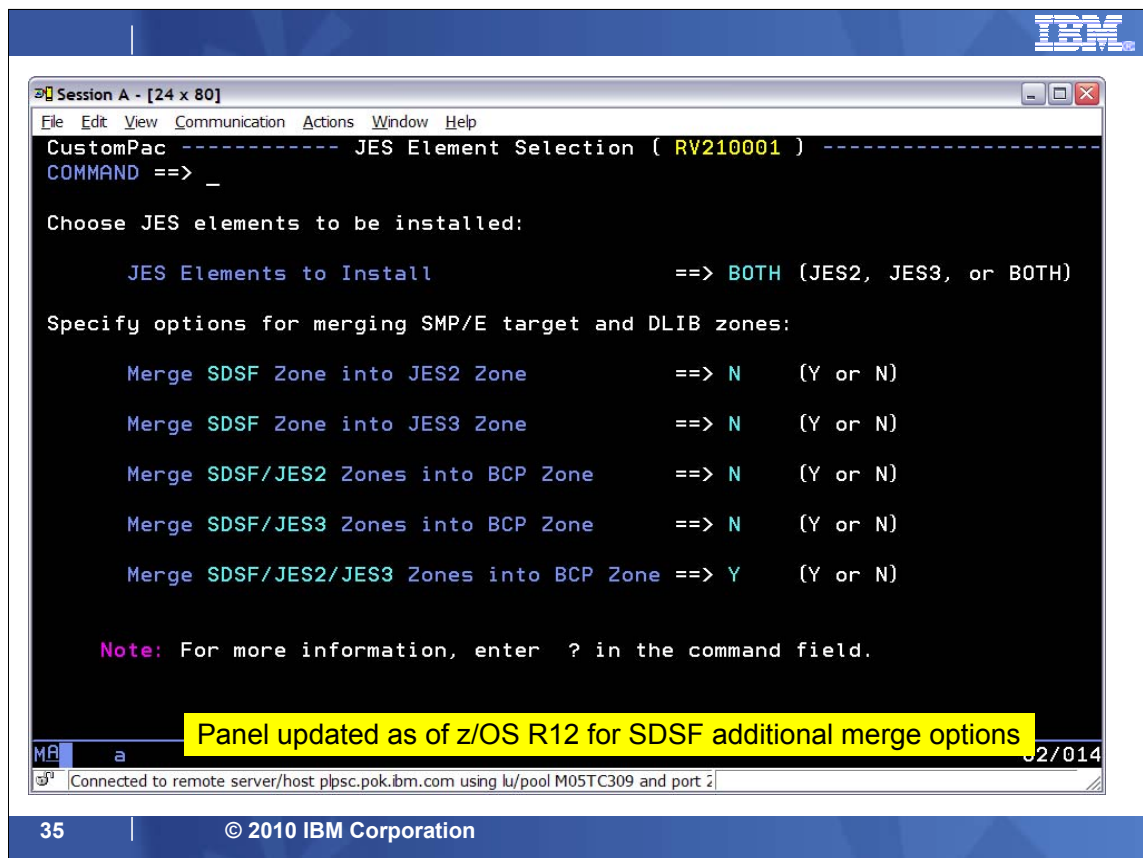


The dotted line contains the system software and data sets that are created by full system replacement. Within the dotted line, the data sets below “Target System” are the subset of data sets that are replaced by software upgrade.





```
IBM  
Session B - [24 x 80]  
File Edit View Communication Actions Window Help  
CustomPac ----- CREATE Configuration ( OS191534 ) -----  
OPTION ==> f_  
  
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  
  
M# b 02/015  
Connected to remote server/host vm.marist.edu using port 23  
  
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```



```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- JES Element Selection ( RV210001 ) -----
COMMAND ==> _

Choose JES elements to be installed:

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

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

    Merge SDSF Zone into JES2 Zone    ==> N   (Y or N)
    Merge SDSF Zone into JES3 Zone    ==> N   (Y or N)
    Merge SDSF/JES2 Zones into BCP Zone ==> N   (Y or N)
    Merge SDSF/JES3 Zones into BCP Zone ==> N   (Y or N)
    Merge SDSF/JES2/JES3 Zones into BCP Zone ==> Y   (Y or N)

Note: For more information, enter ? in the command field.

Panel updated as of z/OS R12 for SDSF additional merge options
MA a 02/014
Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2
```

z/OS Basics: ServerPac 101

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- CREATE Configuration ( RV210001 ) ----- Row 1 to 4 of 4
COMMAND ==> CR_ SCROLL ==> HALF

Select Configuration

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

S CONFIGuration                                Comment
-----
* MVSBUILD.RV210001                            Always Selected for Order
-----
MVSBUILD.OS110095.CONFIG                       R11 CC SYSTEM
MVSBUILD.OS190066.CONFIG                       FIRST SETUP
MVSBUILD.RT200001.CONFIG                       Z/OS R10 ESP SERVERPAC
s MVSBUILD.RU210001.CONFIG                     R11 ESP SERVERPAC
***** Bottom of data *****
```

I'm going to base my configuration on a previously saved configuration.
For instance, I'm basing my z/OS R12 ServerPac on a saved z/OS R11 configuration.

```
MA a 02/016
Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2
```

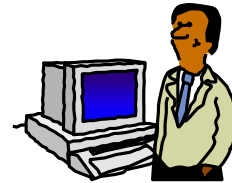
“V”ariables: Assign Variables and Zones

■ Variables

- Driving system information, for example:
 - master catalog name/volume
 - default assembler
 - and so on
- Jobcard information

■ Zones

- View zone content
- Rename zones (and as of z/OS R12, specify your SMPTLIB values)



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 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 overwrite to change the zone names. As of R12, when you change the zone name, it will be propagated into the SMP/E data set names which you can view in the Modify System Layout option. If the SMP/E data set name containing the zone name is modified in Modify System Layout, the zone name change will NOT be propagated back into the Zones option. The only way to change the zone content is by using the supplied optional jobs that allow you to merge and delete JES zones.

z/OS Basics: ServerPac 101

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- Installation Variables ( RV210001 ) - Row 36 to 49 of 97
COMMAND ==> _ SCROLL ==> HALF
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
- - - - -
==> MVS NEW ADR
    SADMP CONSOLE      M D  3E0

==> MVS NEW MISC
    TIMEZONE OFFSET    P  W.05.00.00
    SMF IDENTIFIER     M D  CPAC
    SYSNAME            D  CPAC
    SYSPLEX            M D  SYSPLEX1
    SYSTEM LOGGER HLQ  D  IXGLOGR

==> MVS OLD DSN
    DSN CONSOLE00      M D  SYS1.PARMLIB.POK (CONSOLE00)
    EXISTING IODF      M P  SYS9.IODF52

MA  a  02/014
Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2
```

Use the values that you've planned for...



“Z”ones: Change Zone Names, and SMPTLIB

The screenshot shows a terminal window titled "Session A - [24 x 80]" with a menu bar (File, Edit, View, Communication, Actions, Window, Help). The main content is a command-line interface for defining SMPTLIB and Zone Names. It shows the following information:

- CustomPac ----- Define SMPTLIB and Zone Names (RV210001) Row 1 to 1 of 1
- COMMAND ==> _ SCROLL ==> HALF
- Primary Commands: (? CANCEL SAVE)
- Line Commands: (elementS Fmids)
- SMPTLIB Information -----
- Data set Prefix ==> C90BUILD.ZR12ESP
- SMS Managed ==> No (Yes/No)
- Device Type ==> 3390
- Volume(s) ==> C90ES7 ==> ==> ==> ==>
- Zone Names Information -----
- Table with columns: S, Nickname, DLIB Zone, Target Zone, SST
- Row 1: 100, BAD112, BAT112, MVS
- ***** Bottom of data *****

Two yellow callout boxes provide additional context:

- One box points to the SMPTLIB Information section, stating: "This SMPTLIB section is new, as of z/OS R12."
- Another box points to the Zone Names Information section, stating: "Changing these zone names may affect your SMP/E data set names, if the zone names are in the MLQs."

The terminal footer shows "MA a" on the left, "02/014" on the right, and a status bar at the bottom: "Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2".

“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

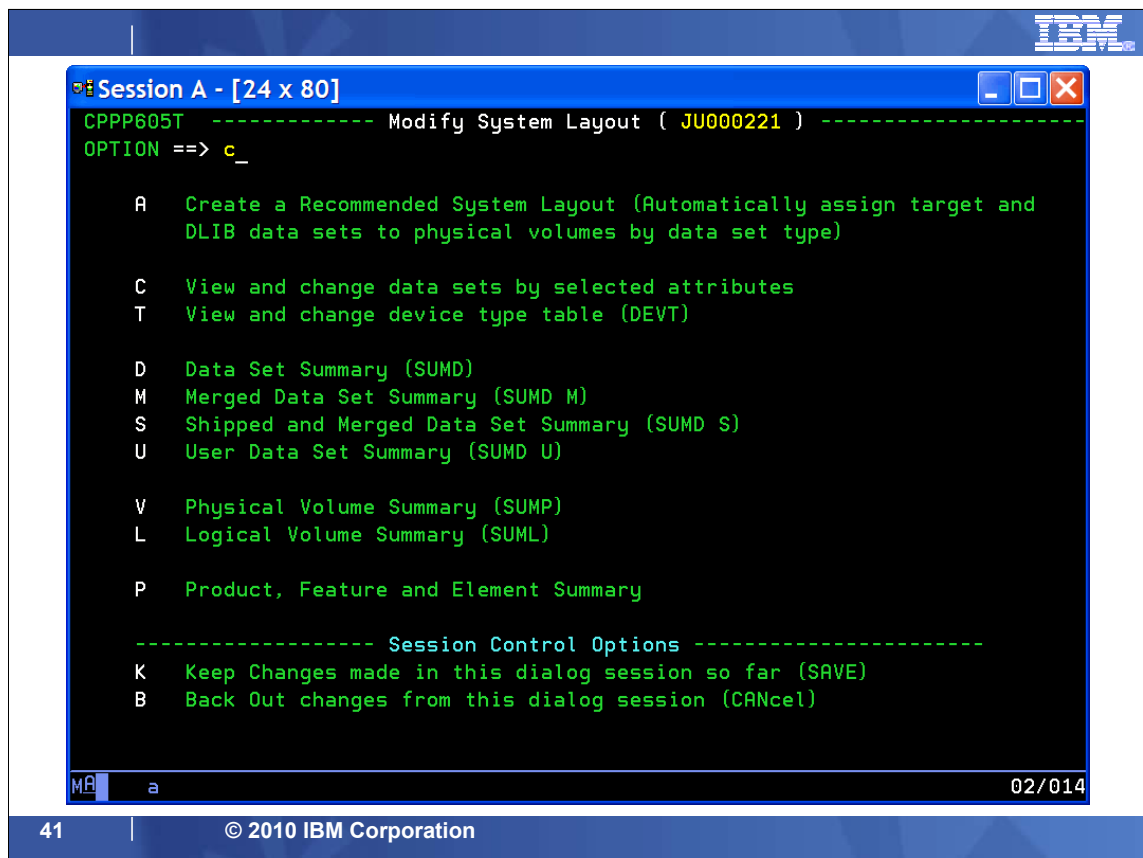


The Modify System Layout (MSL) option is where you will spend the bulk of your time within the dialog. This is where you can assign data sets to volumes, change data set attributes, and so on.

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.



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 (JU000221) ----- 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          Owing 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
42 | © 2010 IBM Corporation

```

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.

To Fix this Dreaded Problem: There are many ways...here's one I like.
Dslist on the volume...

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- Modify System Layout ( OS191534 ) ----- Row 1 to 5 of 5
COMMAND ==> SCROLL ==> HALF

SUMMARY Of Physical Volumes

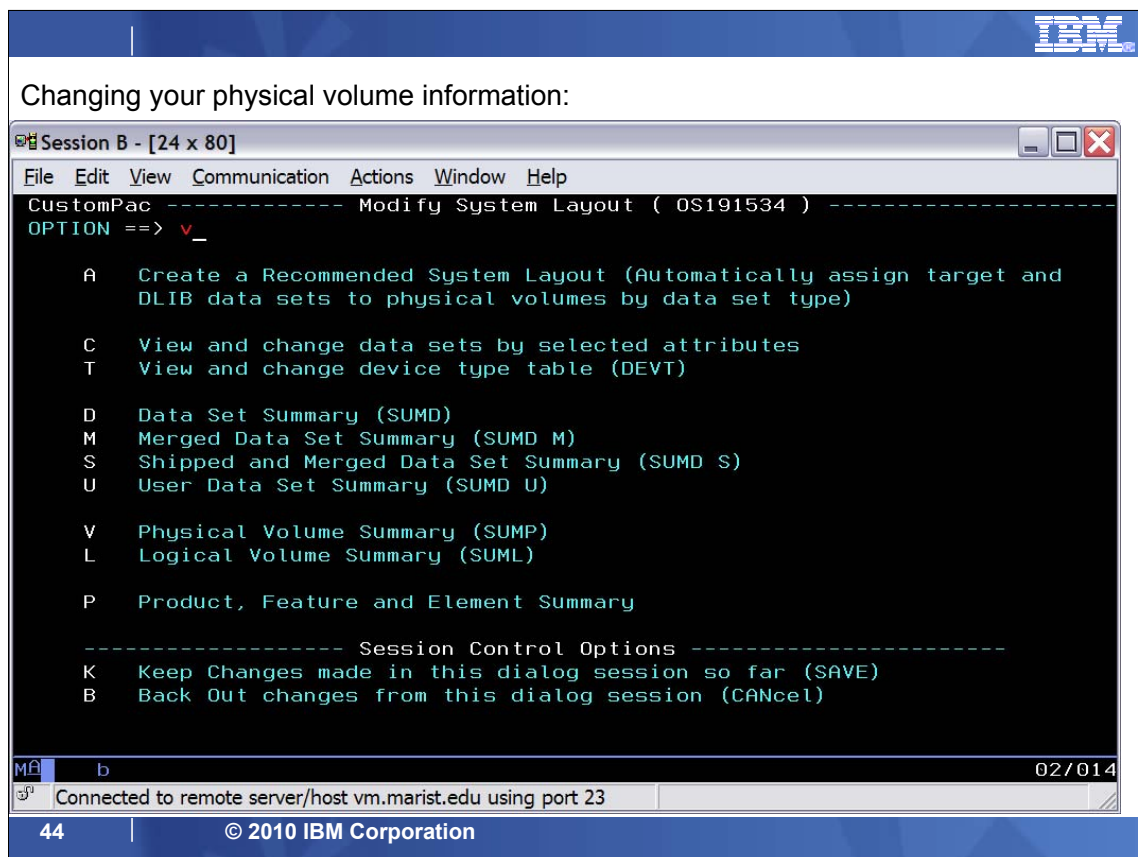
Primary Commands:(? DEVT)
Line Commands:(Select Dslist)

  PVOLUME/ Seq Device Device  Warn-  Init  -----  Cylinders -----
  S STORCLAS No. Number  Type   ings  Volume Existing  RSVD Assignd  Used  Free
  -----
  BIGVOL      0D30  3390-004      Y      0      0      5310  5310  27449
  VPMVSB      0CE3  3390-001 EXT<<W  N      134     0       50    184    16
  VPMVSE      0D2F  3390-002      N      308     0       78    386   114
  WORK01      0D35  3390-9        Y      0      0      8536  8536  1481
  d WORK02      0D36  3390-9 OVR<<S  N      5329     0      7142  12471  0
  ***** Bottom of data *****

43 M b 16/004
Connected to remote server/host vm.marist.edu using port 23

```

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.



Select the volume you want to change. (First time in, ServerPac defaults of MVSRES, MVSDLB, and MVSCAT will need to be changed!)

Session A - [24 x 80]
[Close] [Maximize] [Minimize]

File Edit View Communication Actions Window Help

CustomPac ----- Modify System Layout (RV210001) ---- Row 1 to 6 of 6
 COMMAND ==> SCROLL ==> HALF

SUMMARY Of Physical Volumes

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

PVolume/ S STORCLAS	Seq No.	Device Number	Device Type	Warn- ings	Init Volume	----- Existing	Cylinders RSVD	----- Assignd	Used	Free
s C90ESD		910F	3390-9		Y	0	0	7419	7419	2598
C90EST		910E	3390-9		Y	0	0	6342	6342	3675
C90ES2		9740	3390-3		Y	0	0	560	560	2779
C90ES7		9738	3390-3		Y	0	0	2674	2674	665
C90ES8		978B	3390-3		Y	0	0	3067	3067	272
C99136		9136	3390-9		Y	0	0	1688	1688	8329

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

MR a
12/004

Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2



Update with correct values for the volume.

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- Modify System Layout ( RV210001 ) -----
COMMAND ==>

Display and Change Volume Attributes

Volume Serial    ==> C90ESD    (Always required)
Device Number    ==> 910F
Device Type      ==> _      (Enter ? For List of Available Device)
                  (See Device Type Table for UNIT Type)
Reserved Space   ==> 0      (Cylinders)
Initialize Volume ==> Y      (Y or N. Default is Y)

Press Enter to continue or End to Cancel

Note: Only the volume serial is required for online volumes when the
      DYNAMIC DASD INFO variable is set to Yes.

MPC a 11/028
Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2
```

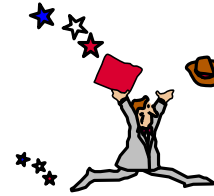
Don't put Device Type, let dialogs fill in for you!



Critical: Make sure this selection is correct!!!!

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
 - ...



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.



“A”lias option

- You have several high level qualifiers for your data sets in ServerPac.
- This option will assign these high level qualifiers to a catalog. Use this panel to define a catalog data set name for each of the aliases (aka high level qualifiers) in your order.
- Enter catalog names under the 'Target System Catalog Data Set Name' field. The catalog names are initially shown as '???????' because they are not yet defined.
- You can specify the catalog name with which an alias is to be associated by typing over the question marks.

The screenshot shows a terminal window titled "Session A - [24 x 80]" with a menu bar (File, Edit, View, Communication, Actions, Window, Help). The main display shows the output of a CustomPac command, displaying a table of aliases. The table has columns for S, Alias, STA, Target, System, Catalog, Data Set Name, and Type. The aliases listed are AOP, ASM, BDT1, BPA, CBC, CDS, CEE, CFZ, CMX, CPAC, CSF, C90BUILD, EOX, and EOY. The status bar at the bottom shows "MA a" and "02/014". A footer bar contains "49" and "© 2010 IBM Corporation".

```

CustomPac ----- ALIAS to CATALOG ( RV210001 ) ----- Row 1 from 33
COMMAND ==> _                                     SCROLL ==> HALF

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
  ---
  AOP
  ASM          M  C90BUILD.SPAC12E.MCAT
  BDT1
  BPA
  CBC          M  C90BUILD.SPAC12E.MCAT
  CDS
  CEE          M  C90BUILD.SPAC12E.MCAT
  CFZ
  CMX
  CPAC         M  C90BUILD.SPAC12E.MCAT
  CSF         M  C90BUILD.SPAC12E.MCAT
  C90BUILD
  EOX          M  C90BUILD.SPAC12E.MCAT
  EOY          M  C90BUILD.SPAC12E.MCAT
  
```

MA a 02/014

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“SSA” option

- This is where you'll specify your System Specific Aliases (for the target system master catalog and user catalog(s).
- These SSAs will create aliases in the driving system's master catalog.
- Recall that SSAs are used by ServerPac so that that driving system data set names do not interfere with the target system data set names.
- We are going to be allocating new target system catalogs in this example...

```

IBM
Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- SSA to CATALOG ( RV210001 ) ----- Row 1 to 2 of 2
COMMAND ==> _ SCROLL ==> HALF

CATALOG Selection List

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

S Catalog Name                               SSA Name Type VOLUME | | Unit
-----
C90BUILD.SPAC12E.MCAT                       ZR12ESPM MCAT C90ES7 Y | Y 3390
C90BUILD.SPAC12E.UCAT                       ZR12ESPU UCAT C90ES7 Y | Y 3390
***** Bottom of data *****

MA a 02/014
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```

“1” option

- This is where you'll run the tailored JCL jobs for ServerPac!
- At this point – you should have everything all ready to go:
 - Data set names finalized
 - Data set locations finalized
 - Volume information finalized
 - SSA and catalog relationships finalized
 - ...everything you've done in ServerPac up to this point!!
- From this point on...you'll mostly be using the *ServerPac Installing Your Order* book, since we are now into the 'order specific' information in ServerPac...

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, grouped together by category:
 - 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 “S”elect line command to generate only the selected job which can be submitted. Use “B”ackup if you’ve already generated the job.





“I” option - GENSKEI

- This command will file tailor all the jobs for you all at once. Otherwise, you'll need to individually file tailor each job. (For some jobs, that takes a while, so it's recommended you use GENSKEI prepare all the JCL jobs at one time.)
- You have to exit the dialog for the GENSKEI job to run, to avoid contention on your order data sets.
- GENSKEI jobs will be stored in your order's SCPPBENU data set. You use the “B” (or backup) line command to select the job.
 - If you use “S” (for select), you'll re-tailor the job (and you'll have to wait for it to re-tailor)! This is a common “behavior” people do, so just know what is happening!

z/OS Basics: ServerPac 101

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- Installation JOBS ( RV210001 ) --- Row 1 to 13 of 198
COMMAND ==> gen_                                SCROLL ==> HALF
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  JOB24620    0000
JOB  INITIALIZE SMS VOLUME                       INITSMS   00  JOB26222    0000
DOC  DEFINE CATALOGS AND RESTORE
JOB  RACF PROFILES ON DRIVING SYSTEM             RACFDRV   00
JOB  DEFINE CATALOGS                             DEFCAT    00  JOB26997    0000
JOB  DEFINE SYSTEM-SPECIFIC ALIASES              DEFSSA    00  JOB27451    0000
JOB  ALLOCATE AND CATALOG DS                     ALLOCDS   00  JOB28187    0000
JOB  RESTORE DATA SETS                          RESTORE   04  JOB30317    4095
MA    a                                           02/017
Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2
```

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
File Edit Edit_Settings Menu Utilities Compilers Test Help

EDIT          MWALLE.CPPTMP1.SCPPWORK          Columns 00001 00072
Command ==> submit_                          Scroll ==> HALF
***** ***** Top of Data *****
000001 //RECEIVE  JOB 'C90A,B710','ZOSR12 ESP TEST',
000002 //          CLASS=U,
000003 //          MSGCLASS=H,
000004 //          MSGLEVEL=(1,1),
000005 //          NOTIFY=MWALLE,
000006 //          TIME=NOLIMIT,
000007 //          REGION=OM
000008 /*JOBPARM S=AQTS
000009 /*
000010 /*  MODIFY THE JOB STATEMENT ABOVE AS REQUIRED FOR YOUR INSTALLATION'S
000011 /*  REQUIREMENTS, AND PRESS END TO CONTINUE.
000012 /*
000013 /*
000014 //JOBLIB    DD DSN=MVSBUILD.RV210001.SCPPLOAD,
000015 //          DISP=SHR
000016 /*
000017 /*
000018 /*  *****
000019 /*  *   THIS JCL WAS GENERATED BY SKELETON CPPS6121   *
MA  a 04/021
Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2

```


z/OS Basics: ServerPac 101

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- Installation JOBS ( RV210001 ) Row 187 to 198 of 198
COMMAND ==> SCROLL ==> HALF

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
-----
DOC MASTER CATALOG CONVERT
b_ JOB CREATE MASTER CAT CONVERT STEP            CATCVTM    00
  JOB UPDATE TARGET MASTER CATALOG              CATCONV    00
DOC INSTALLATION CLEAN-UP TASKS
JOB CLEAN UP DDDEFS                              UPDDDUV    04  JOB17547    0004
JOB ZONE / DDDEF CLEANUP                          UPDDEF     04
JOB CLEAN UP DDDEFS                              UPDBCK     04
JOB DELETE DATA SET ALIAS NAMES                  DELDSN     08
JOB DELETE WORK SYSTEM'S CSI DS                  DELCSI     00
JOB DELETE SSAS IN DRIVING SYS MCAT              DELSSA     00
DOC SET THE STATUS TO INSTALLED
JOB SET THE STATUS TO INSTALLED                  SETSTAT

***** Bottom of data *****
MA  a 13/003
Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2

```



“I” option – General Job Information...

- In general, the prolog information in each of the jobs tells you what it does, and any manual changes you’d need to make.
 - Yes, there still are some manual changes required to these jobs in some cases 😊.
- Make sure you get the expected return code from each job, before continuing.
 - Subsequent jobs rely upon previous jobs running successfully.
- If you go back into previous ServerPac options, it is likely that you may need to then continue through subsequent options (and even have to re-GENSKEL), based on what you’ve changed.

“I” option – ALLOCDS and Volume Overflow – Beware!

- Once you run the ALLOCDS job, your data sets will be allocated on your volumes, and ready for you to copy into.
- If you go back into Modify System Layout, the dialog will dynamically look at each volume. If you have said that you do NOT want the volume to be initialized, it will discover the volume fairly full (a result from the ALLOCDS job).
 - This will give you the Dreaded Volume Overflow again (which you probably “fixed” before!).
- To avoid this problem, you can:
 1. Save your order! This circumvention changes your configuration in a way you don’t want to save.
 2. Change Initialize Volume flag to Y on the over-allocated volumes
 3. Enter and exit the A and SSA options to get back to I.

Thankfully, this dreaded problem is avoided as of z/OS R11 ServerPac. However, if you install a pre-z/OS R11 ServerPac, you’ll need to know how to get around this.



Agenda

- ➔ IPLing your target system



z/OS Basics: ServerPac 101

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- Installation JOBS ( RV210001 ) -- Row 49 to 61 of 198
COMMAND ==> _ SCROLL ==> HALF

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
-----
DOC COPY CUSTOM DATA FROM DRIVER
JOB COPY DRIVING SYSTEM CONSOL00                COPYCON   00
JOB CREATE VATLST00 IN PARMLIB                   VATLST    00
JOB COPY VTAM DEFINITIONS                       CPYVTLCL  00
JOB RENAME DS TO FINAL NAME                     ALTCAT    00  JOB20994

==> IPL YOUR SYSTEM
DOC IPLING THE SYSTEM

==> POST-INSTALLATION FROM TARGET
DOC POST-INSTALL JOBS FROM TARGET
JOB RACF PROFILES ON TARGET SYSTEM              RACFTGT   00
JOB ALLOCATE LOG STREAMS                       DEFNLOGS  00

MA a 02/014
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```

Here's the point when you're ready to IPL!





Prepping for the IPL...

- Several manual updates are still needed to your target system (from your driving system), before you try your first IPL:
 - Any local necessary customization (usermods, parmlib, proclib updates, ...) that are being used.
 - This is where the separation during planning will have paid off!

Agenda

- ➔ ■ Post-install work from target system
 - Getting the ServerPac dialog to your IPL'd system
 - Running the remaining dialog jobs.



Getting the ServerPac dialog to your IPL'd system

- Recommended way: put your ServerPac order data sets in a user catalog. Import connect that user catalog to your driving system. Then, import connect that user catalog also to your target system. Invoke the dialogs as you had before on the driving system.
- An alternate way: Catalog the data sets on your target system catalog. Remember: there are VSAM data sets involved, and they can only be cataloged in one catalog!
 - Catalog your dialog data sets on the target system.
 - Recatalog the VSAM data sets (SCPPEENUs, SCPPHENUs, and SCPPVENU) - if you didn't put them in a usercatalog when you did the initial RECEIVE.
 - Warning: at this point, they'd have to be re-cataloged back on the driving system, if you wanted to access them there!
 - Get your dialog EXEC ready (like you did on your driving system).



Running the remaining dialog jobs

- Remember: Since you have GENSKELED the jobs, they reside in your *hlq*.SCPPBENU data set.
- You can continue to run the jobs from that data set from your target system, and also via the dialogs.

Running the remaining dialog jobs

- Target system jobs left to run, many are order-content dependent:
 - ==> **POST-INSTALLATION FROM TARGET**
 - Completes the installation of the products in your order, that cannot be done from the driving system.

 - ==> **INSTALLATION VERIFICATION**
 - Verifies the installation of this ServerPac, for certain products.

 - ==> **COMPLETING THE INSTALLATION**
 - Updates your new master catalog, and cleans up your driving system from the installation.



Agenda

- ➔ Saving your ServerPac configuration



```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
CustomPac ----- Installation Options for Order ( RV210001 ) -----
OPTION ==> s_

Complete these options to install the order:

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

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

S   Save             Save the Current Work Configuration

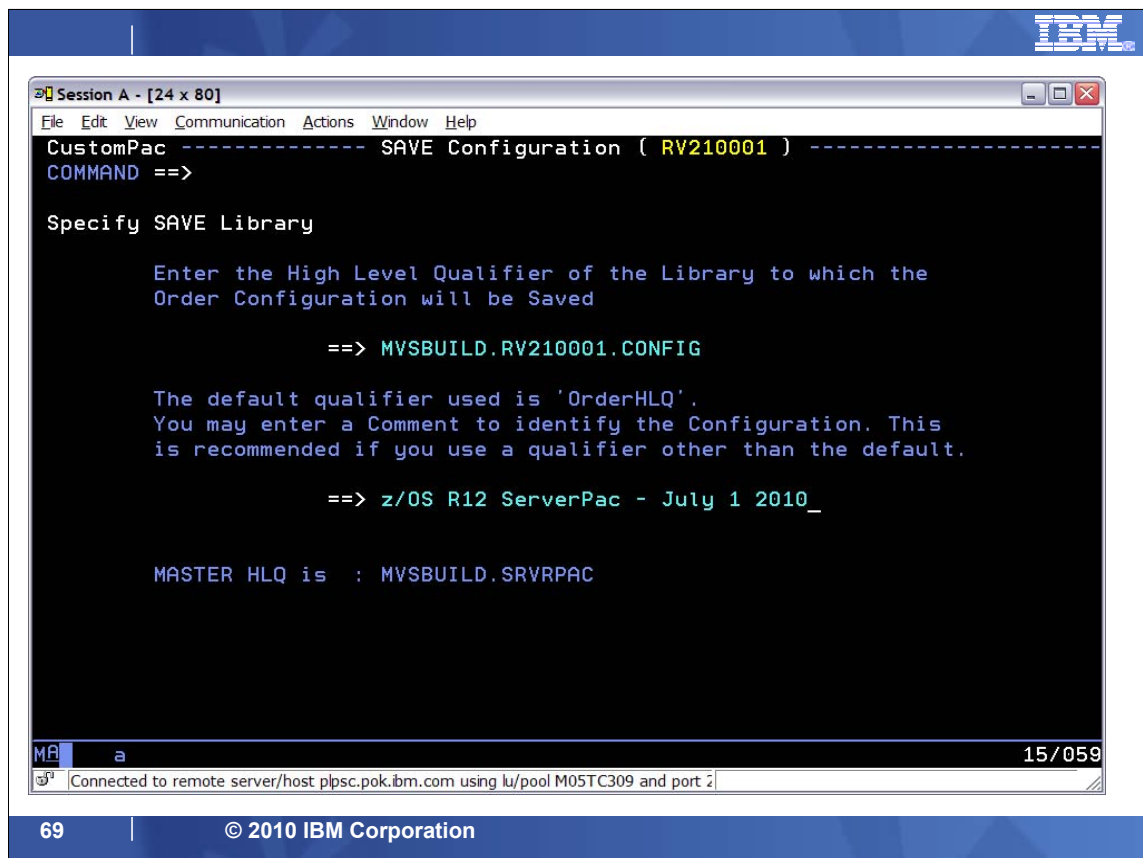
CPP0699002I Your driving system supports EAV volumes. However, the CustomPac
Dialogs do not support these volumes.

MA a                                                         02/014
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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.



```
IBM  
Session A - [24 x 80]  
File Edit View Communication Actions Window Help  
CustomPac ----- SAVE Configuration ( RV210001 ) -----  
COMMAND ==>  
  
Specify SAVE Library  
  
Enter the High Level Qualifier of the Library to which the  
Order Configuration will be Saved  
  
==> MVSBUILD.RV210001.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.  
  
==> z/OS R12 ServerPac - July 1 2010_  
  
MASTER HLQ is : MVSBUILD.SRVRPAC  
  
MA a 15/059  
Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC309 and port 2
```

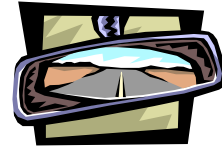
Saving Your Configuration

- **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
 - *Smart tip:* include in the comment what the order was (z/OS R12, CICS 4.1, ...) and date (July 1 2010). This really helps months or years from now, when you are deciding what to base on!
 - It helps you pick a CICS configuration for a CICS order.
 - It helps you pick the latest CICS configuration, if you saved multiple levels.
- **Use Merge Configuration during your next install**
 - All data from specified save configuration is processed





z/OS Basics: ServerPac 101 Summary



- **Introduction to ServerPac**
 - What is a ServerPac
 - Internet Delivery is recommended, and has to be ordered from ShopzSeries
- **Planning for ServerPac**
 - Dialog options to plan for (Full System Replace vs. Software Upgrade, Variables to use, volumes, ...)
 - SSA's and how they are used for installation
 - SMP/E zone structure that is delivered to you
- **Preparing for ServerPac**
 - Separation of system replace volumes from user volumes is recommended.
 - Separation of customization data from software libraries is recommended.
 - Standardization of data set names and placement is recommended.

- Continued...



z/OS Basics: ServerPac 101 Summary



- **Installing ServerPac**
 - RECEIVE, INSTALL (Create, Variables, Zones, Modify System Layout, Alias, SSA, Installation)
 - Use GENSKEL to create the jobs into your SCPPBENU data set.
- **IPLing your target system**
 - Add your own local changes that are necessary for you to IPL.
- **Post-install work from target system**
 - Running the rest of the Installation jobs (Post-Installation from Target, IVPs, Completing the Install)
- **Saving your ServerPac configuration**
 - Reuse your work for your next ServerPac install!