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Session 9707:

SMP/E V3.5 Hands-on Lab: Learning to use SMP/E FIXCATs

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Learning to Use SMP/E FIXCATs Hands-On Lab
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Agenda

- Brief review of SMP/E V3.5
- Lab SMP/E Environment
- Lab Exercises
  - Upgrade existing SMP/E Global, target, and distribution zones to the new SMP/E V3.5 level.
  - Run an SMP/E RECEIVE command to receive the new FIXCAT HOLDDATA.
  - Use the Fix Category Explorer to create a persistent list of categories that you are interested in.
  - Run a REPORT MISSINGFIX command to identify missing fixes.
  - Use the SMP/E ISPF Command Generation Dialogs to run a REPORT MISSINGFIX command.

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Using SMP/E Advanced Functions: Hands-on Lab

SMP/E V3.5 became available 26 September 2008 as an IBM Program Product which can be installed on top of all supported z/OS releases, and as part of z/OS V1.10. SMP/E V3.5 simplifies the task of verifying that required software fixes for new hardware devices, toleration and coexistence of new software releases, and for enabling new functions are installed. IBM consolidates the lists of required fixes from PSP buckets and produces new Fix Category (FIXCAT) HOLDDATA to identify those fixes.

Come to this lab to learn how to upgrade to SMP/E V3.5, and use the new FIXCAT HOLDDATA. You will learn how to use the new SMP/E Explorer, and how to use the new SMP/E REPORT MISSINGFIX command. If you are tired of manually looking at PTFs in PSP buckets, this is something you must attend.

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SMP/E V3.5 Introduction

- **IBM SMP/E for z/OS Version 3 Release 5**
  - Program number 5655-G44
  - Entitled (no additional charge) to licensees of all currently supported z/OS releases.

- Availability:
  - SMP/E V3.5 is an independent and separately orderable product, and
  - SMP/E V3.5 is a base element of z/OS V1.10, z/OS V1.11, and z/OS V1.12

- Ordering and Delivery
  - Individual product order via ShopzSeries (CPBDO package)
    - Both physical and Internet delivery options available
  - Included in system replace ServerPac orders for z/OS V1.10, z/OS V1.11, and z/OS V1.12

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Current process for *'New Hardware, Release or Function'* Service

1. **Identify PSP Buckets to review**

2. **Review required service from the PSP Buckets and Product Documentation**
   - Hardware buckets for required service for device support or exploiting specific hardware functions.
   - Software buckets for recommended service to be installed when you install a software release
   - Functional buckets for the list of Service Recommendations needed for the function
   - Product documentation for "driving system", coexistence, and cross product target system functional requirements

3. **Acquire the missing service and install all required service**

4. **Monitor PSP Bucket – as needed**
   - Can use Enhanced PSP Tool to identify un-installed PSP Bucket service, and then acquire and install missing fixes.

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Problems with the Current Methods

1. Procedure is very manual
2. The tools are NOT integrated into your existing processes
   - Extract files are not delivered when service is acquired
   - Report program is not part of SMP/E
   - No easy way to acquire or APPLY missing service
3. The procedure is geared to process one SUBSET at a time (when multiple SUBSETs are required)
4. Because of the above, many of you do NOT analyze PSP buckets
   - Or if you do,
     - You do not actively monitor updates in PSP buckets
     - You do not review hardware and functional buckets when you install new software levels (FMIDs).
5. There is no easy way to identify new hardware or functional buckets, or establish a list of buckets that are of interest.

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New Fix Category HOLDDATA

- **Create metadata that associates PTFs with one or more fix categories**
  - **Such as fixes needed for:**
    - Specific hardware levels
    - New software FMIDs
    - Enabling new hardware and software functions

- **Deliver the metadata with existing PTF and HOLDDATA acquisition procedures.**

- **Integrate verification and installation tasks within typical SMP/E operations.**

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Sample FIXCAT HOLDDATA

```
++HOLD(HDZ1B10) FIXCAT FMID(HDZ1B10) REASON(AA32004) RESOLVER(UA54754)
 CATEGORY(IBM.ProductInstall-RequiredService, IBM.Function.VSAM-RLS)
 DATE(10193).
++HOLD(HDZ1C10) FIXCAT FMID(HDZ1C10) REASON(AA32004) RESOLVER(UA54755)
 CATEGORY(IBM.ProductInstall-RequiredService, IBM.Function.VSAM-RLS)
 DATE(10193).
++HOLD(HBB7740) FIXCAT FMID(HBB7740) REASON(AA32081) RESOLVER(UA55256)
 CATEGORY(IBM.Device.Server.z10-EC-2097, IBM.Device.Server.z10-BC-2098)
 DATE(10194).
```

What is a fix category?

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IBM Fix Category Values and Descriptions

- **What is a fix category?**
  - A fix category is an identifier used to group and associate PTFs to a particular category of software fixes.
  - A fix category might be used to identify a group of fixes that are required to support a particular hardware device, or to provide a particular software function, similar to how a preventive service planning bucket (PSP-bucket) identifies a group of PTFs.
  - Fix categories are supplied to you in the form of SMP/E FIXCAT HOLDDATA statements.
  - Each FIXCAT HOLDDATA statement associates an APAR and its fixing PTF to one or more fix categories.
- **What fix categories are available**
  - A description of all IBM provided fix categories is available on the web
    - http://www-03.ibm.com/systems/z/os/zos/smpe/fixcategory.html
- **How do I acquire FIXCAT HOLDDATA statements?**
  - For all IBM product and service offerings, SMP/E FIXCAT HOLDDATA statements are supplied in the same file as ERROR HOLDDATA statements.
  - This file is available using SMP/E RECEIVE ORDER, ShopzSeries, ServiceLink, CBPDO, ProductPac, ServerPac, SystemPac, and on the Enhanced HOLDDATA web site ("full" 2 year file only).
    - http://service.software.ibm.com/holdata/390holddata.html

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A fix category is an identifier used to group and associate PTFs to a particular category of software fixes. A fix category might be used to identify a group of fixes that are required to support a particular hardware device, or to provide a particular software function, similarly to how a preventive service planning bucket (PSP-bucket) identifies a group of PTFs. Fix categories are supplied to you in the form of SMP/E FIXCAT HOLDDATA statements. Each FIXCAT HOLDDATA statement associates an APAR and its related fixing PTF to one or more fix categories.

During SMP/E RECEIVE command processing, SMP/E translates fix category values into source IDs and assigns them to the resolving (fixing) PTFs identified on the HOLDDATA. You can then use the fix category values as source IDs when selecting a set of PTFs to be applied. For example, if you have a z/OS V1.11 target zone named ZOSR11T, you can attempt to install all required coexistence and fallback fixes for z/OS V1.12 that have already been received by using the following command:

```
SET BDY(ZOSR11T).
  APPLY SOURCEID(IBM.Coexistence.z/OS.V1R12) CHECK.
```

In addition, the SMP/E REPORT MISSINGFIX command can be used to identify PTFs for interesting fix categories that are missing in one or more target zones. In this case only the latest HOLDDATA needs to be received and not the individual resolving PTFs. For example, using the same zone as described above, you can identify all required coexistence and fallback fixes for z/OS V1.12 that are not yet applied in the ZOSR11T zone by using the following command:

```
SET BDY(GLOBAL).
  REPORT MISSINGFIX ZONES(ZOSR11T)
    FIXCAT(IBM.Coexistence.z/OS.V1R12).
```

For more information about the SMP/E APPLY or REPORT MISSINGFIX commands, see the SMP/E Commands book. For a discussion on how fix categories can be used to replace the service recommendation section of PSP-buckets, see "SMP/E 3.5 – Simplifying PSP buckets".

How do I acquire FIXCAT HOLDDATA statements?

For all IBM product and service offerings, SMP/E FIXCAT HOLDDATA statements are supplied in the same file as ERROR HOLDDATA statements. This file is available using SMP/E RECEIVE ORDER, ShopzSeries, ServiceLink, CBPDO, ProductPac, ServerPac, SystemPac, and on the HOLDDATA website (full 2 year file only).

Fix category descriptions

The following tables identify and describe the fix category values currently used by IBM.

Installation categories

The following fix categories identify fixes that are recommended when installing or deploying new software product release levels.

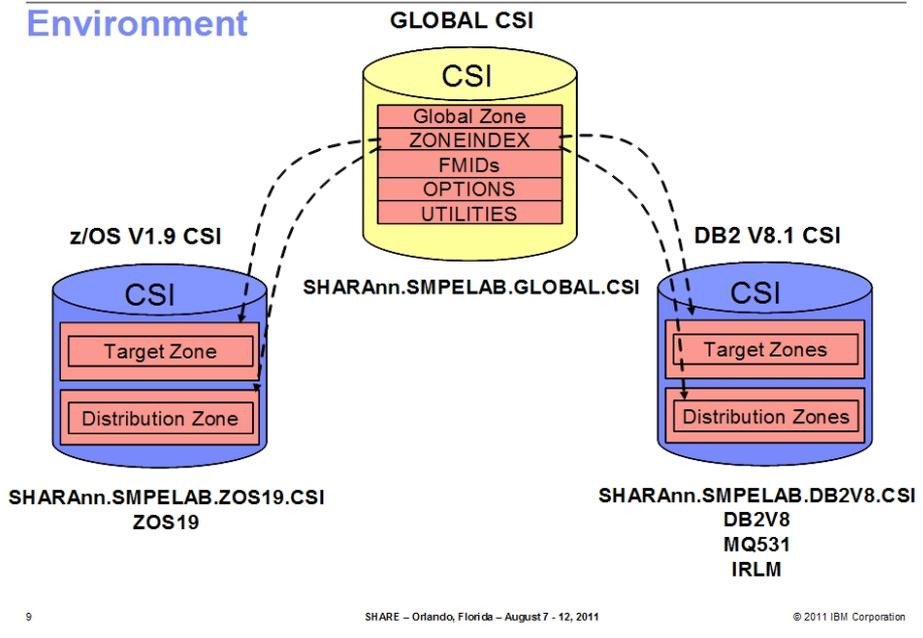| Fix categories	Description
IBM.Coexistence.z/OS.V1R10	Fixes that allow z/OS V1.8 and z/OS V1.9 to coexist with, and fallback from, z/OS V1.10.
IBM.Coexistence.z/OS.V1R11	Fixes that allow z/OS V1.9 and z/OS V1.10 to coexist with, and fallback from, z/OS V1.11.
IBM.Coexistence.z/OS.V1R12	Fixes that allow z/OS V1.10 and z/OS V1.11 to coexist with, and fallback from, z/OS V1.12.
IBM.Coexistence.z/OSMF.V1R12	Fixes that allow z/OSMF V1.11 to coexist with, and fallback from, z/OSMF V1.12.
IBM.Coexistence.ICSF.z/OS_V1R9-V1R11-HCR7770	Fixes that allow prior levels of ICSF to coexist with, and fallback from, the Cryptographic Support for z/OS V1.9-V1.11 web deliverable (FMID HCR7770).
IBM.ProductInstall-RequiredService	Fixes that must be installed for an IBM product at the time the product is installed.
IBM.TargetSystem-RequiredService.z/OS.V1R11	Fixes required on other IBM products to allow them to run on z/OS V1.11.
IBM.TargetSystem-RequiredService.z/OS.V1R12	Fixes required on other IBM products to allow them to run on z/OS V1.12.
IBM.TargetSystem-RequiredService.z/OSMF.V1R11	Fixes required on other IBM products to enable z/OSMF V1.11 to run.
IBM.TargetSystem-RequiredService.z/OSMF.V1R12	Fixes required on other IBM products to enable z/OSMF V1.12 to run.

The complete list of fix categories is on the web:
http://www-03.ibm.com/systems/z/os/zos/smpe/fixcategory.html

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Lab Agenda

- Upgrade existing SMP/E Global, target, and distribution zones to the SMP/E V3.5 level.
- Run an SMP/E RECEIVE command to process the FIXCAT HOLDDATA
- Use the Fix Category Explorer to create a persistent list of categories that you are interested in
- Run a REPORT MISSINGFIX command to identify
  - z10 maintenance not currently installed
  - Coexistence maintenance for z/OS V1.10 not currently installed
  - Software PSP bucket maintenance not currently installed
- Use the SMP/E ISPF Command Generation Dialogs to run a REPORT MISSINGFIX command

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Environment

GLOBAL CSI

CSI

| Global Zone |
| ZONEINDEX |
| FMIDs |
| OPTIONS |
| UTILITIES |

SHARAnn.SMPELAB.GLOBAL.CSI

z/OS V1.9 CSI

CSI

| Target Zone |

| Distribution Zone |

SHARAnn.SMPELAB.ZOS19.CSI
ZOS19

DB2 V8.1 CSI

CSI

| Target Zones |

| Distribution Zones |

SHARAnn.SMPELAB.DB2V8.CSI
DB2V8
MQ531
IRLM

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Exercise Steps

1. Log on to Poughkeepsie system

2. Use the SMP/E ISPF Dialog to verify your copy of the SMP/E GLOBAL CSI data set is correct

3. Run the SMP/E RECEIVE command to process HOLDDATA

4. Run the SMP/E UPGRADE command to enable SMP/E to process FIXCAT HOLDDATA

5. Use the SMP/E ISPF Dialog to verify that the UPGRADE level of your GLOBAL zone has been updated

6. Rerun the edited RECEIVE job

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Exercise Steps

1. Log on to Poughkeepsie SHARE/EXPO system
   (a) Enter "TSO" from the PCOM emulation session
   (b) Enter the USERID that you were given
   (c) On the TSO/E Logon panel enter the password, FIRSTPW
2. Use the SMP/E ISPF Dialog to verify your copy of the SMP/E GLOBAL CSI data set is correct
   (a) Query the GLOBAL zone entry
   (b) Exit the dialog
3. Run the SMP/E RECEIVE command to process HOLDDATA
   (a) Edit the JCL to RECEIVE the HOLDDATA, changing USERID to your userid
   (b) Submit the job
   (c) Save the JCL changes
   (d) Go to SDSF to view output
   (e) Notice the SMP/E warning message that was produced
4. Run the SMP/E UPGRADE command to enable SMP/E to process FIXCAT HOLDDATA
   (a) Submit the UPGRADE job, changing USERID to your userid
5. Use the SMP/E ISPF Dialog to verify that the UPGRADE level of your GLOBAL zone has changed
   (a) Query the GLOBAL zone entry
6. Rerun the edited RECEIVE job
   (a) Submit the edited job
   (b) Go to SDSF to view output
   (c) Notice that the command now completed with a zero (0) return code, and numerous FIXCAT HOLDs were processed

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Exercise Steps...

7. Invoke the Fix Category Explorer to express a persistent interest in all z10-related categories, coexistence support and target system requisites for z/OS V1.11, and recommended service as identified in software PSP buckets.

8. Run the SMP/E REPORT MISSINGFIX command to identify if any z10 maintenance is not installed.

9. Run the SMP/E REPORT MISSINGFIX command to identify if any z/OS V1.10 coexistence maintenance that is not installed in the z/OS V1.9 target zone.

10. Run the SMP/E REPORT MISSINGFIX command to identify any maintenance specified in a software PSP bucket that is not installed.

11. Use the SMP/E ISPF Command Generation Dialog to run a REPORT MISSINGFIX for the your persistent interest list

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7. Use ISPF to invoke the Fix Category Explorer to create a persistent interest list containing all z10-related categories, coexistence support for z/OS V1.11, target system requisites for z/OS V1.11 and z/OSMF V1.11, and recommended service as identified in software PSP buckets.
  (a) Invoke the SMP/E Administration ISPF Dialog to update the OPTIONS entry with a list of fix categories that we are interested in
       i. Go to Administration
       ii. Definition for the GLOBAL zone
       iii. Select OPTIONS and the GOPT entry, then HOLDDATA followed by FIXCAT
       iv. Specify **YES** for Explore Fix Categories? ==> ___ (YES or NO)
  (b) Notice categories identified as NEW
  (c) Issue the "C" primary command to collapse all categories
  (d) Issue the "E" line command to expand the categories one level
  (e) Expand all the IBM.Device.Server categories
  (f) Issue the "F" (find) primary command for z10 to find the z10 related categories
  (g) Issue the "S" line commands to select the z10 related fix categories
  (h) Notice the implicitly selected fix categories
  (i) Issue the "C" primary or line command to collapse the IBM.Device.Server categories
  (j) Issue the "S" line command for z/OS coexistence (IBM.Coexistence.z/OS.V1R10) and IBM.ProductInstall-RequiredService to express an interest in those categories
  (k) Save the persistent list
  (l) Exit the SMP/E ISPF dialog
8. Run the SMP/E REPORT MISSINGFIX command to identify if any z10 maintenance is not installed.
  (a) Edit the JCL member MISSZ10, changing USERID to your userid
  (b) Submit the job
  (c) Go to SDSF to view output
  (d) Notice the SMP/E output fixes not installed, fixes not received
  (e) Notice the punched jobs
9. Run the SMP/E REPORT MISSINGFIX command to identify if any z/OS V1.10 coexistence maintenance that is not installed in the z/OS V1.9 target zone.
  (a) Edit the JCL member MISSZOS, changing USERID to your userid
  (b) Submit the job

_____

       (c) Go to SDSF to view output

       (d) Notice the SMP/E output fixes not installed, fixes not received

       (e) Notice the punched jobs

10. Run the SMP/E REPORT MISSINGFIX command to identify if any maintenance identified in a software PSP bucket that is not installed.

       (a) Edit the JCL member MISSPSP, changing USERID to your userid
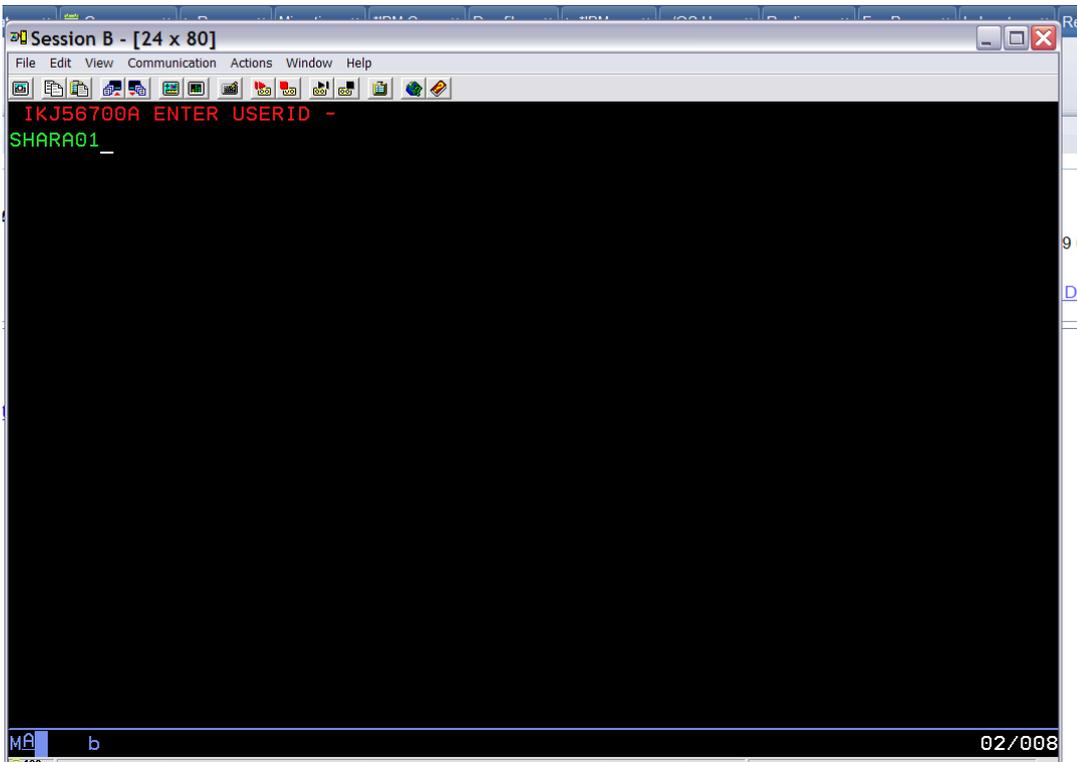
       (b) Submit the job

       (c) Go to SDSF to view output

       (d) Notice the SMP/E output fixes not installed, fixes not received

       (e) Notice the punched jobs

11. Use the SMP/E ISPF Command Generation Dialog to run a REPORT MISSINGFIX for the your persistent interest list

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1. Logon to the Poughkeepsie SHARE/EXPO system

From the PCOMM session, enter "TSO"
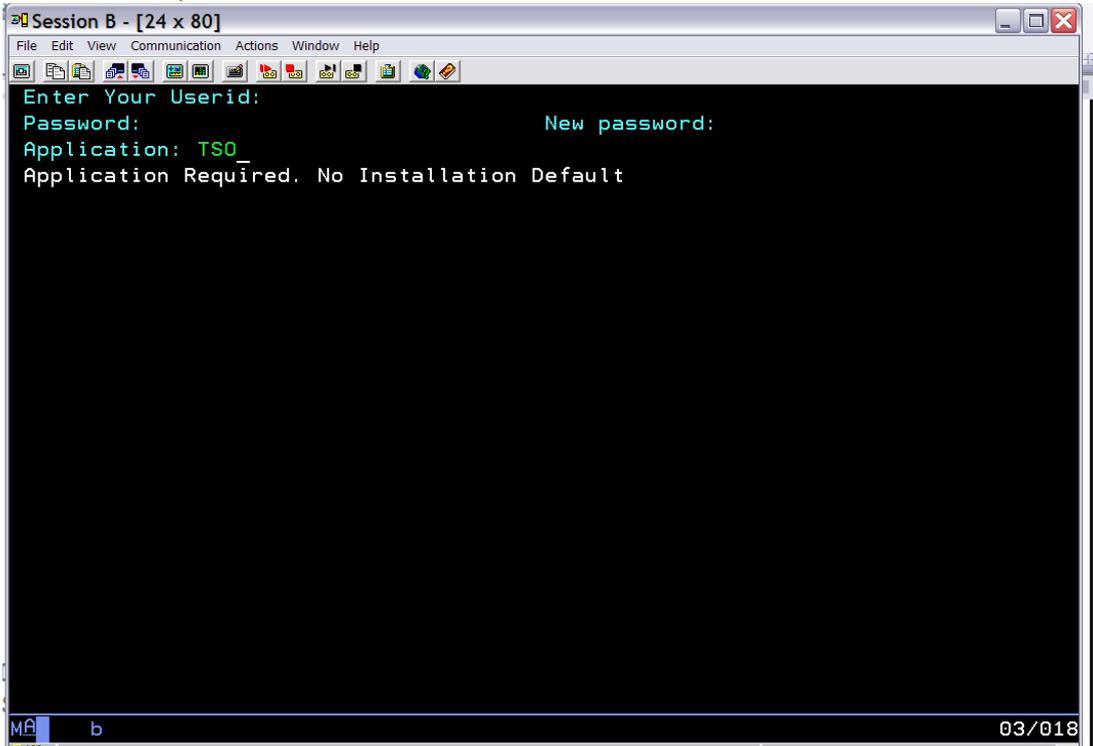
Enter the TSO USERID assigned to your seat. Userids SHARA01 – SHARA30 have been set up for this lab.
For example for USERID SHARA01:

Enter the USERID and password. The password is 'FIRSTPW'.

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If instructed, on the logon panel, enter the command EX 'SHARE.CLIST(SMPELAB)'.

2. Use the SMP/E ISPF Dialog to verify your copy of the SMP/E GLOBAL CSI data set is correct

After you've logged on and gotten into ISPF, enter "SMP" and hit enter from the Primary ISPF panel to be brought to the SMP/E ISPF Dialog.

You will be brought to the following panel. Enter SMPELAB.GLOBAL.CSI as the SMPCSI data set name (no quotes needed). On the command line enter 3.1 to Query a zone.

From the Query panel, enter GLOBAL as the zone name and GZONE as the entry

After pressing the Enter key, the GLOBAL zone entry will be displayed.

1. First, look at the "UPGRADE LEVEL". It should be SMP/E 34.30.
2. Second, notice that a number of target and DLIB zones have been defined to this GLOBAL zone. These identify target and DLIB zones for z/OS V1.9, DB2 V8.1, MQ V5.3.1 and IRLM.
3. Finally, (if you are interested) you can scroll through the list of SRELs and FMIDs to see the FMIDs that have been defined to this GLOBAL zone. SMP/E will only process HOLDDATA for FMIDs defined to the GLOBAL zone (unless BYPASS is specified on the RECEIVE command).

```
Session A - [24 x 80]
File  Edit  View  Communication  Actions  Window  Help

                    CSI QUERY - ZONE ENTRY                 Row 1 of 59
===> _                                          SCROLL ===> CSR

   To return to the previous panel, enter END .


   Primary Command: FIND


   Entry Type:  GZONE                           Zone Name: GLOBAL
   Entry Name:  GLOBAL                          Zone Type: GLOBAL

   Default OPTIONS: GOPT       Related Zone:
   UPGRADE LEVEL: SMP/E 34.30


            -------- -------- -------- -------- -------- -------- --------
   ZONES    DB2V8D   DB2V8T   DLIB     IRLMD    IRLMT    MQ531D   MQ531T
            TARGET   ZOS19D   ZOS19T
   SRELS    C150     P115     Z038
   FMIDS    EDU1H01  EER3500  EMI2220  ETI1106  FDU1H07  FDU1H08  FDU1H09
            HAAA120  HAC7810  HADD810  HADE810  HADF810  HADG810  HADL910
            HADQ910  HADR910  HADO910  HBB7740  HBCNC00  HBCND0B  HBD6602
            HBKM300  HBKP300  HBKQ320  HCKZ210  HCMG110  HCM1910  HCPT390
            HCRY740  HCR7740  HCSC110  HDAS810  HDB661A  HDB6610
   DSLIST   -EDIT    ISFPCU41 *GIMQIT1 DSLIST   CMD
MA   a                                                          02/007
Connected to remote server/host plpsc.pok.ibm.com using lu/pool M05TC018 and port 23
```

Exit the SMP/E ISPF dialog either by depressing the F4 key followed by the F3 key; or simply enter '=x' on the command line and depress the enter key.

3. Run the SMP/E RECEIVE command to process HOLDDATA

Edit the userid.JCL data set (again).

1. Edit member RECEIVE (for example "SHARA01.JCL(RECEIVE)") to run the SMP/E RECEIVE command to process a HOLDDATA file. Change all references of "USERID" to userid that you logged on with. For example, you can use the following change command: "C USERID SHARA01 all" (Please remember to use caps for your userid).
2. Once all references have been changed, submit the job and save your changes to the JCL job.
3. You can go into SDSF look at the output.
   - SDSF is Option "S" from the ISPF primary command
   - Once in SDSF, enter the following commands
     a. "OWNER userid" where userid is the ID that you logged on with
     b. "PREFIX *" to enable any jobname submitted by you to be displayed
   - Enter "H ALL" to see all jobs on the held output queue or "DA" to see jobs currently executing
   - Use the "S" line command to select the job that you want to view.
4. You should receive the following messages:
   - GIM58903W   SMP/E COULD NOT PROCESS A ++HOLD FIXCAT MCS BECAUSE IT WOULD HAVE MADE A CHANGE TO THE GLOBAL ZONE THAT CANNOT BE PROCESSED COMPLETELY BY PRIOR LEVELS OF SMP/E. USE THE UPGRADE COMMAND TO ALLOW SMP/E TO MAKE SUCH CHANGES.
   - GIM20501I   RECEIVE PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 04.

4. Run the SMP/E UPGRADE command to enable SMP/E to process the FIXCAT HOLDDATA

Edit the userid.JCL data set again, this time member UPGRADE.

1. Edit member UPGRADE (for example "SHARA01.JCL(UPGRADE)") to run the SMP/E UPGRADE command against all the SMP/E zones. Change all references of "USERID" to userid that you logged on with. For example, you can use the following change command: "C USERID SHARA01 all" (Please remember to use caps for your userid).
2. Once all references have been changed, submit the job.

_____

3. You can go into SDSF look at the output. For each zone processed, you should receive the message:
    "GIM20501I   UPGRADE PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00."

5. Use the SMP/E ISPF Dialog to (a) verify that the UPGRADE level of you GLOBAL zone has changed.

Now go back into the SMP/E ISPF Dialogs. The GLOBAL zone CSI data set name that you entered earlier should be remembered.

Perform the GZONE query that you did before you ran the UPGRADE command and notice that the UPGRADE level has changed. It is now UPGRADE LEVEL: SMP/E 35.27.

```
                        CSI QUERY - ZONE ENTRY                Row 1 to 9 of 59
   ===> _                                                     SCROLL ===> PAGE

     To return to the previous panel, enter END .


     Primary Command: FIND

     Entry Type:  GZONE                              Zone Name: GLOBAL
     Entry Name:  GLOBAL                             Zone Type: GLOBAL

     Default OPTIONS: GOPT      Related Zone:
     UPGRADE LEVEL: SMP/E 35.27


            -------- -------- -------- -------- -------- -------- --------
   ZONES    DB2V8D   DB2V8T   DLIB     IRLMD    IRLMT    MQ531D   MQ531T
            TARGET   ZOS19D   ZOS19T
   SRELS    C150     P115     Z038
   FMIDS    EDU1H01  EER3500  EMI2220  ETI1106  FDU1H07  FDU1H08  FDU1H09
            HAAA120  HAC7810  HADD810  HADE810  HADF810  HADG810  HADL910
            HADQ910  HADR910  HAD0910  HBB7740  HBCNC00  HBCND0B  HBD6602
            HBKM300  HBKP300  HBKQ320  HCKZ210  HCMG110  HCM1910  HCPT390
            HCRY740  HCR7740  HCSC110  HCS7740  HDAS810  HDB661A  HDB6610
            HDB771A  HDB771N  HDB771W  HDB7710  HDB881A  HDB8810  HDB9910
```

6. Re-Run the SMP/E RECEIVE command to process HOLDDATA

Once the upgrade command has completed successfully for each zone, submit the RECEIVE job again. This time the output should be different. The first thing that you may notice is that the job took longer to run. The next thing is that it produced over 50,000 lines of output. You should check the SMPOUT output for the message: "GIM20501I   RECEIVE PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00.". If you have time, you should also look at the SMPHRPT output (the big 53K line output) and find the word "CATEGORY". You will see that the FIXCAT HOLDDATA was processed for the FMIDs defined in the global zone.

7. **Use the Fix Category Explorer to express a persistent interest in all z10-related categories, coexistence support for z/OS V1.11, target system requisites for z/OS V1.11 and z/OSMF V1.11, and recommended service as identified in software PSP buckets.**

We will now use the Fix Category Explorer to create a persistent interest list. The following is a subset of the information documented in the SMP/E manuals.

Manage a Persistent Fix Category Interest List

The Administration dialog can be used to display, update, and define entries in the GLOBAL zone, a target zone, or a distribution zone. It can also be used to create a new target or distribution zone. One of the entries in the GLOBAL zone that can be updated is the OPTIONS entry.

An OPTIONS entry defines processing options that are to be used for an SMP/E command or set of commands. Although OPTIONS entries exist in the GLOBAL zone, they are also used to process commands for the target and distribution zones.

The FIXCAT subentry specifies a list of Fix Categories. Fix Category values can be 1 to 64 characters in length, can contain any non-blank character in the range X'41' - X'FE' except single quote ('), comma (,), left parenthesis ((), and right paranthesis ()), and may be specified in two ways:
- Explicitly, by fully specifying a particular Fix Category value.
- Implicitly, by partially specifying a Fix Category value using any number of asterisks (*) as generic characters and percent signs (%) as placeholders.

The Fix Category Explorer is a new SMP/E dialog that allows you to view and select from a list of Fix Category values in a structured manner. The Fix Category Explorer takes advantage of the hierarchical form of the Fix Category values to allow the user to navigate the list of Fix Categories similar to how the navigation pane of Windows Explorer allows a user to navigate the directories and files of a hierarchical file system.

More specifically, the naming convention for Fix Categories uses dot-qualified hierarchical values of the form

```
FirstLQ.SecondLQ.ThirdLQ. ... NthLQ
```

That is, qualifiers are separated by dots (periods), allowing as many qualifiers as can fit within a maximum of 64 characters. For example, the Fix Category value IBM.Device.Server.z9-EC-2094 has three qualifiers, where IBM is the first level qualifier, Device is the second level qualifier, and Server is the third level qualifier, and "z0-EC-2094" is the fourth qualifier. The Fix Category Explorer panels display the Fix Categories by exploiting this dot-qualified hierarchical scheme. Fix Category values displayed can be considered "parent" or "child" values. A parent value is constructed from one or more qualifiers of a complete Fix Category value. For example, IBM is the parent value for IBM.Device which in turn is the parent value for IBM.Device.Server.

Please note that while the naming convention is similar to the data set naming conventions, there are differences in that the Fix Category names are less restrictive. Specifically, the maximum number of characters is 64 (not 44), each qualifier can have more than 8 characters, and there isn't any restriction on the leading characters of a Fix Category.

Administration Dialog – Update OPTIONS entry

```
                    DEFINITION - OPTIONS ENTRY ZOSOPT
===> _

Select one of the following:

  1  UTILITY     - Modify data related to the utility programs invoked by
                   SMP/E.
  2  RECOVERY    - Modify data related to the SMP/E recovery processing after
                   error conditions.
  3  CLEANUP     - Modify data related to the SMP/E data set cleanup
                   operations after SMP/E processing.
  4  GENERAL     - Modify data related to general SMP/E operations and output
                   format.
  5  DSSPACE/    - Modify space allocation and/or the data name prefix for
     DSPREFIX      SMPTLIB data sets.
  6  ZONE GROUP  - Modify data related to the SMP/E RECEIVE processing of
                   SYSMODs previously accepted and/or applied.
  7  HOLDDATA    - Modify information related to HOLDDATA processing during
                   the APPLY, ACCEPT and REPORT MISSINGFIX commands.
```

23   What's New in SMPE V3.5?   © 2009 IBM Corporation

Administration Dialog Options Entry, FIXCAT Subentry

Within the SMP/E administration dialog for the options entry, the existing HOLDDATA selection was updated to manage persistent fix category interest lists. Selecting "7" on the panel above, will display the updated panel shown below. Selecting "2" on the panel below will enable you to define, or update, the persistent list of fix categories that will become the default when this OPTIONS entry is in use during APPLY, ACCEPT, or REPORT MISSINGFIX commands.

Administration Dialog – Update OPTIONS entry

```
---------------- OPTIONS ENTRY ZOSOPT - HOLDDATA Reporting  ----------------
===>  _

Select one of the following:


   1  SUPPHOLD - Specify Reason IDs for which the HOLDDATA image is to be
                 suppressed in the APPLY and ACCEPT command HOLDDATA reports.


   2  FIXCAT   - Specify the Fix Categories whose HOLDDATA will affect APPLY,
                 ACCEPT and REPORT MISSINGFIX command processing.


To return to previous panel, enter END .
```

24   What's New in SMPE V3.5?   © 2009 IBM Corporation

Administration Dialog – Update OPTIONS entry

```
                 FIXCAT OPTIONS ENTRY - ZOSOPT                  Row 1 of 10
===>                                                           SCROLL ===>

Enter the Fix Categories whose HOLDDATA is to be considered during processing
for the APPLY, ACCEPT and REPORT MISSINGFIX commands.  When the list is
complete, enter END.

Explore Fix Categories? ==> NO_ (YES or NO)    <===

        Fix Category
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____

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

25 | What's New in SMPE V3.5?   © 2009 IBM Corporation
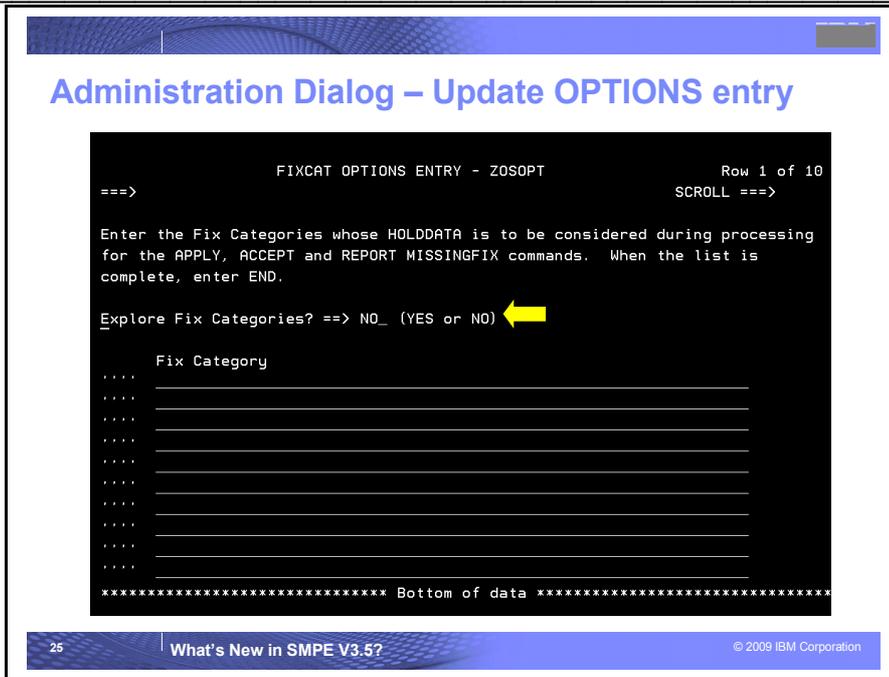
Administration Dialog Options Entry, FIXCAT Subentry

This panel allows you to specify a list of Fix Categories who's HOLDDATA is to be considered during APPLY, ACCEPT and REPORT command processing, or to use the Fix Category Explorer to view and select Fix Category values. If no FIXCAT subentry exists in the current OPTIONS entry, then the display will be empty. Otherwise the existing subentry list values will be displayed.

If you specify YES to enter the Fix Category Explorer (as shown below), you may view and select from a list of all Fix Category values from all FIXCAT HOLDs (next set of slides). In addition, new Fix Category values will be identified.

Administration Dialog – Update OPTIONS entry

```
                 FIXCAT OPTIONS ENTRY - ZOSOPT                  Row 1 of 10
===>                                                           SCROLL ===>

Enter the Fix Categories whose HOLDDATA is to be considered during processing
for the APPLY, ACCEPT and REPORT MISSINGFIX commands.  When the list is
complete, enter END.

Explore Fix Categories? ==> YES (YES or NO)    <===

        Fix Category
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____
,,,,    _____

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

26 | What's New in SMPE V3.5?   © 2009 IBM Corporation

© 2011 IBM Corporation
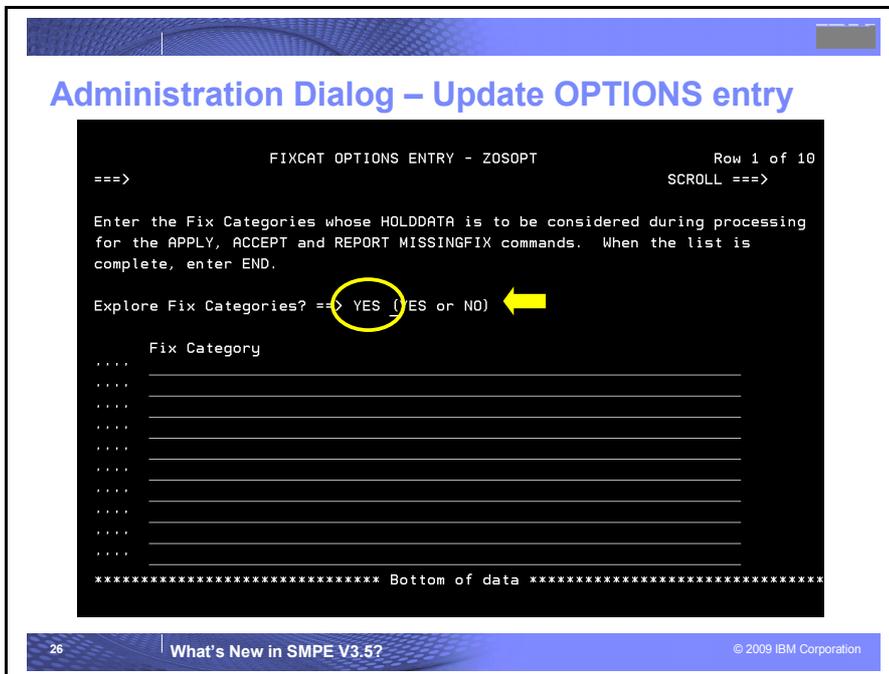
Administration Dialog – Update OPTIONS entry

```
----------------------------- Fix Category Explorer ------- Row 1 to 13 of 112
===> _                                              SCROLL ===> PAGE

Commands: FIND -Find a string, E -Expand all, C -Collapse all, U -Unselect all

Actions:  E -Expand, C -Collapse, S -Select, U -Unselect, V -View patterns

NEW indicates a Fix Category is new since          .

  Fix Categories                                            New
  -------------------------------------------------------   ---
 -IBM.*                                                     NEW
  -IBM.Coexistence.*                                        NEW
   -IBM.Coexistence.ICSF.*                                  NEW
     IBM.Coexistence.ICSF.z/OS_V1R9-V1R11-HCR7770           NEW
   -IBM.Coexistence.z/OS.*                                  NEW
     IBM.Coexistence.z/OS.V1R10                             NEW
     IBM.Coexistence.z/OS.V1R11                             NEW
     IBM.Coexistence.z/OS.V1R12                             NEW
  -IBM.Device.*                                             NEW
   -IBM.Device.CommunicationController.*                    NEW
     IBM.Device.CommunicationController.3745                NEW
   -IBM.Device.Disk.*                                       NEW
     IBM.Device.Disk.DS8000-2107                            NEW
```

> **First time everything is displayed as "NEW"**

27   **What's New in SMPE V3.5?**   © 2009 IBM Corporation

Fix Category Explorer

When a user enters the Fix Category Explorer while updating an OPTIONs entry, all Fix Category values that are new and have not been viewed previously will be marked as NEW in the display. That is, all FIXCAT HOLD entries will be read from the GLOBAL zone and all Fix Category values will be collected from those HOLD entries. This list of Fix Category values will be compared to the list of saved Fix Categories in the permanent ISPF table that is unique for the current userid (this is the list of Fix Categories viewed last time). Any Fix Category values from the HOLD entries that are not in the saved list are considered new. The NEW field for such values will be set to **NEW**. The NEW field for all other values will be blank. Finally, all Fix Categories are analyzed and dissected into their various levels, or qualifiers. Appropriate parent and child values are then constructed for the Explorer display.

This display option is useful if you have traveled this path before. That is, if you choose to enter the Fix Category Explorer, the SMP/E dialog will remember all Fix Category values that are used to build the display. The next time you enter the Explorer, only the Fix Categories from new HOLDDATA received into the GLOBAL zone since the last time will be marked new in the display.

The initial display for a user's first visit (or for a user with no saved list of previously viewed Fix Categories) all values will be NEW and therefore all levels are expanded in order to expose all NEW values in the display.

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Administra... – Update OPTIONS entry

Fix Category Explorer

The Fix Category Explorer allows you to view and select Fix Category values from a structured display. The display takes advantage of the hierarchical form of the Fix Category values and represents all Fix Categories from all FIXCAT HOLDs found in the GLOBAL zone. It allows you to manage a persistent interest list. You can expand Fix Categories to see the more fully qualified name, as well as specify (select) an interest in a Fix Categories (or unselect it to state that you are no longer interested in that Fix Category).

Administration — update OPTIONS entry

Can use the FIND command to locate z10 Fix Categories

```
------------------------------- Explorer -------------- Row 1 of 28
===>      _                                        SCROLL ===>

Commands: FIND -Find a string, E -Expand all, C -Collapse all, U -Unselect all

Actions:  E -Expand, C -Collapse, S -Select, U -Unselect, V -View patterns

No Fix Categories are new since 2008/07/31.

   Fix Categories                                         New Selected
   -------------------------------------------------- --- --------
 -IBM.*
  -IBM.Coexistence.*
   +IBM.Coexistence.z/OS.*
  -IBM.Device.*
   +IBM.Device.CommunicationController.*
   +IBM.Device.Disk.*
    IBM.Device.ESCONDirector-9032
   +IBM.Device.FICONDirector.*
    IBM.Device.OpticalLibrary-39
   -IBM.Device.Server.*
    IBM.Device.Server.CouplingFacility-9674
    IBM.Device.Server.ParallelTransactionServer-9672
    IBM.Device.Server.s/390Multiprise3000-7060
```

The list of IBM servers is expanded by one qualifier

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Administration Dialog – Update OPTIONS entry

```
-------------------------- Fix Category Explorer --------- CHARS 'Z10' FOUND
===>  _                                             SCROLL ===>

Commands        ing, E -Expand all, C -Collapse all, U -Unselect all

Actions         lapse, S -Select, U -Unselect, V -View patterns

No Fix          since 2008/07/31.

   F                                                     New Selected
   -------------------------------------------------- --- --------
s    IBM.Device.Server.z10-EC-2097
s   +IBM.Device.Server.z10-EC-2097.*
     IBM.Device.Server.z800-2066
     IBM.Device.Server.z890-2086
    +IBM.Device.Server.z890-2086.*
     IBM.Device.Server.z9-BC-2096
    +IBM.Device.Server.z9-BC-2096.*
     IBM.Device.Server.z9-EC-2094
    +IBM.Device.Server.z9-EC-2094.*
     IBM.Device.Server.z900-2064
     IBM.Device.Server.z990-2084
    +IBM.Device.Server.z990-2084.*
    +IBM.Device.Tape.*
```

Use the "S" line command to express an interest in the Fix Category

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Administration Dialog – Update OPTIONS entry

```
------------------------- Fix Category Explorer -------------- Row 14 of 35
===> _                                                   SCROLL ===>

Commands: FIND -Find a string, E -Expand all, C -Collapse all, U -Unselect all

Actions:  E -Expand, C -Collapse, S -S                              atterns

No Fix Categories are new since 2008/0

   Fix Categories                                              New Selected
 ----------------------------------------------------------   --- --------
     IBM.Device.Server.z10-EC-2097                                SELECTED
    -IBM.Device.Server.z10-EC-2097.*                              SELECTED
     IBM.Device.Server.z10-EC-2097.CapacityProvisioning              *
     IBM.Device.Server.z10-EC-2097.DecimalFloatingPoint              *
     IBM.Device.Server.z10-EC-2097.MIDAW                             *
     IBM.Device.Server.z10-EC-2097.ParallelSysplexInfiniBandCoup     *
     IBM.Device.Server.z10-EC-2097.ServerTimeProtocol               *
     IBM.Device.Server.z10-EC-2097.zAAP                             *
     IBM.Device.Server.z10-EC-2097.zIIP                             *
     IBM.Device.Server.z800-2066
     IBM.Device.Server.z890-2086
    +IBM.Device.Server.z890-2086.*
     IBM.Device.Server.z9-BC-2096
```

Fix Categories covered by a selected generic entry are implicitly selected and displayed with an asterisk ('*')

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Fix Category Explorer (continued)

If one or more Fix Categories are already specified in the OPTIONS subentry, they will be pre-selected in the Fix Category Explorer display.

Specifying "S" on a row that is not already explicitly selected, or is implicitly selected by a match (its **Selected** field is either blank or *), will set that Fix Category to **SELECTED**. In addition, if the current row is a parent Fix Category value, then all of its children that are not already explicitly selected, will be implicitly selected. The **Selected** field for all such child Fix Categories will be set to asterisk (*), and then the table is redisplayed.

Note: Even though the **Selected** field for a child is set to asterisk (*), the display state of child rows is not affected by the Select command for a parent. That is, if a parent row is currently collapsed, its children will be implicitly selected, but they will remain hidden from view until the parent row is expanded.

Administratio Update OPTIONS entry

```
------------------------- Fix Categ  y Explorer -------------- Row 1 of 35
===> _                                                   SCROLL ===>

Commands: FIND -Find a string, E -Expand all, C -Collapse all, U -Unselect all

Actions:  E -Expand, C -Collapse, S -Select, U -Unselect, V -View patterns

No Fix Categories are new since 2008/07/31.

   Fix Categories                                              New Selected
 ----------------------------------------------------------   --- --------
 -IBM.*
 -IBM.Coexistence.*
 +IBM.Coexistence.z/OS.*
c -IBM.Device.*
 +IBM.Device.CommunicationController.*
 +IBM.Device.Disk.*
  IBM.D     ce.    r-9032
 +IBM.                 .*
  IBM.                 y-3995
 -IBM.
  IBM                ingFacility-9674
  IBM               lelTransactionServer-9672
  IBM               Multiprise3000-7060
```

Use "C" command to collapse ALL fix categories

Use "C" line command to collapse the list of fix categories

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Administration Dialog – Update OPTIONS entry

```
------------------------- Fix Category Explorer --------- Row 2 to 14 of 14
===>                                             SCROLL ===> CSR

Commands: FIND -Find a string, E -Expand all, C -Collapse all, U -Unselect all

Actions:  E -Expand, C -Collapse, S -Select, U -Unselect, V -View patterns

No Fix Categories are new since 2010/04/15.

   Fix Categories                                            New Selected
   -------------------------------------------------------   --- --------
   -IBM.Coexistence.*
    +IBM.Coexistence.ICSF.*
    -IBM.Coexistence.z/OS.*
     IBM.Coexistence.z/OS.V1R10
  s  IBM.Coexistence.z/OS.V1R11
     IBM.Coexistence.z/OS.V1R12
   +IBM.Device.*
   +IBM.Function.*
  s  IBM.ProductInstall-RequiredService
   -IBM.TargetSystem-RequiredSe...
    -IBM.TargetSystem-RequiredService.z/OS.*
  s    IBM.TargetSystem-RequiredService.z/OS.V1R11
  s    +IBM.TargetSystem-RequiredService.z/OSMF.*
```

Callouts:
- Select coexistence maintenance for z/OS V1.11
- Select Recommended Service from software PSP buckets
- Select Target system requisites for z/OS V1.11 and z/OSMF

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Administration Dialog – Update OPTIONS entry

```
                FIXCAT OPTIONS ENTRY - GOPT              Row 1 to 7 of 7
===>                                             SCROLL ===> PAGE

Enter the Fix Categories whose HOLDDATA is to be considered during processing
for the APPLY, ACCEPT and REPORT MISSINGFIX commands.  When the list is
complete, enter END.

Explore Fix Categories? ==> NO_  (YES or

        Fix Category
''''    IBM.Coexistence.z/OS.V1R11_____
 _      IBM.Device.Server.z10-EC-2097_____
''''    IBM.Device.Server.z10-EC-2097.*_____
''''    IBM.Function.HealthChecker_____
''''    IBM.ProductInstall-RequiredService_____
''''    IBM.TargetSystem-RequiredService.z/OS.V1R11_____
''''    IBM.TargetSystem-RequiredService.z/OSMF.*_____
************************** Bottom of data **********************************
```

Callout: Persistent default interest list for this OPTIONS entry

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Fix Category Explorer (continued)
If either the END or RETURN command is processed, the list of Fix Categories displayed will be saved and used later to determine which Fix Categories will be marked "new" the next time this user chooses the NEW option of the Fix Category Explorer, and the selected Fix Categories will be stored in the FIXCAT subentry of the subject options entry.

8. Run the SMP/E REPORT MISSINGFIX command to identify if any z10 maintenance is not installed

Edit the userid.JCL data set.

a. Edit member MISSZ10 (for example "SHARA01.JCL(MISSZ10)") to run the SMP/E REPORT MISSINGFIX command to identify any maintenance needed to run on or exploit either a z10 EC or z10 BC server that is not installed. Change all references of "USERID" to userid that you logged on with. For example, you can use the following change command: "C USERID SHARA01 all" (Please remember to use caps for your userid).

b. Once all references have been changed, submit the job and save your changes to the JCL job.

c. You can go into SDSF look at the output. You should receive the following messages:

- GIM20501I   REPORT PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00.
- You should get a MISSING FIXCAT SYSMOD REPORT for each zone. The report will identify that the only zone where fixes are missing is ZOS19T (the z/OS V1.9 target zone).
- For each category with missing fixes, the FMID, APAR, fixing PTF, and status of the fixing PTF will be identified (see below)
- For each fix that has not yet been RECEIVE'd, a sample RECEIVE ORDER job will be created to acquire those PTFs. Furthermore, for each fix not installed, a sample APPLY command is generated (with the not yet acquired service commented out).

9. **Run the SMP/E REPORT MISSINGFIX command to identify if any z/OS V1.10 coexistence maintenance that is not installed in the z/OS V1.9 target zone.**

Edit the userid.JCL data set.

1. Edit member MISSZOS (for example "SHARA01.JCL(MISSZOS)") to run the SMP/E REPORT MISSINGFIX command to identify any maintenance needed to enable a z/OS V1.9 system to share resources with a z/OS V1.10 system (including in case of fallback) that is not installed. Change all references of "USERID" to userid that you logged on with. For example, you can use the following change command: "C USERID SHARA01 all" (Please remember to use caps for your userid).

2. Once all references have been changed, submit the job and save your changes to the JCL job.

3. You can go into SDSF look at the output. You should receive the following messages:
   - GIM20501I   REPORT PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00.
   - You should get a MISSING FIXCAT SYSMOD REPORT for the ZOS19T zone. The report will identify that several coexistence fixes needed for z/OS V1.9 to coexist with z/OS V1.10 are not yet installed on the z/OS V1.9 system.
   - A similar report to what was produced for the z10 REPORT MISSINGFIX command will be produced.
   - For each fix that has not yet been RECEIVE'd, a sample RECEIVE ORDER job will be created to acquire those PTFs. Furthermore, for each fix not installed, a sample APPLY command is generated (with the not yet acquired service commented out).

```
    Display  Filter  View  Print  Options  Help
 --------------------------------------------------------------------------
    SDSF OUTPUT DISPLAY GDAYNESM JOB31664  DSID   107 LINE 3     COLUMNS 02- 133
    COMMAND INPUT ===> _                                  SCROLL ===> CSR
 MISSING FIXCAT SYSMOD REPORT FOR ZONE ZOS19T


                         HOLD    MISSING  HELD     ____RESOLVING SYSMOD____
    FIX CATEGORY   FMID  CLASS   APAR     SYSMOD   NAME     STATUS  RECEIVED
    _____ _____ _____   _____  _____  _____  _____  _____
 IBM.Coexistence.z/OS.V1R10
                   HBB7740       AA17252  HBB7740  UA39716  HELD    NO
                                 AA23153  HBB7740  UA39874  GOOD    NO
                                 AA24850  HBB7740  UA40988  GOOD    NO
                                 AA25013  HBB7740  UA41279  GOOD    NO
                   HCS7740       AA22842  HCS7740  UA90386  GOOD    NO
                   HDZ119N       AA24257  HDZ119N  UA40245  GOOD    NO
                   HDZ1190       AA21487  HDZ1190  UA40229  GOOD    NO
                                 AA22026  HDZ1190  UA39934  GOOD    NO
                                 AA22211  HDZ1190  UA39940  GOOD    NO
                                 AA22400  HDZ1190  UA39959  GOOD    NO
                                 AA22449  HDZ1190  UA40221  GOOD    NO
                                 AA22804  HDZ1190  UA40306  HELD    NO
                                 AA23786  HDZ1190  UA39926  GOOD    NO
                                 AA25754  HDZ1190  UA42230  HELD    NO
                   HJE7740       CA20935  HJE7740  UA90383  GOOD    NO
                   HJS7740       AA21882  HJS7740  UA39863  GOOD    NO
        DSLIST   -EDIT    *ISFPCU4 ISRDIIS  DSLIST    CMD
```

Punched Sample Job

```
Session A - [27 x 132]
File  Edit  View  Communication  Actions  Window  Help


      Display  Filter  View  Print  Options  Help
   --------------------------------------------------------------------
   SDSF OUTPUT DISPLAY GDAYNESM JOB31664  DSID   109 LINE 1      COLUMNS 02- 133
   COMMAND INPUT ===>  _                                        SCROLL ===> CSR
   SET BDY(GLOBAL) /*

      THE FOLLOWING SMP/E COMMANDS WERE GENERATED BY A REPORT MISSINGFIX
      COMMAND ON 04/13/09 AT 18:33:19.

                  */.
      RECEIVE ORDER(
            CONTENT(ALL) /*

            SMP/E RECOMMENDS ORDERING AND RECEIVING ALL APPLICABLE
            PTFS.  IF YOU CHOOSE NOT TO ORDER ALL, THEN ORDER ONLY
            THE RESOLVING PTFS:

            CONTENT(PTFS(
            UA39319 UA39334 UA39716 UA39739 UA39863 UA39874 UA39926
            UA39934 UA39940 UA39959 UA39960 UA40221 UA40229 UA40245
            UA40306 UA40988 UA41279 UA42084 UA42230 UA44807 UA90383
            UA90386 UA90388 UO00701 UO00702
                ) )
            */
      ORDERSERVER(SMPOSRVR) /* SPECIFY THE ORDERSERVER DDNAME.   */
      CLIENT    (SMPCLNT ) /* SPECIFY THE CLIENT DDNAME.        */
   DSLIST   -EDIT    *ISFPCU4 ISRDIIS  DSLIST    CMD
```

```
      Display  Filter  View  Print  Options  Help
   --------------------------------------------------------------------
   SDSF OUTPUT DISPLAY GDAYNESM JOB31664  DSID   109 LINE 23     COLUMNS 02- 133
   COMMAND INPUT ===>  _                                        SCROLL ===> CSR
            )
         DELETEPKG.
   SET BDY(ZOS19T ).
    APPLY  CHECK
         SELECT(
   /* IBM.Coexistence.z/OS.V1R10                                      */
                  UA39319
                  UA39334
                  UA39716
                  UA39739
                  UA39863
                  UA39874
                  UA39926
                  UA39934
                  UA39940
                  UA39959
                  UA39960
                  UA40221
                  UA40229
                  UA40245
                  UA40306
                  UA40988
   DSLIST   -EDIT    *ISFPCU4 ISRDIIS  DSLIST    CMD
```

10. Run the SMP/E REPORT MISSINGFIX command to identify if any maintenance identified in a software PSP bucket that is not installed.

Edit the userid.JCL data set.

1. Edit member MISSPSP (for example "SHARA01.JCL(MISSPSP)") to run the SMP/E REPORT MISSINGFIX command to identify any maintenance identified in the Recommended Service section of

a software Preventive Service Planning (PSP) bucket that is not installed. Change all references of "USERID" to userid that you logged on with. For example, you can use the following change command: "C USERID SHARA01 all" (Please remember to use caps for your userid).

2. Once all references have been changed, submit the job and save your changes to the JCL job.

3. You can go into SDSF look at the output. You should receive the following messages:
   - GIM20501I REPORT PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00.
   - You should get a similar report to what was produced for the z10 REPORT MISSINGFIX command. This report will identify that several recommended service fixes for DB2 V9 and z/OS V1.9 are not currently installed.
   - A similar punched job is also created.

11. Use the SMP/E ISPF Command Generation Dialog to run a REPORT MISSINGFIX for the your persistent interest list

Now go back into the SMP/E ISPF Dialogs. The GLOBAL zone CSI data set name that you entered earlier should still be remembered. This time choose option 4 from the SMP/E primary ISPF panel for Command Generation. The following panel will now be displayed. Enter "34" for REPORT and "GLOBAL" for the zone name, then depress the enter key.

```
                          COMMAND GENERATION SELECTION MENU
  ===> 34

  Select one of the following:
      10  RECEIVE      20  RESETRC      30  LIST BACKUP   40  ZONECOPY
      11  APPLY        21  JCLIN        31  LIST LOG      41  ZONEEDIT
      12  ACCEPT       22  UCLIN        32  LIST          42  ZONEDELETE
      13  REJECT       23  CLEANUP      33  UNLOAD        43  ZONEEXPORT
      14  RESTORE      24  GENERATE     34  REPORT        44  ZONEIMPORT
      15  LINK         25  LOG          35  BUILDMCS      45  ZONEMERGE
                       26  UPGRADE                        46  ZONERENAME
                                                          47  GZONEMERGE


  Enter or verify the following:
      ZONE NAME               ===> GLOBAL    (required)
      OPTIONS NAME            ===> _         OPTIONS name or
                                             blank

      SMP/E PROCESS PARAMETER ===> WAIT      WAIT or END

  To return to the SMP/E primary option menu enter the END command



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SFPCU4 *GIMCGPO DSLIST    CMD
```

You will then be presented with a panel to identify which REPORT command that you want to run:

```
                    COMMAND GENERATION - REPORT SELECTION
   ===> _
   Select one of the following:


      1  CROSSZONE  - REPORT CROSSZONE
      2  ERRSYSMODS - REPORT ERRSYSMODS
      3  SYSMODS    - REPORT SYSMODS
      4  SOURCEID   - REPORT SOURCEID
      5  MISSINGFIX - REPORT MISSINGFIX



   To return to previous panel, enter END .
```
```
GFPCU4 *GIMCGRP DSLIST    CMD
```

Select "5" for REPORT MISSINGFIX. This will bring you to the next panel. On that panel enter "NO" for FIXCAT, "NO" for FORFMID, and "NO" for NOPUNCH. If you specify "YES" for FIXCAT, you will have a opportunity to go back into the Fix Category Explorer to identify your interest list. However, that interest list is ONLY used for this command and isn't persistent.

```
                    COMMAND GENERATION - REPORT MISSINGFIX
   ===>

   Enter the data for the REPORT MISSINGFIX command:

    FIXCAT  ===> NO       YES - to report selected Fix Categories
                          NO  - to report on the FIX Categories
                                defined in the active OPTIONS entry


    FORFMID ===> NO       YES - to report selected FMIDs or FMIDSETs
                          NO  - to report all FMIDs


    NOPUNCH ===> NO  _    YES - generate NOPUNCH. No SMPPUNCH output
                                will be created.
                          NO  - do not generate NOPUNCH

   To ignore data entered above and return to the previous panel,
   enter END .
```
```
GFPCU4 *GIMCGRP DSLIST    CMD
```

You will then be asked to specify SMP/E zone names (or the name of a ZONESET). Enter DB2V8T and ZOSV19T (for the DB2 V8.1 and z/OS V1.9 target zones). After entering those names hit F3 to END.

```
          COMMAND GENERATION - REPORT  MISSINGFIX ZONES           Row 1 of 10
===>                                                    SCROLL ===> CSR

Enter the names of the ZONES or ZONESETS to be reported.

When the list is complete, enter END .


      ZONES/ZONESETS
''''   db2v8t__
''''   zos19t__
''''   _____
''''   _____
''''   _____
''''   _____
''''   _____
''''   _____
''''   _____
''''   _____
****************************** Bottom of data ********************************




 *GIMCGRP -EDIT    ISFPCU41 DSLIST
```

You will now see a message that a REPORT command was generated based on the input provided.

```
                      COMMAND GENERATION SELECTION MENU
   ===>  _
   The REPORT command was created based on your input
   Select one of the following:
        10  RECEIVE      20  RESETRC     30  LIST BACKUP  40  ZONECOPY
        11  APPLY        21  JCLIN       31  LIST LOG     41  ZONEEDIT
        12  ACCEPT       22  UCLIN       32  LIST         42  ZONEDELETE
        13  REJECT       23  CLEANUP     33  UNLOAD       43  ZONEEXPORT
        14  RESTORE      24  GENERATE    34  REPORT       44  ZONEIMPORT
        15  LINK         25  LOG         35  BUILDMCS     45  ZONEMERGE
                         26  UPGRADE                      46  ZONERENAME
                                                          47  GZONEMERGE

   Enter or verify the following:
        ZONE NAME              ===> GLOBAL    (required)
        OPTIONS NAME           ===>          OPTIONS name or
                                             blank
        SMP/E PROCESS PARAMETER ===> WAIT     WAIT or END

   To make additional selections enter selection and press ENTER
   To EDIT, BROWSE, or SUBMIT generated jobs enter the END command
   To leave without submitting any job enter the CANCEL command




GFPCU4 *GIMCGPO DSLIST   CMD
```

Using the F3 key to END will bring up the generated JCL with an option to browse, edit or submit the job. Selecting Edit will bring up the generated JCL.

```
                      COMMAND GENERATION - SUBMIT
   ===> E_

   Select one of the following:
     E - EDIT the job that was generated
     B - BROWSE the job that was generated
     S - SUBMIT the job that was generated

   Enter or modify the JOB statement.
   ===> //GDAYNESC JOB (ACCOUNT),'NAME'
   ===> //*
   ===> //*
   ===> //*

   To end this dialog without submitting the job,
   enter END . ( NOTE: The job stream is not saved.)










GFPCU4 *GIMCGSU DSLIST   CMD
```

```
        File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
 ──────────────────────────────────────────────────────────────────────────
 EDIT        SYS09106.T103243.RA000.GDAYNES.R0250211        CHARS 'USERID' changed
 Command ===>                                                 Scroll ===> PAGE
 ****** ******************************** Top of Data ********************************
 ==MSG> -Warning- The UNDO command is not available until you change
 ==MSG>          your edit profile using the command RECOVERY ON.
 000001 //GDAYNES JOB 'D98A,B9211068','SHARE/EXPO SMPE LAB',REGION=0K,     00010001
 000002 //         MSGLEVEL=(1,1),CLASS=A,MSGCLASS=H,NOTIFY=GDAYNES        00020001
 000003 /*JOBPARM S=*                                                      00030000
 000004 //S1      EXEC PGM=GIMSMP,
 000005 //          PARM='PROCESS=WAIT',
 000006 //          DYNAMNBR=120
 000007 //*
 000008 //* NOTE:    THIS JCL CREATED BY THE COMMAND GENERATION DIALOGS.
 000009 //*
 000010 //*          SMP ZONE-RELATED FILES ARE DYNAMICALLY ALLOCATED,
 000011 //*          THIS INCLUDES THE SMPPTS, SMPLOG, AND SMPTLIB DATA SETS,
 000012 //*          IF APPLICABLE.
 000013 //*
 000014 //* SMP FILES
 000015 //*
 000016 //SMPCSI   DD DISP=SHR,DSN=GDAYNES.SMPELAB.GLOBAL.CSI
 000017 //*
 000018 //*
 000019 //SMPCNTL  DD *
 ISFPCU41 DSLIST
```

```
        File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
 ──────────────────────────────────────────────────────────────────────────
 EDIT        SYS09106.T103243.RA000.GDAYNES.R0250211        Columns 00001 00080
 Command ===>                                                 Scroll ===> CSR
 000020   SET    BOUNDARY (GLOBAL)
 000021
 000022   REPORT
 000023         MISSINGFIX
 000024         ZONES  (
 000025               DB2V8T
 000026               ZOS19T
 000027             )
 000028
 ****** ******************************** Bottom of Data ********************************

 ISFPCU41 DSLIST
```

From here you can submit the job, save the generated JCL or cancel out of the job.

Notes:

1. Since we elected to use the persistent FIXCAT interest list, there is NOT a FIXCAT operand on the generated REPORT command. The interest list saved in the default OPTIONS entry for the GLOBAL zone will be used for this command.
2. The generated job expects DDDEF entries for any file the job needs.
3. Depending on your job card, you may need to add a REGION parameter to the step.

<u>**Reference Material**</u>

If at anytime you need to recreate your own copy of SMP/E CSI data sets

Edit the userid.JCL data set.

1. Edit member COPYMSTR (for example "SHARA01.JCL(COPYMSTR)") to copy the master SMP/E CSIs to your own copy. Change all references of "USERID" to userid that you logged on with. For example, you can use the following change command: "C USERID SHARA01 all" (Please remember to use caps for your userid).
2. Once all references have been changed, submit the job.
3. You can go into SDSF to verify that the job ran successfully.
   - SDSF is Option "S" from the ISPF primary command
   - Once in SDSF, enter the following commands
     a) "OWNER userid" where userid is the ID that you logged on with
     b) "PREFIX *" to enable any jobname submitted by you to be displayed
   - Enter "H ALL" to see all jobs on the held output queue or "DA" to see jobs currently executing
   - Use the "S" line command to select the job that you want to view.

8684: SMP/E V3.5 Advanced Function Hands-on Lab

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Notes:
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