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New HCD functions in OS/390 R 3

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With the availability of OS/390 Release 3, HCD provides new and enhanced functions, including

- a new I/O Path report which allows verifying the actual configuration against a planned configuration,
- the capability to retrieve configuration data from the system, like serial numbers, VOLSERs and switch port connectivity,
- VOLSER device data,
- support of multiple switch control units,
- the possibility to place certain output data sets to specific volumes,
- usability enhancements like
  - PF3 on every panel,
  - possibility to replace a production IODF when building a new one.
- support of new hardware

I/O Path Report

It is essential for an enterprise to have their systems running without outages due to reconfiguration. While HCD took them a large step towards that requirement by the introduction of dynamic I/O reconfiguration and the validation of planned configuration, any verification of the activated I/O configuration by HCD was still lacking.

HCD now offers a function which retrieves the actual configuration from the system and compares it with the logical configuration from the IODF. The status of an I/O path and any discrepancies in the definition of the I/O units are shown.

The function is provided as an I/O path report. It shows the physically sensed data (with physical types) against the logical definitions of the paths.

The I/O path report can be generated out of the HCD dialog or directly via batch invocation.

The function is based on ESCON self-description architecture. It uses the ESCON Manager Query API to retrieve the actual data. This requires MVS/ESCON Manager 1.3 (with APARs PN87285 and PN87286) or System Automation for OS/390 to be installed and running on the same system as HCD is running.

In order to get the data for systems in a sysplex, additionally, there must be

- a VTAM session established between the local system and the target system, and
- MVS/ESCON Manager installed and running on the target system.

Prime I/O Configuration Data

A new function allows you to retrieve I/O configuration data from the system's I/O configuration, relieving you from entering this data manually. The function can be used to prime the IODF, for example, after a migrate step with the following information:

- Processor serial number
- Control unit serial number
- Device serial number and DASD volume serial number
- Switch serial number
- Switch port names and port connections.

This function is provided as new action Prime on the corresponding object list panels of the HCD dialog. The sensed values are shown in a confirmation panel which allows accepting or rejecting the data.

Priming is restricted to the currently active processor and image, respectively. That means, the data that is visible from the same image HCD is running on, can be primed.

The function is also based on the ESCON Manager Query API to retrieve the actual data.

Figure 2. Confirm Priming Device Data List

```
+--------------------------------------------------------------------------+
!                    Confirm Priming Device Data List                      !
!CBDPDVPR                                                  Row 1 of 8       !
!Command ===> _____ Scroll ===> PAGE    !
!                                                                          !
!Press Enter to confirm priming, or Cancel to leave the list. A blank value !
!will not change the IODF definition.                                      !
!                                                                          !
!Device ---------- Type ----------- --- Serial Number --- --- VOLSER ---   !
!Number actual        defined        sensed    defined    sensed defined   !
!------ ------------- ------------- --------- ---------- ------ -------     !
!0010   3390-3        3390          B9888                 PAGEDS            !
!0104   3490E         3490          A5555                 _____            !
!0AF6   3390-B3C      3390          B9916                 TSOPAK            !
! ...                                                                      !
!4711   3390-A34      3390          _____            _____           !
!                                                                          !
!                                                                          !
!                                                                          !
```

```
! F1=Help       F2=Split      F3=Exit       F5=Reset      F7=Backward    !
! F8=Forward    F9=Swap       F12=Cancel    F22=Command                  !
!                                                                        !
+------------------------------------------------------------------------+
```

New Volume Data

As a new data field for devices, the volume serial number (VOLSER) can now be defined. They are displayed in the I/O Device List panels and listed in the Device Summary Report.

This data is also consolidated with the volume serial numbers that might have been already stored in the configuration file of Hardware Configuration Manager (HCM).

Support of Multiple Switch Control Units

In the previous releases, HCD only allowed defining one switch control unit and device to port FE of the ESCON director. However, customers require to address the switch from different processors with different device numbers or to overcome the logical path limitation by defining more than one control unit. To be able to do that, the additional switch control units and devices had to be defined for the Channel Subsystem (IOCP) but could not be connected to the switch in HCD.

Now, HCD allows defining multiple control units/devices on port FE of the switch.

Control Placement of Generated Output Data Sets

New HCD profile options have been provided to control the placement of generated output data sets by the HCD user. A output volume can now be specified for the following data sets that are generated by HCD:

- the IOCP data set
- the JES3 Init Stream Checker Data data set, and
- the HCPRIO data set.

These options are not in effect for SMS controlled environments. Also, existing data sets are replaced on the old volume.

Usability Enhancements
PF3 Consolidation:

PF3 (EXIT) has been made available now on **all** HCD panels. Those include context menus, view panels, confirmation panels, utility and filter panels. Pressing PF3 will leave such a panel without performing an action (like PF12 = CANCEL).

The behavior of PF3 on HCD panels where PF3 was available before has been left unchanged.

Thus, the PF3 handling in HCD is now consistent to other ISPF applications.

Replacement of a Production IODF:

An existing IODF can now be replaced when building a new production IODF. Invoking the Confirm Delete IODF dialog implicitly frees the user from the burden to switch to the Delete IODF dialog first to get rid of an old IODF in order to build a new production IODF.

Miscellaneous

On the sysplex-wide activate panels the default for Activate TEST has been changed from No to Yes.

Conditional assembly statements are now supported in the IOCP/MVSCP migration input data sets.

The information which channel paths, control units and devices are affected by a full dynamic changes was already given when specifying TEST provided the HCD profile option SHOW_IO_CHANGES = YES was set. This information is now also given with the ACTIVATE TEST command.

Hardware Support

The following hardware support is integrated into OS/390 Release 3 HCD and has been made available via Small Programm Enhancements (SPEs) to back-level releases of HCD:

With SPE OW19299 HCD supports the IBM S/390 Parallel Enterprise Server - Generation 3 (9672 R4 models), the IBM S/390 Coupling Facility 9674 Model C04 and the IBM S/390 Multiprise 2000 models.

To ease upgrading a processor type, the Change Processor dialog has been changed. Each time when a Change action is applied to a processor, the Update Channel Path Identifier panel is shown. It allows rearranging the channel path identifiers. This is different to the old behavior when the panel was only displayed when the processor changed to a new support level or a new processor type that has been defined in a different processor support module. The panel now allows the user to move ranges of channel paths.

PTF Numbers

SPE OW19299 has been made available via following PTFs:
 	
HCD R.2
     UW90253 (Base)
HCD R.3
     UW90254 (Base)
HCD 5.1
     UW90255 (Base)
     UW31495 (English)
     UW31496 (Japanese)
HCD 5.2
     UW90256 (Base)
     UW31497 (English)
     UW31498 (Japanese)

With SPE OW23214 HCD supports the Turbo model 9672 RY4.

PTF Numbers

SPE OW23214 has been made available via following PTFs:
 	
HCD R.2
     UW90385 (Base)
HCD R.3
     UW90386 (Base)

HCD 5.1
　　UW90387 (Base)
HCD 5.2
　　UW90388 (Base)

SPE OW19301 supports the Internal System Device of the IBM S/390 Multiprise 2000 via the ISD channel path type.

PTF Numbers
SPE OW19301 has been made available via following PTFs: **HCD 5.1** 　　UW90279 (Base) 　　UW90297 (English) 　　UW90251 (Japanese) **HCD 5.2** 　　UW90252 (Base) 　　UW90372 (English) 　　UW90373 (Japanese)

HCM Support

With Service Level 10, Hardware Configuration Manager (HCM) supports the OS/390 1.3 HCD functions for the new VOLSER data and the multiple switch control unit support.

PTF Numbers
The service update (APAR IR34215) has been made available via following PTFs: **HCM SL10** 　　UR90287 (Base) 　　UR90288 (English)

HCD and HCM are On-line

HCD and HCM have their own home page on the world wide web. The pages provide:

- Product information including the ability to download demo diskettes, tutorial package, or the HCM User's Guide updates
- Hints and tips on configuration management
- Frequently asked questions (FAQs)
- All HCD/HCM Newsletters
- and more

So, don't miss to visit our homepage:

http://www.ibm.com/servers/eserver/zseries/zos/hcm/

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