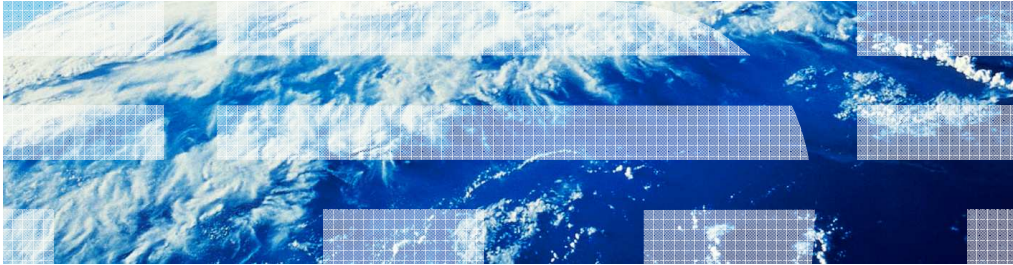


# z/OS V1R13

## HCD and HCM: HW/SW currency for z/OS V1R13



## Session objectives

- With this line item HCD and HCM keep track of changes in the used HW and/or SW environment.
  - Support of z/VM® V6R2
  - Support of Windows® 7

## Overview – Support of z/VM V6R2

- Problem Statement / Need Addressed
  - With z/VM V6R2 HCD and HCM need to be packaged with the functional content of HCD and HCM of z/OS® V1R13. In addition, HCD need to support z/VM Single System Image.
- Solution
  - HCD and HCM provide support in z/VM V6R2 for
    - Configuration packages
    - IPv6
- Benefit / Value
  - A z/VM user can use a functionally equivalent version of HCD and HCM as provided with the current release of z/OS.

HCD and HCM will ship new releases in z/VM 6.2 which include the functions of z/OS R13. In addition, HCD will support z/VM Single System Image (Sysplex Support) in z/VM 6.2 via a new parameter in the device support of z/VM.

New functions that are supported in HCD and HCM are:

Support of configuration packages

Support of IPv6

## Usage and invocation – Support of configuration packages in z/VM

- Configuration packages in z/VM HCD are supported via a new REXX utility function, CBDSDPKG.
  - It allows an HCD user to package a new production IODF from a master production IODF containing only a subset of the processor, OS and switch configurations without changing the processor tokens.
  - The subset IODF is sent to target node/user on an attended z/OS or z/VM system, or to an unattended z/OS system.
  - This utility does not require the definition of a configuration package in the master IODF.
- In HCM, configuration packages for z/VM are supported via the Edit Configuration Packages dialog.
  - One or more configuration packages can be defined in the IODF.
  - With the Transmit Configuration Package dialog a subset production IODF can be generated and sent to a target node/user on an attended z/OS or z/VM system, or to an unattended z/OS system.

Configuration packages will be supported in HCD via a new REXX utility, CBDSDPKG. It allows the HCD user to specify a source production IODF, a new target production IODF, target user ID and node ID, and control files for processor, OS and switch configurations that are to be extracted from the source IODF and packaged in the target IODF. The target IODF is then sent to the specified node/user ID. This function does not require the definition of a configuration package in the IODF.

In HCM, configuration packages are supported via the Edit Configuration Packages dialog. One or more configuration packages can be defined in the IODF. They allow the generation of subset production IODFs that are sent to a target node/user ID on an attended z/OS or z/VM system, or to an unattended z/OS system.

## Usage and invocation – Support of configuration packages (HCM)

The Configuration Packages dialog lists the existing definitions and provides Add, Edit, Delete and Transmit actions.

Name	User	Node	Date	Time	Description	Attended	IODF name
PACKAGE2	BBEI	BOEHCD1	2010-08-23	10:22	Send to BOEHCD1	No	BBE1.IODF48
PACKAGE1	BEI	BOEVMSPA	2010-08-23	10:22	Send to BOEVMSPA	Yes	IODF48.PRODIODF.A

The HCM dialog for Configuration Packages is the same for a target z/VM and z/OS system independent whether HCD is running on z/OS or z/VM.

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HCD and HCM: HW/SW currency for z/OS V1R13

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In the Create Configuration Package Dialog you have to specify at least the target IODF name. HCM accepts both MVS and VM IODF names because it may be determined later whether the IODF is sent to a z/VM system or to a (attended or unattended) z/OS system. If a file type of PRODIODF is given, the syntax is validated against VM IODF name convention, otherwise against MVS IODF name rules.

In VM, the IODF name (IODFxx) is used for building the production IODF that is sent to the target system. Therefore, there must not exist an IODF 'iodfxx WORKIODF' on the A-disk. Otherwise, the package IODF can not be built during the Transmit task.

User ID and Node ID are optional fields which have to be specified at latest when the Transmit task is performed. Default target is an attended system (MVS or VM). A target MVS (but not a target VM) system may be unattended which means that you can receive the target IODF on the target system via an import JCL. If the target system is attended, the target IODF is received at the target system in the spool reader from where it has to be explicitly received.

The Transmit ... task can only be entered from the source production IODF which must have the configuration package defined.

Field High Level Qualifier shows the user ID. Volume is only applicable when sending the IODF to an unattended MVS system, otherwise it is ignored. Space shows the size of the IODF in 4 K blocks which is used to allocate the new target IODF. Descriptor field 1 contains as default the user ID, descriptor field 2 the IODF name of the target IODF.

When transmitting the package IODF to an unattended MVS system, you have to provide the Import JCL for the job that runs on the target MVS system to import the IODF there.

## Usage and invocation – Support of z/VM single system image (1 of 2)

- Single System Image is supported via a new OS device parameter EQID in the z/VM Unit Information Modules (UIMs). This support is also available in z/OS V1R13 HCD.
  - It allows the assignment of the device equivalency ID to a real (RDEV) or emulated (EDEV) device.

For the z/VM Sysplex Support each RDEV and EDEV device statements gets a new parameter EQID which defines the equalized device ID between different z/VM systems within the same sysplex.

For HCD, EQID is a new OS parameter that can be specified for each device. It assigns the device equivalency ID *eqid* to a real (RDEV) or emulated (EDEV) device. '*eqid*' is a string of 1-8 alphanumeric characters. If this parameter is not specified, any previously assigned EQID by the system will be left unchanged. The system-generated name can be overwritten by explicitly specifying a name to this parameter.

Name *NOEQID* is reserved. It implies removing a previously defined EQID.

HCD supports this parameter when defining a device to an operating system of type VM. The parameter will show up in the HCD or HCM dialogs, in HCD/HCM reports and exported OS device data. A change in this OS parameter will result in a delete/add device action during dynamic reconfiguration.

To support this function, all VM UIMs which are shipped within HCD has to be extended by new parameter EQID. The parameter is optional.

The support is only necessary in HCD. When this support is available, an HCM user will see the new parameter and can use it.

## Usage and invocation – Support of z/VM single system image (2 of 2)

```

Define Device Parameters / Features
CBDDPDV13                                     Row 1 of 5
Command ==> _____ Scroll ==> PAGE

Specify or revise the values below.

Configuration ID . : VM9
Device number . . : 1000           Number of devices : 16
Device type . . . : 3390B

Parameter/
Feature   Value +      R Description
OFFLINE  No            Device considered online or offline at IPL
SHARED   No            Device shared between multiple real systems
UIRATE   DEFAULT       Hot I/O Recovery Rate
MDC      DFLTON        Device to be cached in minidisk cache
EQID     _____    Device equivalency ID
***** Bottom of data *****

```

When a device is defined to a VM operating system configuration, new parameter EQID is shown.

- . It is a string of 1 to 8 alphanumeric characters. It allows the assignment of a unique ID to a device that is shared by different system images.
- . Initially, the value is empty. In that case, a system-generated EQID is used.
- . Value NOEQID is reserved. It has the meaning that any previously assigned EQID will be removed.

A system programmer defining a device to a VM operating system within HCD/HCM will see the new parameter (see Fig. 1). It allows using the same tasks as for other OS parameters, for example, change or view the setting.

## Overview – Support of Microsoft Windows 7 in HCM

- Problem Statement / Need Addressed
  - HCM runs on Microsoft® Windows. Support of Windows 7 is needed.
- Solution
  - HCM can be installed and used on Windows 7.
- Benefit / Value
  - HCM runs on the current MS Windows version.



## Usage and invocation – Support of Microsoft Windows 7

- No change



## Overview – Support of IPv6 in HCM for z/VM

- The HCM logon dialog accepts host addresses in IPv6 format.
- Both HCM and the HCM dispatcher in z/VM HCD support IPv6 connections.



## Usage and invocation – Support of IPv6 in HCM for z/VM

- No change

## Interactions and dependencies

- None.

## Migration and coexistence considerations

- Single System Image support for z/VM will be provided in z/OS V1R11 and z/OS V1R12 with APAR OA32576, in z/VM V6R1 via APAR VM64856.

The z/VM device support for Single System Image will be rolled back to all z/OS and z/VM systems that are in service at the time of z/VM V6R2 GA, namely V1R11, V1R12 and z/VM 6.1. It will be rolled into z/OS HCD V1R13 and z/VM HCD V6R2.

## Installation

- None.

## Session summary

- HCD and HCM provided support for HW/SW currency:
  - Support of z/VM V6R2 with
    - New HCD and HCM releases functionally comparable with z/OS V1R13 HCD and HCM
    - Support of Single System Image
    - IPv6 communication support between HCD and HCM
  - HCM can be installed and run on MS Windows 7.

## Appendix - References

- Hardware Configuration Definition User's Guide, SC33-7988
- Hardware Configuration Manager User's Guide, SC33-7989
- Hardware Configuration Definition Messages, SC-7986
- Hardware Configuration Definition Planning, GA22-7525
  
- HCD/HCM Homepage:
- <http://www.ibm.com/systems/z/os/zos/features/hcm/>





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