CHARON-VAX application note

AN-46 CD-ROM drives usage in CHARON-VAX

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This application note explains how to configure CD-ROM devices with CHARON-VAX.

For the purpose of this subject CD-ROM drives fall into two categories:

- IDE CD-ROM drives
- SCSI CD-ROM drives

Note that it is possible to use DVD-ROM drives the same way you would use the CD-ROM drives. There is no difference in their configuration for usage with CHARON-VAX.

Collecting the CD-ROM number

Go to the "Computer Management" menu, open the "Disk Management" applet and get the number of the CD-ROM you want to use with CHARON-VAX. It does not matter whether it is a SCSI or an IDE CD-ROM drive.

Configuring the CD-ROM drive for CHARON-VAX for Windows using its configuration file

Configure the CD-ROM drive as follows:

1. **IDE CD-ROM drive**

   Use "atapi_scsi_device" interface to connect an emulated SCSI controller or just an emulated RQDX3 or KDM70 controller unit to the IDE CD-ROM device:

   load atapi_scsi_device/chscsi cdrom container="\\.\CdRom<X>"

   load RQDX3/RQDX3 DUA container[<Y>]="\\.\CdRom<X>"

   load KDM70/KDM70 DUA container[<Y>]="\\.\CdRom<X>"

   Where X is the number collected from the "Disk Management" menu

   See below 3 examples for "atapi_scsi_device", RQDX3 and KDM70 controllers configuration:

   Ex1:

   load atapi_scsi_device/chscsi pka_6 scsi_bus=pka scsi_id=6

   set pka_6 container="\\.\CdRom0"

   Ex2:

   load RQDX3/RQDX3 DUA

   set DUA container[0]="\\.\CdRom0"

   Ex3:

   load KDM70/KDM70 DUA xmi_node_id=11

   set DUA container[0]="\\.\CdRom0"

2. **SCSI CD-ROM drive**

Use "physical_scsi_device" interface to connect an emulated SCSI controller or just an emulated RQDX3 controller unit to the SCSI CD-ROM device:

load physical_scsi_device/chscsi cdrom container="\\.\CdRom<X>"

load RQDX3/RQDX3 DUA container[<Y>]="\\.\CdRom<X>"

load KDM70/KDM70 DUA container[<Y>]="\\.\CdRom<X>"

Where X is the number collected from the "Disk Management" menu.

See below 3 examples for "physical_scsi_device", RQDX3 and KDM70 controllers configuration:

Ex1:

load physical_scsi_device/chscsi pka_6 scsi_bus=pka scsi_id=6

set pka_6 container="\\.\CdRom0"

Ex2:

load RQDX3/RQDX3 DUA

set DUA container[0]="\\.\CdRom0"

Ex3:

load KDM70/KDM70 DUA xmi_node_id=11

set DUA container[0]="\\.\CdRom0"

Mapping CD-ROM drives for use with CHARON-VAX on OpenVMS/Alpha

To configure the CD-ROM drive with CHARON-VAX/AXP Plus for OpenVMS/Alpha:

1. Obtain the name of the CD-ROM drive – use the command "SHOW DEVICE D"

2. Note whether the CD-ROM drive is IDE or SCSI. SCSI CD-ROM drive is shown as "DKxxx"and IDE as – "DQxxx".

3. Use the CD-ROM drive for CHARON-VAX for Alpha mappings the same way as it was described in the previous chapter.

   Below please find several examples of mapping:

   Ex1:

   load physical_scsi_device pka_6 scsi_bus=pka scsi_id=6

   set pka_6 container="DKA100:"

   Ex2:

   load atapi_scsi_device pka_6 scsi_bus=pka scsi_id=6

   set pka_6 container="DQA0:"

   Ex3:

   load KDM70 DUA xmi_node_id=11

   set DUA container[0]="DKA100:"

Testing the mapped CD-ROM drives

Once the CD-ROM drive has been configured correctly according to the descriptions above it will be used as standard CD-ROM drive in the operating system running on the emulator. To make sure that the CD-ROM drive works properly perform mounting of Files-11 and ISO CD-ROMs, read some

information from them and dismount the volume. Make sure that no relevant errors and warnings appear in the log file.

Tips for analyzing CD-ROM drives problems

The following table reflects typical problems a user may face trying to map CHARON virtual CD-ROM drives to physical CD-ROM drives on the host system.

Error message is log file	Description	Proposed resolution
20060404:184339:ERROR:2:000001B8:winspti.cx(457): (2) The system cannot find the file specified. : pka_6: Failed to connect logical unit 0 to \\.\CdRom1. 20060404:184339:ERROR:2:000001BA:winspti.cx(841): pka_6: Does not have any containers specified. The device is set offline and is not available.	The CD-ROM drive was specified incorrectly in the configuration file – there is no such CD-ROM drive in the system.	Review the name of the CD-ROM drive. Correct it in the configuration file.
No errors in the log file, but the CD-ROM drive is offline in the operating system running on CHARON.	SCSI CD-ROM drive is configured as IDE or vise versa	Review the interface used for mapping to the CD-ROM drive. Correct it in the configuration file.
20060404:192454:ERROR:2:0000021A:mscpdisk.c(1300): (0) The operation completed successfully. : DUA0: Failed to detect type and size of \\.\CdRom0. The unit is not a regular file, keep trying... 20060404:192454:ERROR:2:0000021B:mscpdisk.c(1424): (1) Incorrect function. : DUA0: Failed to detect type and size of \\.\CdRom0. The unit is not a floppy or disk drive, keep trying... 20060404:192454:ERROR:2:00000220:mscpdisk.c(2052): DUA0: Failed to detect type of \\.\CdRom0. SCSI MODE SENSE does not available, keep trying...	RQDX3 mapped to SCSI CD-ROM drive may produce such error messages, but despite this the CD-ROM drive works Ok under the operating system running on CHARON.	Ignore these errors or, if possible, use IDE CD-ROM driver or change the interface to "atapi_scsi_device"

Tested CD-ROM drives

The following table reflects tested CD-ROM drives, Operating Systems and recommendations (if any) on mapping.

CD-ROM drive models	OS	Mapping specifics
NEC DV-580OC, TEAC CD-224E, NEC ND-1300A	Windows XP, Windows 2003	IDE devices. Use "atapi_scsi_device" interface of the SCSI based VAX emulators.
PLEXTOR PX-40TS	Windows XP	SCSI device. Use "physical_scsi_device" interface of the SCSI based VAX emulators.
DIGITAL RRD-43QA	OpenVMS	SCSI device. Use "physical_scsi_device" interface of the SCSI based VAX emulators.
COMPAQ CDR-8435	OpenVMS	IDE device. Use "atapi_scsi_device" interface of the SCSI based VAX emulators.