

# ***Chapter E***

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## ***Using IBM***

### ***OS/2 v2.x & Warp***

## **E. Using IBM OS/2 Version 2.x and Warp**

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After having exposed the installation of the ICP Controller in chapters B and C as well as that of the host-drives, we would now like to give you some hints and pieces of advice on how to install IBM's operating system OS/2 Versions 2.x and Warp. Furthermore, we explain how to install a CD-ROM drive (representatively standing for any other *Not Direct Access Device*) under OS/2.

### **E.1 Transparency of Host Drives**

The structure of the Host Drives, which have been installed with GDTSETUP (in chapter C), is not known to OS/2. I.e., the operating system does not recognize that a given Host Drive consists of a number of hard disks forming a disk array. To OS/2, this Host Drive simply appears as one single SCSI hard disk with the capacity of the disk array. This complete transparency represents the easiest way to operate disk arrays under OS/2; neither OS/2 nor the PCI computer need to be involved in the administration of these complex disk array configurations.

### **E.2 Preparing the Installation**

Under OS/2, the ICP Controller can be operated in two different ways. It is either run by GDT's BIOS (INT13H interface), or, alternatively, by the high performance driver GDTX000.ADD (located on the GDT OS/2 disk). Correspondingly, there are two different ways of installing OS/2 with the ICP Controller. At this point we would like to stress that only by using the high performance GDTX000.ADD driver can the ICP Controller unfold its full capacity under OS/2. We therefore recommend this operating mode. In order to be able to use the GDTX000.ADD from the very beginning of the installation it has to be copied to the OS/2 diskette #1. We recommend the following procedure:

**Step 1:** With MS-DOS (using DISKCOPY for example), create a copy of the OS/2 diskette #1.

**Step 2:** Copy GDTX000.ADD (using the COPY command) into the root directory of this new floppy disk. To get sufficient free space on OS/2 diskette # 1, it may be necessary to erase some files which are not needed for the installation procedure (for example not needed \*.ADD files)

**Step 3:** Insert the following line into the OS/2 CONFIG.SYS file of your *DISK 1* copy:

```
BASEDEV=GDTX000.ADD /V
```

The position of the entry is irrelevant.

### **E.3 Carrying out the Installation**

As the OS/2 installation takes quite a long time, we suggest having a closer look at the **OS/2 installation manual**. During the installation you will be prompted to answer several questions, for example whether you want to copy OS/2 on an already existing MS-DOS partition, or whether you want OS/2 to have its own partition, or whether you want to install the OS/2 Boot-Manager, etc. . After having decided on these options, you can start the installation beginning with *DISK 1* of the copy set you have previously created.



The OS/2 installation itself is carried out according to the OS/2 installation program. After having completed the installation, you should check that the OS/2 CONFIG.SYS file created during the OS/2 installation contains the following line:

```
BASEDEV=GDTX000.ADD /V
```

and that the driver GDTX000.ADD is either in the OS/2 or the root directory:

```
GDTX000.ADD                or  
\OS2\GDTX000.ADD
```

If this line is missing you have to add it to your CONFIG.SYS file. If the GDT driver GDTX000.ADD is not in the OS/2 or root directory, copy it there.

## **E.4 Using a CD-ROM Drive under OS/2**

If OS/2 has been installed from an OS/2 CD, you may skip this chapter as well as chapters E.4.1 and E.4.2. A CD-ROM drive (standing for any other *Not Direct Access Device*) can be accessed under OS/2 either directly through the OS/2 driver **OS2SCSI.DMD**, or the OS/2 ASPI Manager **OS2ASPI.DMD**, or, for example, through corelSCSI for OS/2. We presume that the CD-ROM drive has been properly connected to the ICP Controller. This includes that the SCSI-ID and the SCSI bus terminators are set in accordance with the settings of the already present SCSI devices (i. e., the SCSI-ID set for the CD-ROM drive is not occupied by another device; resistor terminators are located at the two ends of the SCSI bus only).

### **E.4.1 Installation with OS2SCSI.DMD**

**Step 1:** Click the OS/2 *System* icon on the OS/2 Presentation Manager. Then select "System Setup" and then "Selective Install".

**Step 2:** Confirm the system configuration with "OK".

**Step 3:** Now click "CD-ROM Device Support" in the window opening and select the CD-ROM drive. Hereafter click "OK".

**Step 4:** Click *Install* now and the installation begins. The system will ask you to insert further OS/2 system disks or select an appropriate path on the hard disk.

**Step 5:** After the installation is completed and OS/2 is started again, the CD-ROM drive can be accessed.

### **E.4.2 Installation with OS2ASPI.DMD**

**Step 1:** Add the following line to the CONFIG.SYS file, using, for example, the OS/2 system editor

```
BASEDEV=OS2ASPI.DMD
```

**Step 2:** Now the driver GDTX000.ADD has to be configured in a manner that allows only the ASPI Manager to access the CD-ROM drive (identified by its SCSI-ID, which in our example is SCSI-ID 6):

```
BASEDEV=GDTX0000.ADD /V /A:0 /AM:(0,6)
```

(an exact description of the command line switches can be found in the next chapter, E.5).

**Step 3:** Now install the corelSCSI software from the corelSCSI OS/2 floppy disk.

**Step 4:** After the restart of OS/2, the CD-ROM drive can be accessed.

## E.5 Command Line Switches of GDTX000.ADD

The GDTX000.ADD driver can be configured with the following command line switches. The names of the switches are IBM OS/2 compliant. The descriptions given in brackets ([,]) are optional. The "!" inverts the following function.

**BASEDEV=GDTX000.ADD [/V] [/A:d] [/[!DM...]] [/[!SM...]] [/[!AM...]] [/NOSCAN] [/[!UT]] [R:...]**

- /V**            Verbose (only possible as first parameter)  
                  Display logo/error messages on screen.
  
- /A:d**            All the following options until the next /A:d  
                  are valid for adapter d. All adapters are numbered  
                  starting with 0.
  
- [/[!DM...]**      Switch for supporting a Direct Access  
                  [SCSI] Device-Manager (i.e.: OS2DASD.DMD)
  - /DM**            Support Host-Drives (Standard)
  - /DM:d**        Support Host-Drive d as a hard disk  
                  (default if no CD-ROM is present)
  - /DM:(d,e)**    Support SCSI device (Bus d, SCSI-ID e)  
                  as a hard disk (default for SCSI type 0: DASD)
  
- [/[!SM...]**      Switch for supporting a SCSI-Manager  
                  (i.e.: OS2SCSI.DMD)
  - /SM**            Support SCSI devices (default)
  - /SM:d**        Support Host-Drive d as SCSI device  
                  (default if d is a cached CD-ROM)
  - /SM:(d,e)**    Support SCSI device (Bus d, SCSI-ID e)  
                  as SCSI device (default for all SCSI types  
                  except 0: DASD)
  
- [/[!AM...]**      Switch for supporting an ASPI-Manager  
                  (i.e.: OS2ASPI.DMD)
  - /AM**            Support SCSI devices (OS2ASPI.DMD)
  - /AM:d**        Support Host-Drive d as ASPI-Device
  - /AM:(d,e)**    Support SCSI device (Bus d, SCSI-ID e)  
                  as ASPI-Device
  
- /NOSCAN**       Scans the SCSI channels only for these devices,  
                  which are configured through the "/DM", "/SM", "/AM"  
                  or "/R" switches.
  
- [/[!UT]**        Ignores special time-out values of a certain  
                  application, but always uses the GDTX000.ADD  
                  settings. Some backup programs use time-out values that are  
                  too short.



**/R:(d,e)** Reserve a SCSI device (channel d, SCSI-ID e) as a raw device, which is directly operated through OS/2 (the data are not cached by the GDT cache). This SCSI-device must not be initialized with GDTSETUP (it may need to be de-initialized).

If reciprocally exclusive options have been selected, the one set last is effective.



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