NEXTSTEP for Intel Processors

Title: Dell DG/X

Entry Number: 1154

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Product Vendor:

Dell Computer Corporation

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Keywords: Dell, Jaws, Localbus

Overview:

The Dell DG/X provides 1120 x 832 in 16 bit color under NEXTSTEP. NEXTSTEP also supports SVGA on the Dell DG/X at 1024 x 768.

The Dell DG/X should be compatible with NeXT color monitors. This compatibility is not guaranteed by NeXT.

Setup and Installation:

The Dell DG/X may come with two 1/4 height floppy drives in a single unit. Only one floppy drive should be enabled, and it should be the 3 1/2" set to be drive A in both the CMOS setup and the EISA Configuration Utility (ECU).

The following ECU settings were recorded by the Quality Assurance Group from a Dell DG/X known to have successfully installed and run NEXTSTEP Release 3.1 for Intel Processors. The system was running off of a SCSI hard disk with a DPT 2012 SCSI controller.

EISA Configuration Utility Setup

```
System - Dell Powerline (TM) Workstation 450 DE/2 (TM) System Board
Memory
   SIMM Memory 16MB
   Extended Memory 15360 KB
   Board Memory : 640 KB
   Base Memory: 640 KB
Fast Video : Cached
CPU Options
   486 Cache: On
   CPU Speed: 50 MHz
Boot Options
   Primary Display: VGA/EGA
   Keyboard: Installed
   Num Lock : On
   Reset Button : Enabled
   Speaker Volume : High
   SmartVu : System Messages
   Hard Disk Autosense : Off
   Boot Sequence : Diskette First
   Password Entry: Before Boot
Password: Not Enabled
Integrated Mouse : Enabled
```

Integrated VGA: Graphics: Color or Mon without retrace

```
Integrated Hard Disk Interface: Auto
Hard Drives
   Drive 0: Not Installed
   Drive 1: Not Installed
Integrated Serial Interface
   Serial Port 1: Auto
   Serial Port 2 : Auto
Integrated Parallel Port Interface: Auto
EXP4 - DPT SCSI Host Bus Adapter (PM 2012B2/9X) - Banyan Vines
HARDWARE CONFIGURATION
Hardware Mapping
   IO Ports : Secondary/Disabled
   Interrupt Number: 15 Edge
   Floppy Drive : Disabled
   Option ROM: Enabled @ D8000h
   HBA SCSI ID: 7
WD1003 EMULATION MAPPINGS
   Drive 0
       SCSI ID : Disabled
       SCSI LUN: 0
   Drive 1
       SCSI ID : Disabled
       SCSI LUN: 0
CONTROLLER PARAMETERS
SCSI Parameters
   Maximum Transfer Rate: 10 MB/s
   External Cable Detection: Yes - 5 MB/s
   Command Queuing : Enabled
   Command Timeout : Enabled - 5 sec
Cache Parameters
   Cache: Enabled (Write-Back)
   Max. Percentage Dirty: 80%
   Max. Percentage Look-Ahead: 80%
   Look-Ahead: Enabled (8 blocks)
   Cache Threshold: 16 blocks
   Caching Parameters : Use Values Stored on Device
!DPTA402.CGF Version 005D
```

EXP6 - Dell DGX Video Subsystem

Frame Buffer Location Cacheability: 20000000h, cached

Video Interrupt Selection : IRQ2, Disable

Color Mode : Normal

Known Problems:

Releases 3.1 and 3.2:

- The Ultrascan monitor shipped with the Dell DG/X and the NEC 5FG both reportedly have some difficulty displaying 1120 x 832 video correctly. This can result in fuzziness and faded colors. The NEC 6FG does not apparently suffer from this problem.
- Some early DG/X systems have a single jumper on the Jaws Graphics board that will when jumped incorrectly prevent the cursor from being movable by the mouse while running NEXTSTEP.
- One DG/X system the Quality Assurance Group tested demonstrated sensitivity to fast SCSI transfer rates. This manifested as multiple read errors during the installation process when installing from either a DPT 2012 or Adaptec 1542C SCSI adapter onto a Seagate SCSI hard disk. This problem was not observed on other DG/X systems.