

NEXTSTEP for Intel Processors Release 3.3

SCSI Driver Overview

Driver: Adaptec 2940 family & 7870 integrated

Driver Overview: NeXTanswer #1760

Last Update: March 25, 1996

Availability Information

A version of this driver is on the CDROM

Newer Released Driver in NeXTanswers: Yes, Version 3.37, as NeXTanswer #2065

Newer Beta Driver in NeXTanswers: No, Version 0.00, as NeXTanswer #2077

Driver Name / Installer .pkg: Adaptec2940SCSIDriver

Driver Type: SCSI

Driver Scope: Product Family

Supported Components: Adaptec AIC-7850, Adaptec AIC-7870, Adaptec AIC-7870D, Adaptec AIC-7880

PC Bus / Interface Supported by Driver*: Integrated, PCI

General Overview notes: The Adaptec 2940 series driver is designed to support the 2940 series of PCI SCSI adapters.

Supported Products / Add-on Adapters:

Adaptec AHA-2940 (PCI)

Adaptec AHA-2940W (PCI, Wide SCSI)

Adaptec AHA-2940U (PCI, Ultra SCSI)

Adaptec AHA-2940UW (PCI, Ultra/Wide SCSI)

Supported Products / Systems (ie integrated into PC System):

DEC EISA/PCI Server system w/ 7870 on motherboard

DEC Celebris GLST w/ 7850 on riserboard

Special Features of Driver / Driver Notes:

SCSI Driver Details

Supported Connectors: 50-pin Header (Internal SCSI), 50-pin High Density (SCSI-2), 68-pin High Density (Wide SCSI)

Access Mode: Bus Master DMA

Attributes*: SCSI-2

Cache Size Supported*: N/A

Known Problems

The Adaptec 2940 SCSI Host Adapter Driver supports Synchronous Data Transfer as well as Fast SCSI transfers. In order to enable Synchronous Data Transfer, this feature must be enabled in both the 2940's AutoSCSI program and in the NEXTSTEP Configure application, when configuring the Adaptec 2940 driver. In the AutoSCSI program, this feature is enabled in the SCSI Device Configuration menu, via the Initiate Sync Negotiation field. This can be enabled or disabled on a per-target basis. In the Configure application, the Synchronous button, if disabled, disables Synchronous Transfers for ALL targets. If enabled, the values selected in the AutoSCSI program are used to determine whether or not Synchronous Transfers occur on a per-target basis.

The Synchronous Transfer data rate is determined in the 2940's AutoSCSI program, via the Maximum Sync Transfer Rate field in the SCSI Device Configuration menu. Fast SCSI Transfers are enabled by selecting a value of 10 (i.e., 10 Megabytes/seconds) for this field. Note that if Synchronous Transfers are disabled, the Maximum Sync Transfer Rate field is meaningless. Also note that it is not recommended to select a value higher than 5 for a device which is in an external enclosure and connected to the 2940 via an external SCSI cable.

Driver Version Notes

- 3.33 Added support for Adaptec's AIC-7850 chipset.
- 3.36 Added support for Adaptec's AIC-7870 revision D (needed to support the latest revisions of the AHA2940 & AHA2940W)
- 3.37 Integrate Adaptec's HIM v1.21 to support the AHA2940U & AHA2940UW Ultra SCSI host adapters.

Future Planning

Future / Update Planning:

Reason for New Driver / Update:

New Driver / Update Timeframe:

New Driver / Update Description:

Note: Information contained in the "Future Planning" section of this document does not constitute a commitment on the part of NeXT to complete the planned development work.

* - Indicates information that is inclusive of the entire capability of this driver. Not all devices supported by this driver may include all features listed. Check any available NeXTanswers and the hardware manual for the device for additional information.

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