

NEXTSTEP for Intel Processors Release 3.3

SCSI Driver Overview

Driver: Adaptec 2940 family & 7870 integrated

Driver Overview: NeXTanswer #1760

Last Update: October 24, 1995

Availability Information

A version of this driver is on the CDROM

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

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

Driver Name / Installer .pkg: Adaptec2940SCSIDriver.config

Driver Type: SCSI

Driver Scope: Product Family

Component Supported: AIC-7870

Component Manufacturer: Adaptec

PC Bus / Interface Supported by Driver*: PCI

General Overview notes: The Adaptec 2940 series driver is designed to support the 2940 series of PCI SCSI adapters. The 2940 series includes AHA-2940 which provides an 8 bit SCSI bus, and the AHA-2940W which provides both an 8 and 16 bit SCSI bus.

Supported Products / Add-on Adapters:

Adaptec 2940 (PCI)

Adaptec 2940W (PCI, Wide SCSI)

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

DEC EISA/PCI Server system w/ 7870 on motherboard

Special Features of Driver / Driver Notes:

The onboard floppy controller, available on some cards, is not supported.

SCSI Driver Details

SCSI-II*: Yes
Fast SCSI*: Yes
Differential*: No
Supports 16bit Wide SCSI Devices*: Yes
Supports 32bit Wide SCSI Devices*: No
RAID Upgradable*: No
Cache Upgradable*: No
Cache Size Supported*:

Known Problems

Wide SCSI on the 2940W 16 bit portion has not been tested by NeXT SQA. Wide SCSI is a hardware dependent feature and should work if wide SCSI 2 cabling, wide SCSI 2 termination and wide SCSI 2 devices are used.

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.

Tested 2940 Configuration:
Bios v1.11, Firmware version "F"

Reported Configurations that don't work:
BIOS v1.12, Firmware version "W"

See Also:

· Adaptec, Inc. <http://www.adaptec.com/>

Future Planning

Future / Update Planning:

Reason for New Driver / Update: New Hardware Support

New Driver / Update Timeframe: Q3 95

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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