FUTURE DOMAIN®

Operating System Support User's Manual

For Novell Netware, OS/2, Windows NT and UNIX

Operating System Support
User's Manual

For Novell NetWare, OS/2, Windows NT and UNIX

Note

Before using this information and the product it supports, be sure to read the section covering product license and warranties.

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Federal Communications Commission Radio Frequency Interference Statement (USA Only)

This equipment generates and uses radio frequency energy and may, if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, cause interference to radio and television reception.

It has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Shielded data cables were used during the type test; therefore, properly shielded and terminated data cables should be used to reduce potential interference. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the computer with respect to the receiver
- Move the computer away from the receiver
- Plug the computer into a different outlet so that computer and receiver are on different branch circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions.

Future Domain Corporation is not responsible for any radio or television interference caused by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

Contents

1.0 Introduction

Future Domain SCSI controllers are automatically supported (embedded support) under these mainstream operating systems.

- IBM OS/2 v2.0 & v2.1
- Microsoft OS/2 v1.3*x* LADDR
- Microsoft Lan Manager v2.1 & v2.2
- Novell NetWare v3.1*x* and 4.*x* (Novell Labs Certified)
- SCO Unix Release 3.2, v3.0 and v4.0
- SCO Open Desktop v2.0
- SunSoft/Interactive Unix Release 3.2, v3.0 and 4.0
- Microsoft Windows NT
- Novell UnixWare

This booklet contains considerations for installing Future Domain SCSI controllers under these operating system environments.

1.2 Future Domain Controllers

Each operating system section in this booklet identifies the controllers supported under each operating system environment and the types of SCSI peripheral devices supported.

All Future Domain SCSI controllers:

- Connect up to seven devices per controller.
- Support up to four Future Domain SCSI controllers when connected to a Novell NetWare 386 or 286 file server. Bridge controllers connect SCSI to MFM, ESDI or RLL drives.

- Support arbitration and reselection to allow disk mirroring from a single SCSI controller with little or no performance degradation.
- Allow full overlapped operation with two or more SCSI disk drives for improved performance.

1.3 Future Domain Software

Operating system support is embedded in each controller's on-board BIOS and/or the operating system kernel. Consequently, all you have to do is connect the SCSI devices, install proper termination, and the devices are ready to use. This booklet contains the information you need to use a Future Domain controller with each operating system.

Future Domain's controllers also run under PC-DOS, MS-DOS, MS Windows and Windows for Workgroups (WFWG) using Future Domain's PowerSCSI!™. A separate manual documents this easy-to-use software.

1.4 Package Contents

Before you start, make sure you have the following materials:

- *Operating System Support User's Manual* (this manual).
- Driver diskette.
- The DOSUTILS diskette.

NOTE: The DOSUTILS diskette contains a READ.ME file that includes the latest information about this release.

2.0 IBM OS/2 v2.0 and v2.1

No special Future Domain SCSI controller installation considerations are required for OS/2 v2.0 and v2.1.

2.1 Controller Support

The following three sections list the SCSI controllers supported by IBM OS/2 v2.0 and v2.1.

8-bit Controller Series

The following controllers are based on the 950/9C50 SCSI IC Chip:

TMC-850M
TMC-850MER
TMC-850MEX

16-bit Controller Series

The following controllers are based on the 1800/18C*xx* SCSI IC Chip:

TMC-1610M
TMC-1610MER
TMC-1610MEX
TMC-1650
TMC-1660
TMC-1670
TMC-1680
MCS-600
MCS-700

32-bit Controller Series

TMC-7000EX

The following controllers are based on the 36C*xx* SCSI IC Chip:

TMC-3260
TMC-3260MEX

NOTE: Future Domain does not support SCSI controllers from other manufacturers.

2.2 SCSI Peripheral Support

Future Domain controllers support the following SCSI devices when working under IBM OS/2 v2.0 and v2.1.

- Fixed Disk Drives with capacity up to 2GB
- Removable drives
- Magneto R/W Optical drives
- CD-ROM drives
- Tape drives

For specific installation and compatibility information, please refer to the operating system and hardware compatibility guides from IBM.

2.3 BASEDEV Command Line Options

Future Domain provides several unique command line options when installing the Future Domain SCSI controller under OS/2 v2.1. These options operate under OS/2 v2.1 only.

This section documents the command line options available for the Future Domain ADD BASEDEV driver under OS/2 v2.1.

The syntax for the ADD BASEDEV driver is:

ADD BASEDEV */command line option* [*/command line option*]

Command line option	*Description*
/FS	Enable fast synchronous transfers Use this command line option to enable the fast synchronous transfers on SCSI controllers that are based on the TMC-1800 chip only. If the driver detects a TMC-1800 chip, it enables fast synchronous transfers by default, regardless of the presence of a controller based on the TMC-18C50 chip. This command line option affects all controllers managed by this driver, including the controller based on the TMC-18C50 chip.
/!FS	Disable fast synchronous transfers Use this option with controllers that are based on the TMC-18C50 chip only. If the driver detects the presence of a TMC-18C50 controller and no TMC-1800 controller, it enables fast synchronous transfers by default. If you see: FAST SYNC - (FS) 10MB/S when the BIOS comes up, your SCSI device supports fast synchronous transfers and you don't need this option. If your configuration does not have a SCSI BIOS, refer to the documentation that came with the device to determine if you need to add this option.

Command line option	*Description*
/ET	Embedded Targets (Target-specific) By default, all Future Domain drivers support only one LUN per target: LUN 0. This is because some older SCSI-1 compliant devices do not behave properly when issued a command to a LUN other than 0. If a SCSI device allows multiple LUNs (e.g., a Pioneer DRM-600 CD-ROM changer or a Bernoulli dual drive), specify this command line option.
/!SN	Disable Synchronous Negotiation Some peripherals do not conform entirely to the SCSI-II specification in terms of Synchronous Negotiation. This option causes the ADD to not negotiate for synchronous or fast synchronous data transfers. This option applies to all devices attached to any controllers supported by the ADD.

3.0 MS Lan Manager v2.1 and v2.2 (Includes MS OS/2 v1.31)

No special Future Domain SCSI controller installation considerations are required for these versions of Lan Manager.

3.1 Controller Support

The following three sections list the SCSI controllers supported by MS Lan Manager v2.1 and v2.2.

8-bit Controller Series

The following controllers are based on the 950/9C50 SCSI IC Chip:

TMC-850M
TMC-850MER
TMC-850MEX

16-bit Controller Series

The following controllers are based on the 1800/18C*xx* SCSI IC Chip:

TMC-1610M
TMC-1610MER
TMC-1610MEX
TMC-1650
TMC-1660
TMC-1670
TMC-1680
MCS-600
MCS-700

32-bit Controller Series

TMC-7000EX

The following controllers are based on the 36C*xx* SCSI IC Chip:

TMC-3260
TMC-3260MEX

NOTE: Future Domain does not support SCSI controllers from other manufacturers.

3.2 SCSI Peripheral Support

Future Domain's controllers support the following SCSI devices when working under MS Lan Manager v2.1 and v2.2 and OS/2 v1.31:

- Fixed Disk Drives with capacity up to 2GB
- Removable drives
- Magneto R/W Optical drives
- CD-ROM drives
- Tape drives

For specific installation and compatibility information, please refer to the operating system and hardware compatibility guides from Microsoft.

4.0 Advanced NetWare 286 v2.2

4.1 Controller Support

Advanced NetWare 286 v2.2 supports all Future Domain controllers, except the TMC-7000EX.

4.2 SCSI Peripheral Support

Future Domain's controllers support only fixed disk drives with capacities up to 2GB under Advanced NetWare 286 v2.2.

For specific installation and compatibility information, please refer to the operating system and hardware compatibility guides from Novell.

5.0 Novell NetWare 386 v3.1*x* and v4.*x*

The Novell 1800/18C*xx* driver (SIM1800.DSK) supports fast synchronous negotiation using the following command line option:

/FS Fast synchronous negotiation

This command line option forces the driver to negotiate fast synchronous support for all devices supported by this driver. The default mode is SYNCHRONOUS negotiation. Use this command line option only for controllers with the 18C*xx* chip.

5.1 Controller Support

The following three sections list the SCSI controllers supported by NetWare 386 v3.1*x* and 4.*x*.

8-bit Controller Series

The following controllers are based on the 950/9C50 SCSI IC Chip:

TMC-850M
TMC-850MER
TMC-850MEX

16-bit Controller Series

The following controllers are based on the 1800/18C*xx* SCSI IC Chip:

TMC-1610M
TMC-1610MER
TMC-1610MEX
TMC-1650
TMC-1660
TMC-1670
TMC-1680
MCS-600
MCS-700

32-bit Controller Series

TMC-7000EX

The following controllers are based on the 36C*xx* SCSI IC Chip:

TMC-3260
TMC-3260MEX

NOTE: Future Domain does not support SCSI controllers from other manufacturers.

5.2 SCSI Peripheral Support

Future Domain controllers support the following SCSI devices when working under Novell NetWare 386 v3.1*x* and 4.*x*:

- Fixed Disk Drives with capacity up to 7.8GB
- Removable drives
- Magneto R/W Optical drives
- CD-ROM drives
- Tape drives

For specific installation and compatibility information, please refer to the operating system and hardware compatibility guides from Novell.

6.0 SCO Unix v3.0, v3.2, and v4.0

No special Future Domain SCSI controller installation considerations are required for this version of Unix.

6.1 Controller Support

The following three sections list the SCSI controllers supported by SCO Unix Release 3.2, v3.0 and v4.0.

8-bit Controller Series

The following controllers are based on the 950/9C50 SCSI IC Chip:

TMC-850M
TMC-850MER
TMC-850MEX

16-bit Controller Series

The following controllers are based on the 1800/18C*xx* SCSI IC Chip:

TMC-1610M
TMC-1610MER
TMC-1610MEX
TMC-1650
TMC-1660
TMC-1670
TMC-1680
MCS-600
MCS-700

32-bit Controller Series

TMC-7000EX

The following controllers are based on the 36C*xx* SCSI IC Chip:

TMC-3260
TMC-3260MEX

NOTE: Future Domain does not support SCSI controllers from other manufacturers.

6.2 SCSI Peripheral Support

Future Domain controllers support the following SCSI devices when working under SCO Unix Release 3.2, v3.0 and v4.0:

- Fixed Disk Drives with capacity up to 2GB
- Removable drives
- Magneto R/W Optical drives
- CD-ROM drives
- Tape drives

For specific installation and compatibility information, please refer to the operating system and hardware compatibility guides from SCO.

7.0 SCO ODT v2.0

No special Future Domain SCSI controller installation considerations are required for this version of SCO ODT.

7.1 Controller Support

The following three sections list the SCSI controllers supported by SCO ODT v2.0.

8-bit Controller Series

The following controllers are based on the 950/9C50 SCSI IC Chip:

TMC-850M
TMC-850MER
TMC-850MEX

16-bit Controller Series

The following controllers are based on the 1800/18C*xx* SCSI IC Chip:

TMC-1610M
TMC-1610MER
TMC-1610MEX
TMC-1650
TMC-1660
TMC-1670
TMC-1680
MCS-600
MCS-700

32-bit Controller Series

TMC-7000EX

The following controllers are based on the 36C*xx* SCSI IC Chip:

TMC-3260
TMC-3260MEX

NOTE: Future Domain does not support SCSI controllers from other manufacturers.

7.2 SCSI Peripheral Support

Future Domain controllers support the following SCSI devices when working under SCO ODT v2.0:

- Fixed Disk Drives with capacity up to 2GB
- Removable drives
- Magneto R/W Optical drives
- CD-ROM drives
- Tape drives

For specific installation and compatibility information, please refer to the operating system and hardware compatibility guides from SCO.

8.0 SunSoft/Interactive Unix v3.0, v3.2, and v4.0

No special Future Domain SCSI controller installation considerations are required for this version of Unix.

8.1 Controller Support

The following three sections list the SCSI controllers supported by Unix Release 3.2, v3.0 and 4.0.

8-bit Controller Series

The following controllers are based on the 950/9C50 SCSI IC Chip:

TMC-850M
TMC-850MER
TMC-850MEX

16-bit Controller Series

The following controllers are based on the 1800/18C*xx* SCSI IC Chip:

TMC-1610M
TMC-1610MER
TMC-1610MEX
TMC-1650
TMC-1660
TMC-1670
TMC-1680
MCS-600
MCS-700

32-bit Controller Series

TMC-7000EX

The following controllers are based on the 36C*xx* SCSI IC Chip:

TMC-3260
TMC-3260MEX

NOTE: Future Domain does not support SCSI controllers from other manufacturers.

8.2 SCSI Peripheral Support

Future Domain controllers support the following SCSI devices when working under Unix Release 3.2, v3.0 and 4.0:

- Fixed Disk Drives with capacity up to 2GB
- Removable drives
- Magneto R/W Optical drives
- CD-ROM drives
- Tape drives

For specific installation and compatibility information, please refer to the operating system and hardware compatibility guides from SunSoft.

9.0 Novell UnixWare v1.1

No special Future Domain SCSI controller installation considerations are required for this version of Unix.

9.1 Controller Support

The following three sections list the SCSI controllers supported by Unix Release 3.2, v3.0 and 4.0.

8-bit Controller Series

The following controllers are based on the 950/9C50 SCSI IC Chip:

TMC-850M
TMC-850MER
TMC-850MEX

16-bit Controller Series

The following controllers are based on the 1800/18C*xx* SCSI IC Chip:

TMC-1610M
TMC-1610MER
TMC-1610MEX
TMC-1650
TMC-1660
TMC-1670
TMC-1680
MCS-600
MCS-700

32-bit Controller Series

TMC-7000EX

The following controllers are based on the 36C*xx* SCSI IC Chip:

TMC-3260
TMC-3260MEX

NOTE: Future Domain does not support SCSI controllers from other manufacturers.

9.2 SCSI Peripheral Support

Future Domain controllers support the following SCSI devices when working under Unix Release 3.2, v3.0 and 4.0:

- Fixed Disk Drives with capacity up to 2GB
- Removable drives
- Magneto R/W Optical drives
- CD-ROM drives
- Tape drives

For specific installation and compatibility information, please refer to the operating system and hardware compatibility guides from SunSoft.

10.0 Windows NT

No special Future Domain SCSI controller installation considerations are required for Windows NT.

10.1 Controller Support

The following three sections list the SCSI controllers supported by Windows NT.

8-bit Controller Series

The following controllers are based on the 950/9C50 SCSI IC Chip:

TMC-850M
TMC-850MER
TMC-850MEX

16-bit Controller Series

The following controllers are based on the 1800/18C*xx* SCSI IC Chip:

TMC-1610M
TMC-1610MER
TMC-1610MEX
TMC-1650
TMC-1660
TMC-1670
TMC-1680
MCS-600
MCS-700

32-bit Controller Series

TMC-7000EX

The following controllers are based on the 36C*xx* SCSI IC Chip:

TMC-3260
TMC-3260MEX

NOTE: Future Domain does not support SCSI controllers from other manufacturers.

10.2 SCSI Peripheral Support

Future Domain controllers support the following SCSI devices when working under Windows NT:

- Fixed Disk Drives with capacity up to 2GB
- Removable drives
- Magneto R/W Optical drives
- CD-ROM drives
- Tape drives

For specific installation and compatibility information, please refer to the operating system and hardware compatibility guides from Microsoft.

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