2. Hardware Requirements for Mach on i386 Machines

We only support machines with:

- either an i386 or i486 processor
- at least 5 Meg of memory. We typically use 8Meg - 16Meg.
- an AT/ISA compatible bus, or IBM PS/2 microchannel bus. EISA buses can be used but currently none of our drivers use the 32 bit functionality of the EISA bus.
- an approved disk controller: (You should get at least 100Meg of disk. We typically use 300Meg drives.)
    - WD 1007 compatible disk controllers.
    - IDE disks (these are WD 1007 compatible).
    - Adaptec 1542B compatible SCSI controller.
    - Adaptec 1542C SCSI controller is supported by Mach 3.0 only.
    - SCSI controllers that make disks appear to the kernel as IDE disks, such as on IBM PS/2's.
    - ST506 controller [Note: they are awfully slow.]
- displays:
    - simple displays in 25 x 80 character mode.
    - Color SVGA support from XFree86 Release 2.0 which supports the following accelerated chipsets:
        - 8514/A (and true clones)
        - ATI Mach8, Mach32
        - Cirrus CLGD5426, CLGD5428
        - S3 86C911, 86C924, 86C801, 86C805, 86C928
        - Western Digital WD90C31
    - And the following SVGA chipsets:
        - Tseng ET3000, ET4000AX, ET4000/W32
        - Western Digital/Paradise PVGA1
        - Western Digital WD90C00, WD90C10, WD90C11, WD90C30, WD90C31
        - Genoa GVGA
        - Trident TVGA8800CS, TVGA8900B, TVGA8900C, TVGA8900CL, TVGA9000
        - ATI 28800-4, 28800-5, 28800-a
        - NCR 77C22, 77C22E
        - Cirrus Logic CLGD5420, CLGD5422, CLGD5424, CLGD5426, CLGD5428, CLGD6205, CLGD6215, CLGD6225, CLGD6235 Compaq AVGA
        - OAK OTI067, OTI077
- high density 3 1/2" and/or 5 1/4" floppies at 1.44Meg and 1.2Meg, respectively.

We support but do not require:

- Intel 80387 hardware floating point. (recommended)
- The built-in serial line: COMi
- The built-in parallel port: LPTi
- ethernet controller boards (non-IBM PS/2):
    - 3COM's EtherLink I and EtherLink II (sometimes known as 3c501 and 3c503),
    - Western Digital's WD8003E and WD8013E ethernet boards.
    - SMC's WD8003E Elite and WD8013E Elite ethernet boards[1])
    - D-Link's Ethernet Pocket LAN Adapter DE-600
    - Intel's iMX586 or PC586/ENET586 ethernet board (Now obsolete)
- The IBM token ring adapter (IBM PS/2)
- Mice
    - Logitech 3-button mouse
    - Logitech Mouseman mouse

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[1] Western Digital sold its WD8003 ethernet product to SMC shortly after reengineering the board. This board is called the WD8003 Elite. A recently sampled board seems to work fine, but there have been problems with some early units. (They would stop transmitting after a while.

  - Microsoft 2-button mouse
  - PS2 mouse
- Wangtek 1/4" standard 3M streamer.

WE DO NOT SUPPORT:
- NFS for commercial licensees of NFS

NOTE: While Mach does not require a network interface for normal operation, our method of installation assumes that you can get the files from CMU to the target machine over the internet.

Mach is being used at CMU on numerous i486, i386 and i386sx clones.

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