MAE 2.0: HP Floppy, SCSI CD-ROM, and SCSI Floppy Drives (5/96)

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TOPIC ---

This article describes adding floppy, SCSI, and SCSI floppy devices on a Hewlett
Packard (HP) workstation running HP-UX 9.0 & 10.0 for Macintosh Application
Environment (MAE).

DISCUSSION --

SCSI CD-ROM
===========

To add devices to be used by MAE, you may have to edit the file macdisks.HP-UX.
Entries for SCSI drives have the format:

```
scsiX:[fixed|removable]:[ro|rw]:</dev/path>
```

X in scsiX represents the SCSI device number, which can often be found by
looking at the back of the SCSI device. On HP-UX, you can also run sam, and by
examining "Disks and File Systems" and then entering "CD-ROM, Floppy and Hard
Disk", look at the CD-ROM's device name and number.

Example SCSI entry:

```
scsi4:removable:ro:/dev/dsk/c201d4s0   (hp-ux 9.0.x)
scsi4:removable:ro:/dev/dsk/c0t2d0     (hp-ux 10.x)
```

Alternatively, once you know the SCSI device number, you can simply change an
entry to "default," and the next time you launch MAE, the "default" will be
converted into the defaults for a CD-ROM at the given SCSI address on HP-UX.

Example of the use of "default"

```
scsi4:default
```

Devices marked "ignore" WILL NOT be checked by MAE. You will not be able to read
a CD in a CD-ROM drive if the entry for that SCSI device number is "ignore"

If you have other types of SCSI devices, you would like to use with MAE, you may
wish to change read-only ("ro") to read-write ("rw"), and/or change "removable"

to "fixed" if the device does not support ejecting the media.

This is what the entries for SCSI disks in the macdisks.HP-UX file look like:

```
  scsi0:ignore
  scsi1:ignore
  scsi2:ignore
  scsi3:ignore
  scsi4:ignore
  scsi5:ignore
  scsi6:ignore
```


Floppies (non-SCSI)
===================

Entries for floppy drives have the format:

```
  floppyX:[ro|rw]:</dev/path>
```

Configuring floppy devices is similar to configuring SCSI devices, except floppy
devices generally do not have SCSI ID numbers. You simply need to enable the
drive by entering whether the drive is read-only or read-write, and providing
the path name.

Since HP's floppy device naming scheme varies by model, the floppy0 entry has
been set to "default," and will be determined upon the first launching of MAE.
Furthermore, since HP systems normally only have one floppy drive, only the
floppy0 entry has been enabled.

For example:

```
  floppy0:default
```

This entry will be converted, depending on HP workstation model, into either:

```
  floppy0:rw:/dev/rfloppy/c201d0s0   (hp-ux 9.0.x)
or
  floppy0:rw:/dev/rfloppy/c20Ad1s0   (hp-ux 9.0.x)
```

AND
```
  floppy0:rw:/dev/rfloppy/c0t0d0
```

This is what the entries for floppy disks in the macdisks.HP-UX file look like:

```
  floppy0:default
  floppy1:ignore
```


SCSI Floppy Drives
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MAE can use a SCSI floppy drive with HP-UX as follows:

```
Item 1
------
Verify that HP-UX utilizes the drive as SCSI floppy and not generic SCSI. You
can verify this with the 'ioscan -f' command. Your output should look similar to
the following:


disk  2.0.1.1.0  scsifloppy ok(0x800101)  ok  TEAC  FC-1   HF   00 (hp-ux
9.0.x)


disk  2/0/1.0.0  sflop CLAIMED DEVICE  TEAC FC-1  HF   07  (hp-ux 10.x)



The SCSI drive must scan as 'scsifloppy' for the SCSI address utilized by that
drive. If it does not, verify that the scsifloppy driver has been installed into
the kernel, and that you have the required patches for your level of HP-UX. In
addition, the chosen SCSI address cannot conflict with any other devices.

Also, ensure that you are using the proper device files with the drive. For
example, the following entries were created in /dev/floppy and /dev/rfloppy
respectively using 'mknod':

brw-rw-rw-   1 root    sys     23 0x201100 Jun 27 18:03 c201d1s0
crw-rw-rw-   1 bin     bin    106 0x201100 Jun 28 10:28 c201d1s0(hp-ux 9.x)

brw-rw-rw-   1 root    sys     23 0x201100 Jun 27 18:03 c0t1d0
crw-rw-rw-   1 bin     bin    106 0x201100 Jun 28 10:28 c0t1d0 (hp-ux 10.x)


Note that read and write permission is granted to all users.

Item 2
------
In the file 'macdisks.HPUX' (located in the Preferences folder for each user),
add an entry similar to the following prior to starting MAE (or relaunch MAE
after changing it if MAE is running):

floppy0:rw:/dev/rfloppy/c201d1s0   (hp-ux 9.0.x)
floppy0:rw:/dev/rfloppy/c0t1d0     (hp-ux 10.x)

The exact entry will depend upon the SCSI address utilized by the drive. In all
of the examples above, SCSI address = 1 is shown. Do NOT put an entry into the
SCSI section of this file -- it must be entered as a floppy drive. If you
already have a floppy drive as 'floppy0', you can put the SCSI floppy as
'floppy1' instead.

NOTE: Apple tested with an ISA 1015S drive that required an upgrade from the
vendor before it would be recognized by HP-UX as 'scsifloppy.' MAE will NOT be
able to use the drive until HP-UX recognizes the unit as a SCSI floppy drive. We
also discovered that our unit did not work if SCSI address = 0 was utilized.


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13 May 1996 - Complete rewrite of article.
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08 Feb 1996 - Included SCSI Floppy Drive information.
10 Aug 1995 - Changed title to better reflect the article.

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