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Creating File Systems on Removable Tapes or Diskettes

Special Notices

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> **Note:** The information in this document has **not** been verified for AIX 4.1.

About This Document

This document describes creating JFS file systems on floppy diskettes. This procedure is not supported and applies only to AIX 3.2.

FILE SYSTEMS ON REMOVABLE MEDIA

JFS file systems cannot be created on a tape device, for the following reasons:

1. There is no AIX support for this.
2. The JFS logging mechanism for these devices is not there.
3. A tape device is not randomly accessible.
4. Our tape device drivers do not provide a block interface. That is why we mount /dev/hd4 (block interface) rather than /dev/rhd4 (character interface).

   Even if it were possible to create a file system on tape, the performance would be incredibly slow.

   Creating JFS file systems on floppy diskettes is NOT SUPPORTED; however, the safeguards can be circumvented and a read only JFS file system can be built on a floppy and mounted. The reason that the file system will be read only is that AIX cannot create a journal log on a diskette. Please keep in mind that this is not a supported procedure and that system stability is jeopardized.

   To make the unsupported read only JFS file system on a floppy:

1. Make a subdirectory on an existing file system and place all of the files that the diskette will contain into the subdirectory.
2. Enter the following command to create a prototype file containing information about the new file system, where /directory_structure is the pathname of the subdirectory created in step 1 and proto_filename is the name of the prototype of the file that will be created:

   ```
   proto /directory_structure > proto_filename
   ```

3. Place your floppy disk into the drive and format it.
4. Edit the prototype file and replace the first line with the following:

   ```
   [noboot] 0 0
   ```

5. Enter the following command to make the file system on your floppy:

   ```
   mkfs -p proto_filename -V jfs /dev/fd0
   ```

6. Make the directory upon which you wish to make the floppy-based file system, or you can use the /mnt directory. Then, enter the following command to mount the file system:

   ```
   mount -r -V jfs /dev/fd0 /your_mount_point
   ```

7. To unmount the file system, use the command:

   ```
   umount /dev/fd0
   ```

DO NOT EJECT THE DISKETTE WITHOUT FIRST UNMOUNTING IT!

The fact that the file system is read-only may be a problem but if you are going to use it for utility programs and other data that does not change much, it still may be useful. If you need to change the data, you can copy the directory from the floppy into another directory, make your modifications, and remake the file system using this procedure.

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