Chapter 9

Maintaining the File Alteration Monitor

The File Alteration Monitor (*fam*) is a daemon that monitors files and directories. Application writers can include certain function calls in their applications to let *fam* know that they want to be informed of changes to whichever files and/or directories they specify. WorkSpace and Mailbox are two applications that use *fam*; WorkSpace uses it to keep the directory views up to date, and Mailbox uses it to know when to indicate the arrival of new mail.

Troubleshooting fam

The *fam* daemon runs only when applications using it are running; it exits after all programs using it have stopped.

Sometimes, when attempting to start up an application which uses *fam*, an error message is displayed:

```
Cannot connect with File Alteration Monitor (fam)
```

There are several reasons why this message appears. Below are some of the common ways to troubleshoot the problem.

Basic fam Troubleshooting

If you see this message on your screen:

```
Can't connect to fam
```

Perform these steps:

1. Check to see if *fam* is running with the command:

   ps –ef | grep fam

2. If *fam* is not running, verify the following things:

   - Verify that */usr/etc/fam* exists and is executable with the following command:

     ls –l /usr/etc/fam

     If the file is not found, you must reinstall the software package *eoe1.sw.unix*. If it is found, the permissions should be:

     ```
     –rwxr–xr–x 1 root sys 156484 Jan 24 18:34 /usr/etc/fam
     ```

     The date and size may vary.

   - Verify that *fam* is listed in the */etc/inetd.conf* file. The *fam* daemon is invoked when the system starts up the network. Even if the system is not connected using the network to other systems, the network software must be started. A line similar to the following should be found in */etc/inetd.conf*:

     ```
     sgi_fam/1 stream rpc/tcp wait root ?/usr/etc/fam famd –t 6
     ```

   - Verify that *inetd* is running with the command:

     ps –ef | grep inetd

     You should see a response similar to:

     ```
     root   214     1  0   Oct 24 ?       0:01 /usr/etc/inetd
     ```

     If the message

     ```
     portmapper failure
     ```

     is displayed, it is also a sign that the network is not active. Start the network according to the steps outlined in the *IRIX Admin: Networking and Mail* guide.

   - Verify that *fam* is registered with *portmapper* with the command:

     rpcinfo –p | grep fam

You should see output similar to the following:

```
391002    1   tcp   1033  sgi_fam
```

If you are using a foreign NIS master system, see the section titled "If You Are Using a Foreign NIS Master" on page 147.

3. If *fam* is running, turn on debugging mode by by adding a **-d** flag to the entry in */etc/inetd.conf*. The finished line should be similar to the following:

   ```
   sgi_fam/1 stream rpc/tcp wait root ?/usr/etc/fam famd –t 6 -d
   ```

   Reboot your system for the debugging to take effect. The debugging information is written in the file */var/adm/SYSLOG*. This can be conveniently viewed with the *sysmon* tool, described in "Viewing Your System Log With sysmon" on page 34.

If You Are Using a Foreign NIS Master

If you have the optional NIS (YP) software installed at your site, and you are using another manufacturer's system as your NIS master, with no *rpc* entries for *sgi_toolkitbus* and *sgi_fam*, this section provides the information to correct the error message.

Depending on the operating system (the Sun 3.*x* or the Sun 4.0) on the Sun NIS (YP) server, one of the two following solutions applies.

- Sun 3.*x*

  If the Sun Workstation is running version 3.*x* of Sun/OS, then two entries need to be added to the */etc/rpc* database on the Sun NIS server machine. They are `sgi_toolkitbus 391001` and `sgi_fam 391002`

  On the NIS server, enter the command:

  ```
  cd /usr/etc/yp; make rpc
  ```

  It may take as much as an hour before the NIS server pushes this information to its clients.

- Sun 4.0

  If the Sun Workstation is running version 4.0 of Sun/OS or later, then two entries need to be added to the */etc/rpc* database on the Sun NIS server machine. They are `sgi_toolkitbus 391001` and `sgi_fam 391002`.

On the NIS server, type:

```
cd /var/yp; make rpc
```

It may take as much as an hour before the NIS server pushes this information to its clients.

Note: If the NIS server machine is neither an SGI or Sun, the same *rpc* entries must be added, but the syntax may be different.