Chapter 5

CM Error-Logging System

Whenever the **ts-daemon** detects a hardware fault, the CM error-logging system records the event in **/var/log/cm-errors.log**. On these occasions, **ts-daemon** passes information about the fault to the SunOS **syslog** system, which performs the actual logging. **syslog**'s local7 error facility is reserved for these messages.

5.1 Implementing CM Error Logging

Ordinarily, CM-5 systems are shipped from the factory with error logging implemented. If, for any reason, error logging must be enabled in the field, first create the error-logging file:

```
# touch /var/log/cm-errors.log
#
```

Then add the following lines to the end of **/etc/syslog.conf**:

```
# Connection Machine Logging Facility
local7.debug   /var/log/cm-errors.log
```

NOTE: These lines must appear just as shown here, including the comment on the first line.

The first field identifies the error facility and the level of filtering to be applied to the error reporting. In this case, the error facility is called **local7** and the error severity level is **debug**. Selecting **debug** means all errors will be reported.

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The second field specifies the file in which **local7** errors will be logged; in this case, **cm-errors.log**.

5.2 Error Message Description

Error messages consist of a single line containing 9 fields separated by vertical line characters, **|**. The 9 fields in each message are:

timestamp host | *seconds* | *general error* |
program name | *subprogram name* | *userid* | *groupid* |
processid | *error message*

timestamp host
: Contains a timestamp for the message and the hostname of the CP on which the timesharing daemon is running. This field is always terminated with the term **syslog:**.

seconds
: Gives the time in seconds since January 1, 1970.

general error
: Presents a high-level description of the type of error being reported.

program name
: Identifies the timesharing daemon as the source of the message.

subprogram name
: Identifies the user program that was running when the error was detected.

userid
: Identifies the owner of the program that was running when the error was detected.

groupid
: Identifies the group associated with the program that was running when the error was detected. This field is not currently implemented. Its place in the message contains the default **-1**.

processid
: Identifies the process that was running when the error was detected.

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error message This is a text string that describes the error.

The following sample message illustrates the kind of information to be found in **cm-errors.log**.

```
Dec 5 11:39:39 yeats syslog: | 678728379 | Hardware in
error state | Timesharing daemon | /user/prod/filter.a
| 1556(kjr) | -1(<no group>) | 11837 | FatalInterrupt:
time sharing detected error on NI.
```


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