

## **SECTION 8. SYSTEM MAINTENANCE**

This section provides an introduction to system maintenance procedures. For an explanation of common and FTP error codes see Appendix C.

**8.1 General.** This section provides general information about environmental variables and procedures that are useful in day-to-day system maintenance.

**8.2 Environmental Variables.** SA personnel should be familiar with the following environmental variables.

a. **CDPATH** - Defines the paths to be searched for an argument to the **cd** command. By default, the current directory is searched.

b. **HOME** - Defines the path name of your login directory. The value of **HOME** is specified in `/etc/passwd`.

c. **HZ** - Defines the number of ticks per second for the system clock.

d. **IFS** - Defines the internal field separator characters. The shell initially sets these characters to include the space (blank), tab and new line characters.

e. **LOGNAME** - Defines your login name and is set when you log in to the system. This variable is often referred to by shell programs.

f. **MAIL** - Defines the full path name of the directory where you will receive mail from other users.

g. **MAILCHECK** - Defines the interval at which the system checks for new mail.

h. **PATH** - Defines the directory search path for commands. By default, this variable includes the current directory, the `/bin` directory, and the `/usr/bin` directory.

i. **PS1** - Defines the primary shell prompt. By default, the shell prompt is set to `#` for regular Solaris system users and `#` for users who log in as root.

j. **PS2** - Defines the secondary shell prompt. By default, the secondary shell prompt is set to `>`. When this prompt appears, it means that additional information (input) is needed for the command to run.

k. TERM - Defines your terminal type for certain programs (such as screen editors). By default, TERM is set to AT386.

l. TZ - Defines the time zone in which the computer is located.

### **8.3 Setting System Date and Time.**

a. System time under Solaris is controlled and affected by several different factors. Your computer has an electronic quartz clock powered by a small battery. This clock runs all the time, even when the computer is off.

b. The computer operator can set the date and time that the clock maintains in one of three ways:

(1) The hardware manufacturer's setup program.

(2) The date command.

(3) The Common Desktop Environment (CDE).

### **8.4 Setting Up a Message of the Day.**

a. Your system may be set up so that a message of the day is displayed whenever a user logs into the system. The text of the message is stored in the file /etc/motd. You can modify this file, using an editor (vi) to add important messages that should be seen by all system users. It is a good place to put messages regarding scheduled system downtime or other daily reminders.

```
*****
**
**          THE SYSTEM WILL BE DOWN FROM 5:00PM          **
**          TONIGHT UNTIL 7:00AM TOMORROW FOR            **
**          SCHEDULED SYSTEM MAINTENANCE.                **
**
**
*****
```

b. The message of the day is displayed each time a user logs into the system.

## **8.5 Automatic Program Execution.**

a. The cron program runs other programs automatically at specified times. This program and, more specifically, the **crontab** command, allows you to run programs during off hours such as:

- (1) File system administration.
- (2) Long running, user-written shell procedures.
- (3) Cleanup procedures.

b. Any task that needs to be done repeatedly at specific times can be put into the cron file, which is located in the /usr/spool/cron/crontabs directory. The SA uses the **crontab** command to establish these entries.

c. Use the **man** command to obtain detailed information about cron. Note that cron is not used at present to schedule STAMIS-related subsystems for execution. This is accomplished in the startup scripts that execute based on the login used (startup, etc.).

## **8.6 Terminal Setup.**

a. **tty** - Return user's terminal name.

(1) *Description.* The **tty** utility writes to standard output the name of the terminal that is open as standard input. The name that is used is equivalent to the string that would be returned by the ttyname function.

(2) *Format.* **tty** [-options]

(3) *Example.* # **tty**

Displays the terminal's name and address as it appears in the inittab key.

(4) *Options.*

-l Print the synchronous line number to which the user's terminal is connected, if it is on an active synchronous line.

-s Inhibits printing of the terminal path name, allowing one to test just the exit status.

b. **stty** - Sets the options for a terminal.

(1) *Description.* The **stty** command sets certain terminal I/O options for the device that is the current standard input: without arguments, it reports the settings of certain options.

(2) *Format.* **stty** [-options]

(3) *Example.* # **stty**

Reports the settings of certain options.

(3) *Options.*

-a Write to standard output all of the option settings for the terminal.

-g Report current settings in a form that can be used as an argument to another stty command.