



Appendix A

Utilities for Personal Productivity



Unit Objectives

After completing this unit, you should be able to:

- Use the archive utility: tar
- Manipulate when your work gets done: at and crontab

The tar Utility

This is an archive/backup command
Historically used tape but now any device

- default to /dev/rmt0

Syntax: `tar options pathname(s)`

tar Options

- Options are of two types
 - Required
 - Optional
- Should be specified using a leading hyphen
- Required options are one of
 - c - create an archive
 - x - extract file(s) from archive
 - t - list (tell) what is in archive
- Other (optional) options are
 - f - used to specify other than default device
 - v - verbose (usually with t or x)
 - m - restore/keep modification times

tar Pathnames

tar takes a pathname as one of its parameters

Full pathnames mean that restores (extracts) will be to original directory

Relative pathnames mean that restores may be to any part of filesystem

tar may be used to do recursive copies of data from one directory to another

```
$ cd fromdir; tar cf - . | (cd todir; \>tar xf -)
```

Working in Absentia

- You can submit jobs for execution later
- AIX provides two useful utilities
 - `at`
 - `crontab`
- Access to these facilities is controlled by the system administrator

The at command

at submits a set of commands (a job) for later execution

Syntax: *at* [-r|-l] time

Commands are read from stdin

time can be specified as absolute or relative

- The time may include a date

Options include

- l list your *at* jobs
- r remove your *at* job(s)

at uses mail to send the stdin and stderr output (unless redirected)

System administrator determines who may use *at*

at Usage and Examples

Here are some examples (commands excluded)

at 2100

at 10pm

at 4am

at 9am tomorrow

at 10:30 Jul 3

at now + 2 hours

at now + 2 days

at now + 1 year

The crontab Command

This command is like *at* but for regular "jobs"

Syntax: `crontab [-e | -l | -r] [job-file]`

The commands executed are in job-file (or from stdin)

The options allow you to edit, list or remove your crontab file

System administrator determines who may use *cron*

cron will mail the output of the command to crontab owner

crontab File Format

cron needs crontab files in a particular format

Each line has time(s)/date(s) and the command to run

Format of each line is a set of fields

- minute (0-59)
- hour (0-23)
- day (1-31)
- month (1-12)
- day of week (0-6, 0 = Sunday)

Each of the first five fields may be

- a number
- a comma separated number list (1,3,4,13)
- a range (4-9)
- an asterisk (*)

Sixth field contains the command(s) executed (a % means a newline)

Unit Summary

Having completed this unit, you should be able to:

- Archiving using tar
- Batching commands for later execution
 - The tar command for backing up
 - Using at
 - Regular or repeated processes using cron tab