

## Ex. 8

## System Management

### Aim

To perform system management by setting the date, month and year using Linux commands

### 1.cal

Cal displays a simple calendar. If arguments are not specified, the current month is displayed. The options are as follows:

- 1 Display single month output. (This is the default.)
- 3 Display prev/current/next month output.
- s Display Sunday as the first day of the week. (This is the default.)
- m Display Monday as the first day of the week.
- j Display Julian dates (days one-based, numbered from January 1).

### Synopsis

**cal [-smjy13] [[month] year]**

### 2.date

Prints or sets the system date and time.

Options Display the current time in the given FORMAT, or set the system date.

-d, --date=STRING

display time described by STRING, not 'now'

-f, --file=DATEFILE

like --date once for each line of DATEFILE

-r, --reference=FILE

display the last modification time of FILE

-R, --rfc-2822

output date and time in RFC 2822 format

## Synopsis

**date [OPTION]... [+FORMAT]**

**date [-u|--utc|--universal] [MMDDhhmm[[CC]YY][.ss]]**

## 3.hwclock

Sets or reads the hardware CMOS clock.

### OPTIONS

**--show** Read the Hardware Clock and print the time on Standard Output.

The time shown is always in local time, even if you keep your Hardware Clock in Coordinated Universal Time

**--set** Set the Hardware Clock to the time given by the **--date** option.

**--hctosys** Set the System Time from the Hardware Clock. Also set the kernel's timezone value to the local timezone as indicated by the TZ environment variable and/or /usr/share/zoneinfo, as tzset(3) would interpret them.

**--systohc** Set the Hardware Clock to the current System Time.

**--adjust** Add or subtract time from the Hardware Clock to account for systematic drift since the last time the clock was set or adjusted.

**--getepoch** Print the kernel's Hardware Clock epoch value to standard output. This is the number of years into AD to which a zero year value in the Hardware Clock refers. For example, if you are using the convention that the year counter in your Hardware Clock contains the number of full years since 1952, then the kernel's Hardware Counter epoch value must be 1952.

**--setepoch** This epoch value is used whenever hwclock reads or sets the Hardware Clock.

**-version** Print the version of hwclock on Standard Output.

**--date=date\_string** You need this option if you specify the **--set** option.

Otherwise, `hwclock --set --date="9/22/96 16:45:05"` it is ignored. This specifies the time to which to set the Hardware Clock. The value of this option is an argument to the `date(1)` program. For example, `hwclock --set --date="9/22/96 16:45:05"`

The following options apply to most functions.

`--utc`

`--localtime` Indicates that the Hardware Clock is kept in Coordinated Universal Time or local time, respectively. It is your choice whether to keep your clock in UTC or local time, but nothing in the clock tells which you've chosen. So this option is how you give that information to `hwclock`.

If you specify the wrong one of these options (or specify neither and take a wrong default), both setting and querying of the Hardware Clock will be messed up.

If you specify neither `--utc` nor `--localtime`, the default is whichever was specified the last time `hwclock` was used to set the clock (i.e. `hwclock` was successfully run with the `--set`, `--systohc`, or `--adjust` options), as recorded in the `adjtime` file. If the `adjtime` file doesn't exist, the default is local time.

`--noadjfile` disables the facilities provided by `/etc/adjtime`. `hwclock` will not read nor write to that file with this option. Either `--utc` or `--localtime` must be specified when using this option.

`--rtc=filename` overrides the default `/dev` file name, which is `/dev/rtc` on many platforms but may be `/dev/rtc0`, `/dev/rtc1`, and so on.

`--directisa` is meaningful only on an ISA machine or an Alpha (which implements enough of ISA to be, roughly speaking, an ISA machine for `hwclock`'s purposes). For other machines, it has no effect. This option tells `hwclock` to use explicit I/O instructions to access the Hardware Clock.

Without this option, `hwclock` will try to use the `/dev/rtc` device (which it assumes to be driven by the `rtc` device driver). If it is unable to open the

device (for read), it will use the explicit I/O instructions anyway.

--badyear Indicates that the Hardware Clock is incapable of storing years outside the range 1994-1999. There is a problem in some BIOSes (almost all Award BIOSes made between 4/26/94 and 5/31/95) wherein they are unable to deal with years after 1999. If one attempts to set the year-of-century value to something less than 94 (or 95 in some cases), the value that actually gets set is 94 (or 95). Thus, if you have one of these machines, hwclock cannot set the year after 1999 and cannot use the value of the clock as the true time in the normal way.

## **Synopsis**

### **hwclock**

#### **4.uptime**

It gives a one line display of the following information. The current time, how long the system has been running, how many users are currently logged on, and the system load averages for the past 1, 5, and 15 minutes.

## **SYNOPSIS**

**uptime**

**uptime [-V]**