

Cron

- It is used to schedule recurring events
- Use crontab to edit, install and view job schedules

Syntax:

```
crontab [-u user] file
```

```
crontab [-l|-r|-e]
```

```
-l      lists crontab jobs
```

```
-r      remove crontab
```

```
-e      edits crontab jobs using $EDITOR
```

Note

- cron jobs are stored in `/var/spool/cron`
- daemon for crontab: `crond`

Valid fields

Minute	Hour	Day of Month	Month	Day of week
0-59	0-23	1-31	1-12 or jan, Feb ...	0 or 7 = Sunday, 1=Monday, ...

- Multiple values may be separated by commas
- * indicates all valid values
- For further help:

```
man 5 crontab
```

Controlling access to cron

List of users to be allowed or denied will be listed in following files
`/etc/cron.allow` and `/etc/cron.deny` respectively.

Examples

1. Cron job which will run `du -h` and saves output to `/tmp/myoutputfile` in every minute.

```
cat > mycronjob
1 * * * * du -h >>/tmp/myoutputfile
crontab mycronjob
```

2. Cron job which will run `du -h` and saves its output to `/tmp/myoutputfile` in every 1st minute of hour alternating in 2 hours.

```
cat > mycronjob
1 */2 * * * du -h >>/tmp/myoutputfile
[press Ctrl+d to save and exict form cat mode]
crontab mycronjob
```

3. Cron job to do task in every 1st day of 4th week of the month on time of 5:00 PM

```
crontab -e
0 17 1 */4 * ls -l >>output1
```

To execute script files in a particular directory called /etc/rc.d/htb

```
vi /etc/crontab
path=<...path in the file currently>:/etc/rc.d/htb
0 17 1 * root run-parts /etc/rc.d/htb
```

System logging

- To start system logging
#service syslog start
- Configuration file
/etc/syslog.conf
- Information files
/var/log/messages contains all log information
/var/log/dmesg contains kernel related logs
/var/log/mail contains mail related logs and so on.

Note: use tail command with feeding option to analyze current activities in particular program. For instance, use following command when even you got any error occurs in hosting website in apache:

```
tail -f /var/log/httpd/error.log
```

- Format of log:
Date/time:application [PID] messages

Further study:

<http://www.cyberciti.biz/faq/how-do-i-add-jobs-to-cron-under-linux-or-unix-oses/>
https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Linux/6/html/Deployment_Guide/ch-Automating_System_Tasks.html