

**Exercise 23.2** Monitoring Process States

1. Use **dd** to start a background process which reads from `/dev/urandom` and writes to `/dev/null`.
2. Check the process state. What should it be?
3. Bring the process to the foreground using the **fg** command. Then hit **Ctrl-Z**. What does this do? Look at the process state again, what is it?
4. Run the **jobs** program. What does it tell you?
5. Bring the job back to the foreground, then terminate it using **kill** from another window.

Solution 23.2

1. `$ dd if=/dev/urandom of=/dev/null &`

2. `$ ps -C dd -o pid,cmd,stat`

```
25899 dd if=/dev/urandom of=/dev/ R
```

Should be S or R.

3. `$ fg`

```
$ ^Z
```

```
$ ps -C dd -o pid,cmd,stat
```

```
  PID CMD          STAT
25899 dd if=/dev/urandom of=/dev/ T
```

State should be T.

4. Type the **jobs** command. What does it tell you?

```
$ jobs
```

```
[1]+  Stopped                  dd if=/dev/urandom of=/dev/null
```

5. Bring the job back to the foreground, then kill it using the **kill** command from another window.

```
$ fg
```

```
$ kill 25899
```