

## Converting data with units

This short tutorial shows you how to use the units command which is a nifty utility that converts quantities between scales (e.g. meters to feet or kilograms to pounds). While not an essential tool, it can certainly be convenient at times.

### Code Listing 1: Getting units

```
# emerge app-sci/units
or
apt-get install units
or ...
```

There are two ways to use the units command, interactively and non-interactively. To use it interactively, simply issue the command units.

### Code Listing 2: Using units interactively

```
% units
1948 units, 71 prefixes, 28 functions

You have: 1 meter
You want: feet
          * 3.2808399
          / 0.3048
You have: 3 kilograms
You want: pounds
          * 6.6138679
          / 0.15119746
```

The first number (prefixed by a \*) indicates the conversion as you specified (i.e. there are about 3.28 feet in a meter). The second number is the conversion in the opposite direction (i.e. there are about 0.3 meters in a foot).

To use units non-interactively, issue the command followed by the original expression and then the new expression.

### Code Listing 3: Using units non-interactively

```
// How many pecks are in a bushel?
% units '1 bushel' 'peck'
          * 4
          / 0.25

// How many miles per hour are in a knot?
% units '1 knot' 'mph'
          * 1.1507794
          / 0.86897624
```

Note: A 'knot' is one nautical mile per hour.

See the man page (man units) for more information on the units command.

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