

# The udunits2 Program

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# 1 Synopsis

```
udunits2 -h
```

```
udunits2 [-A|-L|-U] [-r] [-H have] [-W want] [XML_file]
```

## 2 Options

The following options and arguments are supported:

- `-A`            Use the ASCII character-set.
- `-L`            Use the ISO Latin-1 (ISO-8859-1) character-set.
- `-U`            Use the full Unicode character-set with UTF-8 encoding.
- `-h`            Print a help message.
- `-r`            Reveal any problems with the units database (by default, no error messages are printed during import of the database).
- `-H have`      Use **have** unit for conversion. The default is the reply to the prompt.
- `-W want`      Use **want** unit for conversion. An empty string requests the definition of the **have** unit. The default is the reply to the prompt.
- `XML_file`     The pathname of the XML-formatted units database. If not specified, then the default, compile-time pathname is used.

### 3 Description

When successfully started without the `-H have` or `-W want` options, the program will print the prompt

```
You have:
```

At this point you can exit the program by entering the end-of-file character (usually control-D) or continue by entering either a value or a unit. (a value comprises a numerical value and a unit. For example,

```
You have: 80 km/h
```

```
You want:
```

At this point, if you enter a blank line, then the program will assume that you entered a unit in the previous line and will print the definition of that unit in terms of the base units of the unit-system that it imported on startup. For example,

```
You have: 80 km/h
```

```
You want:
```

```
22.222222222222 m.s-1
```

```
You have:
```

Details of the formatting depend on the character-set being used. See [Chapter 2 \[Options\]](#), page 2.

Alternatively, at the “*You want:*” prompt you can enter the unit in which you want the previously-entered value. For example,

```
You have: 80 km/h
```

```
You want: mi/h
```

```
80 km/h = 49.7097 mi/h
```

```
x/(mi/h) = 0.621371*(x/(km/h))
```

```
You have:
```

The first line after “*You want:*” shows the “have” value in the desired “want” unit.

The second line shows the transformation between numerical values in the “have” unit to numerical values in the “want” unit. The symbol “*x*” represents the physical quantity in question. See <http://physics.nist.gov/Pubs/SP811/sec07.html>.

## 4 See Also

See [Section “UDUNITS-2”](#) in *The UDUNITS-2 C API Guide*, for information on the UDUNITS-2 library, which is used by this program.

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