

```
1: #!/usr/bin/perl
2: # $Id: graph.perl,v 1.2 2020-12-01 20:36:30-08 - - $
3:
4: use strict;
5: use warnings;
6: $0 =~ s|.|/||;
7:
8: # Example setting up a directed graph.
9:
10: my @inputs = (
11:     "all : hello",
12:     "hello : main.o hello.o",
13:     "main.o : main.c hello.h",
14:     "foo : ",
15:     "hello.o : hello.c hello.h",
16:     "ci : Makefile main.c hello.c hello.h",
17:     "bar : ",
18:     "test : hello",
19:     "clean : ",
20:     "spotless : clean",
21: );
22:
23: sub parse_dep ($) {
24:     my ($line) = @_;
25:     return undef unless $line =~ m/^(\\S+)\\s*:\\s*(.*?)\\s*$/;
26:     my ($target, $dependency) = ($1, $2);
27:     my @dependencies = split m/\\s+/, $dependency;
28:     return $target, \\@dependencies;
29: }
30:
31: my %graph;
32: for my $input (@inputs) {
33:     my ($target, $deps) = parse_dep $input;
34:     print "$0: syntax error: $input\\n" and next unless defined $target;
35:     $graph{$target} = $deps;
36: }
37:
38: for my $target (keys %graph) {
39:     print "\\\"$target\\\"";
40:     my $deps = $graph{$target};
41:     if (not @$deps) {
42:         print " has no dependencies";
43:     } else {
44:         print " depends on";
45:         print " \\\"$_\\\" for @$deps;
46:     }
47:     print "\\n";
48: }
49:
```

```
1: "test" depends on "hello"
2: "clean" has no dependencies
3: "all" depends on "hello"
4: "main.o" depends on "main.c" "hello.h"
5: "ci" depends on "Makefile" "main.c" "hello.c" "hello.h"
6: "bar" has no dependencies
7: "spotless" depends on "clean"
8: "hello.o" depends on "hello.c" "hello.h"
9: "hello" depends on "main.o" "hello.o"
10: "foo" has no dependencies
```