

```
1: #!/usr/bin/perl
2: # $Id: graph.perl,v 1.4 2014-10-10 15:54:49-07 - - $
3:
4: use strict;
5: use warnings;
6: $0 =~ s|.|/||;
7:
8: # Example setting up a directed graph.
9:
10: my @inputs = (
11:     "all : hello",
12:     "hello : main.o hello.o",
13:     "main.o : main.c hello.h",
14:     "hello.o : hello.c hello.h",
15:     "ci : Makefile main.c hello.c hello.h",
16:     "test : hello",
17:     "clean : ",
18:     "spotless : clean",
19: );
20:
21: sub parse_dep ($) {
22:     my ($line) = @_;
23:     return undef unless $line =~ m/^(\\S+)\\s*:\\s*(\\.\\?)*\\s*$/;
24:     my ($target, $dependency) = ($1, $2);
25:     my @dependencies = split m/\\s+/, $dependency;
26:     return $target, \\@dependencies;
27: }
28:
29: my %graph;
30: for my $input (@inputs) {
31:     my ($target, $deps) = parse_dep $input;
32:     print "$0: syntax error: $input\\n" and next unless defined $target;
33:     $graph{$target} = $deps;
34: }
35:
36: for my $target (keys %graph) {
37:     print "\\\"$target\\\"";
38:     my $deps = $graph{$target};
39:     if (not @$deps) {
40:         print " has no dependencies";
41:     } else {
42:         print " depends on";
43:         print " \\\"$\\\" for @$deps;
44:     }
45:     print "\\n";
46: }
47:
48: # Sample output:
49: # "test" depends on "hello"
50: # "clean" has no dependencies
51: # "all" depends on "hello"
52: # "main.o" depends on "main.c" "hello.h"
53: # "ci" depends on "Makefile" "main.c" "hello.c" "hello.h"
54: # "hello.o" depends on "hello.c" "hello.h"
55: # "spotless" depends on "clean"
56: # "hello" depends on "main.o" "hello.o"
```