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1: // $Id: fnmap.cpp,v 1.26 2014-06-20 22:30:54-07 - - $
2:
3: #include <cstdlib>
4: #include <iostream>
5: #include <map>
6: #include <stdexcept>
7: #include <string>
8: #include <vector>
9: using namespace std;
10:
11: using function = void (*)(int);
12: using commandmap = map<string,function>;
13:
14: void fn_foo (int index) {
15:     cout << "Function foo index " << index << endl;
16: }
17:
18: void fn_bar (int index) {
19:     cout << "This is function bar index " << index << endl;
20: }
21:
22: void fn_qux (int index) {
23:     cout << "Why would you call qux? index " << index << endl;
24: }
25:
26: commandmap cmdmap = {
27:     {"foo", fn_foo},
28:     {"bar", fn_bar},
29:     {"qux", fn_qux},
30: };
31:
32: string basename (const string &name) {
33:     return name.substr (name.rfind ('/') + 1);
34: }
35:
36: int main (int argc, char **argv) {
37:     int exit_status = EXIT_SUCCESS;
38:     string progname = basename (argv[0]);
39:     vector<string> args (&argv[1], &argv[argc]);
40:     for (const auto& cmd: args) {
41:         int index = &cmd - &args[-1];
42:         try {
43:             function fn = cmdmap.at (cmd);
44:             fn (index);
45:         } catch (out_of_range &exn) {
46:             cerr << progname << ": " << cmd << ": not found index "
47:                 << index << endl;
48:             exit_status = EXIT_FAILURE;
49:         }
50:     }
51:     return exit_status;
52: }
53:
54: //TEST// ./fnmap foo bar baz qux quux >fnmap.lis 2>&1
55: //TEST// mkpspdf fnmap.ps fnmap.cpp* fnmap.lis
56:
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t -lGLU -lGL -lX11 -lrt -lm
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1: Function foo index 1
2: This is function bar index 2
3: fnmap: baz: not found index 3
4: Why would you call qux? index 4
5: fnmap: quux: not found index 5
```