

```
1: // $Id: hashdispatch.cpp,v 1.8 2018-11-07 11:46:10-08 - - $
2:
3: #include <iostream>
4: #include <unordered_map>
5: using namespace std;
6:
7: string add() { return __PRETTY_FUNCTION__; }
8: string sub() { return __PRETTY_FUNCTION__; }
9: string mul() { return __PRETTY_FUNCTION__; }
10: string div() { return __PRETTY_FUNCTION__; }
11:
12: using function = string(*)();
13: unordered_map<char,function> dispatch {
14:     {'+', add},
15:     {'-', sub},
16:     {'*', mul},
17:     {'/', div},
18: };
19:
20: int main() {
21:     const char ops[] = "+-*/%";
22:     for (int i = 0; ops[i]; ++i) {
23:         auto itor = dispatch.find (ops[i]);
24:         if (itor == dispatch.end()) {
25:             cout << ops[i] << ": not found" << endl;
26:         } else {
27:             auto f = itor->second;
28:             cout << reinterpret_cast<void*> (f) << " " << f() << endl;
29:         }
30:     }
31: }
32:
33: //TEST// ./hashdispatch >hashdispatch.lis 2>&1
34: //TEST// mkpspdf hashdispatch.ps hashdispatch.cpp* hashdispatch.lis
35:
```

```
g++ -std=c++11 -c hashdispatch.cpp -o hashdispatch.o -lm
```

```
1: 0x4015cb std::string add()
2: 0x40162c std::string sub()
3: 0x40168d std::string mul()
4: 0x4016ee std::string div()
5: %: not found
```