

```
Source: foo_f.cpp
1  // $Id: foo_f.cpp,v 1.1 2013-08-08 17:42:42-07 - - $
2
3  #include <iostream>
4  using namespace std;
5
6  #define T(X) cout << __func__ << "[" << __LINE__ << "]: " << X
7
8  #define U(X) T(#X) << endl; X
9
10 #define D(X,Y) X { T(#X) << " " << this << endl; Y; }
11
12 struct foo {
13     D(foo(),)
14     D(~foo(),)
15     D(foo (const foo &),)
16     D(foo (foo &&),)
17     D(foo &operator= (const foo &),return *this)
18     D(foo &operator= (foo &&),return *this)
19 };
20
21 foo f() {
22     U()
23     U(foo g;)
24     U(return g;)
25 }
26
27 int main() {
28     U(foo h;)
29     U(h = f();)
30     U(return 0;)
31 }
Output: ./foo_f 2>&1
1  main[28]: foo h;
2  foo[13]: foo() 0x7fff44c9359e
3  main[29]: h = f();
4  f[22]:
5  f[23]: foo g;
6  foo[13]: foo() 0x7fff44c9359f
7  f[24]: return g;
8  operator=[18]: foo &operator= (foo &&) 0x7fff44c9359e
9  ~foo[14]: ~foo() 0x7fff44c9359f
10 main[30]: return 0;
11 ~foo[14]: ~foo() 0x7fff44c9359e
pstatus: 0x0000 EXIT STATUS = 0
```