

File F1

```

11 void f() {
12     int x = 0;
13     int y = g();
14     int k = -1;
15     ...
26 #ifdef A
27     k++;
28     y = 10;
29 #endif
30 ...
51 #ifdef B
52     i(k);
53     z = x + 9;
54 #endif
55 ...
86 #ifdef C && D
87     print(y + h(x));
88     print(z);
89 #endif
90 }

```

File F2

```

22 void i(int a) {
23     print(a);
24     ...
32 #ifndef E
33     j(a);
34 #endif
35 }
36 ...
70 int h(int b) {
71     ...
82 #ifdef F
83     return m;
84 #else
85     return m + n;
86 #endif
87 }

```

 $F \Rightarrow !C$  $A \Leftrightarrow !B$ 

—○ Provides

—) Requires

Emergent Interface for Maintenance Task 1:

Maintenance Points	Impacted Points	Line	Feature Config.	File
int x = 0	z = x + 9	53	B	F1
int x = 0	print(y + h(x))	87	C && D	F1
int x = 0	print(z)	88	B && C && D	F1
y = g()	print(y + h(x))	87	!A && C && D	F1
int k = -1	k++	27	A	F1
int k = -1	j(a)	33	B && !E	F2

Emergent Interface for Maintenance Task 2:

Maintenance Points	Impacted Points	Line	Feature Config.	File
return m + n	print(y + h(x))	87	!F && C && D	F1