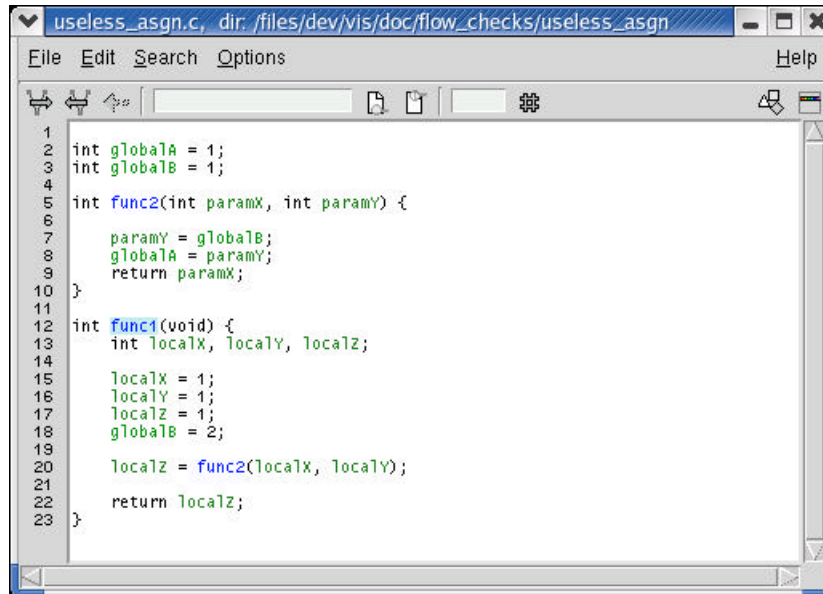


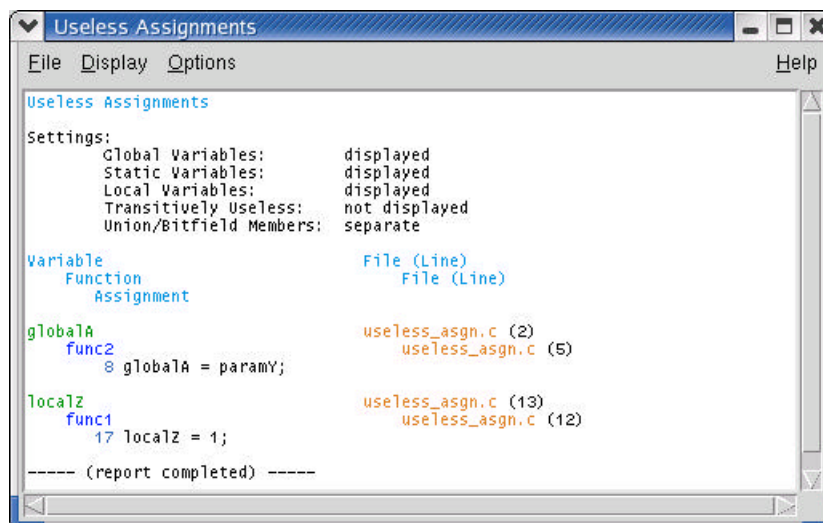
## Useless Assignments

The Useless Assignments report shows assignments to global, static and local variables where the assigned value is never used, either because the variable is set again before it is read, or because the variable is never read after it is set. The existence of useless assignments might indicate that some logic is faulty or missing. Consider the following example:



```
1 int globalA = 1;
2 int globalB = 1;
3
4 int func2(int paramX, int paramY) {
5     paramY = globalB;
6     globalA = paramY;
7     return paramX;
8 }
9
10 int func1(void) {
11     int localX, localY, localZ;
12
13     localX = 1;
14     localY = 1;
15     localZ = 1;
16     globalB = 2;
17     localZ = func2(localX, localY);
18     return localZ;
19 }
20
21
22
23 }
```

By default, the report indicates the specific variable assignments where the variable itself is subsequently set again before it is read (`localZ`), or where the variable is never subsequently read (`globalA`). These are considered to be directly useless assignments.

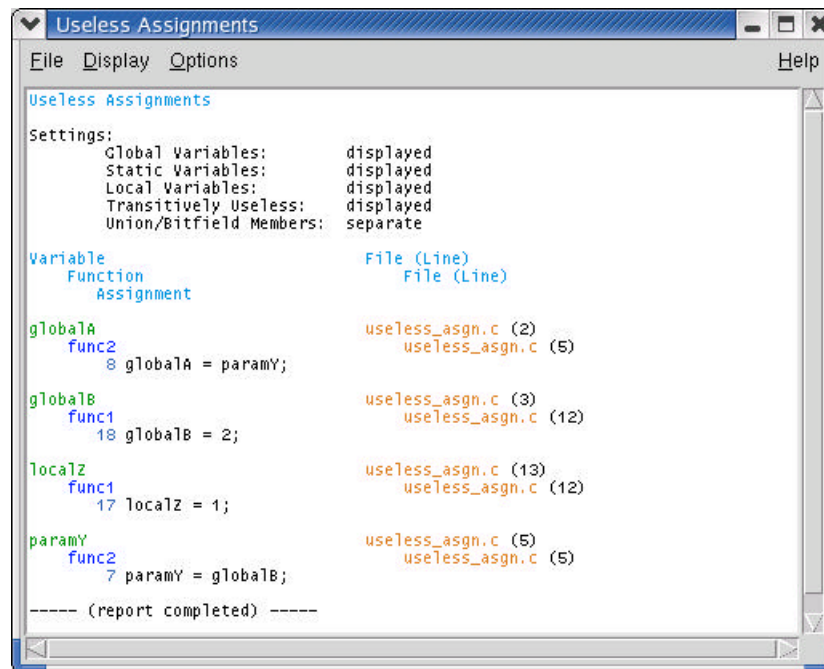


```
Useless Assignments
Settings:
Global Variables:    displayed
Static Variables:   displayed
Local Variables:    displayed
Transitively Useless: not displayed
Union/Bitfield Members: separate

Variable           File (Line)
Function           File (Line)
Assignment
globalA            useless_asgn.c (2)
func2              useless_asgn.c (5)
    8 globalA = paramY;
localZ             useless_asgn.c (13)
func1              useless_asgn.c (12)
    17 localZ = 1;

----- (report completed) -----
```

As an option, you can set the report to check for transitively useless assignments. Notice that the assignments of paramY and globalB are now included in the report. The assignment of globalA in func2 is directly useless. Since the assignment of paramY only contributes to the useless assignment of globalA, this upstream assignment is considered to be transitively useless. One step further upstream, the same is true for the use of globalB in setting the value of paramY.



```
Useless Assignments
File  Display  Options  Help

Useless Assignments
Settings:
Global Variables:    displayed
Static Variables:   displayed
Local Variables:    displayed
Transitively Useless: displayed
Union/Bitfield Members: separate

Variable            File (Line)
Function            File (Line)
Assignment

globalA
func2               useless_asgn.c (2)
                   useless_asgn.c (5)
 8 globalA = paramY;

globalB
func1               useless_asgn.c (3)
                   useless_asgn.c (12)
18 globalB = 2;

localZ
func1               useless_asgn.c (13)
                   useless_asgn.c (12)
17 localZ = 1;

paramY
func2               useless_asgn.c (5)
                   useless_asgn.c (5)
 7 paramY = globalB;

----- (report completed) -----
```