```
1: // $Id: undefvar.c,v 1.8 2013-04-23 18:38:50-07 - - $
 2:
 3: //
 4: // Illustrate the use of uninitialized variables.
 5: // See output from valgrind.
 6: //
 7:
 8: #include <stdio.h>
 9:
10: int main (int argc, char **argv) {
11:
       printf ("argc=%d, argv=%p, *argv=%p(%s)\n",
12:
               argc, argv, *argv, *argv);
13:
       int var;
14:
       int it;
15:
       int *p;
16:
       if (var > 0) it = 3;
17:
       printf ("var=%d, it=%d, p=%p\n", var, it, p);
18:
       *p = 8;
19: }
20:
21: //TEST// valgrind --track-origins=yes undefvar >undefvar.out 2>&1
22: //TEST// echo EXIT STATUS = $? >>undefvar.out
23: //TEST// mkpspdf undefvar.ps undefvar.c* undefvar.out*
24:
```

```
1: * @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: starting undefvar.c
 2: * undefvar.c: $Id: undefvar.c,v 1.8 2013-04-23 18:38:50-07 - - $
 3: * gcc -g -00 -Wall -Wextra -std=gnu99 undefvar.c -o undefvar -lm
 4: * undefvar.c: In function 'main':
 5: * undefvar.c:16:7: warning: 'var' is used uninitialized in this
 6: function [-Wuninitialized]
 7: *
          if (var > 0) it = 3;
 8: *
 9: * undefvar.c:17:11: warning: 'p' is used uninitialized in this function
10: [-Wuninitialized]
11: *
          printf ("var=%d, it=%d, p=%p\n", var, it, p);
12: *
13: * rm -f undefvar.o
14: * @@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: finished undefvar.c
```

```
1: ==27344== Memcheck, a memory error detector
    2: ==27344== Copyright (C) 2002-2012, and GNU GPL'd, by Julian Seward et al
    3: ==27344== Using Valgrind-3.8.1 and LibVEX; rerun with -h for copyright i
nfo
    4: ==27344== Command: undefvar
    5: ==27344==
    6: ==27344== Conditional jump or move depends on uninitialised value(s)
                    at 0x40055C: main (undefvar.c:16)
    7: ==27344==
    8: ==27344== Uninitialised value was created by a stack allocation
    9: ==27344==
                    at 0x400520: main (undefvar.c:10)
   10: ==27344==
   11: ==27344== Use of uninitialised value of size 8
                    at 0x3753643D5B: _itoa_word (in /lib64/libc-2.12.so)
   12: ==27344==
   13: ==27344==
                    by 0x3753646912: vfprintf (in /lib64/libc-2.12.so)
   14: ==27344==
                    by 0x375364F449: printf (in /lib64/libc-2.12.so)
   15: ==27344==
                    by 0x40057F: main (undefvar.c:17)
   16: ==27344== Uninitialised value was created by a stack allocation
   17: ==27344==
                    at 0x400520: main (undefvar.c:10)
   18: ==27344==
   19: ==27344== Conditional jump or move depends on uninitialised value(s)
   20: ==27344==
                    at 0x3753643D65: _itoa_word (in /lib64/libc-2.12.so)
   21: ==27344==
                    by 0x3753646912: vfprintf (in /lib64/libc-2.12.so)
   22: ==27344==
                    by 0x375364F449: printf (in /lib64/libc-2.12.so)
   23: ==27344==
                    by 0x40057F: main (undefvar.c:17)
   24: ==27344== Uninitialised value was created by a stack allocation
   25: ==27344==
                    at 0x400520: main (undefvar.c:10)
   26: ==27344==
   27: ==27344== Conditional jump or move depends on uninitialised value(s)
   28: ==27344==
                    at 0x37536453A3: vfprintf (in /lib64/libc-2.12.so)
   29: ==27344==
                    by 0x375364F449: printf (in /lib64/libc-2.12.so)
   30: ==27344==
                    by 0x40057F: main (undefvar.c:17)
   31: ==27344== Uninitialised value was created by a stack allocation
   32: ==27344==
                    at 0x400520: main (undefvar.c:10)
   33: ==27344==
   34: ==27344== Conditional jump or move depends on uninitialised value(s)
   35: ==27344==
                    at 0x37536453C1: vfprintf (in /lib64/libc-2.12.so)
   36: ==27344==
                    by 0x375364F449: printf (in /lib64/libc-2.12.so)
   37: ==27344==
                    by 0x40057F: main (undefvar.c:17)
   38: ==27344== Uninitialised value was created by a stack allocation
   39: ==27344==
                    at 0x400520: main (undefvar.c:10)
   40: ==27344==
   41: ==27344== Conditional jump or move depends on uninitialised value(s)
                    at 0x3753645948: vfprintf (in /lib64/libc-2.12.so)
   42: ==27344==
   43: ==27344==
                    by 0x375364F449: printf (in /lib64/libc-2.12.so)
   44: ==27344==
                    by 0x40057F: main (undefvar.c:17)
   45: ==27344== Uninitialised value was created by a stack allocation
   46: ==27344==
                    at 0x400520: main (undefvar.c:10)
   47: ==27344==
   48: ==27344== Use of uninitialised value of size 8
   49: ==27344==
                    at 0x3753643D01: _itoa_word (in /lib64/libc-2.12.so)
   50: ==27344==
                    by 0x3753646912: vfprintf (in /lib64/libc-2.12.so)
                    by 0x375364F449: printf (in /lib64/libc-2.12.so)
   51: ==27344==
   52: ==27344==
                    by 0x40057F: main (undefvar.c:17)
   53: ==27344== Uninitialised value was created by a stack allocation
   54: ==27344==
                    at 0x400520: main (undefvar.c:10)
   55: ==27344==
   56: ==27344== Conditional jump or move depends on uninitialised value(s)
```

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57: ==27344==
                  at 0x3753643D08: _itoa_word (in /lib64/libc-2.12.so)
58: ==27344==
                 by 0x3753646912: vfprintf (in /lib64/libc-2.12.so)
59: ==27344==
                 by 0x375364F449: printf (in /lib64/libc-2.12.so)
60: ==27344==
                 by 0x40057F: main (undefvar.c:17)
 61: ==27344== Uninitialised value was created by a stack allocation
62: ==27344==
                  at 0x400520: main (undefvar.c:10)
63: ==27344==
64: ==27344== Conditional jump or move depends on uninitialised value(s)
 65: ==27344==
                  at 0x375364697D: vfprintf (in /lib64/libc-2.12.so)
66: ==27344==
                 by 0x375364F449: printf (in /lib64/libc-2.12.so)
67: ==27344==
                 by 0x40057F: main (undefvar.c:17)
 68: ==27344== Uninitialised value was created by a stack allocation
 69: ==27344==
                  at 0x400520: main (undefvar.c:10)
70: ==27344==
71: ==27344== Conditional jump or move depends on uninitialised value(s)
72: ==27344==
                  at 0x3753645385: vfprintf (in /lib64/libc-2.12.so)
73: ==27344==
                 by 0x375364F449: printf (in /lib64/libc-2.12.so)
74: ==27344==
                 by 0x40057F: main (undefvar.c:17)
75: ==27344== Uninitialised value was created by a stack allocation
76: ==27344==
                  at 0x400520: main (undefvar.c:10)
77: ==27344==
78: ==27344== Conditional jump or move depends on uninitialised value(s)
79: ==27344==
                  at 0x37536453FD: vfprintf (in /lib64/libc-2.12.so)
80: ==27344==
                 by 0x375364F449: printf (in /lib64/libc-2.12.so)
81: ==27344==
                 by 0x40057F: main (undefvar.c:17)
82: ==27344== Uninitialised value was created by a stack allocation
83: ==27344==
                  at 0x400520: main (undefvar.c:10)
84: ==27344==
85: ==27344== Use of uninitialised value of size 8
86: ==27344==
                  at 0x400584: main (undefvar.c:18)
87: ==27344== Uninitialised value was created by a stack allocation
88: ==27344==
                  at 0x400520: main (undefvar.c:10)
89: ==27344==
 90: argc=1, argv=0x7fefffc48, *argv=0x7ff000013(undefvar)
 91: var=0, it=0, p=0x7fefffc40
92: ==27344==
93: ==27344== HEAP SUMMARY:
 94: ==27344==
                   in use at exit: 0 bytes in 0 blocks
95: ==27344==
                 total heap usage: 0 allocs, 0 frees, 0 bytes allocated
96: ==27344==
97: ==27344== All heap blocks were freed -- no leaks are possible
98: ==27344==
 99: ==27344== For counts of detected and suppressed errors, rerun with: -v
100: ==27344== ERROR SUMMARY: 32 errors from 12 contexts (suppressed: 6 from
101: EXIT STATUS = 0
```