

Linux kernel中!!variable的作用

```
1.      #include <stdio.h>
2.
3.      int main()
4.      {
5.          int a = 6;
6.          int b = 0;
7.          int c = !!a;
8.          int d = !!b;
9.          printf("%d-%d\n", c, d);
10.
11.         return 0;
12.     }
```

```
$ gcc -g -o test test.c
```

```
$ walterzh$ ./test
```

```
1-0
```

效果：

```
a = !! variable_1
```

```
b = !! variable_2
```

```
if variable_1 != 0, a = 1
```

```
if variable_2 == 0, a = 0
```

```
/home/walterzh/work2/temp/test.c:5 ( int a = 6; )
```

```
4004fc: c7 45 f0 06 00 00 00 movl $0x6,-0x10(%rbp)
```

```
/home/walterzh/work2/temp/test.c:6 ( int b = 0; )
```

```
400503: c7 45 f4 00 00 00 00 movl $0x0,-0xc(%rbp)
```

```
/home/walterzh/work2/temp/test.c:7 ( int c = !!a; )
```

```
40050a: 83 7d f0 00          cmpl $0x0,-0x10(%rbp)
```

```
40050e: 0f 95 c0             setne %al
```

```
400511: 0f b6 c0             movzbl %al,%eax
```

```
400514: 89 45 f8             mov %eax,-0x8(%rbp)
```

```
/home/walterzh/work2/temp/test.c:8 ( int d = !!b; )  
400517: 83 7d f4 00      cmpl $0x0,-0xc(%rbp)  
40051b: 0f 95 c0         setne %al  
40051e: 0f b6 c0         movzbl %al,%eax  
400521: 89 45 fc         mov  %eax,-0x4(%rbp)
```

!! variable_1

对应

```
setne %al  
movzbl %al,%eax
```

如果variable_1 等于0 , 则另%eax = 0

如果variable_1 不等于0 , 则另%eax = 1