```asm
 1 ; Name          : center.asm
 2 ;
 3 ; Build         : aclocal && autoconf && automake --add-missing --foreign
 4 ;                 mkdir build
 5 ;                 cd build
 6 ;                 ../configure
 7 ;                 make
 8 ;
 9 ; Description : a simple window centered on screen
10 ;
11 ; Source   : http://zetcode.com/gui/gtk2/firstprograms/
12
13 bits 64
14
15 [list -]
16     %define    GTK_WINDOW_TOPLEVEL 0
17     %define    GTK_WIN_POS_CENTER  1
18     extern     exit
19     extern     gtk_init
20     extern     gtk_main
21     extern     gtk_main_quit
22     extern     gtk_window_new
23     extern     gtk_window_set_title
24     extern     gtk_window_set_default_size
25     extern     gtk_window_set_position
26     extern     gtk_widget_show
27     extern     g_signal_connect_data
28 [list +]
29
30 section .rodata
31     title:          db  "center",0
32     szDestroy:      db  "destroy",0
33
34 section .data
35     window:         dq  0
36
37 section .text
38
39 global _start
40 _start:
41     ;init gtk
42     xor     rsi, rsi                    ;argv
43     xor     rdi, rdi                    ;argc
44     call    gtk_init
45     ;create new window
46     mov     rdi,GTK_WINDOW_TOPLEVEL
47     call    gtk_window_new
48     mov     qword[window],rax
49     ;set window title
50     mov     rdi,qword[window]
51     mov     rsi,title
52     call    gtk_window_set_title
53     ;set the window size
54     mov     rdi,qword[window]
55     mov     rsi,230
56     mov     rdx,150
57     call    gtk_window_set_default_size
58     ;set window position
59     mov     rdi,qword[window]
60     mov     rsi,GTK_WIN_POS_CENTER
61     call    gtk_window_set_position
62     ;connect signal destroy to event handler gtk_main_quit
63     xor     r9d,r9d                     ;combination of GConnectFlags
64     xor     r8d,r8d                     ;a GClosureNotify for data
65     xor     rcx,rcx                     ;pointer to the data to pass
66     mov     rdx,gtk_main_quit           ;pointer to the handler, exit = c function
67     mov     rsi,szDestroy               ;pointer to the signal
68     mov     rdi,qword[window]           ;pointer to the widget instance
69     call    g_signal_connect_data       ;the value in RAX is the handler, but we don't store
       it now
70     ;show the window
71     mov     rdi,qword[window]
72     call    gtk_widget_show
```

```
73        ;enter main loop
74        call    gtk_main
75        ;exit program
76        xor     rdi, rdi
77        call    exit
78
```