

```

1 ; Name      : version.asm
2 ;
3 ; Build     : aclocal && autoconf && automake --add-missing --foreign
4 ;           mkdir build
5 ;           cd build
6 ;           ../configure
7 ;           make
8 ;
9 ; Description : The program is restricted to show some data stored in the glib and gtk
10 ;              shared libraries.
11 ;              these strings can be obtained with
12 ;              objdump -t -T /usr/lib/x86_64-linux-gnu/libglib-2.0.so | grep .rodata
13 ;              objdump -t -T /usr/lib/x86_64-linux-gnu/libgtk-x11-2.0.so | grep .rodata
14 ;              and so on for other libraries.
15 ;
16 ; Source    : http://zetcode.com/gui/gtk2/introduction/
17
18 bits 64
19
20 [list -]
21 ;glib parameters
22 extern glib_minor_version
23 extern glib_micro_version
24 extern glib_major_version
25 ;gtk params
26 extern gtk_micro_version
27 extern gtk_major_version
28 extern gtk_minor_version
29 ;stdio
30 extern printf
31 extern exit
32 [list +]
33
34 section .rodata
35 ;to have the possibility to extend this program I prefer to work with lists
36
37 params: dq glib_major_version, glib_minor_version, glib_micro_version
38         dq gtk_major_version, gtk_minor_version, gtk_micro_version
39         dq 0
40
41 msgs:   dq szglib_major_version, szglib_minor_version, szglib_micro_version
42         dq szgtk_major_version, szgtk_minor_version, szgtk_micro_version
43
44 ;messages:
45 messages:
46 szglib_major_version: db "Glib version: %d",0
47 szglib_minor_version: db ".%d",0
48 szglib_micro_version: db ".%d",10,0
49 szgtk_major_version:  db "Gtk version: %d",0
50 szgtk_minor_version:  db ".%d",0
51 szgtk_micro_version:  db ".%d",10,0
52
53 section .text
54 global _start
55
56 _start:
57 ;r14 isn't changed by printf and holds the pointer in the message list
58 mov     r14,msgs
59 ;r15 isn't changed by printf holds the pointer in the param list
60 mov     r15,params
61 ;we're gonna loop through the parameters in params list until we got the null
62 ;pointer at the end and we exit the program
63 .repeat:
64 mov     rax,[r15]
65 test    rax,rax
66 jz      .exit
67 mov     esi,dword[rax] ;read value in esi
68 mov     rdi,qword[r14] ;read pointer to message in rdi
69 xor     rax,rax         ;rax = indicating no extra parameters
70 call    printf
71 add     r14,8           ;next pointer in msgs list
72 add     r15,8           ;next pointer in params list
73 jmp     .repeat

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74 .exit:
75     ;exit program
76     xor     rdi,rdi
77     call    exit
78
```