

Write a program that keeps reading filenames from the keyboard until the word "end" is introduced. From all the filenames identify the file that contains the maximum number of capital letters and print the filename and its content on the screen. The file can contain any number of chars. If there are more files with the same max of capital letters, then we choose the first. Program must have 2 modules with the function:

① one fct. that gets a filename as a parameter and computes the number of capital letter from that file

② one fct. that gets a filename as a parameter and print its name and content on the screen

bits 32

global start

extern exit, scanf

import exit msvcrt.dll

import scanf msvcrt.dll

extern capital_letters, print_file

Segment data use 32 class = data

file_name resb 25

max_cap - let - file_name resb 25

max_num_cap - let db 0

end_file db "end", 0

reading_format db "%5", 0

Segment code use 32 class = code

Start:

read_file_names:

push file_name

push reading_format

call [scanf]

add ESP, 4 * 2

mov ESI, file_name

mov EDI, end_file

compare_file_name:

cmp [ESI], byte 0

je exit_compare_1

cmpsb

jne exit_compare_2

jmp compare_file_name

exit-compare-1:

cmp [EDI], byte 0

je end-read-files-name

exit-compare-2:

push file-name

call capital-letters

cmp EAX, [max-cap-letters]

jbe skip-update-max

mov [max-cap-letters], EAX

mov EDI, max-cap-letters-file

copy-file-name:

movsb

cmp [EDI], byte 0

je exit-copy-string

jmp copy-file-name

exit-copy-string:

mov [EDI], byte 0, skip-update-max:

jmp read-file-names

end-read-file-names:

push max-cap-letters-file

call print-file

```
push dword 0  
call [exit]
```

bits 32

```
global capital_letters  
extern fopen, fread, fclose  
import fopen msvcrt.dll  
import fread msvcrt.dll  
import fclose msvcrt.dll
```

Segment data use 32 class = data:

```
read_mode db "r", 0  
file_desc dd -1  
buffer db 0
```

Segment code use 32 class = code:

```
capital_letters:  
    mov ebx, 0  
    push read_mode  
    push dword [esp + 4]  
    call [fopen]  
    add esp, 8  
    cmp eax, 0  
    je not_module
```

mov [file-desc], eax

read-chars: ; fread(buffer, size, count, desc)

push file-desc

push dword 1

push dword 1

push buffer

call [fread]

add esp, 4*4

cmp eax, 0

je end-read

cmp byte [buffer], 'A'

jle no-increment

cmp byte [buffer], 'Z'

jg no-increment

no-increment:

jmp read-chars

end-read:

push dword [file-desc]

call [fclose]

add esp, 4

end - module:

mov eax, ebx

ret 4