

PTEST\SLM\SRV\GPIoc\Verify.asm

; This subroutine will verify that the program is running on a legitimate ; version of MS-DOS. This is designed to be called as a  
C subroutine.

; Return:  
; AX = -1 if the DOS is a real MS-DOS  
; AX = 0 if the DOS is not authentic  
; Note: This will not work on the ICL multitasking DOS 4.0 or 4.1

```
code      segment byte public 'code'
          assume cs:code, ds:code

firstmaj equ 3                ; check only DOS's above 3.30
firstmin equ 30              ; maximum data version number
maxver equ 1                 ; current pdb locations for different
pdb       dw 2deh, 330h      ; data versions

public _Verify_DOS
_Verify_DOS proc far
    push si
    push di
    push ds
    push es
    push cs
    pop  ds                    ; establish ds

    mov ax, 3000h             ; get DOS version number
    int 21h
    cmp al, firstmaj          ; is this new enough to check?
    jb  Verify_OK             ; too old, exit w/ O.K.
```

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ja      Verify_Check      ; new enough, check it out
cmp     ah, firstmin      ; need to check minor version
jb      Verify_OK         ; too old, exit w/ O.K.

Verify_Check:
mov     ah, 52h           ; Get_INDOS flag
int     21h              ; es is now DOS data segment
mov     ax, word ptr es:(4) ; got DOS data version number
cmp     ax, maxver       ; do we know it?
ja      Verify_OK         ; if not, exit w/ O.K.

shl     ax, 1            ; convert to word offset
mov     si, ax            ; put in si
mov     si, pdb [si]     ; get pointer to current pdb pointer

mov     ah, 51h           ; get the current PSP address...
int     21h              ; ...into bx
mov     dx, bx           ; preserve the bugger for later
xor     bx, bx           ; clear bx to zero
mov     ah, 50h          ; set current psp...
int     21h              ; ...to zero
cmp     es:[si], bx      ; is PDB pointer in DOS 07
jne     Verify_Bad       ; if not, this isn't a REAL DOS!
dec     bx               ; bx = -1
int     21h              ; set PSP to -1 (ah is still 50h)
cmp     es:[si], bx      ; is PDB pointer in DOS -17
jne     Verify_Bad       ; if not, this is a FAKE!
mov     bx, dx           ; put the old PSP pointer back
int     21h              ; restore PSP (ah is still 50h)
jmp     Verify_OK        ; exit w/ O.K.

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Verify_Bad:
    mov     bx, dx                ; put the old PSP pointer back
    int     21h                  ; restore PSP (ah is still 50h)
    xor     ax, ax                ; clear return flag
    jmp     Verify_Exit          ; return to caller

Verify_OK:
    xor     ax, ax
    dec     ax                    ; set ax to -1 (true)

Verify_Exit:
    pop     cs
    pop     ds
    pop     di
    pop     si
    ret

_Verify_DOS endp

code     ends
end
```

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