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;---------------------------------------------------------------------
; Description: Demonstrates stack parameter list usage, PROTO and INVOKE directives
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;---------------------------------------------------------------------

INCLUDE Irvine32.inc

.386
.model flat, stdcall
.stack 4096
ExitProcess PROTO, ExitCode: dword
AddThree PROTO, val1: dword, val2: dword, val3: dword
SetColor PROTO, forecolor: byte, backcolor: byte
WriteColorChar PROTO, char: byte, forecolor: byte, backcolor: byte

.code
main PROC
        INVOKE AddThree, 112233h, 223344h, 334455h
        call DumpRegs

        INVOKE SetColor, yellow, blue
        call DumpRegs

        INVOKE WriteColorChar, 'V', black, green

        INVOKE ExitProcess, 0
main ENDP

;---------------------------------------------------------------------
AddThree PROC, val1: dword, val2: dword, val3: dword
; Calculates and returns three integers' sum.
; Receives: val1: dword, val2: dword, val3: dword
; Returns: EAX: the sum
```

```asm
;--------------------------------------------------------------------
        mov   eax, 0
        add   eax, val1
        add   eax, val2
        add   eax, val3
        ret
AddThree ENDP

;--------------------------------------------------------------------
SetColor PROC USES eax, forecolor: byte, backcolor: byte
; Receives forecolor and backcolor value and calls SetTextColor proc from Irvine32.
; Receives: forecolor: byte, backcolor: byte
; Returns: void
;--------------------------------------------------------------------
        movzx eax, backcolor            ; Same as mov eax, 0 -> mov eax, backcolor
        shl   eax, 4                    ; Shifts to upper 4 bits
        add   al, forecolor             ; Add instead of mov, otherwise it overwrites
        call  SetTextColor
        ret
SetColor ENDP

;--------------------------------------------------------------------
WriteColorChar PROC USES eax, char: byte, forecolor: byte, backcolor: byte
; Receives one character, forecolor and backcolor values and display the single character.
; Receives: char: byte, forecolor: byte, backcolor: byte
; Return: void
;--------------------------------------------------------------------
        INVOKE SetColor, forecolor, backcolor
        mov    al, char
        call   WriteChar
        ret
WriteColorChar ENDP

END main
```