VioGlobalReg

Bindings: C, MASM

VioGlobalReg allows a subsystem to receive notification at the completion of VIO calls issued by all applications running in full-screen sessions.

VioGlobalReg (ModuleName, EntryPoint, FunctionMask1, FunctionMask2, 0)

ModuleName (**PSZ**) - input Address of the ASCIIZ string containing the 1-8 character file name of the subsystem. The maximum length of the ASCIIZ string is 9 bytes including the terminating byte of zero. The module must be a dynamic link library but the name supplied must not include the .DLL extension.

EntryPoint (**PSZ**) - input Address of the ASCIIZ name string containing the dynamic link entry point name of the routine in the subsystem to receive control when any of the registered functions is called. The maximum length of the ASCIIZ string is 33 bytes including the terminating byte of zero.

FunctionMask1 (**ULONG**) - input A bit mask where each bit identifies a video function being registered. The bit definitions are shown below. The first word pushed onto the stack contains the high-order 16 bits of the function mask, and the second word contains the low-order 16 bits.

BIT	REGISTERED FUNCTION	BIT	REGISTERED FUNCTION
31	VioPrtScToggle	15	VioWrtCharStr
30	VioEndPopUp	14	VioWrtTTY
29	VioPopUp	13	VioWrtNCell
28	VioSavRedrawUndo	12	VioWrtNAttr
27	VioSavRedrawWait	11	VioWrtNChar
26	VioScrUnLock	10	VioReadCellStr
25	VioScrLock	9	VioReadCharStr
24	VioPrtSc	8	VioShowBuf
23	VioGetAnsi	7	VioSetMode
22	VioSetAnsi	6	VioSetCurType
21	VioScrollRt	5	VioSetCurPos
20	VioScrollLf	4	VioGetPhysBuf
19	VioScrollDn	3	VioGetBuf
18	VioScrollUp	2	VioGetMode
17	VioWrtCellStr	1	VioGetCurType
16	VioWrtCharStrAtt	0	VioGetCurPos

FunctionMask2 (**ULONG**) - input A bit mask where each bit identifies a video function being registered. The bit mask has the format shown below. The first word pushed onto the stack contains the high order 16 bits of the function mask, and the second word contains the low order 16 bits. Unused bits are reserved and must be set to zero.

Bit	Registered Function
31-11	Reserved, must be set to zero.
10	VioDeRegister
9	VioRegister

Bit	Registered Function
8	VioSetState
7	VioGetState
6	VioSetFont
5	VioGetCp
4	VioSetCp
3	VioGetConfig
2	VioGetFont
1	VioModeUndo
0	VioModeWait

Reserved (**LONG**) - input Reserved and must be zero.

rc (**USHORT**) - return Return code descriptions are:

0	NO_ERROR
349	ERROR_VIO_INVALID_MASK
403	ERROR_VIO_INVALID_ASCIIZ
426	ERROR_VIO_REGISTER
494	ERROR_VIO_EXTENDED_SG

Remarks

Notification of VIO calls issued within the hard error handler and DOS (real mode) sessions is not provided.

When control is routed to *EntryPoint*, the stack appears as it did after the original VIO call except that four additional values have been pushed onto the stack. The first is the index number (**WORD**) of the routine called. The second is a near pointer (**WORD**). The third is the caller's DS register (**WORD**). The fourth is the return address (**DWORD**) to the VIO router.

For example, if VioSetCurPos were a registered function, the stack would appear as if the following instruction sequence were executed if VioSetCurPos were called and control routed to *EntryPoint*:

```
PUSH    WORD    Row
PUSH    WORD    Column
PUSH    WORD    VioHandle
CALL    FAR     VioSetCurPos
PUSH    WORD    Index
CALL    NEAR    Entry point in Vio router
PUSH    WORD    Caller's DS
CALL    FAR     Dynamic link entry point
```

The index numbers that correspond to the registered functions are listed below:

0	VioGetPhysBuf	22	VioSetAnsi
1	VioGetBuf	23	VioGetAnsi
2	VioShowBuf	24	VioPrtSc
3	VioGetCurPos	25	VioScrLock
4	VioGetCurType	26	VioScrUnLock

5	VioGetMode	27	VioSavRedrawWait
6	VioSetCurPos	28	VioSavRedrawUndo
7	VioSetCurType	29	VioPopUp
8	VioSetMode	30	VioEndPopUp
9	VioReadCharStr	31	VioPrtScToggle
10	VioReadCellStr	32	VioModeWait
11	VioWrtNChar	33	VioModeUndo
12	VioWrtNAttr	34	VioGetFont
13	VioWrtNCell	35	VioGetConfig
14	VioWrtCharStr	36	VioSetCp
15	VioWrtCharStrAtt	37	VioGetCp
16	VioWrtCellStr	38	VioSetFont
17	VioWrtTTY	39	VioGetState
18	VioScrollUp	40	VioSetState
19	VioScrollDn	41	VioRegister
20	VioScrollLf	42	VioDeRegister
21	VioScrollRt		

On entry to the global subsystem, AX contains the return code that is returned to the application that issued the VIO call. The global subsystem must return with all stack parameters and all general purpose registers, including AX, restored to the same values as on entry.

All VIO functions within a session are serialized on a thread basis. That is, when a global subsystem receives control, it can safely assume that it is not called again from the same session until the current call has completed. Note, however, that VIO calls across different sessions are not serialized.

VioGlobalReg may only be issued during system initialization. After system initialization, VioGlobalReg returns ERROR_VIO_REGISTER. A globally registered subsystem is active for the life of the system.

If multiple global subsystems are registered, they are given control in the order that they are registered.

A globally registered subsystem receives control on VIO calls issued from all full-screen sessions except the hard error handler and DOS (real mode) sessions.

C bindings

```
#define INCL_VIO

USHORT  rc = VioGlobalReg(ModuleName, EntryPoint, FunctionMask1,
                          FunctionMask2, 0);

PSZ           ModuleName;        /* Module name  */
PSZ           EntryPoint;        /* Entry point name */
ULONG         FunctionMask1;     /* Function mask 1  */
ULONG         FunctionMask2;     /* Function mask 2  */
LONG          0;                 /* Reserved (must be zero) */
```

```
USHORT            rc;             /* return code */
```

MASM bindings

```
EXTRN VioGlobalReg:FAR
INCL_VIO            EQU 1

PUSH@ ASCIIZ ModuleName       ;Module name
PUSH@ ASCIIZ EntryPoint       ;Entry point name
PUSH  DWORD  FunctionMask1    ;Function mask 1
PUSH  DWORD  FunctionMask2    ;Function mask 2
PUSH  DWORD  0                ;Reserved (must be zero)
CALL  VioGlobalReg

Returns WORD
```

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