VioGetConfig

Bindings: C, MASM

This call returns the video display configuration.

VioGetConfig (ConfigID, ConfigData, VioHandle)

ConfigID (**USHORT**) - input Identifies for which display configuration information is being requested:

Value	Definition
0	Current configuration
1	Primary configuration
2	Secondary configuration

For OS/2 1.2, when *ConfigID* = 0, the current configuration is returned rather than the primary configuration (as was returned in OS/2 1.0 and 1.1). This change makes the OS/2 mode version of VioGetConfig match the family API version that has returned the current configuration starting with OS/2 1.0. OS/2 1.0 and 1.1 applications that issued VioGetConfig to determine the display configuration benefit from this change. The application can run on the configuration selected by the operator (by issuing the MODE command before invoking the application) rather than switching away from the operator selected display.

ConfigData (**PVIOCONFIGINFO**) - output Address of structure where the display configuration is returned.

length (**USHORT**) Input parameter to VioGetConfig. Length specifies the length of the data structure in bytes including Length itself. The maximum size structure required in OS/2 1.0 and 1.1 is 10 bytes.

The maximum size structure required in OS/2 1.2 is variable and can be determined by issuing VioGetConfig with Length set to 2. When Length is set to 2 on input, VioGetConfig returns the size of the maximum structure required in the Length field on output. When Length is not equal to 2 on input, the Length field is modified on output to reflect the actual number of bytes returned. That is, if more than the maximum size was specified, the maximum size is returned. However, if less than the maximum size is specified, the value returned reflects the number of bytes of complete fields returned.

adaptertype (**USHORT**) Display adapter type.

Value	Definition
0	Monochrome-compatible
1	Color Graphics Adapter (CGA)
2	Enhanced Graphics Adapter (EGA)
3	VGA or PS/2 Display Adapter
4-6	Reserved
7	IBM Personal System/2 Display Adapter 8514/A
8	IBM PS/2 Image Adapter/A
9	IBM PS/2 XGA Display Adapter

Values ranging from 0-4095 are reserved for IBM.

displaytype (**USHORT**) Display or monitor type.

Value	Definition
0	Monochrome display
1	Color display
2	Enhanced Color Display
3	PS/2 Monochrome Display 8503
4	PS/2 Color Displays 8512 and 8513
5-8	Reserved
9	PS/2 Color Display 8514
10	IBM Plasma Display Panel
11	Monochrome Displays 8507 and 8604
12	PS/2 Color Display 8515
13	Reserved

Values ranging from 0-4095 are reserved for IBM.

adaptmem (**ULONG**) Amount of memory, in bytes, on the adapter.

Configuration# (**USHORT**) Number of the display configuration that this data corresponds to. This is assigned by the video subsystem, not the Base Video Handler (BVH).

VDHVersion (**USHORT**) This field is reserved.

Flag bits (**USHORT**) Are defined as follows:

Bit	Description
15-1	Reserved
0	Power up display configuration

Hardware state buffer size (**ULONG**) Size of the buffer required by the Base Video Handler (BVH) to save the full hardware state excluding the physical display buffer.

Max buffer size - full save (**ULONG**) Maximum size buffer required by the BVH to save the full physical display buffer.

Max buffer size - partial save (**ULONG**) Maximum size buffer required by the BVH to save the portion of the physical display buffer that is overlaid by a pop-up.

Offset to emulated adapter types (**USHORT**) Offset within the configuration data structure to the following information describing what other display adapters are emulated by this display adapter.

Number of Data words (**USHORT**) Contains a one word field specifying a count of data words to follow.

Data word 1 (**USHORT**) Bits set in the data words identify display adapters emulated. Data word 1 has the following definition:

Bit	Description
0	Monochrome/printer adapter
1	Color graphics adapter

Bit	Description
2	Enhanced graphics adapter
3	VGA or PS/2 display adapter
4-6	Reserved
7	8514/A Adapter
8	IBM PS/2 Image Adapter/A
9	IBM PS/2 XGA Adapter
10-15	Reserved

Data word 2 (**USHORT**) Reserved.

Data word N (**USHORT**) Reserved.

Offset to emulated display types (**USHORT**) Offset within the configuration data structure to the following information describing what other displays are emulated by this display.

Number of Data words (**USHORT**) One word field specifying a count of data words to follow.

Data word 1 (**USHORT**) Bits set in the data words identify displays emulated. Data word 1 has the following definition:

Bit	Description
0	5151 monochrome display
1	5153 color display
2	5154 enhanced color display
3	8503 monochrome display
4	8512 or 8513 color display
5-8	Reserved
9	8514 color display
10	IBM Plasma Display Panel
11	Monochrome Displays 8507 and 8604
12	8515 color display
13-15	Reserved

Data word 2 (**USHORT**) Reserved

Data word N (**USHORT**) Reserved.

VioHandle (**HVIO**) - input This must be zero unless the caller is a Presentation Manager application, in which case it must be the value returned by VioGetPs.

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

0	NO_ERROR
421	ERROR_VIO_INVALID_PARMS
436	ERROR_VIO_INVALID_HANDLE
438	ERROR_VIO_INVALID_LENGTH
465	ERROR_VIO_DETACHED

Remarks

The values returned may not be correct if the adapter cannot be properly identified by the Base Video Handler (BVH) selected at system installation time. It can also be incorrect if the physical setup does not match that indicated by the presence of the adapter or by adapter switches. For example, it is impossible to detect the absence of a display on a CGA or the display attached to an EGA, despite the setup switches.

C bindings

```
typedef struct _VIOCONFIGINFO {  /* vioin  */
  USHORT  cb      ;              /* Length of this data structure */
  USHORT  adapter;               /* Display adapter type */
  USHORT  display;               /* Display/monitor type */
  ULONG   cbMemory;              /* Amount of memory on the adapter
                                    in bytes */
  USHORT  Configuration;
  USHORT  VDHVersion;
  USHORT  Flags;
  ULONG   HWBufferSize;
  ULONG   FullSaveSize;
  ULONG   PartSaveSize;
  USHORT  EMAdaptersOFF;         /* Offset to emulated adapter types */
  USHORT  EMDisplaysOFF;         /* Offset to emulated display types */
} VIOCONFIGINFO;

#define INCL_VIO

USHORT  rc = VioGetConfig(ConfigID, ConfigData, VioHandle);

USHORT           ConfigID;      /* Configuration ID */
PVIOCONFIGINFO   ConfigData;    /* Configuration data */
HVIO             VioHandle;     /* Vio handle */

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

MASM bindings

```
VIOCONFIGINFO struc
  vioin_cb            dw  ? ;Length of this data structure
  vioin_adapter       dw  ? ;Display adapter type
  vioin_display       dw  ? ;Display/monitor type
  vioin_cbMemory      dd  ? ;Amount of memory on the adapter in bytes
  vioin_Configuration dw  ? ;
  vioin_VDHVersion    dw  ? ;
  vioin_Flags         dw  ? ;
  vioin_HWBufferSize  dd  ? ;
  vioin_FullSaveSize  dd  ? ;
  vioin_PartSaveSize  dd  ? ;
  vioin_EMAdaptersOFF dw  ? ;Offset to emulated adapter types
```

```
  vioin_EMDisplaysOFF dw  ? ;Offset to emulated display types
VIOCONFIGINFO ends

EXTRN  VioGetConfig:FAR
INCL_VIO            EQU 1

PUSH   WORD    ConfigID      ;Configuration ID
PUSH@  OTHER   ConfigData    ;Configuration data
PUSH   WORD    VioHandle     ;Vio handle
CALL   VioGetConfig

Returns WORD
```

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