

DeviceCapabilities

The **DeviceCapabilities** function [retrieves the capabilities of a printer device driver](#).

```
DWORD DeviceCapabilities(  
    LPCTSTR pDevice,           // pointer to a printer-name string  
    LPCTSTR pPort,            // pointer to a port-name string  
    WORD fwCapability,         // device capability to query  
    LPTSTR pOutput,           // pointer to the output  
    CONST DEVMODE * pDevMode  // pointer to structure with device data  
);
```

Parameters

pDevice

Pointer to a null-terminated string that contains the name of the printer. Note that this is the name of the printer, not of the printer driver.

pPort

Pointer to a null-terminated string that contains the name of the port to which the device is connected, such as "LPT1".

fwCapability

Specifies the capabilities to query. This parameter can be one of the following values:

Value	Meaning
DC_BINADJUST	Windows 95 only: Retrieves the page positioning for the paper source specified in the DEVMODE structure pointed to by <i>pDevMode</i> . The return value can be one of the following: DCBA_FACEUPNONE DCBA_FACEUPCENTER DCBA_FACEUPLEFT DCBA_FACEUPRIGHT DCBA_FACEDOWNNONE DCBA_FACEDOWNCENTERDCBA_FACEDOWNLEFT DCBA_FACEDOWNRIGHT
DC_BINNAMES	Copies an array containing a list of the names of the paper bins. This array is in the form char <i>PaperNames</i> [<i>cBinMax</i>][<i>cchBinName</i>] where <i>cchBinName</i> is 24. If the <i>pOutput</i> parameter is NULL, the return value is the number of bin entries required. Otherwise, the return value is the number of bins copied.
DC_BINS	Retrieves a list of available bins. The function copies the list to the <i>pOutput</i> parameter as a WORD array. If <i>pOutput</i> is NULL, the function returns the number of supported bins to allow the application the opportunity to allocate a buffer with the correct size. For more information about these bins, see the description of the dmDefaultSource member of the DEVMODE structure.
DC_COPIES	Returns the number of copies the device can print.
DC_DRIVER	Returns the version number of the printer

DC_DRIVER	Returns the version number of the printer driver.
DC_DATATYPE_PRODUCED	Windows 95 only: The return value is the number of datatypes supported by the printer driver. If the function returns -1, the driver understands the "RAW" datatype only. The names of the supported datatypes are copied to an array. Use the names in the DOCINFO structure when calling the StartDoc function to specify the datatype.
DC_DUPLEX	Returns the level of duplex support. The function returns 1 if the printer is capable of duplex printing. Otherwise, the return value is zero.
DC_EMF_COMPLIANT	Windows 95 only: Determines if a printer driver supports enhanced metafile (EMF). A return value of 1 means the driver supports EMF. A return value of -1 means that the driver does not support EMF.
DC_ENUMRESOLUTIONS	Returns a list of available resolutions. If <i>pOutput</i> is NULL, the function returns the number of available resolution configurations. Resolutions are represented by pairs of LONG integers representing the horizontal and vertical resolutions (specified in dots per inch).
DC_EXTRA	Returns the number of bytes required for the device-specific portion of the DEVMODE structure for the printer driver.
DC_FIELDS	Returns the dmFields member of the printer driver's DEVMODE structure. The dmFields member indicates which members in the device-independent portion of the structure are supported by the printer driver.
DC_FILEDEPENDENCIES	Returns a list of files that also need to be loaded when a driver is installed. If the <i>pOutput</i> parameter is NULL, the function returns the number of files. Otherwise, <i>pOutput</i> points to an array of filenames in the form char[chFileName, 64] . Each filename is a null-terminated string.
DC_MAXEXTENT	Returns a POINT structure containing the maximum paper size that the dmPaperLength and dmPaperWidth members of the printer driver's DEVMODE structure can specify.
DC_MINEXTENT	Returns a POINT structure containing the minimum paper size that the dmPaperLength and dmPaperWidth members of the printer driver's DEVMODE structure can specify.
DC_ORIENTATION	Returns the relationship between portrait and landscape orientations for a device, in terms of the number of degrees that portrait orientation is rotated counterclockwise to produce landscape orientation. The return value can be one

orientation. The return value can be one of the following:

Value	Meaning
0	No landscape orientation.
90	Portrait is rotated 90 degrees to produce landscape. (For example, Hewlett-Packard PCL printers.)
270	Portrait is rotated 270 degrees to produce landscape. (For example, dot-matrix printers.)

DC_PAPERNAMEs Retrieves a list of supported paper names (for example, Letter or Legal). If the *pOutput* parameter is NULL, the function returns the number of paper sizes available. Otherwise, *pOutput* points to an array for the paper names in the form **char[cPaperNames, 64]**. Each paper name is a null-terminated string.

DC_PAPERS Retrieves a list of supported paper sizes. The function copies the list to *pOutput* as a **WORD** array and returns the number of entries in the array. If *pOutput* is NULL, the function returns the number of supported paper sizes to allow the application the opportunity to allocate a buffer with the correct size. For more information on paper sizes, see the description of the **dmPaperSize** member of the **DEVMODE** structure.

DC_PAPERSIZE Copies the dimensions of all supported paper sizes, in tenths of a millimeter, to an array of **POINT** structures pointed to by the *pOutput* parameter. The width (x-dimension) and length (y-dimension) of a paper size are returned as if the paper were in the **DMORIENT_PORTRAIT** orientation.

DC_SIZE Returns the **dmSize** member of the printer driver's **DEVMODE** structure.

DC_TRUETYPE Retrieves the abilities of the driver to use TrueType fonts. For **DC_TRUETYPE**, the *pOutput* parameter should be NULL. The return value can be one or more of the following:

Value	Meaning
DCTT_BITMAP	Device can print TrueType fonts as graphics. (For example, dot-matrix and PCL printers.)
DCTT_DOWNLOAD	Device can download TrueType fonts. (For example,

	(For example, PCL and PostScript printers.)
DCTT_DOWNLOAD_OUTLINE	Windows 95 only: Device can download outline TrueType fonts.
DCTT_SUBDEV	Device can substitute device fonts for TrueType fonts. (For example, PostScript printers.)
DC_VERSION	Returns the specification version to which the printer driver conforms.

pOutput

Pointer to an array of bytes. The format of the array depends on the setting of the *fwCapability* parameter. If *pOutput* is zero, **DeviceCapabilities** returns the number of bytes required for the output data.

pDevMode

Pointer to a **DEVMODE** structure. If this parameter is NULL, **DeviceCapabilities** retrieves the current default initialization values for the specified printer driver. Otherwise, the function retrieves the values contained in the structure to which *pDevMode* points.

Return Value

If the function succeeds, the return value depends on the setting of the *fwCapability* parameter.

If the function fails, the return value is -1.

Remarks

In previous versions of Windows, the **DeviceCapabilities** function was implemented in the printer driver and you needed to call the **LoadLibrary** and **GetProcAddress** functions to get a pointer to the function. This is no longer necessary since **DeviceCapabilities** is part of the Win32 API and you can call it directly. You should not call **LoadLibrary** on the printer driver.

The **DEVMODE** structure pointed to by the *pDevMode* parameter may be obtained by calling the **DocumentProperties** function.