

GetDeviceCaps

The **GetDeviceCaps** function retrieves device-specific information about a specified device.

```
int GetDeviceCaps(  
    HDC hdc,           // device-context handle  
    int nIndex         // index of capability to query  
);
```

Parameters

hdc

Identifies the device context.

nIndex

Specifies the item to return. This parameter can be one of the following values:

Index	Meaning
DRIVERVERSION	The device driver version.
TECHNOLOGY	Device technology. It can be any one of the following values:

Value	Meaning
DT_PLOTTER	Vector plotter
DT_RASDISPLAY	Raster display
DT_RASPRINTER	Raster printer
DT_RASCAMERA	Raster camera
DT_CHARSTREAM	Character stream
DT_METAFILE	Metafile
DT_DISPFILE	Display file

If the *hdc* parameter identifies the device context of an enhanced metafile, the device technology is that of the referenced device as given to the [CreateEnhMetaFile](#) function. To determine whether it is an enhanced metafile device context, use the [GetObjectType](#) function.

HORZSIZE	Width, in millimeters, of the physical screen.
VERTSIZE	Height, in millimeters, of the physical screen.
HORZRES	Width, in pixels, of the screen.
VERTRES	Height, in raster lines, of the screen.
LOGPIXELSX	Number of pixels per logical inch along the screen width.
LOGPIXELSY	Number of pixels per logical inch along the screen height.
BITSPIXEL	Number of adjacent color bits for each pixel.
PLANES	Number of color planes.
NUMBRUSHES	Number of device-specific brushes.
NUMPENS	Number of device-specific pens.
NUMFONTS	Number of device-specific fonts.
NUMCOLORS	Number of entries in the device's color table.
ASPECTX	Relative width of a device pixel used for line drawing.
ASPECTY	Relative height of a device pixel used for line drawing.
ASPECTXY	Diagonal width of the device pixel used for line

ASPECTXY	Diagonal width of the device pixel used for line drawing.
PDEVICESIZE	Reserved.
CLIPCAPS	Flag that indicates the clipping capabilities of the device. If the device can clip to a rectangle, it is 1. Otherwise, it is 0.
SIZEPALETTE	Number of entries in the system palette. This index is valid only if the device driver sets the RC_PALETTE bit in the RASTERCAPS index and is available only if the driver is compatible with Windows version 3.0 or later.
NUMRESERVED	Number of reserved entries in the system palette. This index is valid only if the device driver sets the RC_PALETTE bit in the RASTERCAPS index and is available only if the driver is compatible with Windows version 3.0 or later.
COLORRES	Actual color resolution of the device, in bits per pixel. This index is valid only if the device driver sets the RC_PALETTE bit in the RASTERCAPS index and is available only if the driver is compatible with Windows version 3.0 or later.
PHYSICALWIDTH	For printing devices: the physical width, in device units.
PHYSICALHEIGHT	For printing devices: the physical height, in device units.
PHYSICALOFFSETX	For printing devices: the physical printable area horizontal margin.
PHYSICALOFFSETY	For printing devices: the physical printable area vertical margin.
SCALINGFACTORX	For printing devices: the scaling factor along the horizontal axis.
SCALINGFACTORY	For printing devices: the scaling factor along the vertical axis.
VREFRESH	Windows NT only: For display devices: the current vertical refresh rate of the device, in cycles per second (Hz).
DESKTOPHORZRES	Windows NT only: Width, in pixels, of the virtual desktop. This value may be larger than HORZRES if the device supports a virtual desktop or multiple displays.
DESKTOPVERTRES	Windows NT only: Height, in pixels, of the virtual desktop. This value may be larger than VERTRES if the device supports a virtual desktop or multiple displays.
BLTALIGNMENT	Windows NT only: Preferred horizontal drawing alignment, expressed as a multiple of pixels. For best drawing performance, windows should be horizontally aligned to a multiple of this value. A value of zero indicates that the device is accelerated, and any alignment may be used.
RASTERCAPS	Value that indicates the raster capabilities of the device, as shown in the following table:

Capability	Meaning
RC_BANDING	Requires banding support.

RC_BITBLT	Capable of transferring bitmaps.
RC_BITMAP64	Capable of supporting bitmaps larger than 64K.
RC_DI_BITMAP	Capable of supporting the SetDIBits and GetDIBits functions.
RC_DIBTODEV	Capable of supporting the SetDIBitsToDevice function.
RC_FLOODFILL	Capable of performing flood fills.
RC_GDI20_OUTPUT	Capable of supporting features of Windows 2.0.
RC_PALETTE	Specifies a palette-based device.
RC_SCALING	Capable of scaling.
RC_STRETCHBLT	Capable of performing the StretchBlt function.
RC_STRETCHDIB	Capable of performing the StretchDIBits function.

CURVECAPS

Value that indicates the curve capabilities of the device, as shown in the following table:

Value	Meaning
CC_NONE	Device does not support curves.
CC_CIRCLES	Device can draw circles.
CC_PIE	Device can draw pie wedges.
CC_CHORD	Device can draw chord arcs.
CC_ELLIPSES	Device can draw ellipses.
CC_WIDE	Device can draw wide borders.
CC_STYLED	Device can draw styled borders.
CC_WIDESTYLED	Device can draw borders that are wide and styled.
CC_INTERIORS	Device can draw interiors.
CC_ROUNDRECT	Device can draw rounded rectangles.

LINECAPS

Value that indicates the line capabilities of the device, as shown in the following table:

Value	Meaning
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LC_NONE	Device does not support lines.
LC_POLYLINE	Device can draw a polyline.
LC_MARKER	Device can draw a marker.
LC_POLYMARKER	Device can draw multiple markers.
LC_WIDE	Device can draw wide lines.
LC_STYLED	Device can draw styled lines.
LC_WIDESTYLED	Device can draw lines that are wide and styled.
LC_INTERIORS	Device can draw interiors.

POLYGONALCAPS Value that indicates the polygon capabilities of the device, as shown in the following table:

Value	Meaning
PC_NONE	Device does not support polygons.
PC_POLYGON	Device can draw alternate-fill polygons.
PC_RECTANGLE	Device can draw rectangles.
PC_WINDPOLYGON	Device can draw winding-fill polygons.
PC_SCANLINE	Device can draw a single scanline.
PC_WIDE	Device can draw wide borders.
PC_STYLED	Device can draw styled borders.
PC_WIDESTYLED	Device can draw borders that are wide and styled.
PC_INTERIORS	Device can draw interiors.

TEXTCAPS Value that indicates the text capabilities of the device, as shown in the following table:

Bit	Meaning
TC_OP_CHARACTER	Device is capable of character output precision.
TC_OP_STROKE	Device is capable of stroke output precision.
TC_CP_STROKE	Device is capable of stroke clip precision.
TC_CR_90	Device is capable of 90-degree character

	90-degree character rotation.
TC_CR_ANY	Device is capable of any character rotation.
TC_SF_X_YINDEP	Device can scale independently in the x- and y-directions.
TC_SA_DOUBLE	Device is capable of doubled character for scaling.
TC_SA_INTEGER	Device uses integer multiples only for character scaling.
TC_SA_CONTIN	Device uses any multiples for exact character scaling.
TC_EA_DOUBLE	Device can draw double-weight characters.
TC_IA_ABLE	Device can italicize.
TC_UA_ABLE	Device can underline.
TC_SO_ABLE	Device can draw strikeouts.
TC_RA_ABLE	Device can draw raster fonts.
TC_VA_ABLE	Device can draw vector fonts.
TC_RESERVED	Reserved; must be zero.
TC_SCROLLBLT	Device cannot scroll using a bit-block transfer. Note that this meaning may be the opposite of what you expect.

Return Value

The return value specifies the value of the desired item.