

# SetPixel function

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The **SetPixel** function sets the pixel at the specified coordinates to the specified color.

## Syntax

C++

```
COLORREF SetPixel(  
    _In_ HDC hdc,  
    _In_ int X,  
    _In_ int Y,  
    _In_ COLORREF crColor  
);
```

## Parameters

- hdc* [in]  
A handle to the device context.
- X* [in]  
The x-coordinate, in logical units, of the point to be set.
- Y* [in]  
The y-coordinate, in logical units, of the point to be set.
- crColor* [in]  
The color to be used to paint the point. To create a **COLORREF** color value, use the **RGB** macro.

## Return value

If the function succeeds, the return value is the RGB value that the function sets the pixel to. This value may differ from the color specified by *crColor*; that occurs when an exact match for the specified color cannot be found.

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

This can be the following value.

Return code	Description
<b>ERROR_INVALID_PARAMETER</b>	One or more of the input parameters is invalid.

## Remarks

- The function fails if the pixel coordinates lie outside of the current clipping region.
- Not all devices support the **SetPixel** function. For more information, see [GetDeviceCaps](#).

## Requirements

<b>Minimum supported client</b>	Windows 2000 Professional [desktop apps only]
<b>Minimum supported server</b>	Windows 2000 Server [desktop apps only]
<b>Header</b>	Wingdi.h (include Windows.h)
<b>Library</b>	Gdi32.lib
<b>DLL</b>	Gdi32.dll

### See also

[Bitmaps Overview](#)

[Bitmap Functions](#)

[GetDeviceCaps](#)

[GetPixel](#)

[SetPixelV](#)

[COLORREF](#)

[RGB](#)

Build date: 6/12/2013

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## Community Additions

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### GetPixel versus SetPixel

Note that it is possible to set a pixel using SetPixel and then get back a slightly different colour when you use GetPixel on the same pixel. Whether or not this happens depends on the device context and its capabilities and colour depth properties.



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10/29/2012

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