**High DPI Reference**

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* 2 minutes to read

**Functions**

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| **Topic** | **Description** |
| [**AdjustWindowRectExForDpi**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-adjustwindowrectexfordpi) | A variant of [AdjustWindowRectEx](https://msdn.microsoft.com/library/windows/desktop/ms632667) that returns values scaled to a specific DPI. |
| [**AreDpiAwarenessContextsEqual**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-aredpiawarenesscontextsequal) | Determines whether two [**DPI\_AWARENESS\_CONTEXT**](https://docs.microsoft.com/en-us/windows/desktop/hidpi/dpi-awareness-context) values are equivalent. |
| [**EnableNonClientDpiScaling**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-enablenonclientdpiscaling) | Enables automatic scaling of the non-client area of the specified top-level window. |
| [**GetAwarenessFromDpiAwarenessContext**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-getawarenessfromdpiawarenesscontext) | Retrieves the [**DPI\_AWARENESS**](https://docs.microsoft.com/en-us/windows/desktop/api/windef/ne-windef-dpi_awareness) value from a [**DPI\_AWARENESS\_CONTEXT**](https://docs.microsoft.com/en-us/windows/desktop/hidpi/dpi-awareness-context) |
| [**GetDpiForMonitor**](https://docs.microsoft.com/en-us/windows/desktop/api/ShellScalingAPI/nf-shellscalingapi-getdpiformonitor) | Queries the DPI information associated with a monitor. |
| [**GetDpiForSystem**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-getdpiforsystem) | Returns the system DPI. |
| [**GetDpiForWindow**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-getdpiforwindow) | Returns the current DPI for the specified window. |
| [**GetProcessDpiAwareness**](https://docs.microsoft.com/en-us/windows/desktop/api/ShellScalingAPI/nf-shellscalingapi-getprocessdpiawareness) | Retrieves the DPI virtualization mode of the specified process. |
| [**GetSystemMetricsForDpi**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-getsystemmetricsfordpi) | A variant of [GetSystemMetrics](https://msdn.microsoft.com/library/windows/desktop/ms724385) that returns values scaled to a specific DPI. |
| [**GetThreadDpiAwarenessContext**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-getthreaddpiawarenesscontext) | Retrieves the active DPI awareness context for the current thread. |
| [**GetWindowDpiAwarenessContext**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-getwindowdpiawarenesscontext) | Retrieves the DPI awareness context for a window. |
| [**IsValidDpiAwarenessContext**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-isvaliddpiawarenesscontext) | Determines if a [**DPI\_AWARENESS\_CONTEXT**](https://docs.microsoft.com/en-us/windows/desktop/hidpi/dpi-awareness-context) is valid and supported by the current system. |
| [**LogicalToPhysicalPointForPerMonitorDPI**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-logicaltophysicalpointforpermonitordpi) | Converts a point in a window from logical coordinates into physical coordinates, regardless of the DPI awareness of the caller. |
| [**PhysicalToLogicalPointForPerMonitorDPI**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-physicaltologicalpointforpermonitordpi) | Converts a point in a window from physical coordinates into logical coordinates, regardless of the DPI awareness of the caller. |
| [**SetProcessDpiAwareness**](https://docs.microsoft.com/en-us/windows/desktop/api/ShellScalingAPI/nf-shellscalingapi-setprocessdpiawareness) | Sets the DPI virtualization mode for the current process. |
| [**SetThreadDpiAwarenessContext**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-setthreaddpiawarenesscontext) | Changes the active DPI awareness context for the current thread. |
| [**SystemParametersInfoForDpi**](https://docs.microsoft.com/en-us/windows/desktop/api/Winuser/nf-winuser-systemparametersinfofordpi) | A variant of [SystemParametersInfo](https://msdn.microsoft.com/library/windows/desktop/ms724947) that returns values scaled to a specific DPI. |
| [**SetProcessDpiAwarenessContext**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-setprocessdpiawarenesscontext) | Sets the DPI awareness context for the current process. |
| [**SetDialogDpiChangeBehavior**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-setdialogdpichangebehavior) | Overrides the default per-monitor DPI scaling behavior of a dialog. |
| [**GetDialogDpiChangeBehavior**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-getdialogdpichangebehavior) | Retrieves the per-monitor DPI scaling behavior of a dialog. |
| [**SetDialogControlDpiChangeBehavior**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-setdialogcontroldpichangebehavior) | Overrides the default per-monitor DPI scaling behavior of a child window in a dialog. |
| [**GetDialogControlDpiChangeBehavior**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-getdialogcontroldpichangebehavior) | Retrieves any per-monitor DPI scaling behavior overrides of a child window in a dialog. |
| [**OpenThemeDataForDpi**](https://docs.microsoft.com/en-us/windows/desktop/api/uxtheme/nf-uxtheme-openthemedatafordpi) | A variant of [OpenThemeData](https://msdn.microsoft.com/library/windows/desktop/bb759821) that opens theme handles associated with a specific DPI. |
| [**GetSystemDpiForProcess**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-getsystemdpiforprocess) | Retrieves the system DPI associated with a given process. |
| [**GetDpiFromDpiAwarenessContext**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-getdpifromdpiawarenesscontext) | Retrieves the DPI from a given [DPI\_AWARENESS\_CONTEXT](https://docs.microsoft.com/en-us/windows/desktop/hidpi/dpi-awareness-context) handle. |
| [**SetThreadDpiHostingBehavior**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-setthreaddpihostingbehavior) | Overrides the default DPI hosting behavior of the current thread. |
| [**GetThreadDpiHostingBehavior**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-getthreaddpihostingbehavior) | Retrieves the DPI hosting behavior of the current thread. |
| [**GetWindowDpiHostingBehavior**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/nf-winuser-getwindowdpihostingbehavior) | Retrieves the DPI hosting behavior of the specified window. |

**Types**

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| **Topic** | **Description** |
| [**DPI\_AWARENESS**](https://docs.microsoft.com/en-us/windows/desktop/api/windef/ne-windef-dpi_awareness) | Represents DPI coordinate virtualization modes. |
| [**DPI\_AWARENESS\_CONTEXT**](https://docs.microsoft.com/en-us/windows/desktop/hidpi/dpi-awareness-context) | A token which represents a DPI virtualization mode and associated behaviors. |
| [**DIALOG\_CONTROL\_DPI\_CHANGE\_BEHAVIORS**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/ne-winuser-dialog_control_dpi_change_behaviors) | Describes per-monitor DPI scaling behavior overrides for child windows within dialogs. |
| [**DIALOG\_DPI\_CHANGE\_BEHAVIORS**](https://docs.microsoft.com/en-us/windows/desktop/api/winuser/ne-winuser-dialog_dpi_change_behaviors) | Describes per-monitor DPI scaling behavior overrides for dialogs. |
| [**MONITOR\_DPI\_TYPE**](https://docs.microsoft.com/en-us/windows/desktop/api/ShellScalingApi/ne-shellscalingapi-monitor_dpi_type) | Represents the type of DPI associated with a monitor. |
| [**PROCESS\_DPI\_AWARENESS**](https://docs.microsoft.com/en-us/windows/desktop/api/ShellScalingApi/ne-shellscalingapi-process_dpi_awareness) | Represents the DPI coordinate virtualization mode of a process. |
| [**DPI\_HOSTING\_BEHAVIOR**](https://msdn.microsoft.com/en-us/library/Mt845776(v=VS.85).aspx) | Represents the DPI hosting behavior for a window. |

**Messages**

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| **Topic** | **Description** |
| [**WM\_DPICHANGED**](https://docs.microsoft.com/en-us/windows/desktop/hidpi/wm-dpichanged) | Notifies a top-level window that its DPI has changed. |
| [**WM\_DPICHANGED\_BEFOREPARENT**](https://docs.microsoft.com/en-us/windows/desktop/hidpi/wm-dpichanged-beforeparent) | Notifies a child window that the DPI associated with its containing window has changed. Delivered before the parent window is notified. |
| [**WM\_DPICHANGED\_AFTERPARENT**](https://docs.microsoft.com/en-us/windows/desktop/hidpi/wm-dpichanged-afterparent) | Notifies a child window that the DPI associated with its containing window has changed. Delivered after the parent window is notified. |
| [**WM\_GETDPISCALEDSIZE**](https://docs.microsoft.com/en-us/windows/desktop/hidpi/wm-getdpiscaledsize) | Allows top-level windows to resize *non-linearly* in response to DPI changes. |

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