

ChangeDisplaySettings

The **ChangeDisplaySettings** function changes the display settings to the specified graphics mode.

```
LONG ChangeDisplaySettings(  
    LPDEVMODE lpDevMode,  
    DWORD dwFlags  
);
```

Parameters

lpDevMode

Points to a **DEVMODE** structure that describes the graphics mode to switch to. The **dmSize** member must be initialized to the size, in bytes, of the **DEVMODE** structure. The following fields in the **DEVMODE** structure are used:

Member	Meaning
dmBitsPerPel	Bits per pixel
dmPelsWidth	Pixel width
dmPelsHeight	Pixel height
dmDisplayFlags	Mode flags
dmDisplayFrequency	Mode frequency

In addition to setting a value in one or more of the preceding **DEVMODE** members, you must also set the appropriate flags in the **dmFields** member. The flags indicate which members of the **DEVMODE** structure are used for the display settings change. If the appropriate bit is not set in **dmFields**, the display setting will not be changed. Set one or more of the following flags:

Flag	Meaning
DM_BITSPERPEL	Use the dmBitsPerPel value.
DM_PELSWIDTH	Use the dmPelsWidth value.
DM_PELSHEIGHT	Use the dmPelsHeight value.
DM_DISPLAYFLAGS	Use the dmDisplayFlags value.
DM_DISPLAYFREQUENCY	Use the dmDisplayFrequency value.

If *lpDevMode* is NULL, all the values currently in the registry will be used for the display setting. Passing NULL for the *lpDevMode* parameter is the easiest way to return to the default mode after a dynamic mode change.

dwFlags

Indicates how the graphics mode should be changed. May be one of the following:

Flag	Meaning
0	The graphics mode for the current screen will be changed dynamically.
CDS_UPDATEREGISTRY	The graphics mode for the current screen will be changed dynamically and the graphics mode will be updated in the registry. The mode information is stored in the USER profile.
CDS_TEST	The system tests if the requested graphics mode could be set.

If **CDS_UPDATEREGISTRY** is specified and it is possible to change the graphics mode dynamically, the information is stored in the registry and **DISP_CHANGE_SUCCESSFUL** is returned. If it is not possible to change the graphics mode dynamically, the information is stored in the registry and **DISP_CHANGE_RESTART** is returned. If the information could not be stored in the registry, the graphics mode is not changed and **DISP_CHANGE_NOTUPDATED** is returned.

Specifying CDS_TEST allows an application to determine which graphics modes are actually valid, without causing the system to change to that graphics mode.

Return Value

Returns one of the following values:

Value	Meaning
DISP_CHANGE_SUCCESSFUL	The settings change was successful.
DISP_CHANGE_RESTART	The computer must be restarted in order for the graphics mode to work.
DISP_CHANGE_BADFLAGS	An invalid set of flags was passed in.
DISP_CHANGE_FAILED	The display driver failed the specified graphics mode.
DISP_CHANGE_BADMODE	The graphics mode is not supported.
DISP_CHANGE_NOTUPDATED	Unable to write settings to the registry.

Remarks

Using the **DEVMODE** returned by the **EnumDisplaySettings** function ensures that the **DEVMODE** passed to **ChangeDisplaySettings** is valid and contains only values supported by the display driver.

When the display mode is changed dynamically, the WM_DISPLAYCHANGE message is sent to all running applications with the following message parameters:

Parameter	Meaning
wParam	New bits per pixel
LOWORD(lParam)	New pixel width
HWORD(lParam)	New pixel height