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## A Powerfull Ownerdraw Menu





**Neil Yao**, 23 Oct 2001

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An XP-style ownerdrawn menu with support for background images and icon shadow.



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# A fully featured owner-draw menu class

CMenuXP is a class derived from CMenu using ownerdraw technology. I named it MenuXP because I expected it to be like the

menus found in Office XP and Windows XP, but I failed to accomplish it. The main difficulty that I had was converting the 3D border of the menu into a flat one, but I hope it is still useful to you.

I constructed the class from the Scribble sample application and some of the drawing code is copied from the CCoolMenuManager class. Additionally, I have also used a class named CBCGKeyHelper from BCGControlBar to show the accelerator key text.

#### Features:

- 1. Menu with icons, like in office 97
- 2. A sidebar in any level of the popup menu
- 3. Supports button-style menu items, such as is found in some drawing toolbars of the Microsoft Office suite
- 4. All colors, fonts and sizes can be customized

#### Introduction

An item in the menu is represented by the **CMenuXPItem** class. Some further classes are derived from it which provide convenient uses:-

CMenuXPText presents a normal menu item with text and an optional icon

CMenuXPSeparator presents a separator

CMenuXPSideBar presents a sidebar on the left of a popup menu

CMenuXPButton presents a button only menu item, which contains the icon only

Knowing this will help you to understand the code.

## How to use as a popup menu:

- 1. Construct a **CMenuXP** instance
- 2. Call CreatePopupMenu
- 3. Add a sidebar using **AddSideBar** if needed
- 4. Add some menu items using AppendODMenu
- 5. If there is second level popup menu, construct it using steps 1 to 4 and add it to the current menu using AppendODPopup
- 6. Call TrackPopupMenu as normal

The example code would be like this:-

```
Hide Shrink A Copy Code
void CMenuXPAppView::OnContextMenu(CWnd* pWnd, CPoint point)
    CMenuXP *pMenu = new CMenuXP;
    pMenu->CreatePopupMenu();
    pMenu->AddSideBar(new CMenuXPSideBar(24, "MenuXP"));
    pMenu->AppendODMenu(0, new CMenuXPText(10, "First Item"
                                AfxGetApp()->LoadIcon(IDI_ICON1)));
    pMenu->AppendODMenu(0, new CMenuXPText(11, "Second Item"
                               AfxGetApp()->LoadIcon(IDI ICON2)));
    pMenu->AppendODMenu(0, new CMenuXPText(12, "Another Item"
                               AfxGetApp()->LoadIcon(IDI_ICON3)));
    pMenu->AppendODMenu(0, new CMenuXPText(13, "No Icon"));
    CMenuXP *pPopup = new CMenuXP;
    pPopup->CreatePopupMenu();
    pPopup->AppendODMenu(0, new CMenuXPButton(21,
                                AfxGetApp()->LoadIcon(IDI_ICON4)));
    pPopup->AppendODMenu(0, new CMenuXPButton(22,
                                AfxGetApp()->LoadIcon(IDI_ICON5)));
    pPopup->AppendODMenu(0, new CMenuXPButton(23,
                                AfxGetApp()->LoadIcon(IDI_ICON6)));
    pPopup->Break();
    pPopup->AppendODMenu(0, new CMenuXPButton(24,
                                AfxGetApp()->LoadIcon(IDI ICON7)));
```

```
pPopup->AppendODMenu(0, new CMenuXPButton(25,
                                AfxGetApp()->LoadIcon(IDI ICON8)));
    pPopup->AppendODMenu(0, new CMenuXPButton(26,
                                AfxGetApp()->LoadIcon(IDI_ICON9)));
    pPopup->Break();
    pPopup->AppendODMenu(0, new CMenuXPButton(27,
                                AfxGetApp()->LoadIcon(IDI_ICON10)));
    pPopup->AppendODMenu(0, new CMenuXPButton(28,
                                AfxGetApp()->LoadIcon(IDI_ICON11)));
    pPopup->AppendODMenu(0, new CMenuXPButton(29,
                                AfxGetApp()->LoadIcon(IDI_ICON12)));
    pMenu->AppendODPopup(0, pPopup, new CMenuXPText(0, "Popup",
                                AfxGetApp()->LoadIcon(IDI_ICON1)));
    pMenu->TrackPopupMenu(TPM_LEFTBUTTON, point.x, point.y, this);
    delete pMenu;
}
```

The object constructed on the heap will be destroyed automatically, except for the toplevel popup menu which will need to be destroyed manually.

Remember to add the code below in the WM\_MEASUREITEM handler of your parent window:-

```
void CMenuXPAppView::OnMeasureItem(int nIDCtl, LPMEASUREITEMSTRUCT lpMeasureItemStruct)
{
    // TODO: Add your message handler code here and/or call default
    HMENU hMenu = AfxGetThreadState()->m_hTrackingMenu;
    CMenu *pMenu = CMenu::FromHandle(hMenu);
    pMenu->MeasureItem(lpMeasureItemStruct);

    CView::OnMeasureItem(nIDCtl, lpMeasureItemStruct);
}
```

That's all, I hope this is useful to you. Bug reports and improvements are welcome.

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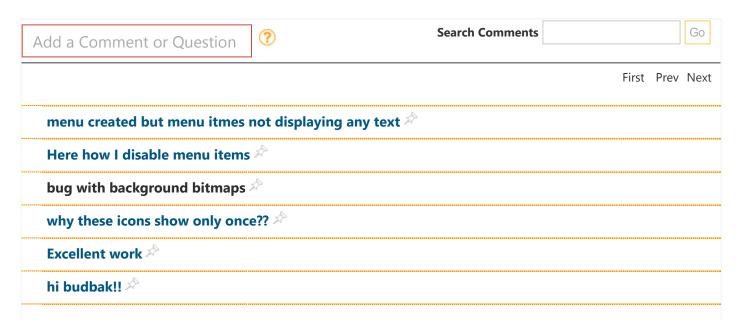
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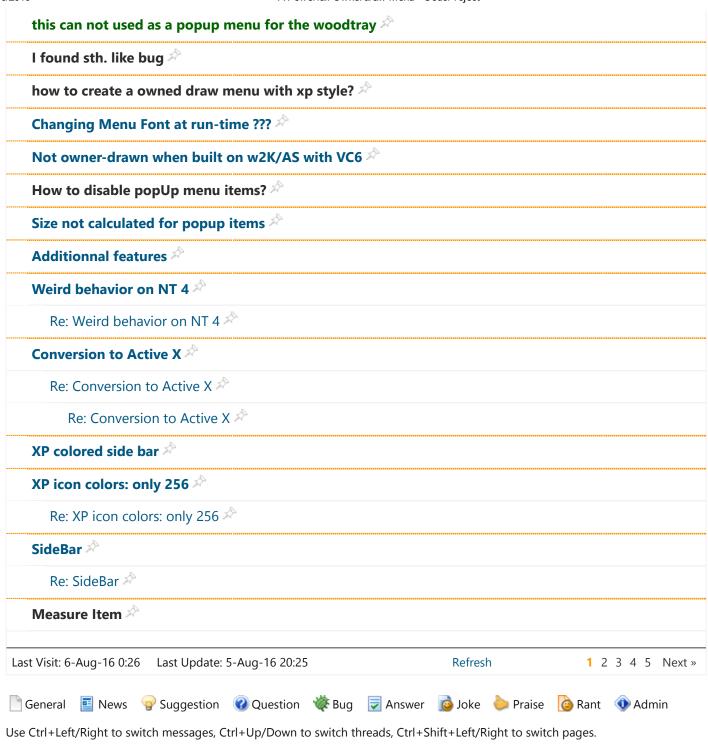
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