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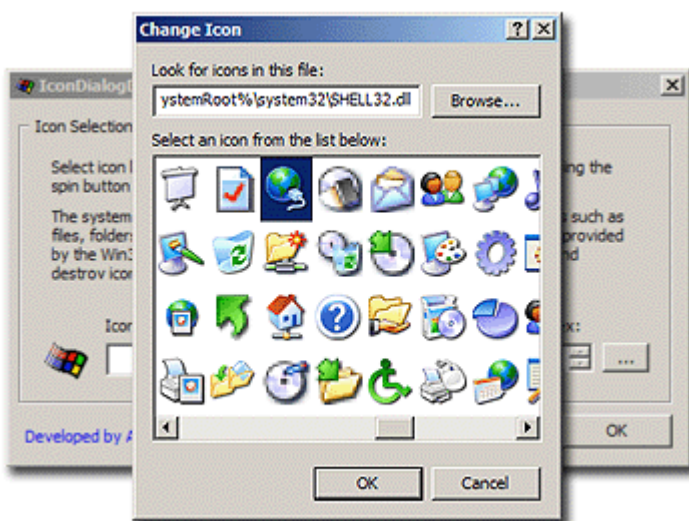
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CIconDialog - Selecting Icons
By Armen Hakobyan

The CIconDialog class allows you to add an icon-selection dialog box to your applications

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Introduction

Once developing a wizard application I needed a dialog to select an icon from executables, but did not find anything about icon selection in MSDN. So I have searched the CodeProject and found two articles on icon selection. The first solution, by PJ Naughter (article **CIconDialog - Icon Selection Dialog**), uses `CDialog` derived class with template dialog resource to display icon selection dialog and handle its behavior, and the second, by Henk Devos (article **How to display the Pick Icon Dialog**), uses undocumented Windows API functions to show the system built-in icon selection dialog. I prefer to use the Windows API even if undocumented to dragging resources around, and so wrote a small class that wraps the APIs published by Henk Devos.

Sample Usage

The `CIconDialog` is derived from `CCommonDialog` and acts like any common dialog. See sample usage:

```
//
#ifndef __ICONDLG_H__
    #include "IconDialog.h"
#endif
```
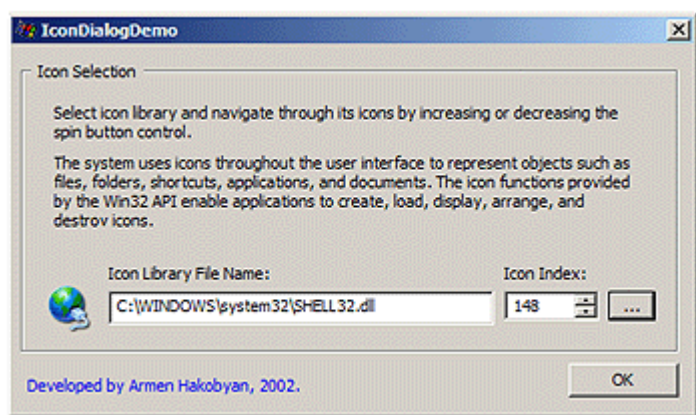
```cpp
//...
void CSomeDialog::OnSomeBtnClicked( void )
{
    // If icon container file is not specified in the parameter
    // then by default it will open Shell32.dll file:
    // CIconDialog dlg( NULL, 0, this );
    //
    // You can specify any initial file name and icon index ( if exist ).
    // In this case it will open index + 1 icon
     // ( index is 0 - based ) selected:

    CIconDialog dlg( _T( "%SystemRoot%\\system32\\SHELL32.dll" ),
        148, this );

    if( dlg.DoModal() == IDOK  )
    {
        HICON hIcon = dlg.GetIconHandle();
        SetIcon( hIcon, FALSE );

        // Or:
        // HICON hIcon = ::ExtractIcon( AfxGetInstanceHandle(),
        //                 dlg.GetIconFile(), dlg.GetIconIndex() );
    }

}
//...
```

See demo project source for more.

Class Members

Base Class

l CCommonDialog

Data Members

l m_szIconFile - Specifies the icon file name.
l m_dwIconIndex - Specifies icon index.
l m_hIconHandle - Contains icon handle (last open).
l m_uIconCount - Icon count in a file.

Construction

Constructs a CIconDialog object.

```
CIconDialog(LPCTSTR lpszIconFile = NULL, DWORD dwIconIndex = 0, CWnd* pParentWnd
= NULL)
```

- **lpszIconFile** - The initial icon library whose icons should be open in the dialog.
- **dwIconIndex** - The icon index initially selected when the dialog opens.
- **pParentWnd** - A pointer to the file dialog-box object's parent or owner window.

Operations

- **DoModal(void)**- Displays the dialog box and allows the user to make a selection.
- **GetIconHandle(void) const** - Returns the handle of the last selected icon.
- **GetIconCount(void) const** - Returns the icon count of the selected icon file.
- **GetIconIndex(void) const** - Returns the index of the selected icon.
- **GetIconFile(void) const** - Returns the full path of the selected icon file.

Notes

This class compiles without any warning at level 4, and fully supports both ANSI and UNICODE.

Version Requirements

As far as this class uses undocumented Windows API functions, it may possibly fail depending on the shell version (service packs installed - different or missing ordinal, etc). However it was tested and ran properly under:

- Windows 95 OSR2 - 4.00.950B
- Windows 98 - 4.10.1998
- Windows Me - 4.90.3000
- Windows NT 4.0 Workstation - NT 4.0.1381 with SP 6i
- Windows 2000 Professional - NT 5.0.2195 with/out SP1/SP2/SP3
- Windows XP Professional - NT 5.1.2600

It was not tested (though expected to run properly) under:

- Windows 95 - 4.00.950
- Windows 95 SP1 - 4.00.950A
- Windows 95 OSR 2.5 - 4.00.950C
- Windows 98 SE - 4.10.2222A (Second Edition)
- Windows NT 4.0 Workstation - NT 4.0.1381 with SP1-SP5
- Windows NT 4.0 Server -NT 4.0.1381 with SP1-SP6i
- Windows 2000 Server - NT 5.0.2195 with/out SP1-SP3
- Windows XP Professional - NT 5.1.2600 with SP1
- Windows XP Server

If anyone tested it on above-mentioned versions of Windows, please post a reply.

Version History

- 27 Mar 2002
  - Posted the article.
- 04 Nov 2002
  - Added support for both MFC 6.0 and 7.0, some code changes.
- 24 May 2003
  - Some code changes.
  - Added more detailed version support.

About Armen Hakobyan

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Discussions and Feedback

7 comments have been posted for this article. Visit **http://www.codeproject.com/dialog/cicondialogapi.asp** to post and view comments on this article.

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