

## Re: nativeMethod error

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*Source:*

<http://www.tech-archive.net/Archive/DotNet/microsoft.public.dotnet.languages.csharp/2008-02/msg03281.html>

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- *From:* "GS" <[gsmnews.microsoft.comGS@xxxxxxxxxxxxxxxxxxxxx](mailto:gsmnews.microsoft.comGS@xxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Sat, 23 Feb 2008 11:49:12 -0700
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thank you. nice to hear form you again with advice.

I failed to find docobj.h in my system and apparently it comes with inet sdk which I did not download. I will try look for more detail on the .h file however I am not all familiar with C++ to C# ; may be able do some struct conversion and simple type though.

I was copying some code from kb to enhance the built-in webbrower control by exposing IWebBrowser2

-----here is the code

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Diagnostics;
using System.Drawing;
using System.IO;
using System.Linq;
using System.Reflection;
using System.Runtime.InteropServices;
using System.Text;
using System.Threading;
using System.Windows;
using System.Windows.Forms;
using SHDocVw;

// does not work with comimport on IWebBrowser2
public class WebCtlExtended : System.Windows.Forms.WebBrowser
{

public WebCtlExtended()
{
```

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```
InitializeComponent();

// -----

IWebBrowser2.Visible = VARIANT_TRUE;
if (SUCCEEDED(OleInitialize(null)))
{
    IWebBrowser2 pBrowser2;
    Object p = null;

    //CoCreateInstance(CLSID_InternetExplorer, NULL,
    CLSCTX_LOCAL_SERVER,
    // IID_IWebBrowser2, (void**)&pBrowser2);
    pBrowser2 = new ApplicationId(CLSID_InternetExplorer, p,
    CLSCTX_LOCAL_SERVER, IID_IWebBrowser2, pBrowser2);
    if (pBrowser2)
    {
        Object vEmpty = null; //VARIANT vEmpty;
        VariantInit(&vEmpty);

        BSTR bstrURL = SysAllocString("http://microsoft.com);

        HRESULT hr = pBrowser2->Navigate(bstrURL, &vEmpty,
        &vEmpty, &vEmpty, &vEmpty);
        if (SUCCEEDED(hr))
        {
            pBrowser2.put_Visible(VARIANT_TRUE);
        }
        else
        {
            pBrowser2.Quit(); //pBrowser2->Quit();
        }

        SysFreeString(bstrURL);
        pBrowser2.Release(); //pBrowser2->Release();
    }

    OleUninitialize();
}

private void InitializeComponent()
{
    this.SuspendLayout();
    this.ResumeLayout(false);
}

private Guid cmdGuid = new
Guid("ED016940-BD5B-11CF-BA4E-00C04FD70816"); //GUID for CGI IWebBrowser to
inform MSHTML how to process your command IDs. Use the Microsoft .NET
```

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Framework class GUID to do this:

private enum MiscCommandTarget

{

Find = 1,

ViewSource,

Options

};

// -----

}

#region "OLECMD"

public enum OLECMDID

{

// Fields

OLECMDID\_PAGESETUP = 8,

OLECMDID\_PRINT = 6,

OLECMDID\_PRINTPREVIEW = 7,

OLECMDID\_PROPERTIES = 10,

OLECMDID\_SAVEAS = 4,

OLECMDID\_SHOWSCRIPTERROR = 40

};

public enum OLECMDEXECOPT

{

// Fields

OLECMDEXECOPT\_DODEFAULT = 0,

OLECMDEXECOPT\_DONTPROMPTUSER = 2,

OLECMDEXECOPT\_PROMPTUSER = 1,

OLECMDEXECOPT\_SHOWHELP = 3

};

[StructLayout(LayoutKind.Sequential, CharSet = CharSet.Unicode)]

public struct OLECMDTEXT

{

public uint cmdtextf;

public uint cwActual;

public uint cwBuf;

[MarshalAs(UnmanagedType.ByValTStr, SizeConst = 100)]

public char rgwz;

};

[StructLayout(LayoutKind.Sequential)]

public class OLECMD

{

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```
[MarshalAs(UnmanagedType.U4)]  
public int cmdID;  
[MarshalAs(UnmanagedType.U4)]  
public int cmdf;  
public OLECMD()  
{  
}  
}
```

```
[ComImport,  
Guid("b722bccb-4e68-101b-a2bc-00aa00404770"),  
InterfaceType(ComInterfaceType.InterfaceIsIUnknown)]  
public interface IOleCommandTarget  
{  
//IMPORTANT: The order of the methods is critical here. You  
//perform early binding in most cases, so the order of the methods  
//here MUST match the order of their vtable layout (which is  
determined by their layout in IDL). The interop calls key off the vtable  
ordering.  
//not the symbolic names. Therefore, if you switched these method  
declarations  
//and tried to call the Exec method on an IOleCommandTarget  
interface from your  
//application, it would translate into a call to the QueryStatus  
method instead.  
void QueryStatus(ref Guid pguidCmdGroup, UInt32 cCmds,  
[MarshalAs(UnmanagedType.LPArray, SizeParamIndex = 1)] OLECMD[]  
prgCmds, ref OLECMDTEXT CmdText);  
void Exec(ref Guid pguidCmdGroup, uint nCmdId, uint nCmdExecOpt, ref  
object pvaIn, ref object pvaOut);  
}
```

```
#endregion "OLECMD"
```

```
[ComImport,  
InterfaceTypeAttribute(ComInterfaceType.InterfaceIsIDispatch),  
Guid("D30C1661-CDAF-11d0-8A3E-00C04FC9E26E"),  
TypeLibType(TypeLibTypeFlags.FOleAutomation |  
(TypeLibTypeFlags.FDual | TypeLibTypeFlags.FHidden))]  
public interface IWebBrowser2  
{  
[DispId(100)]  
void GoBack();  
[DispId(0x65)]  
void GoForward();  
[DispId(0x66)]  
void GoHome();  
[DispId(0x67)]  
}
```

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void GoSearch():  
[DispId(0x68)]  
void Navigate([In] string Url, [In] ref object flags, [In] ref  
object targetFrameName, [In] ref object postData, [In] ref object headers):  
[DispId(-550)]  
void Refresh():  
[DispId(0x69)]  
void Refresh2([In] ref object level):  
[DispId(0x6a)]  
void Stop():  
[DispId(200)]  
object Application { [return: MarshalAs(UnmanagedType.IDispatch)]  
get; }  
[DispId(0xc9)]  
object Parent { [return: MarshalAs(UnmanagedType.IDispatch)] get; }  
[DispId(0xca)]  
object Container { [return: MarshalAs(UnmanagedType.IDispatch)]  
get; }  
[DispId(0xcb)]  
object Document { [return: MarshalAs(UnmanagedType.IDispatch)]  
get; }  
[DispId(0xcc)]  
bool TopLevelContainer { get; }  
[DispId(0xcd)]  
string Type { get; }  
[DispId(0xce)]  
int Left { get; set; }  
[DispId(0xcf)]  
int Top { get; set; }  
[DispId(0xd0)]  
int Width { get; set; }  
[DispId(0xd1)]  
int Height { get; set; }  
[DispId(210)]  
string LocationName { get; }  
[DispId(0xd3)]  
string LocationURL { get; }  
[DispId(0xd4)]  
bool Busy { get; }  
[DispId(300)]  
void Quit():  
[DispId(0x12d)]  
void ClientToWindow(out int pcx, out int pcy):  
[DispId(0x12e)]  
void PutProperty([In] string property, [In] object vtValue):  
[DispId(0x12f)]  
object GetProperty([In] string property):  
[DispId(0)]  
string Name { get; }  
[DispId(-515)]  
int HWND { get; }

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```
[DispId(400)]
string FullName { get; }
[DispId(0x191)]
string Path { get; }
[DispId(0x192)]
bool Visible { get; set; }
[DispId(0x193)]
bool StatusBar { get; set; }
[DispId(0x194)]
string StatusText { get; set; }
[DispId(0x195)]
int ToolBar { get; set; }
[DispId(0x196)]
bool MenuBar { get; set; }
[DispId(0x197)]
bool FullScreen { get; set; }
[DispId(500)]
void Navigate2([In] ref object URL, [In] ref object flags, [In] ref
object targetFrameName, [In] ref object postData, [In] ref object headers);
[DispId(0x1f5)]
NativeMethods.OLECMDIF QueryStatusWB([In] NativeMethods.OLECMDID
cmdID);
// ----- I got error on preceding and next line I suspect I
got the
// wrong GUID for interface IWebBrowser2 but searching the registry
// HKEY_CLASSES_ROOT\Interface\{D30C1661-CDAF-11D0-8A3E-00C04FC9E26E}
confirms the value
// however there is also
HKEY_LOCAL_MACHINE\SOFTWARE\Classes\Interface\{D30C1661-CDAF-11D0-8A3E-00C04
FC9E26E}, same guid but different key
[DispId(0x1f6)]
void ExecWB([In] NativeMethods.OLECMDID cmdID, [In] OLECMDEXECOPT
cmdexecopt, ref object pvaIn, IntPtr pvaOut);
[DispId(0x1f7)]
void ShowBrowserBar([In] ref object pvaClsid, [In] ref object
pvarShow, [In] ref object pvarSize);
[DispId(-525)]
WebBrowserReadyState ReadyState { get; }
[DispId(550)]
bool Offline { get; set; }
[DispId(0x227)]
bool Silent { get; set; }
[DispId(0x228)]
bool RegisterAsBrowser { get; set; }
[DispId(0x229)]
bool RegisterAsDropTarget { get; set; }
[DispId(0x22a)]
bool TheaterMode { get; set; }
[DispId(0x22b)]
bool AddressBar { get; set; }
[DispId(0x22c)]
```

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bool Resizable { get; set; }  
↓

"Nicholas Paldino [.NET/C# MVP]" <mvp@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message news:BBD927E9-6BF8-418E-9889-BCC19061425A@xxxxxxxxxxxxxxxxxxxx

GS.

Without seeing the relevant code (a short, complete example would be better), it's difficult to say.

However, the errors indicate that something else is going on. First,

it

seems you are trying to access something that is not visible to your code. The NativeMethods type in the System.Drawing namespace is more than likely internal to System.Drawing.dll, so I'm not surprized about this.

What exactly are you trying to do? Are you trying to use the OLECMDID type in a definition of the IOleCommandTarget and IWebBrowser2 interfaces that you are declaring yourself? If so, you will have to declare this

type

yourself, which isn't too hard given the header file (docobj.h).

==  
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<Snipped>

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