



Visual Studio 2008 IDE Tips And Tricks



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About...

- Author of .NET Internationalization
 - Visit <http://www.dotnet18n.com> to download the complete source code
- The .NET Developer Network
 - <http://www.dotnetdevnet.com>
 - Free user group for .NET developers, architects and IT Pros based in Bristol
- DDD South West
 - <http://www.dddsouthwest.com>
 - Taunton, Saturday 23rd May 2009



Agenda

- Class Designer and Class View
- Source Code Editor
 - Appearance
 - Font Size
 - Vertical Lines
 - Navigation
 - Outlining
 - Code Formatting
 - Code Snippets
 - Misc. Editing
- Customizing Visual Studio Templates
- Debugging and Debugger Visualizers

Information Resources

- Visual C# 2008 Keybinding Reference Poster
 - <http://www.microsoft.com/downloadS/details.aspx?FamilyID=e5f902a8-5bb5-4cc6-907e-472809749973&displaylang=en>
- Visual Basic 2008 Keybinding Reference Poster
 - <http://www.microsoft.com/downloads/details.aspx?familyid=255b8cf1-f6bd-4b55-bb42-dd1a69315833&displaylang=en>
- C#KeyBindings.pdf
 - <http://blogs.msdn.com/karenliu/attachment/1117265.ashx>
- Microsoft Visual Studio Tips, Sara Ford, Microsoft Press

Saving And Restoring Visual Studio Settings

- To save or restore your Visual Studio settings go to:-
 - Tools | Import and Export Settings...
 - You can use this to export settings to another machine
 - You can restore Visual Studio to its default using "Reset all settings"

Class Designer And Class View

- To add a Class Diagram:-
 - Open Solution Explorer, right click a project, select Add | New Item... and then Class Diagram
- The Class Designer is a two way tool
- To open the Class View:-
 - View | Class View
- To populate the class diagram:-
 - Drag classes from the Class View to the Class Designer
 - Use "Show Base Class" and "Show Derived Classes"
- To create a Class Diagram with all classes in the project:-
 - In Solution Explorer right click the project and select View Class Diagram
- To search the Class View:-
 - Ctrl+K, V

Power Toys For The Class Designer And Distributed System Designer

- Free download from CodePlex:-
 - <http://www.codeplex.com/modeling>
- Adds functionality to the Class Designer:-
 - Pan & Zoom
 - Greater diagram formatting
 - HTML export

Source Code Editor Appearance

- To add line numbers to the Source Code Editor:-
 - Tools | Options | Text Editor | All Languages | General | Line numbers
- Maximise editor to full screen
 - Alt+Shift+Enter

Source Code Editor Font Size

- To setup keyboard bindings to increase, decrease and reset font sizes:-
 - Tools | Options | Environment | Keyboard
 - In "Show commands containing" enter "fontsize"
 - Select "DecreaseEditorFontSize", press "Ctrl+Shift+DownArrow" in "Press shortcut keys" and click Assign
 - Assign "Ctrl+Shift+UpArrow" to "IncreaseEditorFontSize"
 - Assign "Ctrl+Shift+= " to "UpdateTextEditorFontSizeToMatchDisplayProperties"

Source Code Editor

Customizing Context Menu

- Select Tools | Customize
 - In the Toolbars tab check Context Menus
 - On the newly added toolbar drop down Editor Context Menus and select Code Window
 - In the Customize window select the Commands tab
 - In Categories select Edit
 - In the Commands pane drag Convert Tabs To Spaces onto the context menu

Source Code Editor Vertical Lines

- To add vertical lines to the Source Code Editor:-
 - Close Visual Studio
 - Open RegEdit
 - Find the following key:-
 - HKEY_CURRENT_USER\Software\Microsoft\VisualStudio\9.0\Text Editor
 - Add a new String Value called Guides with the value:-
 - RGB(0,0,0) 4, 60, 80

Source Code Editor Navigation

- Jump to matching brace, region, comment: Ctrl+]
- Move backwards and forwards: Ctrl+-, Ctrl+Shift+-
- Bookmarks
 - Define bookmark Ctrl+K, K
 - Goto next bookmark Ctrl+K, N
 - Goto previous bookmark Ctrl+K, P
- Add line to Task List: Ctrl+K, H

Source Code Editor Navigation (continued)

- Incremental search: Ctrl+i
- Definition Navigation Stack: Ctrl+Shift+7, Ctrl+Shift+8
- Find all references: Shift+F12
- Goto next error: F8
- Active File List: Ctrl+Alt+Down Arrow
- IDE Navigator: Ctrl+Tab, Ctrl+Shift+Tab

Source Code Editor Outlining

- Fold/Unfold all regions: Ctrl+M, L
- Visual Studio 2008 remembers the "folded" state of previously opened files
- To set the state for never opened before files:-
 - Tools | Options | Text Editor | C# | Advanced | Enter outlining mode when files open

Source Code Editor

Code Formatting

- Format Code: Ctrl+K, F
- Convert to lowercase: Ctrl+U
- Convert to uppercase: Ctrl+Shift+U
- Comment: Ctrl+K, C
- Uncomment: Ctrl+K, U
- Right click, Organize Usings...
 - Tools | Options | Text Editor | C# | Advanced | Place ‘System’ directives first
- Add spaces in virtual space
 - Tool | Options | Text Editor | All Languages | General | Enable virtual space
- Invoke smart tag: Ctrl+.
 - Add namespaces, rename identifiers, generate method stubs

Source Code Editor

Code Snippets

- Type a snippet name, press tab to complete the snippet name and then tab to invoke the snippet
 - Tab moves focus to the snippet variables
 - Enter completes the snippet
- Surround with snippet: Ctrl+K, S
- Snippets are located at:-
C:\Program Files\Microsoft Visual Studio 9.0\VC#\Snippets\1033\Visual C#
- Refactoring snippets are located at:-
C:\Program Files\Microsoft Visual Studio 9.0\VC#\Snippets\1033\Refactoring
- Code Snippets Manager: Ctrl+K, B

Source Code Editor

Changing Code Snippets

- Copy ctor.snippet to ctorc.snippet, change the name and then change the code element to include a code comment:-

```
<Code Language="csharp"><![CDATA[  
/// Initializes a new instance of the $classname$ class  
/// </summary>  
public $classname$ ()  
{  
    $end$  
}]>
```

Source Code Editor

Code Snippet Functions

Function	Description
<code>GenerateSwitchCases</code>	Generates a switch statement
<code>ClassName()</code>	Returns the name of the class
<code>SimpleTypeName(TypeName)</code>	Reduces the <code>TypeName</code> parameter to its simplest form
<code>CallBase(Parameter)</code>	Returns a call to the base member

Source Code Editor Snippet Editor for Visual Studio

- Download from:-
 - <http://www.codeplex.com/SnippetEditor>
- Works with Visual Studio 2005, 2008 and 2010

Source Code Editor

Miscellaneous Editing Facilities

- Custom Task Tokens
 - Tools | Options | Environment | Task List | Comment Tokens
- Record/Playback macro: Ctrl+Shift+R, Ctrl+Shift+P
- Columnar copy/paste: hold down the Alt key
- Cycle through clipboard buffer: Ctrl+Shift+V
- Change the default editor
 - In Solution Explorer, right click a file and select Open With...
- Rename: Ctrl+R, R
- Extract Method: Right click, Refactor | Extract Method...

Customizing Visual Studio Templates

- Templates are .zip files that are located in:-
 - C:\Program Files\Microsoft Visual Studio 9.0\Common7\IDE\ItemTemplates\CSharp\1033
 - (where 1033 is the locale id)
- The zip files contain:-
 - files to be added to the project (e.g. .cs files)
 - a .vstemplate XML file that describes the template
- To change the template edit the .cs file and save it back to the zip
- To reinstall the template run this command:-
 - devenv /installvstemplates

Debugging

- Debugger Step Through attribute:-

```
public string GivenName
{
    [DebuggerStepThrough]
    get { return givenName; }
    [DebuggerStepThrough]
    set { givenName = value; }
}
```

- By default the debugger calls ToString to display an object
 - You can implement your own ToString method
 - You can change this behaviour with DebuggerDisplay

```
[DebuggerDisplay("{FullName}")]
public class Customer: BusinessObject
```

Debugging (continued)

- The DebuggerBrowsable attribute can hide a field or property:-

```
[DebuggerBrowsable(DebuggerBrowsableState.Never)]  
public string FamilyName
```

- Hold Ctrl down to make debugger tooltips transparent
- Object Test Bench
 - View | Other Windows | Object Test Bench
- Immediate Window
 - Debug | Windows | Immediate

Debugger Visualizers

- Visual Studio 2008 includes visualizers for Text, XML, HTML and DataSets
- You can write your own and install them by copying the DLL into c:\Program Files\Microsoft Visual Studio 9.0\Common7\Packages\Debugger\Visualizers
- The LINQ To SQL Query visualizer can be downloaded from:-
 - <http://www.scottgu.com/blogposts/linquery/SqlServerQueryVisualizer.zip>

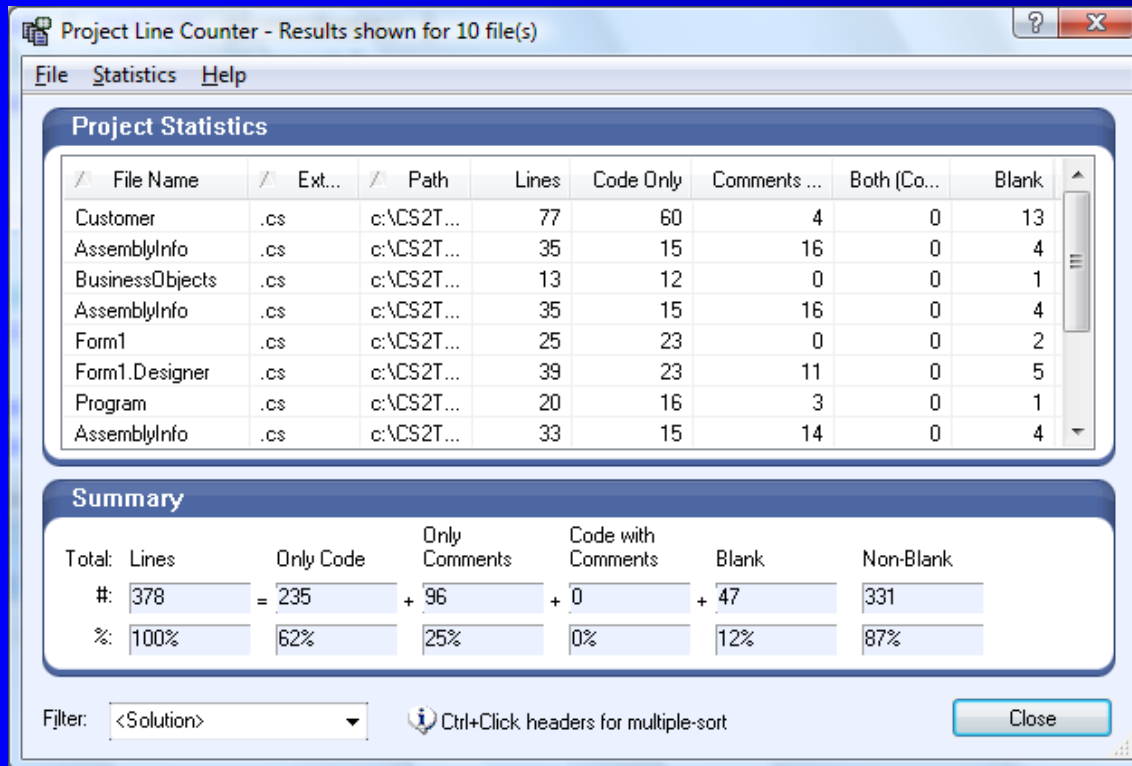
Debugger Visualizers On CodePlex

- www.codeplex.com includes the following visualizers:-

Name	Description
Dependency Visualizer	Graphically shows inter-project dependencies
JSON Visualizer	Displays a JSON object
DB Connection Visualizer	Allows you to execute an SQL statement against a connection
SharePoint Visualizer	Visualize SPLists
WPF Tree Debugger Visualizer	Views the logical and visual tree of dependency objects
DepO WPF Dependency Object Visualizer	Views the logical and visual tree of dependency objects

Project Line Counter Add-In

- Download from <http://www.wndtabs.com/index.html>



The screenshot shows the 'Project Line Counter' application window. The title bar reads 'Project Line Counter - Results shown for 10 file(s)'. The window has a menu bar with 'File', 'Statistics', and 'Help'. Below the menu bar is a 'Project Statistics' section containing a table with columns: File Name, Ext..., Path, Lines, Code Only, Comments..., Both (Co..., and Blank. The table lists 10 files with their respective statistics. Below the table is a 'Summary' section with a table showing totals for Lines, Only Code, Only Comments, Code with Comments, Blank, and Non-Blank, along with their percentages. At the bottom, there is a 'Filter' dropdown set to '<Solution>', a checkbox for 'Ctrl+Click headers for multiple-sort', and a 'Close' button.

File Name	Ext...	Path	Lines	Code Only	Comments ...	Both (Co...	Blank
Customer	.cs	c:\CS2T...	77	60	4	0	13
AssemblyInfo	.cs	c:\CS2T...	35	15	16	0	4
BusinessObjects	.cs	c:\CS2T...	13	12	0	0	1
AssemblyInfo	.cs	c:\CS2T...	35	15	16	0	4
Form1	.cs	c:\CS2T...	25	23	0	0	2
Form1.Designer	.cs	c:\CS2T...	39	23	11	0	5
Program	.cs	c:\CS2T...	20	16	3	0	1
AssemblyInfo	.cs	c:\CS2T...	33	15	14	0	4

Total:	Lines	Only Code	Only Comments	Code with Comments	Blank	Non-Blank
#:	378	= 235	+ 96	+ 0	+ 47	331
%:	100%	62%	25%	0%	12%	87%

- To make it work with Visual Studio 2008 you have to copy the following registry key to it's "9.0" equivalent:-
 - [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\VisualStudio\8.0\Addins\LineCount]

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