

Tips, Tricks and Tools ... a fireside chat

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9:18 AM

- **About me**

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- MVP - Solutions Architecture
- Authored most popular .NET curriculum in Australia
- Co-founder of Sydney Deep .NET User Group (www.sdnug.org)

- **Objective: Awareness & Sharing**

- **Why is this in OneNote?**

- ...but, [OneNote supports about 6 active shares](#)

- **Troubleshooting techniques**

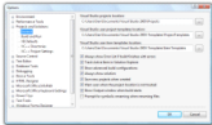
- Troubleshooting unfamiliar code
 - [Example \(folder\)](#)
 - Enable unmanaged debugging
 - ◆ No need for symbols to be loaded in the WCF MSMQ example
 - Manually add breakpoint
 - ◆ Add breakpoint, then copy it and add again using "unknown" language
 - ◆ Use reflector to set the breakpoint (easier than using sos)
 - Can then see the values in the locals or use sos:
 - ◆ !clrstack -p
 - ◆ !do 0x018d8c88 // listenUri addr
 - ◆ !do 018d8c08 // m_String addr
 - ◇ TADA... String:
net.msmq://localhost/private/MyCalculatorResponseQueue
- View non-user code and the DebuggerNonUserCodeAttribute
- DebuggerStepThroughAttribute
 - #line hidden / default for instrumentation
- TracePoints
- Edit and Continue (but try and use tests instead)
- Debug Visualizers (what are your favourites?)
- Macros
 - Attach to Process, others?
- Want to know object memory size is in VS2005?
 - Turn on unmanaged debugging
 - .load sos.dll
 - !do <addr> -- doesn't show object size
 - !objsize <addr> -- does show object size
- Troubleshooting memory leaks
 - [CLR Profiler \(example project\)](#)
 - Useful for seeing how memory is being allocated and rooted.
 - [DebugDiag](#)
 - VADump - unmanaged debugging
 - Performance Explorer integrated into VSTS ???
- Managed Stack Explorer / Hawkeye
 - Hawkeye -- reflector integration
- SciTech Memory Profiler
- VS Debugger Breakpoint Helper (<http://controlav.com/bphelper>)
- Sos.dll reading material
 - ◆ [Debugging Tools for Windows - debugger.chm file](#)
 - ◆ Managed stack explorer: <http://www.codeplex.com/Wiki/View.aspx?ProjectName=MSE>
 - ◆ http://blogs.msdn.com/jmstall/archive/2005/11/08/mdbg_linkfest.aspx
 - ◆ How to use ADPlus to troubleshoot "hangs" and "crashes"

<http://support.microsoft.com/kb/286350>

- ◆ Setting up a Microsoft Symbol Server <http://www.codeguru.com/cpp/com-tech/atl/debug/print.php/c11975/>
- ◆ Source server support for TFS - <http://tools.osherove.com/CoolTools/SourceServerSupportforTeamSystem/tabid/190/Default.aspx>
- ◆ MDbg - http://blogs.msdn.com/jmstall/archive/2005/11/08/mdbg_linkfest.aspx
- ◆ <http://www.coversant.net/Coversant/Blogs/tabid/88/EntryID/28/Default.aspx>
- ◆ <http://msdn.microsoft.com/msdnmag/issues/03/06/Bugslayer/>
- ◆ <http://msdn2.microsoft.com/en-us/library/ms954591.aspx>
- ◆ <http://dotnetdebug.blogspot.com/2006/03/loading-and-using-sos-from-within.html>
- ◆ http://www.codeguru.com/csharp/.net/net_debugging/debugging/article.php/c9595_2/
 `.foreach (obj {!dumpheap -short -mt 0x000123ab}) {!gcroot obj}`

Pasted from <<http://blogs.msdn.com/rayesc/default.aspx>>

- Visual Studio Environment

- First things
 - Turn off animations, Turn on line numbers, Configure intellisense
 - What profile do you run as? (You can reset it)
- Snippets
 - Generate method
 - Customise MethodStub using Scite
 - [Refactoring Snippets Directory](#)
 - Customise using a Snippet Editor?
- Object Test Bench
- Class Diagram
 - View the System.IO namespace (drag from Class View)
 - Add Class
 - Add inheritance
- Know thy Key bindings
 - [C# Key bindings](#)
 - Ctrl+g
 - Ctrl+]]
 - Ctrl+k, Ctrl+c
 - Ctrl+u
- Winforms Doc Outline
 - Focus, Z-Order
 - PowerPoint 2007 now has this!
- Ctrl-C in message boxes
 - Doesn't work in terminal settings -- depends on settings.
- CoolCommands
 - Add multiple projects at once.
 - Collapse all projects.
 - Open Explorer browser by right clicking on a file.
 - Automatically resolves missing references.
 - Locate item in Solution Explorer on demand when active tracking is turned off.
 - 
 - Copy and paste references from one project to another.
 - Visual Studio Command prompt here.
- CodeRush - Ctrl+~
 - Create TestFixture / Tests (there are tools that can inspect code and generate these for you if not going down the TFD path)
 - Copying variables creates context for code generation
 - Example: "ob foo = n;" "if nn" "b" "for" "while" "tne" "using" "ns" "hello" + 5.ToString" Create Property, Create Constant, String.Format
 - Cyclomatic complexity metric
- Resharper

- Optimise usings
 - Find type / find file
 - Generate code (ctor including prop assignment)
 - Exception explorer
 - SQLServer intellisense
 - Any free tools? No
 - RedGate SQL Prompt
- 3rd party dev tools
 - Testing Tools
 - MbUnit -vs- NUnit -vs- VS Test
 - Automatic generators (incl. statement flow analysis)
 - CombinatorialAttribute -vs- DataSourceAttribute
 - Microsoft Research Pex
 - TestRunner.net (tests / coverage)
 - NCover
 - ZaneBug
 - WATIR(N) / Selenium
 - Analysis tools
 - Reflector 5.0+ Add Ins
 - Code metrics
 - Code Analysis
 - Do you guys use this? What about Adam's Code Auditor?
 - Simian ([example](#))
 - C:\paradigm\presentations\CodeCamp\CodeCamp2007\Demos\Simian\ConsoleApplication3*.cs
 - NDepend ([run](#))
 - SourceMonitor for metrics (<http://www.campwoodsw.com/sourcemonitor.html>)
 - SourceSafe Binding Remover
 - Notepad2 or scite or ...
 - You can fully replace Notepad
 - WinMerge
 - ActualSearchAndReplace
 - SmartPaster (for pasting HTML)
- General
 - ZoomIt
 - Dealing with JavaScript
 - Aptana - free
 - FireBug
 - Vista
 - Windows Explorer
 - Alt+D for address (same in Internet Explorer)
 - Ctrl+E for search (same in Internet Explorer)
 - Open Command Prompt
 - Copy as Path (Shift-Right Click)
 - WindowsKey +X - mobility centre
 - Event viewer
 - Setup scheduled task that runs
 - Open VS2005 as administrator when launching from .sln file
 - File association via Start -> Default programs -> Associate a file type ...
 - Performance area
 - Control Panel\System and Maintenance\Performance Information and Tools
 - Restore point can swallow disk space (beware!)
 - vssadmin resize shadowstorage /for=c: /on=c: /maxsize=200MB
 - Task Manager
 - Private Working Set memory now default (virtual memory size in xp)
 - Right-click and open file location or create dump file or debug attach
 - Window Clippings (<http://weblogs.asp.net/kennykerr>)
 - Windows Snap (<http://www.ntwind.com/software/winsnap.html>)
 - Virtualization

- Turning off UAC could lose you settings
- OneNote
 - How to turn off hyperlink warning
 - [Folder- OneNoteHyperlinks.reg](#)
 - TiddlyWiki / MindManager
- Office 2007
 - Open question: How do I (without regedit) clear the MRU List?
- Editors
 - Most are somehow related to Scite (<http://www.scintilla.org/SciTE.html>)
- Diagramming tools
 - What do you use for sequence diagrams?
 - *Visio - hard to refactor diagram*
- Code Generators
 - What are your favourites?
- Miscellaneous
 - AutoIt <http://www.autoitscript.com/>
 - Ethereal / Fiddler
 - PowerShell
 - LogParser
 - SysInternals Tools
 - HotKeyPlus
 - PureText
 - Unlocker <http://ccollomb.free.fr/unlocker/>
 - Differencing tools
 - Winmerge
 - Beyond Compare
 - Virtual PC 2007
 - Hardware Virtualisation - change BIOS
 - Watch conference videos at 1.4x or 2x playback speed!