

Microsoft Visual Studio Team System Worst Practices

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Who Am I?

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Agenda

- ▶ Why worst practices?
- ▶ Worst practices by area
 - ▶ Installation & Configuration
 - ▶ Team Projects
 - ▶ Work Items
 - ▶ Version Control

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By Illustrating Worst Practices

- ▶ You will learn what patterns to avoid
 - ▶ Some will simply waste your time
 - ▶ Some are irreversible
- ▶ You will learn the preferred practices
 - ▶ Some from Microsoft's guidance
 - ▶ Some from my experience

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Disclaimer

- ▶ These “worst practices” are based on my opinions, and the opinions of other Visual Studio Team System MVPs
- ▶ Edge cases are sure to exist that may warrant these practices
 - ▶ There are always exceptions

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Installation and Configuration Worst Practices

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TFS Installation

- ▶ Worst Practice
 - ▶ **Winging It**
- ▶ Preferred Practice
 - ▶ RTFM

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TFS Installation

- ▶ Worst Practice
 - ▶ **Installing only one instance of Team Foundation Server**
- ▶ Preferred Practice
 - ▶ Install TFS on a playground/sandbox server for testing, customizing, and playing with any power tools
 - ▶ Workgroup Edition is free (if you qualify) and even includes a SQL Server license
 - ▶ A Virtual Machine is fine for this

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TFS Installation

▶ Worst Practice

- ▶ Installing TFS on a domain controller, Exchange Server, BizTalk Server, Host Integration Server, etc.

▶ Preferred Practice

- ▶ Keep the TFS box lean and mean
- ▶ The installation software will prevent some of the above scenarios

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TFS Installation

▶ Worst Practice

- ▶ Using the same account for all services
 - ▶ Exception: You can use TFSSERVICE for SharePoint
- ▶ Giving those accounts admin permissions
 - ▶ Exception: TFSPROXY must be a member of the administrators group on the remote computer

▶ Preferred Practice

- ▶ “Principle of Least Privilege” and RTFM
- ▶ Create a separate (domain) account for TFSSERVICE, TFSREPORTS, TFSBUILD, and TFSPROXY

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TFS Installation

▶ Worst Practice

- ▶ Using TFSSETUP when installing the TFS Workgroup Edition

▶ Preferred Practice

- ▶ Log in and run setup as one of the 5 users, or else you'll have a team member named TFSSETUP

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Team Foundation Build Installation

▶ Worst Practice

- ▶ Not installing Visual Studio 2008 (Team Edition) on the Team Foundation Build server

▶ Preferred Practice

- ▶ If you plan on doing any code analysis, testing, or database project builds, then you will need to install the appropriate team edition of Visual Studio or Team Suite

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TFS Proxy Installation

▶ Worst Practice

- ▶ Installing it at home or for one developer in a remote office

▶ Preferred Practice

- ▶ You probably won't get any benefit out of TFS Proxy unless you have multiple users at that remote location
 - ▶ The exception to this is when you also have a build server at the remote location – it might take advantage of the caching.

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TFS Security

▶ Worst Practice

- ▶ Adding everyone to the Team Foundation Server Administrators group

▶ Preferred Practice

- ▶ Take security seriously
- ▶ You should only have a few administrators, and classify everyone else as project administrators, contributors, or readers appropriately
- ▶ Create AD groups for the above roles
 - ▶ This eases administration for TFS, RS, and SharePoint

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TFS Security

▶ Worst Practice

- ▶ Having non-developers (a.k.a. IT Services) be your de facto TFS Administrators

▶ Preferred Practice

- ▶ Try to talk them out of their “only people from IT can be administrators” policy or consider creating a “TfsAdminLite” group which has a minimal amount of permissions, like creating team projects, etc.

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Installing Team Explorer

▶ Worst Practice

- ▶ Using Team Explorer 2005 with Team Foundation Server 2008
- ▶ Using Team Explorer 2008 with Team Foundation Server 2005

▶ Preferred Practice

- ▶ Sure, you can do it with some compatibility issues, but why bother. Just install the correct version of Team Explorer or install both versions

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Team Project Worst Practices

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Mapping a Team Project

- ▶ Worst Practice
 - ▶ Mapping your team projects too narrowly or too broadly
- ▶ Preferred Practice
 - ▶ Ideally, you should map your team project to a physical team or a product line (think *MS Office* rather than *MS Excel*)
 - ▶ Work item queries and reports can *easily* filter by area (to report on the life cycle of *Excel*) but the converse is not true

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Planning a Team Project

▶ Worst Practice

- ▶ Using the MSF templates out of the box

▶ Preferred Practice

- ▶ Download the Team Foundation Server 2008 Power Tools and use the process editor to customize a process template specific to your organization's needs
 - ▶ Try a few iterations using the built-in templates and then blend your own "cocktail" of what you like from the two MSF templates

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Planning a Team Project

▶ Worst Practice

- ▶ Naming your team project something stupid

▶ Preferred Practice

- ▶ Team projects cannot easily be renamed, and they also do not track any metadata (version, status, process template used, etc.). As such, you may want to consider having a naming convention
 - ▶ The good news in VSTS 2008 is that TfsDeleteProject performs a destroy of version control artifacts now, so you can now completely clean out a team project

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Team Project Creation

▶ Worst Practice

- ▶ Assuming team project creation configures report and portal security – it doesn't

▶ Preferred Practice

- ▶ Manually add the missing team members and set their permissions in the report manager site and Sharepoint portal
 - ▶ To simplify, consider using ACL inheritance in RS and setting web application policies in SharePoint, or use the TFS Admin tool from CodePlex

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Team Project Configuration

▶ Worst Practice

- ▶ Disabling *Shared Checkout* in a parallel development environment
 - ▶ We know that you have developed a phobia from all those years using Visual SourceSafe – get over it

▶ Preferred Practice

- ▶ Enable shared checkout for most scenarios and this will minimize the blocking of other developers
 - ▶ Exception: "firmer" branches, such as a release or production branch

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Team Project Configuration

▶ Worst Practice

- ▶ Enabling *Get Latest on Checkout* in projects where you'll be frequently working on older (not "get latest") code

▶ Preferred Practice

- ▶ Allow each developer to enable their own *Get Latest on Checkout* setting (under Tools > Options), except in team projects where you are absolutely sure the team will only be doing "Get Latest" development

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Work Item Worst Practices

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(Not) Using Team Explorer

▶ Worst Practice

- ▶ Forcing your non-technical users to use Team Explorer (BA, PM, QA, etc.)

▶ Preferred Practice

- ▶ Give them a break by installing the Web Access Power Tool, or by allowing them to create/manage work items using Excel or Project

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Work Item Areas

▶ Worst Practice

- ▶ Mixing the types (logical, functional, physical, technical, geographic, etc.) of classification areas
 - ▶ You are only allowed to select one area per work item. They are not like *tags* (but I wish they were!)

▶ Preferred Practice

- ▶ Pick a single “type” of area and stick with it as you establish your classification hierarchy, otherwise you may confuse the users creating and querying these work items

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Creating Work Items

- Worst Practice
 - Creating the same series of tasks each iteration using Team Explorer or the Web Access Power Tool
- Preferred Practice
 - Have an Excel spreadsheet or Project Plan with the default list of tasks you need to create each iteration (or at the end of an iteration), set the iteration value, and click publish
 - You can also create a script containing multiple TPFT WORKITEM commands

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Creating Work Items

- Worst Practice
 - Creating the same type of work item over and over again
 - Example: *Network Connectivity Bug*
- Preferred Practice
 - Download and install the Team Foundation Server 2008 Power Tools and enjoy work item templates

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Creating Work Items

- ▶ Worst Practice
 - ▶ Using Team Explorer to make bulk changes
- ▶ Preferred Practice
 - ▶ The Web Access Power Tool supports bulk changes of some fields, but Excel retains top honors for copy/paste style bulk-changes

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Version Control Worst Practices

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Configuring Version Control

▶ Worst Practice

- ▶ Not checking/changing your source control provider in Visual Studio

▶ Preferred Practice

- ▶ If you are switching back and forth between TFS and VSS (for example), be sure to go to Tools > Options > Source Control first
 - ▶ A macro or 3rd party solution might come in handy

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Managing Workspaces

▶ Worst Practice

- ▶ Having just one workspace
 - ▶ By default, Visual Studio creates a single workspace, with the same name as your computer

▶ Preferred Practice

- ▶ Create your workspaces up front, right after you create your team project
- ▶ I prefer to create one workspace per team project, to keep your pending changes isolated

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Version Control Folders

▶ Worst Practice

- ▶ Allowing Visual Studio to create your source control folder structure automatically

▶ Preferred Practice

- ▶ Spend the time up front planning and creating an appropriate folder structure, to support the nature of your application, branching strategy, and promotion model

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Version Control Folders

▶ Worst Practice

- ▶ Setting up a complex folder structure and branching strategy
 - ▶ Which makes promotion modeling difficult, and merging changes almost impossible

▶ Preferred Practice

- ▶ See previous slide
- ▶ Study the various branching strategies out there and select an appropriate one that fits your organization's needs

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Securing Version Control Artifacts

▶ Worst Practice

- ▶ Leaving the default security permissions on your firmer branches (production release)

▶ Preferred Practice

- ▶ Restrict the users who can check-in code to those branches
 - ▶ Consider creating additional groups, such as *SeniorDevs*, *DevLeads*, *Contractors*, *Probation*, *Overseas*, etc. to make the setting of permissions easier

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Check-In Policies

▶ Worst Practice

- ▶ Configuring an inappropriate amount of check-in policies

▶ Preferred Practice

- ▶ Consider simplifying the policies to just the basics: *comments* and *work items*, and then running code analysis and unit tests during a continuous integration build (a build triggered by a check-in)
 - ▶ You will need to install the Team Foundation Server 2008 Power Tools for the *comments* check-in policy

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Associating with a Work Item

▶ Worst Practice

- ▶ Associating with less than or more than one work item during check-in

▶ Preferred Practice

- ▶ Check-in often, throughout the day and associate with *exactly* one work item to achieve maximum traceability

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Associating with a Work Item

▶ Worst Practice

- ▶ Resolving a work item during check-in before you've actually resolved it

▶ Preferred Practice

- ▶ This is less of a problem in 2008, because the *All Work Items* query now includes inactive work items, but it's best to watch what you are doing, or else your active ⇒ completed ⇒ active change will show up as a reactivation in the reports

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Version Control Status

- ▶ Worst Practice
 - ▶ Guessing which user has what file(s) locked
- ▶ Preferred Practice
 - ▶ Download and install the Team Foundation Server 2008 Power Tools and enjoy the search by status

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Wrap-Up

- ▶ What Worst Practices did I miss?
 - ▶ Email them to me: richard@accentient.com
 - ▶ Discuss them on the VSTS forums
- ▶ This deck will be available on our blog:
 - ▶ <http://blog.accentient.com>

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