

Contents

Acknowledgments	ix
Introduction	xxi
Part One: Deployment and Administration	1
Chapter 1: Planning a Team System Deployment	3
Team Foundation Server Overview	3
Team System Overview	5
Client Components	5
Server Components	6
Compiling Your Project Data	7
Planning a Deployment	9
Capacity Planning	9
Network Topologies	11
Client Planning	13
Security Planning	14
Creating a Test Plan	14
Test Rig Considerations	15
Hardware Requirements	15
Team Foundation Server	15
Team Foundation Build	16
SQL Server 2005	16
Visual Studio 2005	16
Other Tools	16
64-Bit Support	17
Software Requirements	17
Required Service Packs and Software Components	17
Team Foundation Server	17
SQL Server 2005	17
Team Foundation Build	18
Visual Studio 2005 and Team Explorer	18
Other Tools	19
Unsupported Software	19

Contents

Migrating and Integrating Your Existing Tools and Assets	19
Version Control	20
Work Item Tracking	24
Reporting	26
Build Server	26
Testing Tools	26
Licensing Models	28
Where to Get Team System	28
Summary	29
Chapter 2: Advanced Installation and Tools Migration	31
Administrator Types	32
Enterprise IT Administrator	32
Group IT Administrator	32
Team Member/Developer	33
User Accounts	33
Active Directory	34
Installing Team Foundation Server	34
Types of Installation	35
Multiserver Installation	35
Single-Server Installation	47
Installing Team Foundation Server Proxy	49
Installing Team Foundation Build Server	50
Using Virtualization	51
Overview of Microsoft Virtual Server and Virtual PC	52
Creating a Base Virtual Machine	53
Installing Team Foundation Server Components on a Virtual Machine	56
Understanding Team Explorer	58
Installing the Prerequisites	58
Internet Explorer Enhanced Security Configurations	59
Installing Team Explorer	59
Connecting Team Explorer to Team Foundation Server	60
Configuring Team Explorer to Use Team Foundation Server Proxy	61
Accessing Administrative Functions	61
Using Team Explorer	62
Using the Command Line	63
Giving Users Team Project Create Ability	65
Migrating your Tools to Team Foundation Server	68
Version Control	68
Work Item Tracking	70
Summary	70

Chapter 3: Configuring Team Foundation Build	71
Team Foundation Build Overview	72
Architecture	73
Build Types	74
Build Execution	77
Build Report	80
Common Build Scenarios	83
Typical Builds	83
Nightly Builds	83
Weekly Builds	84
Continuous Integration (CI)	84
Customizing and Extending Team Foundation Build	85
Existing Build Tasks	86
Custom Build Tasks	86
Advanced Build Scenarios	88
Building .NET v 1.1 and VB 6.0 Code	88
Building ASP.NET Applications	89
Setting Up Team Foundation Build Server	89
Managing Builds	89
Setting Up Build E-Mail Notifications	90
Setting Up Multiple Build Servers	91
Setting Up a Common Build Drop Site	91
Team Foundation Build Security Permissions Overview	92
Best Practices	93
Summary	93
Chapter 4: Setting Up Security	95
Team Foundation Server Security Model Overview	96
How Team Foundation Server Manages Groups	97
Built-In Global Groups	97
Built-In Project Groups	99
Managing Security in Other Groups	100
Security in Other Parts of Team Foundation Server	101
Managing Security Groups in Team Foundation Server	103
Creating New Groups Using the GUI	103
Creating New Groups Using the Command Line	106
Adding Users to Groups Using The GUI	108
Adding Users to Groups Using the Command Line	110
Using the GUI to Set Security Permissions for Groups	110
Using the Command Line to Set Security Permissions	112
Managing Security for Other Areas	113

Contents

Common Security Access Problems	117
User Cannot Connect to Team Foundation Server	117
User Cannot Create a Team Project	117
Security Best Practices	117
Summary	119
Chapter 5: Team Foundation Server Backup and Recovery	121
Disaster Recovery Overview	121
The Disaster Recovery Plan	122
Built-In Windows Backup Tools	123
Third-Party Backup Tools	123
Disaster Recovery Applied to Team Foundation Server	123
Backing Up Team Foundation Server	125
Backing Up the Team Foundation Server Databases	125
Backing Up the Report Server Encryption Key	131
Restoring the Report Server Encryption Key (Optional)	133
Restoring Team Foundation Server to the Same Server	134
Restoring Team Foundation Server Databases	135
Recreating the Data Warehouse	137
Refreshing the Work Item Cache on Client Machines	137
Restoring Team Foundation Server to a Different Server	138
Configure and Stop Report Server	139
Configure and Stop IIS	140
Stop Services on the Application Tier	141
Recreate the Data Warehouse	141
Connecting the Application Tier to the Data Tier	141
Re-creating Report Server Connection Strings	142
Configure Windows SharePoint Portal Sites	143
Summary	143
Part Two: Project Creation	145
Chapter 6: Incorporating Your Process Using Microsoft Solutions Framework	147
Understanding the Need for MSF	147
Heavy versus Light Processes	148
MSF for Agile Software Development	149
Working with MSF for Agile Software Development	152
Working with Areas, Scenarios, and Tasks	153
Test Cases	154

MSF for Capability Maturity Model Integration (CMMI) Process Improvement	155
Understanding the Need for CMMI Levels	156
Capability Maturity Level 3	157
Project Planning Using Governance and Capacity	161
Tracking Your Project Progress	162
Managing Risk and Issues	168
Third-Party Processes	169
Understanding Process Templates	170
Using Process Template Editing Tools	172
Creating Custom Process Templates	172
Conchango Scrum Process Template	172
Compiling and Creating Documentation	179
Integrating Processes into Team System	181
Deleting Process Templates	181
Testing Your Custom Process Template	182
Summary	182
Chapter 7: Project Creation and Team Building	183
<hr/>	
Team Project Defined	183
Creating a New Team Project	184
Specifying your Team Project Settings	184
Specifying a Process Template	184
Specifying the Project Portal Settings	186
Specifying the Version Control Settings	187
Confirming the Team Project Settings	188
Completing the Team Project	189
Common Project Creation Errors	191
Permission Errors	191
Network Errors	192
Configuring Project Areas and Iterations	193
Modifying Project Areas	193
Modifying Project Iterations	195
Using Microsoft Excel to Modify Project Areas and Iterations	196
Organizing Your Project Team	196
Understanding MSF Agile Team Roles	197
Interchanging the Roles	198
Summary	198

Chapter 8: Managing Schemas Using Team Edition for Database Professionals	199
Why This New Edition Is Needed	200
The Data Development Lifecycle	202
Implementation	202
Building and Deploying	207
Testing	210
Building a Custom Data Generator	219
Summary	224
Part Three: Extensibility and Customization	225
Chapter 9: Creating Custom Development Tools	227
Extensibility versus Customization	227
Customization Examples	228
Extensibility Examples	228
Team Foundation Core Services	228
Classification Service	229
Eventing Service	229
Linking Service	230
Registration Service	231
Security Service	231
Subscribing to an Event	231
Team Foundation Server Object Model	232
The TeamFoundationServer Object	233
Accessing the Service Interfaces	235
Summary	254
Chapter 10: Extending the Windows SharePoint Team Portal	255
Understanding Portal Architecture	256
Integration with Microsoft Office 2003	257
Extensibility and Customization Overview	257
Creating and Extending Custom Web Parts	258
Customizing the Team Portal	265
Customizing the Process Template	268
Customizing the Team Portal Using the Browser	269
Incorporating Your SharePoint Design in a Custom Process Template	272
Integrating a Site Template within a Process Template	273
Verifying Your Portal Customizations	274
Summary	274

Chapter 11: Administering and Customizing Work Items	275
Introducing Work Items Concepts	276
Work Item Types	276
Work Item Form	278
Work Item Work Flow	278
Customizing and Extending	278
Work Item Queries	279
Work Item Customization and Extensibility	279
Work Item Type XML File Overview	280
Customizing an Existing Work Item	285
Work Item Administration	288
Creating A Work Item	288
Searching the Work Item Store	289
View a Work Item's History	292
Project and Excel Integration	293
Work Item Tracking Object Model	294
Using Work Item Query Language	298
Summary	300
Chapter 12: Setting Up Team Foundation Version Control	301
Version Control Overview	302
Different Version Control Systems	302
Common Version Control Concepts	303
Team Foundation Version Control Essentials	317
Configuring Team Foundation Version Control	317
Source Control Explorer	320
Shelving	322
Setting Source Control Options	323
Converting from Other Version Control Systems	324
Using VSSConverter to Convert Visual SourceSafe	325
Using CS-Converter to Convert Visual SourceSafe	333
Team Foundation Version Control Best Practices	334
The Trunk	335
Check-In and Check-Out	335
Branching and Merging	335
Shelving	336
Team Foundation Version Control Extensibility	336
Custom Check-In Policies	337
Object Model	341
MSSCCI Provider	341
Summary	343

Part Four: Management **345**

Chapter 13: Managing Your Team Projects **347**

Working with Team Members	348
Advocacy and Ownership	349
Customers and Process	350
Setting Up Team Meetings	350
Structuring Your Project	351
Work Item Synchronization	352
Naming and Managing Work Items	355
Managing Summary Tasks	356
Setting Up Your Work Items Hierarchically	358
Re-creating the Hierarchy in Microsoft Project	359
Time Tracking and Results Roll-Ups	361
Remaining Work	363
Using Pivots to View Work Item Summaries	364
Managing Test Cases	367
Manual Test Cases	371
Other Test Types	372
Test Automation	373
Project Server Integration	375
Summary	376

Chapter 14: Effective Team Communication **377**

Current Communication Challenges	377
The Cons of Current Methods	378
E-mail	379
Telephone	379
File Shares	379
Using Team Foundation Server to Communicate Better	380
Communication across Multiple Platforms	381
Communicating the New Way	382
Examining Future Possibilities	384
Receiving Tasks via Instant Messenger	384
Tracking Project Status via Outlook	389
Microsoft Groove 2007	392
Summary	392

Chapter 15: Working with Geographically Distributed Teams	393
Identifying the Challenges	394
Team Foundation Server over The WAN	395
Setting Up Your Branch Office Infrastructure	395
Deploying Your Team Portal on The Web	396
Setting Up the Tools	397
Shared Repositories	397
Team Foundation Server Proxy	398
Distributed Load Testing	406
Team Foundation Build	413
Internationalization	415
Summary	418
Chapter 16: Monitoring Your Team Project Metrics Using SQL Server Reporting Services	419
Reporting Services Architecture	420
Online Analytical Processing (OLAP)	421
Team System Data Warehouse Structure	422
Terminology	425
Using MSF Documentation as a Guide	428
Planning Custom VSTS Reports	428
Creating Custom Team System Reports	429
Mining Project Data Using an Excel Pivot Table Report	429
Creating Custom Reports with the Report Designer	431
Using the Report Builder	432
Advanced Customization and Extensibility	433
Deploying Reports in Team System	434
Managing Reports	436
Troubleshooting the Data Warehouse	437
Administering and Refreshing the Warehouse	438
SetupWarehouse	438
Setting Security Permission on Reports	439
Summary	441
Chapter 17: Completing Software Projects	443
Release Management within the Microsoft Solutions Framework (MSF)	443
Implementing Release Management Tasks in Team System	446
Finalizing Projects in Team System	447
Exporting and Saving Your Project Artifacts	448
Postmortems	448

Contents

Improving Your Process through Lessons Learned	450
Removing a Project from the Server	451
Deleting a Team Project	451
Using the TfsDeleteProject Commands	453
Uninstalling Team System	454
Creating a New Version of an Existing Application	456
Create a New Team Project	456
Implement Version Control Migration	457
Migrate Workflow	458
Migrating Other Assets	459
Team Foundation Server Future Directions	459
Summary	459
Index	461