

Contents at a Glance

Introduction xxvii

Part 1 • Installation and Setup **1**

- Chapter 1 • Introducing Windows XP Professional 3
- Chapter 2 • Installing Windows XP Professional 27
- Chapter 3 • Using the Desktop and Getting Help 55
- Chapter 4 • Customizing the Interface 91
- Chapter 5 • Installing, Running, and Managing Applications 125
- Chapter 6 • Using Windows XP Professional on Notebook PCs 159

Part 2 • Managing Applications, Files, and Folders **181**

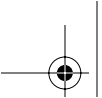
- Chapter 7 • Managing Files and Folders 183
- Chapter 8 • Installing and Working with Printers and Fonts 213
- Chapter 9 • Installing and Configuring Hardware 249

Part 3 • XP Digital Media **281**

- Chapter 10 • Windows Media Player 283
- Chapter 11 • Digital Media and Movie Maker 321

Part 4 • The Internet and E-mail **343**

- Chapter 12 • Connecting to the Internet 345
- Chapter 13 • Web Browsing with Internet Explorer 375
- Chapter 14 • Using the Communications Programs 411
- Chapter 15 • Using Outlook Express for E-mail and News 443



Part 5 • Home Networking 465

Chapter 16 • Windows XP Professional Networking and Network Design Primer . . . 467

Chapter 17 • Setting Up and Configuring Your Own Small Network 495

Chapter 18 • Wireless Networking 531

Chapter 19 • Windows XP Security 543

Part 6 • Advanced Networking 565

Chapter 20 • Connecting to Domains 567

Chapter 21 • Working with Windows Server 2003 587

Chapter 22 • Connecting to Non-Microsoft Networks 605

Part 7 • Network Administration 623

Chapter 23 • Administrative and Diagnostic Tools 625

Chapter 24 • Active Directory Essentials 651

Chapter 25 • Understanding and Using the Registry 665

Chapter 26 • Scripts for Automation 677

Chapter 27 • Disaster Prevention and Recovery 697

Chapter 28 • Auditing Security 727

Part 8 • Advanced Topics 737

Chapter 29 • Secure Telecommuting 739

Chapter 30 • The Microsoft Management Console 753

Chapter 31 • Managing Windows XP Professional Services 771

Chapter 32 • Hosting Web/FTP Servers 787

Chapter 33 • Advanced Troubleshooting Methodology 821

Index 839



Contents

Introduction xxvii

Part 1 • Installation and Setup **1**

Chapter 1 • Introducing Windows XP Professional **3**

What Is Windows XP Professional? 3

What's New in Windows XP Professional? 5

- The "Evil" Windows Product Activation 5
- Easier Installation and Updating 5
- Effective Multiuser Capabilities 6
- Enhanced User Interface 7
- Taskbar Changes and Enhancements 9
- Better Audio and Video Features 9
- CD Burning 11
- Compressed Folders 11
- Search Companion 11
- Easy Publishing to the Web 12
- A Sane Implementation of Autoplay 12
- More Games 12
- Remote Desktop Connection 12
- A More Useful Winkey 12
- Improvements for Portable Computers 13
- Faxing 13
- More Help 13
- Network Connectivity 15
- Internet Connectivity and Web Browsing 16
- Multiple Monitor Support—for Both Desktops and Laptops 17
- Advanced Features 17
- What's Hiding under the Hood? 18

Should You Upgrade to Windows XP Professional? 19

- Windows 9x 20
- Windows 3.1 20
- Windows 2000 Professional 20
- Windows XP Home Edition 21

How Is Windows XP Professional Different from Other Operating Systems? 21

- Windows XP Professional Compared with UNIX 21
- Windows XP Professional Compared with Linux 21
- Windows XP Professional Compared with the Macintosh OS 22

What Are the Features of Windows XP Professional Architecture? 22

- Kernel Mode 22
- User Mode 24

Summary 25

Chapter 2 • Installing Windows XP Professional	27
The Order of Business	27
Will Your Computer Be Able to Run Windows XP Professional?	28
Processor	28
RAM	28
Free Disk Space	29
SVGA-Capable Video Adapter and Monitor	29
CD Drive or DVD Drive	29
Checking System Compatibility	29
Choosing an Installation Method	30
Preparing for Installation	31
Back Up All Your Data Files	31
Write Down Internet Connection Information	31
Plug In and Switch On All Hardware	31
Use the Files and Settings Transfer Wizard to Transfer Settings	32
Stop Any Antivirus Software or Disk Utilities	34
Upgrading to Windows XP	35
Performing a New Installation of Windows XP	38
Performing a Clean Install of Windows XP	42
Choosing a Hard Disk Partition	42
Converting the Partition to NTFS	43
Choosing Regional and Language Options	43
Entering Your Name and Organization	45
Entering Your Product Key	45
Entering the Computer Name	45
Entering the Modem Dialing Information	45
Checking the Date and Time	45
Specifying Networking Settings	45
The Installation Paths Converge	47
Setting Up Your Internet Connection	47
Creating User Accounts	49
Activating Windows	49
Applying Your Files and Settings	50
Uninstalling Windows XP and Reverting to a Previous Version of Windows	51
Removing Your Old Version of Windows	52
Keeping Windows Updated	52
When Windows Update Runs	52
Configuring Windows Update	53
Running Windows Update Manually	54
Summary	54
Chapter 3 • Using the Desktop and Getting Help	55
Logging On and Logging Off	56
Logging On	57
Logging Off	58
Disabling the Welcome Screen	58

Using the Desktop and Start Menu	60
Using the Winkey	60
Managing Multiple Users	61
Switching to Another User	62
Locking the Computer	62
Checking Which User Is Currently Active	62
Seeing Who Else Is Logged On to the Computer	62
Seeing Which Programs the Other Users Are Running	63
Logging Another User Off	65
Sending a Message to Another User	67
Shutting Down Windows	68
Help and Support Center	69
Starting Help and Support Center	69
Finding Your Way around Help and Support Center	70
Browsing for Help	74
Creating and Using Favorites in Help	76
Using Views	77
Navigating with Help History	77
Printing Help Information	77
Using Remote Assistance	78
Security Considerations	78
Enabling Remote Assistance	79
Setting Limits for Remote Assistance	80
Sending a Remote Assistance Invitation via E-mail	80
Viewing the Status of Your Invitations	83
Receiving Remote Assistance	83
Responding to a Remote Assistance Invitation	86
Microsoft Online Support (Get Help from Microsoft)	88
Windows Newsgroups (Go to a Windows Web Site Forum)	89
Using the Troubleshooters	89
Finding Help on the Internet and Web	89
Help on the Web	89
Help in Newsgroups	90
Summary	90
Chapter 4 • Customizing the Interface	91
Working with the XP Control Panel	91
Changing the Date and Time	93
Adjusting Video Settings	94
Installing Video and Monitor Drivers	95
Setting Resolution, Color Depth, and Refresh Rate	98
Setting Monitor Controls	100
Troubleshooting Video Problems	101
Customizing the Windows XP Display	101
Working with Themes	102
Customizing the Desktop	103

Working with Screen Savers	106
Changing Color and Appearance Options	107
Customizing the Taskbar	109
Setting Taskbar Options	109
Working with Taskbar Toolbars	110
Customizing the Notification Area	111
Setting Start Menu Options	112
Customizing the Windows XP Start Menu	112
Customizing the Classic Start Menu	113
Adjusting the Keyboard and Mouse	114
Keyboard Properties	114
Mouse Properties	115
Choosing System Sounds	116
Using Accessibility Options	116
Using the Accessibility Wizard	117
Accessibility Options in Control Panel	117
Using Magnifier	121
Running Narrator	122
Using the On-Screen Keyboard	122
Using Utility Manager	122
Summary	123
Chapter 5 • Installing, Running, and Managing Applications	125
Multiuser Considerations	126
Who Can Install Programs?	126
To Whom Is the Program Available?	126
What Happens When Multiple Users Open the Same File at the Same Time?	127
What Happens When Multiple Users Run the Same Program at the Same Time? ..	128
Installing a Program	129
Installing and Running Multiple Versions of the Same Application	130
Making Programs Run at Startup	130
Removing a Program	131
Adding and Removing Windows Components	134
Setting Program Access and Defaults	134
Running Programs	135
Dealing with Unresponsive Programs	137
Program Compatibility Issues	138
Programs You Shouldn't Even <i>Try</i> to Run on Windows XP	140
Running Programs in Compatibility Mode	142
Exchanging Data Between Programs	149
Clipboard Basics	150
For Microsoft Office Users: The Enhanced Microsoft Office Clipboard	150
Using the ClipBook Viewer	151
Object Linking and Embedding	152
Organizing the Start Menu	155
Editing Pinned Shortcuts	156
Editing the All Programs List	156
Summary	158

Chapter 6 • Using Windows XP Professional on Notebook PCs	159
How Notebook PCs Are Physically Different	159
Using Built-In and External Monitors	160
Working with PC Cards	161
Working with Hardware Profiles	162
Monitoring and Optimizing Battery Usage	164
Choosing a Power Scheme	164
Setting Power Alarms	165
Working with the Power Meter	166
Choosing Advanced Power Options	167
Enabling and Disabling Hibernation	168
Using Multiple Dialing Locations	169
Synchronizing Files with Other PCs	170
Working with Offline Files	170
Using Briefcase	174
Troubleshooting Notebook PC Problems	176
Problems with PC Cards under Windows XP	176
Problems with a Wheel-Style PS/2 Mouse	177
Power Management Problems	177
Summary	180
Part 2 • Managing Applications, Files, and Folders	181
Chapter 7 • Managing Files and Folders	183
Using Explorer	183
Opening vs. Exploring	183
Branches	184
Views	185
Reordering Files	187
Working with Shortcut Menus	189
Organizing Your Files and Folders	190
Creating New Folders	190
Moving Items	191
Copying Items	191
Saving Files and Folders to the Desktop	192
Renaming Files and Folders	192
Deleting Files and Folders	193
Understanding the Multiuser Environment	194
Customizing the Explorer Interface	195
Setting Folder Options	196
Customizing an Individual Folder	198
Customizing the Toolbar	199
Setting File and Folder Properties	199
Searching for Files and Folders	200
Working with Compressed Files and Folders	201
Using Zip Compression	202
Using NTFS Compression	202

Using Encrypting File System (EFS)	203
Backing Up Your Certificates	204
Encrypting and Decrypting	205
Sharing Encrypted Files with Other Local Users	206
Transferring Encrypted Files to Another PC	206
Setting File Associations	207
Creating CDs	208
Copying the Files to the Storage Area	208
Writing the Files to CD	210
When Things Go Wrong Writing the CD	211
Clearing the Storage Area	212
Summary	212
Chapter 8 • Installing and Working with Printers and Fonts	213
How Windows XP Handles Printing	213
Installing Local Printers	215
Installing a Local Printer Driver	215
Installing Multiple Drivers for the Same Printer	217
Sharing a Local Printer	219
Setting Permissions for a Shared Printer	220
Installing Multiple OS Support for a Shared Local Printer	221
Installing Remote Printers	222
Setting Up a Remote Printer	223
Installing a Printer on a TCP/IP Port	224
Installing a Printer Through a UNIX Host	225
Managing Installed Printers	225
Removing a Printer Driver	225
Working with Printer Properties	225
Managing the Printing Process	229
Managing a Print Queue	229
Taking a Printer Out of Service with Pending Print Jobs	230
Using Separator Pages	231
Setting Print Server Properties	232
Managing Fonts	234
Installing Fonts	234
Managing Your Font Collection	235
Using Other Types of Fonts	236
Working with the Font Substitution Table	238
Selecting a Different Display Font	239
Enabling ClearType for the Display Font	239
Faxing in Windows XP	240
Installing Microsoft Fax	240
Working with the Fax Console	240
Sending a Fax	241
Receiving a Fax	243

Creating a Cover Page	244
The Basics of Cover Pages	245
Advanced Cover Page Editing	246
Summary	247
Chapter 9 • Installing and Configuring Hardware	249
How Hardware Interacts with Windows XP	249
Device Drivers	249
System Resources	251
What Happens When You Install a Device in Windows?	252
Using Hot-Pluggable Devices	253
Using the Hardware Wizards	254
Installing a Driver from a Specific Location	255
Running the Add Hardware Wizard	258
Disabling a Device	261
Uninstalling a Device	261
Working with Device Properties	261
Viewing Device Properties	261
Viewing and Changing Drivers	262
Viewing and Changing Resource Assignments	263
Configuring a Modem	265
Configuring a CD Drive	268
Configuring a Removable Drive	270
Configuring a Video Card	271
Viewing USB Hub Usage	272
Using Multiple Monitors	274
Configuring Windows to Use an Uninterruptible Power Supply	275
What Is a UPS?	275
Choosing a UPS	275
Installing a UPS	276
Summary	279
Part 3 • XP Digital Media	281
Chapter 10 • Windows Media Player	283
Introducing Windows Media Player	283
Using the Guide	285
Working with Player Controls	285
Working with Audio and Video Clips	286
Cataloging Media Files on Your PC	286
Playing Audio and Video Clips	287
Choosing Visualizations	287
Adjusting Video Quality Settings	288
Displaying Other Lists	289
Creating Playlists	289
Customizing the Now Playing Pane	289

Using Player Enhancements	290
Editing MP3 and WMA Tags	292
Rating Your Library Entries	293
Setting Media Library Options	293
Working with Audio CDs and DVD Movies	294
Playing a CD	294
Retrieving CD Data	294
Copying (Ripping) a CD	295
Burning CDs	298
Playing a DVD	301
Tuning into Internet Radio	303
Searching for a Radio Station	303
Creating and Editing Presets	305
Applying Skins	305
Working with Content Licenses	305
Backing Up Your Licenses	307
Restoring Your Licenses	307
Working with Portable Devices	308
Creating the Sync List	308
Making Media Player Recognize Your Device	309
Copying Audio Files to a Portable Player	309
Synchronizing Playlists Automatically	310
Setting Output Volume and Recording Volume	312
Displaying the Volume Control in the Notification Area	312
Setting Playback Volume Levels	313
Setting Recording Volume Levels	314
Setting Speaker Balance	315
Setting Advanced Audio Properties	315
Recording Audio Files with Sound Recorder	316
Starting Sound Recorder	317
Recording a Sound File with Sound Recorder	317
Converting a File to Another Format	318
Summary	319
Chapter 11 • Digital Media and Movie Maker	321
Acquiring Images	321
Understanding Image Formats	321
Transferring Images from a Digital Camera	323
Acquiring Images from a Scanner	325
Viewing Images	328
Thumbnail and Filmstrip Views	328
Enabling Filmstrip View in a Folder	328
Viewing a Picture Slide Show	330
Working with the Windows Picture and Fax Viewer	331

Printing Photos 331

Setting a Picture as a Windows Background 333

Using Windows Movie Maker 334

 Creating Collections 335

 Importing Content 335

 Recording Content 336

 Creating a Movie Project 339

 Exporting a Project to a Movie File 341

Summary 341

Part 4 • The Internet and E-mail 343

Chapter 12 • Connecting to the Internet. 345

Types of Internet Connections 346

Connecting to the Internet with an Analog Modem 346

Connecting to the Internet with a Cable Modem 348

 Cable Internet Access—How Does It Work? 349

 How Fast Is It? 349

 Cable Internet Access—Advantages and Disadvantages 350

 Getting Hooked Up 351

 Configuring Your Connection 352

Connecting to the Internet with DSL 352

 DSL—How Does It Work? 353

 How Fast Is It? 353

 DSL—Advantages and Disadvantages 353

 Getting Hooked Up 354

Connecting to the Internet with Satellite 355

 Satellite: How Does It Work? 355

 Satellite: Advantages and Disadvantages 355

 Satellite: Getting Hooked Up 356

Protecting Your System with a Firewall 356

Using the Network Setup Wizard to Share an Internet Connection 359

 Set Up the Computer That Will Share the Connection 360

 Setting Up a Client Computer 364

 What ICS Does 366

 NAT Improvements in Windows XP 366

 Configuring ICS Manually 368

 Specifying Which Programs and Services Can Use the Shared Connection 370

 Setting the IP Addresses of Connected Computers 372

 Turning Off ICS 372

Using a Shared Internet Connection 373

Troubleshooting Internet Connectivity Problems 373

 Dial-Up Modem Problems 373

 Cable/DSL Problems 374

 Satellite Problems 374

Summary 374

Chapter 13 • Web Browsing with Internet Explorer	375
Starting Internet Explorer	375
Moving around the Web	376
Working with the Links Bar	378
Keeping Track of Your Favorite Sites	378
Adding a Site to Your Favorites List	379
Maintaining Your Favorites List	381
Working with the History List	381
Accessing E-mail and Newsgroups from Internet Explorer	382
Sending a Link or Page via E-mail	383
Saving and Printing Web Pages	383
Working with Offline Favorites	386
Finding Exactly What You Want on the Internet	388
Downloading Files	391
Customizing Internet Explorer	392
Configuring the General Tab	392
Looking at the Security Tab	393
Using the Privacy Tab	395
Using the Content Tab	398
Setting Up the Connections Tab	399
Looking at the Programs Tab	400
Configuring the Advanced Tab	401
Customizing the Internet Explorer Toolbar	401
Changing Text Size	402
MSN Explorer	403
Using Built-In Internet Utilities	405
Address Resolution Display and Control	405
File Transfer Protocol (FTP)	405
Finger	407
Ping	407
Protocol Statistics (<i>netstat</i>)	408
Remote File Copy (RCP)	408
Remote Program Execution (REXEC)	408
Remote Shell/Script (RSH)	409
Remote Terminal (Telnet)	409
The <i>route</i> Command	409
Trace Route (<i>tracert</i>)	409
Summary	410
Chapter 14 • Using the Communications Programs	411
Connecting with HyperTerminal	411
Creating a New HyperTerminal Connection	411
Sending and Receiving Files	412
Using Windows Messenger	413
Starting Messenger	413
Configuring Messenger	414
Personal Tab Options	414

Phone Tab Options	415
Preferences Tab Options	416
Privacy Tab Options	417
Connection Tab Options	418
Running the Audio and Video Tuning Wizard	418
Signing Out and Signing Back In	420
Adding a Contact	421
Adding a Contact by E-mail Address or Passport Sign-In	421
Adding a Contact by Searching for Them	422
Adding a Contact When Someone Adds You to Their Contacts List	423
Removing a Contact from Your Contacts List	423
Chatting	423
Adding More People to a Conversation	424
Setting Font, Style, and Color for Text You Send	424
Adding Voice to a Conversation	425
Adding Video to a Conversation	426
Blocking and Unblocking Users	427
Changing Your Status	427
Transferring Files	428
Sending a File	428
Receiving a File	429
Sharing Applications	429
Using Remote Desktop Connection	431
Remote Desktop Connection Terminology and Basics	431
Setting the Remote Computer to Accept Incoming Connections	432
Choosing Settings for Remote Desktop Connection	433
Connecting via Remote Desktop Connection	438
Working via Remote Desktop Connection	440
Returning to Your Local Desktop	440
Disconnecting the Remote Session	441
Logging Off the Remote Session	441
Summary	442
Chapter 15 • Using Outlook Express for E-mail and News.....	443
Using Outlook Express as Your Mail Reader	444
A Quick Tour	445
Retrieving Your Mail	446
Reading and Processing Messages	446
Creating and Sending Messages	451
Creating E-mail Messages with HTML	452
Attaching Files to Your Messages	456
Applying Message Rules	457
Adding and Managing Identities	459
Using Outlook Express as Your Newsreader	460
Setting Up a Newsgroup Account	461
Connecting to Newsgroups	461
Finding a Newsgroup of Interest	462

Subscribing to a Newsgroup	462
Reading a Newsgroup	462
Posting to a Newsgroup	462
Customizing Outlook Express	463
Summary	464

Part 5 • Home Networking 465

Chapter 16 • Windows XP Professional Networking and

Network Design Primer	467
Defining a Network	467
Early Networking: Sneakernet	468
LAN: The Better Way	468
Networking Vocabulary	472
A Little Theory	473
OSI Model	473
Protocol Stacks	476
The TCP/IP Protocol Suite	476
IP Addressing	477
Network Relationships	484
Master/Slave	484
Client-Server	484
Peer-to-Peer	485
Servers	485
What Type of Network Is Best?	486
The Look and Feel of a Network	487
Building Your Own Network	488
Selecting Ethernet Hardware	488
Network Cards	488
Cables	490
Wireless Considerations	492
Hubs/Switches	492
Routers	493
Installation	494
Summary	494

Chapter 17 • Setting Up and Configuring Your Own Small Network 495

Planning a Network	495
Connecting Your Ethernet Network	497
Configuring Your Network	498
Using the Network Setup Wizard	499
Configuring Older Windows Client Machines	501
Identification	502
File and Printer Sharing for Microsoft Networks	504
Configuring Windows XP Manually	504
Network Bridging	506
Creating Shares	507

Attaching to Network Resources	511
Browsing My Network Places	511
Mapping a Network Drive	511
Making a Direct Connection via a UNC	512
Using Profiles	514
Creating Hardware Profiles	514
Managing Hardware Profiles	516
Managing User Profiles	517
Troubleshooting Windows XP Professional Networking	519
Is It Plugged In?	519
Configuration Testing	520
Is Anybody Out There?	521
How Do You Troubleshoot Windows XP Professional Network Architecture?	527
Quick Advice	529
Summary	530
Chapter 18 • Wireless Networking	531
Wireless Standards and Hardware	531
Wireless Standards	531
Hardware	533
Wireless Windows XP Professional	536
XP Wireless Support	536
Connecting Windows XP to a Wireless Network	538
Summary	541
Chapter 19 • Windows XP Security	543
Understanding User Accounts in Windows XP Professional	543
Understanding User Rights	545
Creating a User Account	547
Creating a Group Account	549
Setting Permissions	550
Setting Share-Level Permissions	550
Types of File and Folder Permissions	553
Assigning File and Folder Permissions	556
Auditing Files and Folders	557
Understanding Ownership	560
Defining Ownership	560
Taking Ownership	561
Security Center	562
Summary	562
Part 6 • Advanced Networking	565
Chapter 20 • Connecting to Domains	567
Setting Up a Domain	567
Requirements on the Domain Server	569
User Accounts	569

Computer Accounts	570
Profiles	570
Name of Domain	570
Connecting to a Domain	570
Configuring Windows XP for a Domain	571
Attaching to Network Resources	580
Browsing My Network Places	580
Mapping a Network Drive	580
Making a Direct Connection via a UNC	581
Using Profiles	583
Creating Hardware Profiles	583
User Profiles	584
Attaching to Network Resources Using Login Scripts	584
Troubleshooting Domains	585
Receiving the Error Message "No Domain Server Was Available"	585
Identification	586
Summary	586
Chapter 21 • Working with Windows Server 2003	587
The Five Flavors of Server 2003	587
No More "Plain Old Server"	588
Just for Web Servers	588
Enterprise and Datacenter Features	588
Small Business Server 2003	589
XP Integration Is Here!	589
Free E-mail Server and SQL Server "Lite"	590
Networking Enhancements	591
Active Directory Improvements	591
Forest-to-Forest Trusts	591
Group Replication Problem Solved	592
Domains Can Be Renamed	592
AD Can Selectively Replicate	593
Better Security	593
Profiles and Policies	594
Software Restriction Group Policies	594
The Group Policy Management Console (GPMC)	594
Other Improvements	595
Remote Administration Upgrades	595
Better Reliability	595
Improved Storage	596
Connecting to a Windows Server 2003 Domain	597
Verify Your Network Configuration	597
Joining a Domain	600
Connecting to Network Resources	601
Changing Domain Passwords	603
Summary	603

Chapter 22 • Connecting to Non-Microsoft Networks 605

CSNW Features	606
Novell Directory Services versus Bindery-Based Servers	606
Using Novell Administration Utilities	608
Accessing a NetWare Server	610
Running NetWare and Windows Networking Together	611
Configuring Windows XP Professional to Run in Parallel with NetWare	611
Printing to Novell Printers	614
Enabling Long Filename Support on the Novell Server	615
Choosing a Novell Client Solution	616
Installing the Novell Client	616
Configuring the Novell Client	617
Entering the Dark World of Unix	618
Macintosh Networks	621
Summary	622

Part 7 • Network Administration 623**Chapter 23 • Administrative and Diagnostic Tools 625**

Using Disk Management	625
Deciding Which File System Is Best	626
Setting Up a New Disk Drive in Windows XP Professional	628
Using Event Viewer	633
Monitoring Performance	637
Adding a Counter in Graph View	640
Using Alerts	641
Using Counter Log View	642
Using Report View	643
Running System Information	643
Using Task Manager	647
Task Manager Applications	648
Task Manager Processes	648
Task Manager Performance	649
Task Manager Networking	649
Summary	650

Chapter 24 • Active Directory Essentials 651

Security: Keeping Track of Who's Allowed to Use the Network and Who Isn't	652
Maintaining a "Directory" of Users and Other Network Objects	653
Centralizing the Directory and Directories: A "Logon Server"	653
Searching: Finding Things on the Network	655
Finding Servers: "Client-Server Rendezvous"	655
Name Resolution and DNS	655
Creating New Types of Subadministrators	656
Delegation: Subdividing Control over a Domain	657
Satisfying Political Needs	658

Connectivity and Replication Issues	658
Scalability: Building Big Networks	659
Simplifying Computer Names or Unifying the Namespace	660
Satisfying the Lust for Power and Control	661
Connecting a Windows XP Professional Machine to an AD Domain	661
Checklist	661
Connecting to AD	662
Summary	664
Chapter 25 • Understanding and Using the Registry	665
What Is the Registry and What Does It Do?	665
Why Work with the Registry?	666
Preparing to Access the Registry	666
Running Registry Editor	667
Backing Up Your Registry	667
Restoring Your Registry	668
Working in the Registry	669
The Five Subtrees of the Registry	669
Keys, Subkeys, and Value Entries	669
Registry Data Types	670
Where the Registry Is Stored	672
Finding Information in the Registry	673
Editing a Value Entry	673
Adding a Key or a Value Entry	675
Deleting a Key or a Value Entry	675
Copying a Key Name	675
An Example: Changing Your Windows Name and Organization	676
Using Registry Favorites to Quickly Access Keys	676
Summary	676
Chapter 26 • Scripts for Automation	677
What Is Scripting?	677
Shell Scripting with BAT and CMD Files	678
Tools for Scripting	678
Your First Shell Script	679
Adding Logic to Shell Scripts	679
Introduction to the Windows Script Host	684
The WScript and CScript Executables	684
Script File Languages	685
XML-based Scripts	685
Your First WSH 2.0 Script	686
Adding Logic to Your Scripts	687
Advanced Concepts	689
Objects	689
Scheduling Scripts	691
Scripts for Common Administrative Chores	691
AddUser.wsf	691

<i>ChangeRole.wsf</i>	692
<i>LogEvent.vbs</i>	695
Summary	696

Chapter 27 • Disaster Prevention and Recovery 697

Avoiding Windows XP Professional Crashes	697
Buy Reliable Hardware	698
Guard against Environmental Hazards	699
Install Windows XP Professional Properly	699
Obtain Tested, Certified Drivers for Your Hardware	700
Always Shut Down Windows XP Professional Properly	700
Back Up Your Disk Regularly	700
Be Sure You're Authorized to Do Something Before Doing It	700
An Ounce of Prevention	701
Defragmenting Files	701
Cleaning Up Disks	701
Checking Disks for Errors	703
Restoring a Configuration	703
Using the Last Known Good Configuration	703
Using System Restore	704
Creating and Using the Automated System Recovery Disk	707
The Recovery Console	709
Installing the Recovery Console	709
Using the Recovery Console	710
The Driver Verifier—a Babysitter for Your Drivers	716
Running the Driver Verifier	717
System File Checker	718
Running the SFC	718
The Registry Entry That Lets You Force a Blue Screen (Core Dump)	719
Backing Up and Restoring	720
Making a Backup	720
Restoring a Backup	724
Summary	725

Chapter 28 • Auditing Security 727

Deciding What to Audit	727
Benefits of Auditing	728
The Dark Side of Auditing	729
Setting Up Auditing in Windows XP	729
Monitoring Security	733
Summary	735

Part 8 • Advanced Topics 737

Chapter 29 • Secure Telecommuting 739

Telecommuting Overview: Risks and Rewards	739
---	-----

Protecting against the Interception of Data	740
Securing RAS Dial-In Sessions	740
Virtual Private Networking Connections	742
VPN Performance Considerations	745
Protecting against the Impersonation of a User	746
Common Sense Guidelines	746
Encrypted Authentication	747
Caller-ID/Callback Security	747
Third-Party Products: SecurID, SafeWord	748
Protecting against the Abduction of Data	749
Encrypting Files with EFS	749
Summary	751
Chapter 30 • The Microsoft Management Console	753
The Basic Features of MMC	753
MMC Terms to Know	754
The MMC Console	755
What Are Snap-ins?	755
Working in Author Mode and Adding Snap-Ins	757
Customizing MMC Views	759
User Mode–Full Access	760
User Mode–Limited Access, Multiple Window	761
User Mode–Limited Access, Single Window	762
The Computer Management Console	762
Additional Customization Options	764
File	764
Action	765
Taskpad	765
View	768
Favorites	768
Summary	769
Chapter 31 • Managing Windows XP Professional Services	771
The Purpose of a Service	771
The Service Management Console	772
Windows XP Professional Services	773
Automatic Services	773
Manual Services	775
Disabled Services	778
Additional Services	778
Configuring Services	778
General Startup	779
Log On	779
Recovery	780
Dependencies	781
Service Commands	782

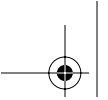
Troubleshooting Service Issues 784
Summary 785

Chapter 32 • Hosting Web/FTP Servers 787

Installing Internet Information Services 787
Windows XP Professional Limits on IIS 790
The Internet Information Services Console 790
 Connecting to Remote IIS Services 790
 Basic Configuration Management 791
Configuring the Web Server 792
 Generic Website Configuration 792
 Specific Website Configuration 798
Configuring the FTP Server 808
 FTP Site 808
 Security Accounts 809
 Messages 809
 Home Directory 810
 Virtual Directories 811
Configuring the SMTP Server 812
 Basic SMTP Configuration 813
 Access 814
 Messages 815
 Delivery 816
 LDAP Routing 817
 Security 818
Troubleshooting IIS 818
 Log Files 818
Summary 819

Chapter 33 • Advanced Troubleshooting Methodology 821

The Tao of Troubleshooting 821
 Define the Problem: "It's Broken." 822
 Explore the Boundaries 822
 Brainstorm and Document 822
 Test Your Ideas 823
 Repair the Problem 823
 Clean Up after Yourself 823
 Provide Closure 823
 Document the Situation 824
Troubleshooting Printing 824
 Troubleshooting Scenario 1: Printer Is Unplugged 825
 Troubleshooting Scenario 2: Nothing in the Print Queue Will Print 825
 Other Print Troubleshooting Steps 827
Troubleshooting Windows XP Professional Setup 828
 Planning and Text Mode Setup 828
 Troubleshooting Scenario 3: Drives Not Found 829



SCSI Troubleshooting 830

Troubleshooting Text Mode to GUI Mode 831

Addressing GUI Mode and Initial Boot Issues 833

Troubleshooting Stop Errors 833

 Common Stop Errors 834

 Responding to Stop Errors 836

 Fixing Stop Errors 836

Boot Process Troubleshooting 837

Summary 838

Index 839

