Index

Note to the Reader: Throughout this index boldfaced page numbers indicate primary discussions of a topic. Italicized page numbers indicate illustrations.

**A**

AAAA (alias) records, 420
accessors
description, 5
Internet Explorer 9, 273–277, 273–276
MAP, 90–91
Access Credential Manager As A Trusted Caller right, 339
Access This Computer From The Network right, 339
Accessories section, 160, 160
Account Is Disabled option, 299
Account Lockout Duration policy, 333–334
Account Lockout Threshold policy, 333–334
Account Policies settings, 329
accounts. See users
ACPI (Advanced Configuration and Power Interface) functionality, 14, 201–202
ACT (Application Compatibility Toolkit), 16, 66
Act As Part Of The Operating System right, 339
Action Center, 165, 346–347, 346
action logs, 30
Actions pane in MMC, 111, 111
Actions tab in Task Scheduler, 506
Active Directory
adding domains through, 432
for networks, 385–387, 386
WDS, 61–62, 82–83
Active Directory Users and Computers, 110, 386, 432
ActiveX Filtering, 261
Activity Monitor, 279
Ad Hoc wireless networks, 400–401
adapters. See network adapters
Add A Local Printer option, 246
Add A Network, Wireless Or Bluetooth Printer option, 249
Add A Printer option, 245–246
Add Counters dialog box, 479–480
/Add-Driver command, 76
Add Features Wizard, 451
Add Hardware Wizard, 237–239, 238–239
Add Image To The Windows Deployment Server
Now option, 86
add-ons in Internet Explorer 9, 277–277, 273–276
/add option in WDSUTIL, 83
Add or Remove Snap-ins dialog box
LGPO, 296, 296
Local Computer Policy, 327–328
MMC, 112, 113
Add Printer Wizard, 245–249, 246–248
Add Recovery Agent Wizard, 139, 139
Add Roles Wizard, 84
Add Workstations To Domain right, 339
Address bar in IE9, 261
addresses. See IP addresses
Adjust Indexing Options option, 499
Adjust Memory Quotas For A Process right, 339
Adjust Power Settings option, 499
Adjust Visual Effects option, 499
admin password, 59
Administrative Events view, 509–510, 510
Administrative Tools icon, 165
Administrator account, 292–293
administrator accounts, 291–293
Administrator page in Windows Defender, 351
Administrators group, 317–318
Administrators LGPO, 326
Advanced Attributes dialog box, 133–134, 134, 137
Advanced Audit Policy Configuration settings, 330
Advanced Boot Options screen, 521, 522
boot logging, 524–525, 524
options, 525–526
Safe Mode, 522–524, 523
Advanced Configuration and Power Interface (ACPI) functionality, 14, 201–202
Advanced Settings tab, 205, 205
Advanced Sharing dialog box, 369
Advanced System Settings section, 181–182, 181
Advanced tab
Device Manager, 228, 228
Internet Explorer 9, 280
network adapters, 392, 392
printers, 251, 251
Remote Desktop, 196, 197
Windows Defender, 351
Advanced Tools option, 499
Aero theme, 162–164
alerts
counters for, 484
thresholds, 471–477, 472–476
Windows Defender, 353
ALG (Application Layer Gateway), 419
alias (AAAA) records, 420
All Programs section, 157, 157
Allow Admin Password screen, 59
Allow Another Program option, 440
Allow Connections From Computers Running Any Version Of Remote Desktop (Less Secure) option, 180
Allow Connections Only From Computers Running Remote Desktop With Network Level Authentication (More Secure) option, 180
Allow Image Capture screen, 58, 58
Allow Log On locally right, 339
Allow Log On Through Remote Desktop Services right, 339
Allow Product Key screen, 59
Allow Remote Assistance Connections To This Computer option, 190, 196
Allow rules in AppLocker, 355
Allow The Computer To Enter Away Mode option, 203
Allowed Items in Windows Defender, 352–353
Allowed Programs dialog box, 440, 441
Anonymous Logon group, 319
AnonymousAddress value, 422
answer files, 59, 76–80, 78–80
AntiSpyware. See Windows Defender
anycast addresses, 419, 421
APIPA (Automatic Private IP Addressing), 428
Appearance tab in Performance Monitor, 482, 483
/append switch in ImageX, 73
Application category in Reliability Monitor, 490
Application Compatibility Toolkit (ACT), 16, 66
Application Control Policies settings, 330
Application Layer Gateway (ALG), 419
Application log, 508–509, 509
applications
AppLocker utility, 355
compatibility issues, 16
compatibility mode, 258–259, 259
exam essentials, 281
file extension associations, 260, 260
Internet Explorer 9. See Internet Explorer 9 (IE9)
overview, 256
review questions, 282–288
shims, 259–260
summary, 280–281
Task Manager, 493, 493
Windows Virtual PC, 256–258
Windows XP Mode, 256
Applications And Services Logs folder, 510, 510
Applications tab, 493, 493
AppLocker utility, 355
Apply Changes To This Folder, Subfolders and Files option, 134
/apply switch in ImageX, 73
/approve-autoadddevices option, 84
architecture, 5–6
Assign Drive Letter Or Path screen, 123, 123
association of file extensions, 260, 260
audit policies, 336–338, 337
/audit switch in sysprep, 64, 71
auditSystem component in Windows SIM, 77
auditUser component in Windows SIM, 77
Authenticated Users group, 319
authentication
IPv6 headers, 418
domain, 294–295
smart cards, 356
troubleshooting, 315
Author mode in MMC, 112
AutoComplete feature, 280
autoconfiguration of IPv6 addresses, 417
Automatic Private IP Addressing (APIPA), 428
Automatic Scanning setting, 349
automating installation, 53–54
advantages, 60
answer files, 76–80, 78–80
deployment options, 54–59, 55, 57–58, 67–68
disadvantages, 60–61
disk images
Deployment Image Servicing and Management, 75–76
ImageX, 72–74
installation from, 72–74
System Preparation Tool for, 62–66, 70–72
exam essentials, 92–93
MAP toolkit, 87–92, 90
overview, 59–60, 60
review questions, 94–100
Setup for, 69–70
summary, 92
WDS, 61–62, 61, 80–87, 81, 85–86
Windows AIK, 66–67
AutoPlay icon, 165, 166
Autounattend.xml file, 59, 68
Available MBytes counter, 486
Average counter, 477
Away Mode, 203

B

Back Up Files And Directories right, 338–339
background, color, 162
Backup And Restore icon, 166
Backup And Restore utility, 527, 528
backups, 528–532, 529–532
restoring files, 532–534, 533–534
Backup Operators group, 318
Backup Status And Configuration dialog box, 118
Backup Wizard, 528
backups and recovery, 520
Advanced Boot Options screen, 521, 522
boot logging, 524–525, 524
options, 525–526
Safe Mode, 522–524, 523
Backup and Restore utility, 527, 528
backups, 528–532, 529–532
restoring files, 532–534, 533–534
basics, 520–521
encrypted files, 138–141, 139
exam essentials, 543
home folders for, 314
review questions, 544–550
Startup Repair tool, 526–527
summary, 543
system images, 535–538, 536–537
System Protection, 538–543, 538–541
wbadmin.exe command, 535
Balanced power plan, 203
Base Video startup, 500
baselines for performance, 470
basic disks
converting to dynamic disks, 126
overview, 106–107
upgrading to GPT disks, 124–125, 125
batch files in logon scripts, 312
Batch group, 319
battery meter, 201, 207
BCD (Boot Configuration Data) store, 37
bcdedit utility, 37–38
BIOS compatibility, 14
BitLocker Drive Encryption, 166, 354, 356
Block All Cookies option, 279
Block All Incoming Connections option, 440–441
Bluetooth device support, 224
Boot Configuration Data (BCD) store, 37
Boot Log startup, 500
boot logging, 524–525, 524
boot partitions, 21
boot sector, 21
Boot tab in System Configuration, 500, 501
bottlenecks, identifying, 470–471
BranchCache, 449–451
BranchCache Properties dialog box, 451
broadcast addresses, 411
browsers. See Internet Explorer 9 (IE9)
built-in groups, 316–320
built-in user accounts, 292–293, 292
Bypass Traverse Checking right, 340
Bytes Total/Sec counter, 489

C
cabling
network adapters, 396
transparent, 200
Caching option for shared folders, 369
Calculator program, 158
cameras, 223
/capture switch in ImageX, 73
CDFS (Compact Disk File System), 103
central processing units (CPUs), 6
MAP accelerator, 90
performance, 486–488
requirements, 12–13
Resource Monitor, 473, 473
scheduling, 487–488
tuning and upgrading, 487
centralized management, Active Directory for, 385–387, 386
CER files, 138–139
certificates
DRA, 138–139
IE9, 280
Change Desktop Icons option, 163
Change Drive Letter and Paths dialog box, 126–127, 126
Change Drive Letter or Path dialog box, 126–127, 126
Change Graph Type button, 478, 478
Change Mouse Pointers option, 163
Change My Environment Variables option, 298
Change permission, 371
Change Settings option, 41, 41
-change switch in Powercfg.exe, 206
Change The System Time right – converting

Change The System Time right, 340
Change The Time Zone right, 340
Change User Account Control Settings option, 298
Change Your Account Name option, 298
Change Your Account Picture option, 298
Change Your Account Type option, 298
Change Your Password option, 298
Change Your Picture option, 298
–changenam switch in Powercfg.exe, 206
Check Disk utility, 145–146, 146
Check For Updates option, 40, 40
child domains, 385–386
Chkdsk command, 146
Choose Target Machine dialog box, 296
CHS (Cylinder-Head-Sector) addressing, 109
CIDR (Classless Inter-Domain Routing), 413
Cipher utility, 138, 140–141
ciphertext, 135
classes for IPv4 addresses, 412–415
Classless Inter-Domain Routing (CIDR), 413
clean installs, 22–27, 23–27
cleaning up
disks, 144–145, 145
restore points, 542–543
Clear-History cmdlet, 447
clickjacking, 267–268
clients
for networks, 388
WDS, 86–87
cluster size, 104
cmdlets, 447
colons (:) in IPv6 addresses, 416
color
Remote Desktop, 194
schemes, 162
Color Management icon, 166, 167
command-line options in Windows installation, 43
Comments option for shared folders, 369
Compact command, 134–135
Compact Disk File System (CDFS), 103
compatibility issues
applications, 16, 258–259, 259
hardware, 16
reports, 28
wireless cards, 408
Compatibility tab, 258, 259
Compatibility View in IE9, 265
Compress Contents To Save Disk Space option, 133–134
compression, 133
Compact command, 134–135
folders, 133–135
Computer Management utility, 114
services, 208, 208
users and groups, 297
Computer Name, Domain, And Workgroup settings section, 179, 179
computer names
in installation, 25, 25
renaming, 179, 183
Computer shortcut, 161
Conditions tab in Task Scheduler, 506–507
configSDDL command, 447
configuration changes, testing, 471
configurations disk, 21
Configuring Advanced User Profile Properties option, 298
Confirm Attribute Changes dialog box, 134, 134, 137
Confirm Device Uninstall dialog box, 236
Confirm Password option, 299
Connect Automatically When This Network Is In Range option, 405
Connect dialog box for VPNs, 199
Connect Even If The Network Is Not Broadcasting Its Name (SSID) option, 405
Connect To A More Preferred Network If Available option, 405
Connect To A Workplace screen, 197–198, 198–199
Connect to The Internet Wizard, 280
Connection tab, 404
connections
IE9, 280
remote. See remote connections
Windows Firewall rules, 445
wireless network status, 397–400, 398–399
Connections tab, 280
connectivity, network, 381
console tree in MMC, 111, 111
Content Advisor, 280
Content tab in IE9, 279–280, 279
Control Panel, 161, 165–179, 166–175, 177–178
/convert-ripimage option in WDSUTIL, 83
Convert To Dynamic Disk dialog box, 126
Convert To MBR Disk option, 125
Convert utility, 105
converting
basic disks to dynamic disks, 125–126, 125
file-systems, 105–106
cookies, 279
copied files, permissions for, 368
`/copy-image` option in WDSUTIL, 83
Copy Network Settings Wizard, 405–406, 405–406
Copy This Network Profile To A USB Flash Drive option, 405
copying user profiles, 312
costs of Active Directory, 387
counters, 477–478
    adding, 479–480
disks, 488
memory, 486
networks, 489
processor, 487
views, 478–479, 478–479
CPU tab, 473, 473
CPUs. See central processing units (CPUs)
Create A New Task dialog box, 495
Create A Pagefile right, 340
Create A Password Reset Disk option, 298
Create A System Image screen, 536, 536
Create A Token Object right, 340
Create Basic Task Wizard, 505
`create` command in WinRM, 446
Create Global Objects right, 340
Create New Data Collector Set dialog box, 484
Create New Data Collector Wizard, 484
Create Or Select A Database screen, 91
Create Permanent Shared Objects right, 340
Create Symbolic Links right, 340
`/createsetstore` command in `bcdedit`, 37
Creator Owner account, 319
Credential Manager icon, 167, 167
credentials, logon, 294
cross-site scripting (XSS), 267–268, 267
Cryptographic Operators group, 318
Ctrl+Alt+Del sequence, 294–295
Current Disk Queue Length counter, 488
Custom Scans in Windows Defender, 353
Custom Setup screen, 57, 57
cybercriminals, 265
Cylinder-Head-Sector (CHS) addressing, 109
data compression, 133
`Compact` command, 134–135
folders, 133–135
data encryption. See encryption
Data Execution Prevention section, 182
data logs in Performance Monitor, 484
data recovery agent (DRA), 136, 138–140, 139
Data tab in Performance Monitor, 480, 482
Data Users Properties dialog box, 322
Date and Time dialog box, 343, 343
Date And Time icon, 168, 168
dates
    locale settings, 21
    synchronization, 168, 168
`/debug` option in `Setup.exe`, 69
Debug Programs right, 340
Debugging Mode option, 526
Default Actions settings in Windows Defender, 349, 350
`/default` command in `bcdedit`, 37
default gadget gallery, 159
default printers, 248
Default Programs icon, 159, 168, 168
definitions in Windows Defender, 347
defragmenting disks, 142–144, 143
`/delete-autoadddevices` option, 84
def`lete` command in WinRM, 446
`/delete` switch in ImageX, 74
    -delete switch in `Powercfg.exe`, 206
    -deletesetting switch in `Powercfg.exe`, 206
`/deletevalue` command in `bcdedit`, 37
deleting
groups, 323
    partitions and volumes, 127–128
printers, 255–256
user accounts, 303–305, 304
Deny Access To This Computer From The Network right, 340
Deny Disk Space To Users Exceeding Quota Limit option, 122
Deny Log On As A Batch Job right, 340
Deny Log On As A Service right, 340
Deny Log On Locally right, 340
Deny Log On Through Terminal Services right, 340
Deny rules in AppLocker, 355
Dependencies tab, 210
Deployment Image Servicing and Management (DISM.exe), 75–76
Deployment Share Description screen, 58
Description option, 299
design goals for access control, 361

D

data collector sets
    alerts, 471–472
    Performance Monitor, 483–484, 483

data compression, 133
`Compact` command, 134–135
folders, 133–135
data encryption. See encryption
Data Execution Prevention section, 182
data logs in Performance Monitor, 484
data recovery agent (DRA), 136, 138–140, 139
Data tab in Performance Monitor, 480, 482
Data Users Properties dialog box, 322
Date and Time dialog box, 343, 343
Date And Time icon, 168, 168
dates
    locale settings, 21
    synchronization, 168, 168
`/debug` option in `Setup.exe`, 69
Debug Programs right, 340
Debugging Mode option, 526
Default Actions settings in Windows Defender, 349, 350
`/default` command in `bcdedit`, 37
default gadget gallery, 159
default printers, 248
Default Programs icon, 159, 168, 168
definitions in Windows Defender, 347
defragmenting disks, 142–144, 143
`/delete-autoadddevices` option, 84
def`lete` command in WinRM, 446
`/delete` switch in ImageX, 74
    -delete switch in `Powercfg.exe`, 206
    -deletesetting switch in `Powercfg.exe`, 206
`/deletevalue` command in `bcdedit`, 37
deleting
groups, 323
    partitions and volumes, 127–128
printers, 255–256
user accounts, 303–305, 304
Deny Access To This Computer From The Network right, 340
Deny Disk Space To Users Exceeding Quota Limit option, 122
Deny Log On As A Batch Job right, 340
Deny Log On As A Service right, 340
Deny Log On Locally right, 340
Deny Log On Through Terminal Services right, 340
Deny rules in AppLocker, 355
Dependencies tab, 210
Deployment Image Servicing and Management (DISM.exe), 75–76
Deployment Share Description screen, 58
Description option, 299
design goals for access control, 361
Desktop
configuring, 156–162, 157–160
Remote Desktop. See Remote Desktop
Desktop Background option, 162
Desktop Gadgets icon, 169
details pane in MMC, 111, 111
Details tab in network adapters, 394, 394
/detectnow option, 43
device drivers. See drivers
Device Manager, 222–223
drivers
  disabling and enabling, 235
  information on, 231–233, 231–232
  installing, 229–231, 230–231
  rolling back, 234
  signing, 239–241, 240
  uninstalling and reinstalling, 236–239, 236, 238–239
  updating, 233–234, 233
network adapters, 390–391, 391, 396
overview, 225
properties, 227–229
in Safe Mode, 523
working with, 225–227, 226–228
Device Manager icon, 169
Device Settings tab for printers, 252, 252
Device Stage, 4, 222–223
  overview, 223–225, 223–224
  printer documents, 253
Devices And Printers icon, 161, 169
Devices And Printers window
  Device Stage, 223–225, 223–224
  printers
    configuring, 249, 250
    installing, 245, 245
    printing status, 253, 254
    removable storage, 241, 242
Devices report, 17
DHCP (Dynamic Host Configuration Protocol)
servers, 61
configuring, 427–428
networks, 388–389
DHCP Option 60 screen, 85, 85
Diagnostic Startup option, 500
Dialup group, 319
digital cameras, 223
/dirt switch in ImageX, 74
DirectAccess, 452
  infrastructure requirements, 453–454, 454
  operation, 452–453
  vs. VPNs, 452
DirectAccess Manager, 454
DirectAccess Setup Wizard, 454, 454
Directory Services Restore Mode option, 526
Disable Automatic Restart On System Failure option, 526
Disable Driver Signature Enforcement option, 526
/disable option in WDSUTIL, 84
disabled users, authentication errors from, 315
disabling
  drivers, 235
  user accounts, 302–303
Disk Cleanup Options option, 499
Disk Cleanup utility, 35, 117, 144–145, 145, 542–543
Disk Defragmenter utility, 118, 142–144, 143
Disk Management utility
  adding disks, 122–123
  converting basic disks to dynamic disks, 126
  deleting partitions and volumes, 127–128
  disk initialization failures, 132
disk properties, 115–116, 116
  General, 117, 117
  Hardware, 118–119, 119
  Previous Versions, 121, 121
  Quota, 121–122, 122
  Security, 120, 120
  Sharing, 119, 120
  Tools, 118, 118
  drive letters and paths, 126–127, 126
dynamic storage, 128–131, 130
MMC, 110–114, 111, 113
overview, 110, 114–115, 114
status codes, 131–132
upgrading basic disks to GPT disks, 124–125, 125
Disk tab in Resource Monitor, 474–475, 475
% Disk Time counter, 488
Diskpart utility, 115
disks, 101–102
  basic storage, 106–107
  checking, 145–146, 146
  cleaning up, 144–145, 145
  compression, 133–135
defragmenting, 142–144, 143
efficient storage, 128–131, 130
efficiency, 128–131, 130
encryption. See encryption
exam essentials, 147
file systems, 102–106
GUID Partition Tables, 109–110
images
  Deployment Image Servicing and Management, 75–76
ImageX, 72–74
installation from, 72–74
System Preparation Tool for, 62–66, 70–72
installation problems from, 29–30
managing. See Disk Management utility
partitioning, 20–21, 25, 23
performance, 488–489
requirements, 12–13
review questions, 148–155
summary, 146–147
Disks To Convert dialog box, 126
DISM.exe (Deployment Image Servicing and
Management), 75–76
Display icon, 169
Display tab in Remote Desktop, 194, 194
/displayorder command in bcdedit, 37
distributed cache mode in BranchCache, 449–451
Distributed COM Users group, 318
DLLs (dynamic-link libraries), 16
DNS (Domain Name Service) servers, 61, 388
documents
printer, 252–255, 253–254
signing, 356
Documents folder, 161
domain-based networks, 385–387, 386
Domain Highlighting feature, 266–267, 266
Domain Name Service (DNS) servers, 61, 388
domains
adding Windows 7 to, 431–432, 432
changing, 179
domain controllers, 387–388
highlighting, 261
logons, 356
user accounts, 293
Don’t Allow Connections To This Computer
option, 180
dotted decimal notation, 412–413
downloading
MDT 2010, 56–57, 57
Windows AIK, 78–79, 78
Windows Virtual PC, 257–258
DRA (data recovery agent), 136, 138–140, 139
drive letters, 126–127, 126
Driver File Details dialog box, 393
Driver tab
Device Manager, 231–235, 232
network adapters, 393–394, 393
drivers
disabling and enabling, 235
information on, 231–233, 231–232
installation problems from, 29
installing, 229–231, 230–231
network adapters, 393–395, 393
requirements, 14
rolling back, 234, 394
signing, 239–241, 240
uninstalling and reinstalling, 236–239, 236,
238–239
updating, 233–234, 233, 393, 489–490
drives
logical, 106
requirements, 12
dual-booting, 36–38
dual stack devices, 416, 418–419, 423–424
/dudisable option in Setup.exe, 69
duration counter, 477
DVD Maker application, 160
dynamic disk storage, 107, 128
converting basic disks to, 126
extended volumes, 129–131, 130
simple volumes, 107, 107, 129
striped volumes, 108–109, 109, 129
Dynamic Host Configuration Protocol (DHCP)
servers, 61
configuring, 427–428
networks, 388–389
dynamic-link libraries (DLLs), 16

E
Ease Of Access Center icon, 169
Easy Connect method in Remote Assistance,
187–192, 187, 190–192
Easy Transfer utility, 33–35
Edit Action dialog box, 506
Edit Trigger dialog box, 506
effective permissions, 365–368
EFI (Extensible Firmware Interface) initiative, 109
EFS (Encrypting File System). See encryption
email, signing, 356
/email switch in MSRA, 188
/emsport option in Setup.exe, 70
enable Boot Logging option, 524
Enable Computer And User Accounts To Be
Trusted For Delegation right, 341
Enable Low-Resolution Video (640X480)
menu, 525
/enable option in WDSUTIL, 84
Enable Quota Management option, 121
enabling drivers, 235
Encapsulating Security Payload headers, 418
Encrypt Contents To Secure Data option, 137
encryption, 135–136
backing up encrypted files, 529
BitLocker Drive Encryption, 354, 356
file sharing, 137–138
passwords, 331–332
process, 136–137
recovering encrypted files, 138–141, 139
wireless networks, 406
Encryption Details dialog box, 138
Encryption Type setting, 406
-energy switch in Powercfg.exe, 206
Enforce Password History policy, 331–332
Enterprise version, 9–11
enumerate command in WinRM, 446
Error-Checking utility, 118
events
 disks, 145–146, 146
error logs, 30
logon, 315
EUI-64 (Extended User Interface 64-bit) format, 422
Event Log Readers group, 318
Event Properties dialog box, 511
Event Viewer
 overview, 508–512, 508–510
 for recovery, 521
Everyone group, 319
Excluded File Types setting, 350
Excluded Files And Folders setting, 350
executables, elevated privileges for, 345
Expand command, 134
Experience tab in Remote Desktop, 196, 196
/export switch in MSRA, 188
/export command in bcdedit, 37
/export-image option in WDSUTIL, 84
/export switch in ImageX, 74
Extend Volume Wizard, 129–130, 130
extended partitions, 106
Extended User Interface 64-bit (EUI-64) format, 422
extended volumes, 129–131, 130
Extensible Firmware Interface (EFI) initiative, 109
extension associations, 260, 260
extension headers in IPv6 addresses, 416, 418
features
 installing, 175, 175
 overview, 3–4
Feeds And Web Slices settings, 280
File Signature Verification box, 240, 240
file systems, 102
 converting, 105–106
FAT32, 104
NTFS. See NTFS file system
selecting, 103
files
 answer, 59, 76–80, 78–80
encryption. See encryption
extension associations, 260, 260
migrating, 30–33
security, 356–357
 access control, 360–368, 363–364
 Folder Options dialog box, 357–360, 357–358, 360
sharing, 137–138
virtualization, 345–346
filters
 ActiveX, 261
 firewall rules, 444
 SmartScreen, 268–269, 268–269
 firewalls
 BranchCache, 449–450
 Windows Firewall. See Windows Firewall
Folder Options dialog box, 357
description, 169, 169
General tab, 357, 357
Search tab, 360, 360
View tab, 358–359, 358
Folder Options icon, 169
folders
 compressing and uncompressing, 133–134
 encrypting. See encryption
generating, 313–314
home, 313–314
security, 356–357
 access control, 360–368, 363–364
 Folder Options dialog box, 357–360, 357–358, 360
shared, 368–371
Fonts icon, 169
Force Shutdown From A Remote System
right, 341
Foreign disk status, 132
Format Partition screen, 124, 124
Format-table cmdlet, 447
Forwarded Events log, 508
% Free Space counter, 488
frequently asked questions in Windows Update, 42
F
Failed disk status, 132
FAT32 file system
 converting to NTFS, 105–106
features, 103
 overview, 104
faxes, 160
Full Control permission, 361–362, 371
Full Name option, 299
Full Scans in Windows Defender, 353

G

gadgets, 159, 169
Games section, 160
General tab
  Device Manager, 227, 228
  DHCP, 427
  folders, 357, 357
  IE9, 277–278, 278
  network adapters, 391, 392
  Performance Monitor, 480–481, 481
  printers, 250
  Remote Desktop, 194, 194
  services, 209, 209
  static TCP/IP addresses, 427
  System Configuration, 500, 500
  Task Scheduler, 506
  users, 307, 307
  volume properties, 117, 117
  generalize component in Windows SIM, 77
/generate switch in sysprep, 64, 71
  Generate Security Audits right, 341
/get command in WinRM, 446
/Get-CurrentEdition command, 76
Get-Date cmdlet, 447
/Get-DriverInfo command, 76
/Get-Drivers command, 76
Get-Event cmdlet, 447
/Get-Help command, 76
/get option in WDSUTIL, 83
/Get-TargetEditions command, 76
/getcontacthelp switch in MSRA, 189
/geteasyhelp switch in MSRA, 189
  Getting Started icon, 170
  Getting Started tasks, 158, 158
  gigahertz (GHz), 6
  Global Catalogs, 389
  global unicast addresses, 421–422
  GPMC (Group Policy Management Console), 324
  GPOs (Group Policy Objects), 324. See also Local Group Policy Objects (LGPOs)
gresult command, 325
GPTs (GUID Partition Tables) disks
  overview, 109–110
  upgrading basic disks to, 124–125, 125
  Graph tab in Performance Monitor, 482, 482
  graphics card resolution, 13
  Group Policy in IE9, 269
  Group Policy Management Console (GPMC), 324
  Group Policy Object Editor snap-in, 327–328
  Group Policy Objects (GPOs), 324
    basics, 323–325
    Local Security Policy, 328–330, 329
    managing and applying, 326–328, 327
  Group Policy Result Tool, 325–326
  groups
    built-in, 316–320
    creating, 320–321, 320
    deleting, 323
    exam essentials, 371–372
  Group Policy Result Tool, 325–326
  LGPOs
    basics, 323–325
    Local Security Policy, 328–330, 329
    managing and applying, 326–328, 327
    membership, 307–308, 308, 321–323,
      321–322
    review questions, 373–380
    summary, 371
  Groups folder, 321
  Guest account, 292
  Guests group, 318
  GUID Partition Tables (GPTs), 109–110

H

hard disks. See disks

hardware
  compatibility issues, 16
  configuring, 222–223
  Device Manager, 225–229, 226–228
  Device Stage, 223–225, 223–224
  exam essentials, 281
  installation problems from, 29
  MAP, 90
  overview, 222
  properties, 118–119, 119
  requirements, 12–14
  review questions, 282–288
  summary, 280–281

  hardware based RAID, 141–142
  Hardware Compatibility List (HCL), 14, 395
  Hardware tab for disk properties, 118–119, 119
  hardware vendor driver recommendations, 237
  HCL (Hardware Compatibility List), 14, 395
  headers in IPv6 addresses, 416, 418
Healthy disk status, 131
Healthy (At Risk) disk status, 131
Help And Support dialog box in Safe Mode, 524
Help And Support shortcut, 161
helpmsg command, 447
hexadecimal notation for IPv6 addresses, 419
hibernation
   configuring, 206
   enabling, 202–203, 202
hidden updates, 42
High Performance power plan, 203
histogram bar view in Performance Monitor, 478, 478
history in Windows Update, 41, 42
History menu in Windows Defender, 353
History tab in Task Scheduler, 307
HKEY_ Registry keys, 185
Home Basic edition, 7–8, 10–11
home folders, 313–314
Home Premium edition, 8, 10–11
HomeGroups, 4
description, 170, 292
joining and sharing, 433–438, 433–438
hosted mode in BranchCache, 449, 451
hot swapping support, 122–123
Hyper-V virtualization, 455–457
hypervisors, 456

I/O devices, 241
printers. See printers
removable storage devices, 241–243, 242–243
ICACLS utility, 367–368
icons
   Control Panel, 165–179, 166–175, 177–178
   Desktop, 163
   System, 179–184, 179–182
identity command in WinRM, 446
IE8 (Internet Explorer 8), 4–5
IE9. See Internet Explorer 9 (IE9)
IIS_IUSRS group, 318
images, disk
   Deployment Image Servicing and Management, 75–76
   ImageX, 72–74
installation from, 72–74
   System Preparation Tool for, 62–66, 70–72
ImageX utility, 68, 72–74
Impersonate A Client After Authentication right, 341
/import command in bcedit, 37
Import Computer Names From A File option, 88
Import Foreign Disks option, 132
Import-Module cmdlet, 447
inbound rules in Windows Firewall, 442–444, 443
Include Inheritable Permissions From This Object’s Parent option, 365
Incomplete disk status, 132
Increase A Process Working Set right, 341
Increase Scheduling Priority right, 341
Indexing Options feature, 170, 170, 499
/info switch in ImageX, 74
Information category in Reliability Monitor, 491
inheriting permissions, 364–365
Initial User account, 292
initialization failures, 132
Initialize Disk option, 132
/initialize-server option in WDSUTIL, 83
InPrivate Browsing, 262, 269–272, 270–272
InPrivate Filtering dialog box, 271, 271
InPrivate Filtering Settings dialog box, 271, 272
Install Windows dialog box, 526, 537, 542
Installation Complete screen, 18, 18
Installed Updates option, 42
installing
device drivers, 229–231, 230–231
DirectAccess, 453
features, 175, 175
MAP, 90–91, 90
MD1 2010, 96–97, 57
printers, 245–249, 245–248
WDS, 84–85
Windows 7, 2
automating. See automating installation
clean installs, 22–27, 23–27
cmdline options, 43
disk partitioning, 20–21
dual-booting and multibooting, 36–38
exam essentials, 44–45
hardware requirements, 12–14
language and locale settings, 21
migrating files and settings, 30–33
new installs vs. upgrades, 14–16
preparing for, 6–11
review questions, 46–52
service packs, 43
starting, 22
summary, 43
troubleshooting, 29–30
upgrades, 16–19, 17–18, 27–28
Windows Activation, 38, 38
Windows Update, 38–42, 39–42
Windows XP upgrades, 34–36
Windows AIK, 78–79, 78
Instant Search, 4
Interactive group, 319
interactive logons, authentication errors from, 315
Internet Explorer 8 (IE8), 4–5
Internet Explorer 9 (IE9), 260–261
    accelerators, 273–277, 273–276
    add-ons, 272–277, 273–276
    Advanced settings, 280
    Compatibility View, 265
    Connections settings, 280
    Content settings, 279–280, 279
    controls, 261
    General settings, 277–280, 278
    pinning sites to Taskbar, 261
    Privacy settings, 278–279
    Programs settings, 280
    Protected Mode, 277
    searchable Address bar, 261
    security and safety features, 265–266
        cross-site scripting, 267–268, 267
        Domain Highlighting feature, 266–267, 266
        enhancements, 261–262
        InPrivate Browsing, 269–272, 270–272
        SmartScreen Filter, 268–269, 268–269
    Security settings, 278
    Web Slices, 262–264, 262–263
    Internet Explorer shortcut, 160
    Internet Options icon, 171
    Internet Properties dialog box, 171, 171
    Internet Protocol security (IPsec), 418
    Interrupts/Sec counter, 487
    Int1cfg program, 75
    Intra-Site Automatic Tunnel Addressing Protocol
    (ISATAP), 416, 419, 424
    invoke command in WinRM, 446
    Invoke-command cmdlet, 447
    IP addresses, 411
    IPv4
        classes, 412–415
        subnet masks, 413–415
        types, 411–412
    IPv6
        assigning, 420–421
        format, 419–420
        information commands, 425–426
        integration/migration, 423–425
        shortcuts, 420
        types, 421–423
        working with, 415–419
    IP Security Policies On Local Computer
        settings, 330
    ipconfig command
        IPv6 addresses, 425
        switches, 429
    IPsec (Internet Protocol security), 418
    IPv4-to-IPv6 transmission, 418–419
    ISATAP (Intra-Site Automatic Tunnel Addressing
        Protocol), 416, 419, 424

J
joining HomeGroups, 433–438, 433–438
Jump Lists, 3

K
Keyboard icon, 171

L
L2TP (Layer 2 Tunneling Protocol), 197
labels, volume, 117
language settings, 21
Last counter, 477
Last Known Good Configuration (Advanced)
    option, 526
Layer 2 Tunneling Protocol (L2TP), 197
LBA (Logical Block Addressing), 109
leading zeros in IPv6 addresses, 417
LGPOs (Local Group Policy Objects)
    basics, 323–325
    Local Security Policy, 328–330, 329
    managing and applying, 326–328, 327
license terms
    MAP, 91
    MDT, 57
    Windows 7, 24, 28, 35
    Windows AIK, 78, 78
    Limit The Number Of Simultaneous Users To
        setting, 369
    Line-of-Business applications, 356
line view in Performance Monitor, 478
link-local addresses, 422
Link Online IDs option, 298
List Folder Contents permission, 362
list switch in Powercfg.exe, 206
Load And Unload Device Drivers right, 341
Loadstate.exe file, 31–33
Local Area Connection Properties dialog box
  DHCP, 427
  static TCP/IP addresses, 426
local built-in groups, 316–319
Local Computer Policy, 326–327, 327
local date and time, 168, 168
Local Group Policy Objects (LGPOs)
  basics, 323–325
  Local Security Policy, 328–330, 329
  managing and applying, 326–328, 327
local logons, authentication errors from, 315
local policies, 329, 335–342, 335, 337, 339
local printer queues, 254–255
Local Resources tab in Remote Desktop, 195, 195
Local Security Policy, 139–140, 139, 328–330, 329
Local Security Settings dialog box, 140
local users, 293
  creating, 301–302, 301
  logon authentication, 294–295
  profiles, 311
Local Users and Groups utility, 295–297, 296–297
deleting user accounts, 303–304, 304
groups, 320–321
  user properties, 307
locale settings, 21
Location And Other Sensors icon, 171
location-aware printing, 439
Lock Pages In Memory right, 341
lockout policies, 333–335, 333
Log On As A Batch Job right, 341
Log On As A Service right, 341
Log On tab for services, 209
Log Properties dialog box, 509, 509
logging off users, 295
logging on users, 293–295
Logical Block Addressing (LBA), 109
logical drives, 106
logical partitions, 20
LogicalDisk object, 488
logons
  authentication, 294–295, 315
  scripts, 312–313
  smart cards, 356
logs
  Event Viewer, 508
  installation, 30
  Performance Monitor, 484

M

/m option in Setup.exe, 70
Magnifier utility, 159
Mail properties, 172
Maintenance section utilities, 161, 165
Manage Add-ons window, 272–275, 273
Manage Another Account option, 298
Manage Auditing And Security Log right, 341
Manage Your Credentials option, 298
Manage Your File Encryption Certificates option, 298
Managing and Creating Groups, 315
mandatory profiles, 311–312
manual scans in Windows Defender, 353
Manually Enter Computer Names And Credentials option, 88
MAP (Microsoft Assessment and Planning) toolkit, 67, 87
configuring, 91–92
installing, 90–91, 90
overview, 87–88
system requirements, 88–90
Map With Bing accelerator, 276, 276
masks, subnet, 413–415
Master Boot Record (MBR), 21, 109
Maximum counter, 477
Maximum Password Age policy, 331–332
MBR (Master Boot Record), 21, 109
MDT (Microsoft Deployment Toolkit) 2010 overview, 55–59, 57–58
summary, 67–68
in Windows AKE, 66
media errors, installation problems from, 29
Member Of tab, 307–308, 308
member servers in networks, 388
membership in groups, 321–323, 321–322
memory
  Aero, 162
counters, 486
displaying, 474, 474
installation problems from, 29
monitoring and optimizing, 485–486
requirements, 12–13
virtual, 182–183
Windows Virtual PC, 258
Memory object, 486
Memory screen
   Resource Monitor, 474, 474
   Windows Virtual PC, 258
Microsoft Assessment and Planning (MAP) toolkit, 67, 87
   configuring, 91–92
   installing, 90–91, 90
   overview, 87–88
   system requirements, 88–90
Microsoft Assessment and Planning Solution Accelerator Setup Wizard, 91
Microsoft Deployment Toolkit (MDT) 2010 overview, 55–59, 57–58
   summary, 67–68
   in Windows AIK, 66
Microsoft Malware Protection Center, 353
Microsoft Management Console (MMC), 110–111, 111
   modes, 111–112
   snap-ins, 112–114, 113
Microsoft SpyNet community, 351–352, 352
   migrating files and settings, 30–33
Migsetup.exe file, 34
   /min switch in sysprep, 64
Minimum counter, 477
Minimum Password Age policy, 331–332
Minimum Password Length policy, 331–332
   mirroring, 142
Miscellaneous category in Reliability Monitor, 491
MLGPOs (Multiple Local Group Policy Objects), 326
MMC (Microsoft Management Console), 110–111, 111
   modes, 111–112
   snap-ins, 112–114, 113
mobile computing, 201–205, 202
   mobility of IPv6 addresses, 418
Modify An Object Label right, 341
Modify Firmware Environment Variables right, 341
Modify permission, 362
monitoring, 468
   Event Viewer, 508–512, 508–510
   exam essentials, 512
   performance. See Performance Monitor
   Performance Information and Tools, 498–500, 498
Reliability Monitor, 490–491, 490
   review questions, 513–517
   summary, 512
System Configuration, 500–503, 500–503
   System Information utility, 491–492
   Task Manager. See Task Manager
Windows Firewall, 445
/mount switch in ImageX, 74
mouse pointers, 163
Mouse Properties dialog box, 172, 172
   moved files, permissions for, 368
MpCmdRun.exe utility, 178
Msconfig.exe utility, 500–503, 500–503
   msinfo32 utility, 491
Msra.exe file, 188–189
   multicasting, 36–38
   multicasting addresses, 411–412, 419, 422
   multifactor authentication, 356
   Multiple Local Group Policy Objects (MLGPOs), 326
   Music shortcut, 161

N
Name And Location screen, 258
   names
      computers, 25, 179, 183
      groups, 320
      printers, 247
      wireless networks, 405
NAT, 416, 419
   neighbor discovery in IPv6 addresses, 419
.NET Framework, 16
   .NET USER command, 302
   net use command, 74–75
Network adapters, 389–390
   Advanced settings, 392, 392
   configuring, 390–391
   Details settings, 394, 394
   Device Manager for, 225–229, 226–228
   Driver settings, 393–394, 393
   General settings, 391, 392
   Resources settings, 394–395, 395
   troubleshooting, 395–396
Network and Sharing Center
   DHCP, 427
   properties, 172
   wireless properties, 396–398, 397, 403–404
Network Availability setting, 405
Network Configuration Operators group, 318
Network group, 320
network interface cards (NICs). See network adapters
Network List Manager Policies settings, 329
Network tab in Resource Monitor, 475–476, 476
Network Type setting, 405
Networking tab
Task Manager, 496, 497
wireless networks, 399, 399
networks and networking, 4
Active Directory for, 385–387, 386
BranchCache, 449–451
configuration on, 430–431
connectivity, 381–383
device requirements, 12
DirectAccess, 452–454, 454
domains, 431–432, 432
exam essentials, 458–459
HomeGroups, 433–438, 433–438
NICs. See network adapters optimizing, 489–490
peer-to-peer, 383–385, 384
printers, 249, 439
remote management, 445–449, 448
review questions, 460–466
shared folder access, 368–371
summary, 458
TCP/IP. See Transmission Control Protocol/Internet Protocol (TCP/IP)
terms and roles, 387–389
virtualization, 454–457
WDS services, 83
Windows Firewall, 439–445, 440–443
wireless. See wireless networks
New Answer File option, 80
New Deployment Share Wizard, 58, 58
New-Event cmdlet, 447
New Group dialog box, 320–321, 320
New Inbound Rule Wizard, 444
new installs vs. upgrades, 14–16
/new option in WDSUTIL, 83
New Outbound Rule Wizard, 444
New Simple Volume Wizard, 123, 123–124
New User dialog box, 299, 301–302, 301
New Virtual Machine Wizard, 258
New Volume Wizard, 129
NICs (network interface cards). See network adapters
No GUI Boot startup, 500
/noreboot option in Setup.exe, 70
Normal Startup option, 500
/nosidgen switch, sysprep, 64
Not Initialized disk status, 132
Notification Area, 172–173
/novice switch in MSRA, 188
Ntbtlog.txt file, 524–525
NTFS file system
compression, 133
converting FAT32 to, 105–106
features, 103
overview, 104–105
permissions, 361–362
applying, 362–364, 363
copied and moved files, 368
design goals, 362
effective, 365–368
inheriting, 364–365
NTUSER.DAT file, 309
NTUSER.MAN file, 311

octets in IPv4 addresses, 412–413
/offcontacthelp switch for MSRA, 189
/offereasyhelp switch for MSRA, 189
/offerrA switch for MSRA, 188
Offline Files feature, 200
Offline or Missing disk status, 131
offlineServicing component, 77
128-bit address space, 417
Online disk status, 131
Online (Errors) disk status, 131
/oobe switch in sysprep, 64, 71
oobeSystem component in Windows SIM, 77
Open An InPrivate browsing Window option, 270
Open Disk Cleanup option, 499
Open System Interconnection (OSI) model, 390
/openfile switch, 189
Operating System screen, 258
operating systems
MAP support, 89
Windows Virtual PC, 258
optimizing performance. See Performance Monitor
optional drive requirements, 12
Options settings
MMC, 111–112
Windows Defender, 349–351, 349–351
Windows Virtual PC, 258
OS Boot Information startup, 500
OSI (Open System Interconnection) model, 390
Out-file cmdlet, 447
outbound rules in Windows Firewall, 442–444
Overview tab in Resource Monitor, 472–473, 472
ownership of objects, 365

P

Package Manager (Pkgmgr.exe), 75
page files, 486
Pages/Sec counter, 486
Paint program, 159
Parental Controls icon, 173
Partition And Configure The Disk screen, 82
partitions, disk, 20–21, 25, 25
converting, 105–106
creating, 123
deleting, 127–128
file systems, 102
primary and extended, 106
Password Must Meet Complexity Requirements policy, 331–332
Password option, 299
Password Never Expires option, 299
passwords
authentication errors from, 315
changing, 306
domains, 385
Easy Transfer, 34
HomeGroup, 435–436, 436–437
in installation, 26, 26
logon, 294
MDT, 59
policies, 330–332
Remote Assistance, 192
VPN connections, 198
PAT, 416
paths
changing, 126–127, 126
profiles, 309–311, 310
Peer Name Resolution Protocol (PNRP), 187, 191–192
peer-to-peer networks, 383–385, 384
PEimg program, 75
Perform Volume Maintenance Tasks right, 342
Performance Information and Tools, 173, 173, 498–500, 498
Performance Log Users group, 318
Performance Monitor, 468–469
alert thresholds, 471–477
analysis steps, 469–470
Appearance settings, 482, 483
baselines, 470
counters. See counters
data collector sets, 483–484, 483
Data settings, 480, 482
disks, 489–490
General settings, 480–481, 481
Graph settings, 482, 482
memory, 485–486
processors, 486–488
Source settings, 481, 481
system bottlenecks, 470–471
system performance, 485
testing configuration changes and
tuning, 471
trends, 471
Performance Monitor Users group, 318
Performance section, 182
Performance settings in Task Manager, 496, 496
permissions, 361–362
applying, 362–364, 363
authentication errors from, 315
copied and moved files, 368
design goals, 362
effective, 365–368
inheriting, 364–365
share, 369–371, 370
Personal Identity Verification (PIV) Standard, 356
Personalization dialog box, 162, 310
Personalization icon, 174
PFX files, 138
phishing, 265
Phone And Modem properties, 174
PhysicalDisk object, 488
pictures, account, 163–164
Pictures application, 161
ping command, 429–430
ping6 command, 430
pinning sites to Taskbar, 261
PIV (Personal Identity Verification) Standard, 356
plain text, 135
Plug and Play-compatible hardware, 29
/pnp switch in sysprep, 64
PNRP (Peer Name Resolution Protocol), 187, 191–192
Point-to-Point Tunneling Protocol (PPTP), 197
policies
- account-lockout, 333–335, 333
- audit, 336–338, 337
- local, 335–342, 335, 337, 339
- password, 330–333, 331
- portable devices, 242
- user rights, 338–342, 339
- Policies tab, 242
- pooling printers, 251
- Pop-up blocker, 279
- Ports tab for printers, 250
- Power Buttons And Lid option, 205
- power management, 174
  - advanced settings, 205, 205
  - battery meter, 207
  - command-line tools, 206–207
  - hibernation, 202–203, 202, 206
  - improvements, 201
  - power button, 204–205
  - power plans, 203–204
  - power states, 201–203, 202
  - ReadyBoost and ReadyDrive, 207–208
- Power Options dialog box, 203, 205, 205, 499
- Power Options Properties dialog box, 203
- Power Saver power plan, 203
- Power Users group, 318
- Powercfg.exe tool, 206–207
- PowerShell, 447–449, 448
- PPTP (Point-to-Point Tunneling Protocol), 197
- Preboot Execution Environment (PXE) devices, 61–62, 86–87
- prefixes in IPv6 addresses, 420, 423
- Prevent Idling To Sleep option, 203
- preview pane, 3
- Previous Versions tab for volumes, 121, 121
- primary partitions, 20, 106
- print devices vs. printers, 244
- Print Processor option, 252
- Print Test Page option, 250
- printers
  - configuring, 249–252, 250–252
  - deleting, 255–256
  - documents, 252–255, 253–254
  - installing, 245–249, 245–248
  - network, 249, 439
  - overview, 243–244
  - spooling, 244–245
- Printing Defaults option, 251
- priority
  - processes, 495
  - schedules, 341
- privacy in IE9, 261–262, 278–279
- Privacy tab, 278–279
- privilege elevation, 343–345, 343, 345
- Processes tab in Task Manager, 493–495, 494
- processing power, installation problems from, 29
- Processor object, 487
- Processor Queue Length counter, 487
- Processor Scheduling parameter counter, 487
- % Processor Time counter, 477, 487
- processors, 6
  - MAP accelerator, 90
  - performance, 486–488
  - requirements, 12–13
  - Resource Monitor, 473, 473
  - scheduling, 487–488
  - tuning and upgrading, 487
- product keys, 26, 28
  - installation problems from, 29
  - MD1, 59
  - WDS, 87
- Professional edition, 8–11
- Profile Single Process right, 342
- Profile System Performance right, 342
- Profile tab, 308–309, 309–310
- profiles, 308–309, 309
  - mandatory, 311–312
  - paths, 309–311, 310
  - roaming, 311
  - super-mandatory, 312
- Program Compatibility Wizard, 16
- Programs And Features icon, 174–175, 174–175
- Programs report, 17
- Programs tab
  - Internet Explorer 9, 280
  - Remote Desktop, 195, 195
- Protected Mode in IE9, 277
- pseudointerfaces in IPv6, 421
- PTR (reverse pointer) records, 420
- Public Key Policies settings, 329
- PXE (Preboot Execution Environment) devices, 61–62, 86–87
- PXE Server Initial Settings screen, 86, 86

Q

- `–qh` switch in `Powercfg.exe`, 206
- Quarantined Items in Windows Defender, 352
- `–query` switch in `Powercfg.exe` tool, 206
- queues for printer documents, 252–255, 253
Quick Launch bar, 3
Quick Scans in Windows Defender, 349, 353
quickconfig command, 446
/quiet switch in sysprep, 64, 71
/quit option in sysprep, 71
Quota tab for volume properties, 121–122, 122

R

RAID (Redundant Array of Independent Disks), 141
dynamic storage, 107
levels, 141–142
random access memory (RAM). See memory
RDP (Remote Desktop Protocol), 192–193
Read permission, 363, 371
Read & Execute permission, 362
ReadyBoost, 207–208
ReadyDrive feature, 201, 207–208
Real-time Protection mode in Windows Defender,
178, 350
/reboot switch in sysprep, 64, 71
Receive-job cmdlet, 447
recovery. See backups and recovery
Recovery icon, 176
Recovery tab for services, 209–210
Recycle Bin, 161, 542
Redundant Array of Independent Disks
(RAID), 141
dynamic storage, 107
levels, 141–142
Region And Language tool, 176
Registry
access to, 291, 345–346
file system conversions, 106
Registry Editor, 184–186, 185
reinstalling drivers, 236–239, 236, 238–239
/reject-autoadddevices option, 84
Reliability Monitor, 490–491, 490
Remote Assistance, 186
Easy Connect method, 187–192, 187, 190–192
overview, 187
settings, 180
remote connections, 186
Offline Files, 200
Remote Assistance, 186–192, 18, 190–192
Remote Desktop, 192–197, 194–196
transparent caching, 200
VPN, 197–200, 198–200
Remote Desktop, 186, 192
collection options, 193–197, 194–196
new and updated features, 192–193
settings, 180
Remote Desktop Connection program, 159
Remote Desktop Protocol (RDP), 192–193
Remote Desktop Users group, 319
Remote Installation Folder Location screen, 85
Remote Installation Services (RIS), 61, 80
remote management, 445
Windows PowerShell, 447–449, 448
Windows Remote Management, 446–447
Remote Settings section, 180, 180
RemoteApp And Desktop Connections tool, 176
removable storage devices, 241–243, 242–243
Remove Computer From Docking Station
right, 342
/Remove-Driver command, 76
Remove-job cmdlet, 447
/remove option, 83
Remove Your Password option, 298
removing members from groups, 322
renaming
computers, 179, 183
user accounts, 305–306
Repair Your Computer option, 526
Replace A Process Level Token right, 342
Replace All Existing Inheritable Permissions
On All Descendants With Inheritable
Permissions From This Object option, 365
Replicator group, 319
report view in Performance Monitor, 479, 479
/reportnow option, 43
reports
compatibility, 28
Upgrade Advisor, 17
requirements, hardware, 12–14
Reset Account Lockout Counter After policy,
333–334
/resetauthorization option, 43
resolution of graphics cards, 13
Resource Monitor, 472, 472
CPU settings, 473, 473
Disk settings, 474–475, 475
Memory settings, 474, 474
Network settings, 475–476, 476
Overview settings, 472–473, 472
Resources settings in network adapters,
394–395, 395
Restore Files And Directories right, 342
Restore Files screen, 533, 533–534
Restore Hidden Updates option, 42
  restore points, 184, 538
    cleaning up, 542–543
    creating, 539–540
    restoring, 540–542, 541
  restoring
    files from backups, 532–534, 533–534
    restore points, 540–542, 541
    system images, 537
Resultant Set of Policy (RSoP), 325
Review Your Backup Settings screen, 531, 531
  rights, user, 338–342
RIS (Remote Installation Services), 61, 80
  roaming profiles, 311
rolling back drivers, 234, 394
route command, 429
route print command, 425, 430
routers, wireless, 408
RSoP (Resultant Set of Policy), 325
  rules
    AppLocker, 355
    Windows Firewall, 442–445, 443
Run This Program As An Administrator
  option, 345

S
Safe Mode, 500, 522–524, 523
Safe Mode With Command Prompt
  menu, 525
Safe Mode With Networking menu, 525
Safely Remove Hardware menu, 241
  safety features in IE9, 265–272, 266–272
/saveasfile switch, 189
scalability of domains, 386
Scan An IP Address Range option, 88
  Scanning Option mode, 178
scanners, 160
  scans in Windows Defender, 349, 353
Scanstate.exe file, 31–33
SCCM (System Center Configuration
  Manager), 55
  scheduled tasks, 503, 503
    creating, 504–506, 504–505
    properties, 506–507, 506
    troubleshooting, 507
  scheduling processors, 487–488
schemas, Active Directory, 386–387
  scope of multicast addresses, 422
screen savers, 163
  scripts
    logon, 312–313
    XSS, 267–268, 267
search
  files, 360, 360
    Instant Search, 4
  Search option, 161
  Search tab, 360, 360
  searchable Address bar, 261
secure desktop, 344
Secure Sockets Layer (SSL) connections, 262
security
  Action Center, 346–347, 346
    Active Directory for, 385–387, 386
    AppLocker, 355
    BitLocker Drive Encryption, 354, 356
    disabling user accounts, 303
    driver signing, 239–241, 240
    exam essentials, 371–372
    files and folders, 356–357
      access control, 360–368, 363–364
      Folder Options dialog box, 357–360,
        357–358, 360
    firewalls. See Windows Firewall
      groups
      Group Policy Result Tool, 325–326
    LGPOs. See LGPOs (Local Group Policy
      Objects)
IE9. See Internet Explorer 9 (IE9)
IPv6 addresses, 418
network access, 368–371, 369–370
NTFS file system, 104
permissions. See permissions
  policies. See policies
  review questions, 373–380
  smart cards, 356
  summary, 371
User Account Control, 343–345, 343, 345
Windows Defender. See Windows Defender
  wireless networks, 400–407, 402–407
security descriptors, 365
security identifiers (SIDs)
  stripping away, 63–64
  users, 301
Security log, 508
Security section in Action Center, 165
security shield, 343, 343
Security tab
IE9, 278
NTFS permissions, 363–365, 363
printers, 251
volume properties, 120, 120
wireless networks, 406, 407
See What's Printing option, 252–253, 253
Select Columns dialog box, 494
Select Disks screen, 129, 130
Select Group Policy Object dialog box, 328
Select Groups dialog box, 308
Select Installation Folder screen
Upgrade Advisor, 18, 18
Windows AIK, 78, 78
Select Recovery Agents screen, 139, 139
Select Role Services screen, 85
Select Users dialog box, 322, 322
Select Users Or Groups dialog box
NTFS permissions, 364, 364
rights, 342
Select Volume Size screen, 123
Select Windows Image option, 79
Selective Startup option, 500
Separator Page option, 252
servers
networks, 387–388
virtualization, 454–457
WDS, 82–86, 85–86
Service group, 320
service packs, 43
services
configuring, 210–211, 210
managing, 208–210, 208–209
Services tab
System Configuration, 501, 501
Task Manager, 495–496, 495
Services tool, 496
Set As The Default Printer option, 248
/set command in bcdedit, 37
set command in WinRM, 446
Set-Date cmdlet, 447
/set option in WDSU11L, 83
Set Password dialog box, 306
/SET-ProductKey command in DISM.exe, 76
Set Up A Network window, 402–403, 402–403
Set Up A New Connection Or Network window, 401, 402
Set Up A New Connection Wizard, 176
Set Up Backup window, 529–531, 530–531
settings, migrating, 30–33
Settings tab in Task Scheduler, 507
Setup.exe file, 68–70
Setup log, 508
setupact.log file, 30
setuperr.log file, 30
setupSNK.exe program, 406
Share Name setting, 58, 369
share permissions, 369–371, 370
Share Permissions dialog box, 370, 370
Share This Folder option, 369–370
sharing and Sharing tab
files, 137–138
folders, 368–371, 369
HomeGroups, 433–438, 433–438
printers, 249–250
volume properties, 119, 120
wireless networks, 399–400
Sharing Wizard, 368–369
Shim Infrastructure, 260
shims, 259–260
Show Encrypted Or Compressed NTFS Files In
Color option, 134
Shrink Volume option, 130
Shut Down option, 161
Shut Down The System right, 342
/shutdown option, 71
side-by-side installations, 32
SIDs (security identifiers)
stripping away, 63–64
users, 301
signing
documents and email, 356
drivers, 239–241, 240
Sigverif.exe program, 240–241
Simple Network Management Protocol (SNMP), 87
simple volumes, 107, 107, 129
6to4 mechanism, 416, 419, 424–425
64-bit version, 6
size
clusters, 104
partition, 21
volumes, 123
Sleep power state, 201
smart cards, 356
SmartScreen Filter, 262, 268–269, 268–269
snap-ins, 112–114, 113
Snipping tool, 159, 159
SNMP (Simple Network Management Protocol), 87
software based RAID, 141–142
Software Restriction Policies settings, 329
Solitaire game, 159
Sound icon, 176
sounds, 163
Source tab in Performance Monitor, 481, 481
Special groups, 319–320
special permissions, 363
specialize component in Windows SIM, 77
Speech Recognition icon, 176
speed of CPUs, 6
/start switch in ImageX, 74
spoofing printers, 244–245
SpyNet, 351–352, 352
spyware, 178, 346–347, 346
SSIDs for wireless networks, 400, 405, 408
SSL (Secure Sockets Layer) connections, 262
SSTP (Secure Socket Tunneling Protocol), 197
standalone network servers, 388
standard users, 291–292, 344
Start-job cmdlet, 447
Start menu, HomeGroup on, 437–438, 437
Start Menu tab for power button, 204
/start option in WDSUTIL, 84
Start Windows Normally option, 526
Starter edition, 7, 10–11
starting services, 496
Startup And Recovery section, 182, 182
Startup Repair tool, 526–527
Startup section, 161
Startup tab in System Configuration, 501, 502
stateless IPv6 autoconfiguration, 417
static TCP/IP addresses, 426–427
status codes in Disk Management, 131–132
Sticky Notes application, 158, 159
stock quote Web Slices, 263–264
Stop-job cmdlet, 447
/stop option in WDSUTIL, 84
stopping
processes, 494
services, 496
storage devices
basic, 106–107
dynamic. See dynamic disk storage
removable, 241–243, 242–243
/store command in bcgedit, 38
Store Passwords Using Reversible Encryption
policy, 331–332
striped volumes, 108–109, 109, 129, 141–142
subnet masks, 413–415
Subscriptions folder, 511
super-mandatory profiles, 312
Sync Center, 176
Synchronize Directory Service right, 342
synchronizing date and time, 168, 168
Syssrep.exe (System Preparation Tool), 62–66, 68
system bottlenecks, 470–471
System Center Configuration Manager
(SCCM), 55
System Configuration utility, 500–503, 500–503
System group, 320
System icon, 176, 179–184, 179–182
System Image Recovery Tool, 537
system images, 535
creating, 535–537, 536–537
restoring, 537
System Information utility, 491–492
System log, 508
System object, 487
system partitions, 21
system performance, 485
disks, 488–489
memory, 485–486
processors, 486–488
System Preparation Tool (Sysprep.exe), 62–66
for imaging, 70–72
summary, 67–68
System Preparation Tool dialog box, 72
System Properties dialog box, 538, 538, 540, 540
System Protection dialog box, 539–540, 539
System Protection feature
overview, 538–539, 538
restore points
   cleaning up, 542–543
   creating, 184, 539–540
   restoring, 181, 181, 540–542, 541
System Protection tab, 538–541, 538–540
System Recovery Options dialog box, 527, 537, 542
System Requirements report, 17
System Restore, 121, 538
System section, 179
System Volume Warning dialog box, 85

T

Take Ownership Of Files Or Other Objects
right, 342
Task Manager, 492–493
   Applications settings, 493, 493
   Networking settings, 496, 497
   Performance settings, 496, 496
   Processes settings, 493–495, 494
   Services settings, 495–496, 495
   Users settings, 497–498, 497
Task Manager Wizard, 504
Task Scheduler utility, 503, 503
   creating scheduled tasks, 504–506, 504–505
   properties of scheduled tasks, 506–507, 506
   troubleshooting scheduled tasks, 507
Taskbar, pinning sites to – User Account Control screen

Taskbar, pinning sites to, 261
Taskbar And Start Menu icon, 176
Taskbar And Start Menu Properties dialog box, 204
TCP/IP. See Transmission Control Protocol/Internet Protocol (TCP/IP)
TCPv4 Segments/Sec counter, 489
TCPView application, 476
Telnet program, 175
/tempdrive option in Setup.exe, 70
Teredo tunneling, 416, 419, 424–425
terminal Server User group, 320
testing
configuration changes and tuning, 471
IP configuration, 429–430
Theme Settings dialog box, 162
themes, Desktop, 162–164
thresholds, alert, 471–477, 472–476
/1394debug option in Setup.exe, 69
32-bit version, 6
time synchronization, 168, 168
/timeout command in bcdedit, 38
Timeout startup option, 500
timing Web Slices, 264
Tools And Extensions option, 272–273
Tools And Settings menu, 348–351, 348–351
Tools tab
System Configuration, 502–503, 503
volume properties, 118, 118
TPM (Trusted Platform Module), 354
Trace-command cmdlet, 448
tracert command, 426, 429
tracert6 command, 426
transitive two-way trusts, 386
Transmission Control Protocol/Internet Protocol (TCP/IP), 409
APIPA, 428
benefits and features, 409–410
configuring, 426–430
DHCP, 389, 427–428
installation problems from, 29
IP addresses. See IP addresses troubleshooting, 430
transparent caching, 200
trends, performance, 471
triggers for scheduled tasks, 504, 506
troubleshooting
authentication, 315
installation problems, 29–30
network adapters, 395–396
scheduled tasks, 507
TCP/IP, 430
wireless networks, 407–408
Troubleshooting icon, 177, 177
Trusted Platform Module (TPM), 354
trusts, 386
tunneling
IPv6 addresses, 416, 419, 423–424
VPN, 197–200, 198–200
Turn Off Schedule option, 535
two-way trusts, 386

U

UAC (User Accounts Control), 343
options, 297–298
 privilege elevation, 343–345, 343, 345
Registry and File Virtualization, 345–346
Ultimate version, 9–11
/unattend option
Setup.exe, 70
Sysprep.exe, 71
unattended installation. See automating installation
UNC (Universal Naming Convention) path, 313
unicast addresses, 412, 419, 421
/uninitialized-server option, 83
uninstalling drivers, 236, 236
unique local addresses, 422
Universal Naming Convention (UNC) path, 313
Unknown disk status, 132
/unmount switch, 74
Unreadable disk status, 132
Unsafe Download - Security Warning dialog box, 268, 268
/update option in WDSUTIL, 84
upgrading
drivers, 233–234, 233, 393, 489–490
Upgrade Advisor, 16–19
Upgrade Advisor Setup Wizard, 17, 17
upgrades
basic disks to GPT disks, 124–125, 125
checklist, 19–20
considerations, 16–19
contingency plans, 20
vs. new installs, 14–16
performing, 27–28
from Windows XP, 34–36
% Usage counter, 486
Use Active Directory Domain Services option, 88
Use Easy Connect option, 191
Use The Windows Networking Protocols option, 88
User Account Control screen, 90, 327
User Accounts Control (UAC), 343
- options, 297–298
- privilege elevation, 343–345, 343, 345
- Registry and File Virtualization, 345–346
User Accounts icon, 177
User Cannot Change Password option, 299
User Documents shortcut, 161
User mode-full access, 112
User mode-limited access
  - MMC multiple window, 112
  - MMC single window, 112
User Must Change Password At Next Logon option, 299, 302, 305
User Name option, 299
User Profiles section, 182
User-Specific LGPOs, 326
User State Migration Tool (USMT), 31–33
  - usernames
    - authentication errors from, 315
    - domains, 385
    - in installation, 25, 25
    - logon, 294
    - rules and conventions, 300
    - VPN connections, 198
users
  - accounts
    - authentication, 315
    - built-in, 292–293, 292
    - creating, 301–302, 301
    - deleting, 303–305, 304
    - disabling, 302–303
    - local and domain, 293
    - pictures, 163–164
    - policies, 330–335, 331, 333
    - renaming, 305–306
    - types, 291–292, 291
  - creating, 298–300
  - exam essentials, 371–372
  - group membership, 307–308, 308
  - home folders, 313–314
Local Users and Groups utility, 295–297, 296–297
logging off, 295
logging on, 293–295
logon scripts, 312–313
overview, 290–291
passwords. See passwords
profiles, 308–312
properties, 306–307, 307
review questions, 373–380
rights, 338–342
security identifiers, 301
summary, 371
User Accounts Control, 297–298
  - usernames. See usernames
Users group, 319
Users tab in Task Manager, 497–498, 497
USMT (User State Migration Tool), 31–33

V

vendors, driver recommendations from, 237
/verify switch in ImageX, 74
verifying signed drivers, 240–241, 240
versions, 2–3, 6–11
video adapter requirements, 12
View And Print Your HomeGroup Password screen, 435–436, 436
View Available Networks feature, 4
View Available Updates option, 40
View tab for folders, 358–359, 358
View Update History option, 41, 42
views for counters, 478–479, 478–479
virtual domains, 383
Virtual Hard Disk screen, 258
Virtual Hard Disk Name and Location screen, 258
virtual machines (VMs), 454–455
virtual memory, 182–183
Virtual PC, 256–258
virtual private networks (VPNs)
  - connections, 197–200, 198–200
  - vs. DirectAccess, 452
virtualization, 454–457
  - File Virtualization, 345–346
  - Windows Virtual PC, 256–258
viruses, 346–347, 346
Visual Effects tab, 499
VMs (virtual machines), 454–455
volumes
  - creating, 123–124, 123–124
  - deleting, 127–128
  - extended, 129–131, 130
  - properties, 116
    - General, 117, 117
    - Hardware, 118–119, 119
    - Previous Versions, 121, 121
    - Quota, 121–122, 122
    - Security, 120, 120
    - Sharing, 119, 120
    - Tools, 118, 118
  - RAID, 142
  - simple, 107, 107, 129
striped, 108–109, 109, 129
Volumes tab, 115, 116, 129
VPNs (virtual private networks)
connections, 197–200, 198–200
vs. DirectAccess, 452

W
-waketimes switch, 206
WAPs (wireless access points), 401–403, 402–403, 408
Warning category in Reliability Monitor, 491
Warning dialog box for processes, 494–495
wbadmin.exe command, 535
WDS. See Windows Deployment Services (WDS)
WDSUTIL, 83–84
Web Slices, 5, 262–264, 262–263
WFAS (Windows Firewall with Advanced Security), 329, 441–443, 442–443
What Do You Want To Back Up? screen, 530, 530
Who Do You Want To Help screen, 188
Windows Activation, 38, 38, 65, 180
Windows Activation Wizard screen, 38, 38
Windows Aero theme, 162–164
Windows Automated Installation Kit (Windows AIK), 66–67
downloading and installing, 78–79, 78
summary, 67–68
Windows CardSpace, 178
Windows category in Reliability Monitor, 491
Windows Color And Appearance option, 162
Windows Defender, 178, 347, 347
Allowed Items, 352–353
configuring, 348, 348
History menu, 353
manual scans, 353
Microsoft Malware Protection Center, 353
Options settings, 349–351, 349–351
Quarantined Items, 352
SpyNet, 351–352, 352
Windows Defender Website, 353
Windows Deployment Services (WDS), 61–62, 61
clients, 86–87
installing, 84–85
network services, 83
overview, 80–82, 81
servers
component installation, 83–85
configuring, 85–86, 85–86
preparation, 82
requirements, 82
summary, 67–68
Windows DVD Maker application, 160
Windows Easy Transfer utility, 15, 33–35
Windows Edition section, 179
Windows Event Collector Service, 511
Windows Experience Index, 173, 173, 498–499
Windows Fax And Scan application, 160
Windows Features dialog box, 175, 175
Windows Firewall, 178, 178, 439
advanced settings, 441–444, 442–443
basics, 439–441, 440–441
connection rules, 445
inbound and outbound rules, 442–444, 443
monitoring, 445
Windows Firewall settings dialog box, 344–345, 439–440, 440
Windows Firewall with Advanced Security (WFAS), 329, 441–443, 442–443
Windows Firewall With Advanced Security dialog box, 441–443, 442–443
Windows Internet Explorer 9. See Internet Explorer 9 (IE9)
Windows Management Instrumentation (WMI), 87
Windows Media Center, 158
Windows Media Player application, 160
Windows PE component in Windows SIM, 77
Windows PowerShell, 447–449, 448
Windows Remote Assistance screen, 189–190, 190
Windows Remote Management (WinRM) utility, 446–447
Windows Server Update Service (WSUS), 40
Windows System Image Manager (Windows SIM) utility, 68, 76–80, 78–80
Windows Taskbar, 3
Windows Touch feature, 3–4
Windows Update application, 38–39, 39, 160
checking for updates, 40, 40
command-line options, 43
frequently asked questions, 42
hidden updates, 42
history, 41, 42
installed updates, 42
settings, 41, 41
Windows Update Automatic Update Client (wuauc1t.exe), 43
Windows Update icon, 179
Windows Virtual PC, 256–258, 457
Windows Vista, upgrading, 27–28
Windows XP, upgrading, 34–36
Windows XP Mode, 4, 256
WinRM (Windows Remote Management) utility, 446–447
wipe and load installations, 32–33
wireless access points (WAPs), 401–403, 402–403, 408
Wireless adapter settings, 203
wireless devices, Device Stage support for, 224
Wireless Network Connection Status window, 399
Wireless Network Properties dialog box, 404–405, 404
wireless networks
  connection status, 397–400, 398–399
  security, 400–401, 402–407
  settings, 396–397, 397–398
  troubleshooting, 407–408
wireless routers, 408
WMI (Windows Management Instrumentation), 87
workgroups
  changing, 179
  peer-to-peer networks, 383
Write permission, 363
WSUS (Windows Server Update Service), 40
wuapp.exe file, 43
wuauclt.exe (Windows Update Automatic Update Client), 43

X

XP Mode, 4, 256
XPS viewer application, 160
XSS (cross-site scripting), 267–268, 267

Z

zero-touch deployments, 56
zeros in IPv6 addresses, 416
zipped folders, 135