

# Index

## • Numerics •

192.168.1.0 IP network, 75  
802.11 standards, 42–43  
802.11a standard, 42–43  
802.11b standard, 42–43  
802.11g standard, 42–43  
802.11n standard, 42–43

## • A •

AAG Electronica, 188  
ACT AT004 Multi-Tester, 247  
ActiveHome devices, 26–29  
acx100, 44  
Admin button (MisterHouse), 298  
AM466 module, 232  
AM486 module, 232  
AM14A module, 232  
analog telephone adapter (ATA), 158  
Anywhere Remote, 17–18  
Appearance settings (MythTV), 124  
ApplianceLinc three-prong module, 232  
ApplianceLinc three-prong two-way module, 232  
Asterisk  
  on CD, 347  
  compilation, 176–177  
  computer hardware for, 24  
  configuration, 178  
  context, 161–165  
  described, 21, 34  
  dial plans, 159–161  
  dialing with, 183–184  
  hardware for, 166–167  
  installation, 177  
  making a call, 182–184  
  optional configuration, 179–181  
  requirements for, 165–166  
  SPA-3000 configuration, 167–175

Asterisk@Home, 21, 34  
ATA (analog telephone adapter), 158  
Atheros, 44  
audio  
  D-Link media client, connecting and configuring, 134–136  
  encoding music files, 137–139  
  Grip program, 137–139  
  hardware selection, 129–130  
  media server, installing and configuring, 132–134  
  MP3 format, 131, 137  
  music format, choosing, 137  
  OGG Vorbis format, 137  
  ripping CDs, 137–139  
  software selection, 129–131  
  streaming, 139–140  
  system configuration, 132–136  
  WAV format, 137  
  WMA format, 137

## • B •

baby monitors and X10, 245  
Back button (MisterHouse), 298  
backend server configuration  
  Capture Cards setting, 118–119  
  Channel editor setting, 121  
  General setting, 118  
  Input setting, 120–121  
  main settings, adjusting, 118–121  
  for MythTV, 117–122  
  overview, 117–118  
  program guide, populating, 121–122  
  Video Sources setting, 119–120  
backing up current kernel, 51–52  
battery backup power supplies, 245  
BGP (Border Gateway Protocol), 92  
bgpd, 99  
Billy Bass, automating, 335

- BlueLava
    - on CD, 348
    - configuration, 256–258
    - described, 29, 252
    - installation, 255
  - BottleRocket
    - on CD, 348–349
    - described, 30, 252
    - installation, 255–256
  - Broadcom, 44
  - browser
    - CamStream images on a, 150
    - weather data retrieved from your, 203–207
  - built-in functions for MisterHouse, 288
- C •
- cable, 193
  - CamStream
    - browser, seeing your Camstream images on a, 150
    - described, 34
    - installation, 142–145
    - reloading Web page, creating a, 150–151
    - running, 146
    - sending your files to other computers with, 148–150
    - software for, 145
    - timestamping images, 150
    - video image, adjusting, 146–148
  - Capture Cards setting (MythTV), 118–119
  - car seat heating automated, 338
  - CD
    - Asterisk on, 347
    - BlueLava on, 348
    - BottleRocket on, 348–349
    - configuration files, 349
    - ForecastFox on, 349
    - Heyu on, 347
    - installing items from CD to hard drive, 345–346
    - LIRC on, 349
    - MisterHouse on, 347
    - MythTV on, 347–348
    - NdisWrapper on, 347
    - One-wire weather on, 349
    - OpenWrt on, 348
    - programs on, 346–349
    - PuTTY on, 348
    - Quagga on, 348
    - scripting files, 349
    - sunrise scripts, 240–242
    - sunset scripts, 240–242
    - system requirements, 345
    - troubleshooting, 350
    - TwonkyMedia on, 349
    - WPA-Supplicant on, 348
  - CGI-x10, 30
  - Channel editor setting (MythTV), 121
  - children watched from the Internet while you aren't home, 336–337
  - chores to automate
    - Billy Bass, modifying, 335
    - car seat heated on cold mornings, 338
    - children watched from the Internet while you aren't home, 336–337
    - dogs let out when you aren't home, 336
    - greenhouse, controlling, 333–334
    - lawn, watering, 334
    - mail (snail), checking for, 334–335
    - nighttime snacking, using an alarm to stop, 337–338
    - window shades, opening and closing, 335–336
  - CK18A kit, 251
  - Clients icon (TwonkyVision), 134
  - closed loop protocol, 262
  - CM11A interface
    - described, 25–26
    - troubleshooting, 246
    - X10, 230, 231
  - CM15A interface, 230, 231, 250, 251
  - CM17A interface
    - described, 26
    - X10, 230
    - X10 wireless, 250, 251
  - CM19A interface, 231, 250
  - Collings, Terry (*Red Hat Linux Networking and System Administration*), 316
  - comic strips retrieved with MisterHouse, 276–279
  - Comics Pictures button (MisterHouse), 299
  - command input for MisterHouse, 263
  - command line, running program from, 35–36
  - commands for X10, sending, 238
  - Common UNIX Printer System (CUPS), 242

compilation  
   Asterisk, 176–177  
   custom kernel compilation, 52–58  
   Quagga, 96–97  
   WPA-Supplicant, 62  
 compilers, 36  
 configuration  
   Asterisk, 178  
   Ekiga, 152–153  
   NdisWrapper, 49–50  
   OpenWrt, 81–84  
   Oww (One-wire weather), 191–197  
   Quagga, 100–102  
   SPA-3000, 167–175  
   TwonkyVision, 132–134  
   weather station, 191–197  
   wireless access point (WAP), 81–84  
   WPA-Supplicant, 62–63  
 configuration files on CD, 349  
 Configured Hosts screen (OpenWrt), 86  
 Content icon (TwonkyVision), 132–133  
 context, 161–165  
 CP290 interface, 231  
 cron program, 242  
 CUPS (Common UNIX Printer System), 242  
 Current Conditions option (Forecastfox), 206  
 custom kernel compilation  
   backing up current kernel, 51–52  
   Debian 2.4, 56–57  
   Debian 2.6, 55  
   Fedora 2.6, 53–55  
   GRUB configuration, 60–61  
   LILO (Linux Loader) configuration, 58–60  
   Linux kernel versions, 56  
   overview, 50–51  
   Vanilla 2.4, 57–58  
   Vanilla 2.6, 57

## • D •

Damn Small Linux, 24  
 Data Source tab (Oww), 194  
 Debian 2.4, 56–57  
 Debian 2.6, 55  
 default gateway, 74  
 default route, 90  
 deleting recordings on MythTV, 126–127

Derived Values tab (Oww), 196  
 desktop computers and wireless  
   networking, 41  
 desktop, getting weather data on your,  
   199–203  
 DHCP connection type, 76  
 dial plans, 159–161  
 digital video recorder and media center, 32  
 dimmers, 246  
 directory for MisterHouse, 274  
 Display tab (Oww), 194  
 DIY Zoning Project  
   advantages of, 223  
   disadvantages of, 222  
   electronic duct dampers, 223  
   functions of, 222  
   money saved with, 221  
   overview, 220–221  
   temperature sensors, 223  
 D-Link media client, connecting and  
   configuring, 134–136  
 DNS server, 74  
 dogs let out when you aren't home,  
   automation for, 336  
 Domain Name System (DNS), 90  
 drivers, 40, 48  
 DVD settings (MythTV), 124  
 dynamic routing, 92

## • E •

egg timer program, 238–239  
 EGP (Exterior Gateway Protocol), 92  
 802.11 standards, 42–43  
   802.11a standard, 42–43  
   802.11b standard, 42–43  
   802.11g standard, 42–43  
   802.11n standard, 42–43  
 Eight Relay Controller Latched, 233  
 Ekiga  
   calls made with, 153–155  
   configuration, 152–153  
   described, 35  
   installation, 152  
 electrical ratings, 246  
 electronic duct dampers, 223  
 ELK ESM1-X10 Signal Meter, 247, 248  
 encoding music files, 137–139

encryption keys, setting up, 319–321  
 Events Calendar Clock button  
 (MisterHouse), 299  
 Extended Forecast option (Forecastfox),  
 206  
 Extensible HyperText Markup Language  
 (XHTML), 303

## ● F ●

Fedora 2.6, 53–55  
 Fedora Core, 24  
 Firefox Web browser, 19, 203–207  
 Firewall Configuration screen (OpenWrt),  
 86–87  
 Flipit, 30  
 Forecastfox  
 on CD, 349  
 Current Conditions option, 206  
 Extended Forecast option, 206  
 General option, 205–206  
 installation, 203–205  
 links, 207  
 Profiles option, 206  
 Radar option, 206  
 Severe Weather option, 206  
 Today's Forecast option, 206  
 Foreign eXchange Office (FXO), 158  
 Foreign eXchange Station (FXS), 158  
 freeware programs, 346  
 frontend server configuration  
 Appearance settings, 124  
 DVD settings, 124  
 Game settings, 124  
 general settings, 123  
 Image settings, 124  
 main menu options, 123  
 Music settings, 124  
 News settings, 124  
 overview, 122–123  
 Phone settings, 125  
 Setup menu, 123–125  
 TV settings, 124  
 Video settings, 124  
 Weather settings, 124  
 Web settings, 125  
 FTP, 316–317  
 fun uses for X10, 13–14  
 functional uses for X10, 13–14

## ● G ●

Game settings (MythTV), 124  
 General option (Forecastfox), 205–206  
 General setting (MythTV), 118  
 Gentoo Linux, 24  
 GNOME desktop, 199–203  
 GnomeMeeting. *See* Ekiga  
 GNU General Public License, 22  
 GNU software, 346  
 GNU Zebra, 31–32  
 graphical user interface (GUI), 36  
 greenhouse, automating your, 333–334  
 Grip program, 137–139  
 GRUB configuration, 60–61

## ● H ●

HA protocols, 264  
 hardware  
 Asterisk, 24, 166–167  
 audio, 129–130  
 Linux software, 24  
 MythTV, 24, 114–115  
 NdisWrapper, 46–47  
 new software used on old hardware,  
 23–24  
 starter kit (X10), 235–236  
 weather station, 187–188  
 wireless networking, 41–42  
 X10 wireless, 253  
 heating, saving money with controlled,  
 219–223  
 Heyu  
 on CD, 347  
 compiling, 234–235  
 described, 28, 35–36  
 historical background of the Internet,  
 303–304  
 home automation, 9–10. *See also* chores to  
 automate  
 home network security  
 encryption keys, setting up, 319–321  
 FTP, 316–317  
 Linux, administering, 316  
 passphrase, 319  
 Port 22, 320  
 private keys, 317–318

- public keys, 317–318
  - scp, 317
  - sftp, 317
  - ssh system, 317, 318–319
  - sshd, 317
  - telnet, 316–317
  - tunneling, 318
  - home networking
    - automation options, 31–32
    - GNU Zebra, 31–32
    - Quagga, 32
  - Home Networking For Dummies* (Ivens), 73, 89
  - home security
    - CamStream, 34
    - Ekiga, 34
    - overview, 34–35
    - webcams, 156
  - HomeDirector devices, 26–29
  - HomeToys online magazine articles (Kingery), 228
  - hostname, 74
  - house code, 229, 236–237
  - Houston, Dave (roZetta board), 263–264
  - HTML template
    - MisterHouse remote control through Web interface, 302–305
    - overview, 302–303
    - Web pages created with, 304–305
  - http server, starting, 254–255
  - HVAC Weather button (MisterHouse), 299
- **I** •
- Image settings (MythTV), 124
  - image slide shows played on MythTV, 128
  - Input setting (MythTV), 120–121
  - installation
    - Asterisk, 177
    - of CD items to hard drive, 345–346
    - Ekiga, 152
    - Forecastfox, 203–205
    - iptables.sh script, 323–324
    - MisterHouse, 265–268
    - MythTV, 115–116
    - Oww (One-wire weather), 189–197
    - PuTTY, 324–326
    - Quagga, 96–97
    - software for weather station, 189–197
    - software for webcams, 144–145
      - TwonkyVision, 132–134
      - X10 thermostat controls, 212–218
  - Installed Software link (OpenWrt), 87
  - INSTEON system, 344
  - Intel, 44
  - Interior Gateway Protocol (IGP), 92
  - Intermediate System to Intermediate System (IS-IS), 92
  - Internet
    - downloading information from, 264
    - historical background, 303–304
    - regulating use of, 265
    - weather data, 19–20, 198
  - I/O boards and MisterHouse, 264
  - IP address, 47, 74
  - IP routing. *See also* Quagga
    - default route, 90
    - Domain Name System (DNS), 90
    - dynamic routing, 92
    - Linux PC networking commands, 104–106
    - overview, 89–92
    - static routes, 90–91
    - WRT54GL networking commands, 106–109
  - iPods, wireless transmission of music to stereo from, 17
  - iptables, 321–324
  - iptables.sh script
    - installation, 323–324
    - overview, 321–323
  - Ishiguro, Kunihiro (Zebra project), 92
  - isisd, 99
  - Ivens, Kathy (*Home Networking For Dummies*), 73, 89
- **J** •
- Jakma, Paul (Quagga), 92
  - Jardin, Vincent (Quagga), 92
- **K** •
- Kingery, Phil (HomeToys online magazine articles), 228
  - kitchen appliances, automating, 265
  - KnoppMyth, 32–33
  - KR22A remote, 251
  - KR19A (SlimFire) remote, 251

• **L** •

- LampLinc Plus two-way dimmer module, 232
- LampLinc three-prong dimmer module, 232
- LampLinc three-prong two-way dimmer module, 232
- LAN information, 73–74
- laptop computers and wireless networking, 42
- lawn watering, automating, 334
- learning curve for MisterHouse, 279–280
- Lights Appliances button (MisterHouse), 299
- LILO (Linux Loader) configuration, 58–60
- Line 1 tab (SPA-3000), 170–173
- links in Forecastfox, 207
- Linksys WRT54GL, 67–69
- Linux home automation, advantages of, 21–22
- Linux kernel versions, 56
- Linux MP3 player controlled with an X10 remote control, 17
- Linux PC networking commands, 104–106
- Linux software
  - administering, 316
  - choosing version of, 23–24
  - computer hardware for, choosing, 24
  - Damn Small Linux, 24
  - Fedora Core, 24
  - Gentoo Linux, 24
  - SUSE Linux, 24
  - Ubuntu Linux, 24
  - used to control X10 modules, 13
  - using new software on old hardware, 23–24
- Linux wireless LAN support, 44
- Linux wireless support, 43–45
- Linuxant, 43
- Linux-based home automation software.
  - See also specific software*
  - for ActiveHome devices, 26–29
  - Asterisk@Home, 21, 34
  - CGI-x10, 30
  - command line, running program from, 35–36
  - digital video recorder and media center, 32–33
  - Flipit, 30
  - GNU Zebra, 31–32
  - graphical user interface (GUI), 36
  - Heyu, 28, 35–36
  - home networking, 31–32
  - for home security, 34–35
  - for HomeDirector devices, 26–29
  - KnoppMyth, 32–33
  - LIRC (Linux Infrared Remote Control), 33
  - list of, 35
  - low-level software, 35–36
  - Motion, 33
  - motion detection, 33
  - One-wire weather, 34
  - overview, 25
  - Project WiSH, 27–28
  - remote control, 33
  - smart telephone system, 33–34
  - TK10, 30–31
  - for videoconferencing, 34–35
  - for weather, 34
  - for webcams, 34–35
  - wmx10, 31
  - for X10 Firecracker devices, 29–31
- Linux-wlan Project, 43
- LIRC (Linux Infrared Remote Control), 33, 349
- LM465 module, 232
- LM14A module, 232
- location settings (MisterHouse), 274–275
- Locke, Bruce A. (BlueLava), 252
- Log File tab (Oww), 194–195
- logging in as `root`, 266
- Logitech QuickCam Orbit webcam, 155
- Lowe, Doug (*Networking For Dummies*), 73, 89
- low-level software, 35–36

• **M** •

- MadWifi, 44
- Mail Headlines News button (MisterHouse), 299
- mail (snail), automating checking for, 334–335
- main menu options (MythTV), 123
- main Web page (MisterHouse), 297–300
- Maxi Controller, 233
- Maxim iButtons, 280
- media server, installing and configuring, 132–134
- Menus button (MisterHouse), 298
- Messages tab (Oww), 196

- Mini Controller, 233
- mini-PCI card, 42
- Misc category (MisterHouse), 275
- MisterHouse button (MisterHouse), 298
- MisterHouse (MH). *See also* MisterHouse
  - remote access; MisterHouse remote control through Web interface
    - automating home systems with, 264
    - on CD, 347
    - comic strips retrieved with, 276–279
    - command input, 263
    - described, 13, 26–27
    - directory, 274
    - HA protocols, 264
    - home automation systems, 264
    - installation, 265–268
    - Internet, downloading information from, 264
    - Internet use, regulating, 265
    - I/O boards, 264
    - kitchen appliances, automating, 265
    - learning curve for, 279–280
    - location settings, 274–275
    - logging in as root, 266
    - Misc category, 275
    - MP3s played with, 264
    - as organizer, 264
    - overview, 262–263
    - parameters, modifying, 274–275
    - as PDA interface, 264
    - preparation for setup, 268–272
    - restarting, 275–276
    - routers, rebooting, 265
    - serial setting, 275
    - server setting, 275
    - setting up, 272–276
    - speaking ability of, 264
    - starting, 272–274
    - Tk interface, 263
    - tracking sunrise, sunset and phases of moon with, 264
    - user interfaces, 263
    - weather monitoring with, 264
    - Web parameter, 274
    - what it does, 263–265
  - MisterHouse remote access
    - home network, securing, 314, 315–321
    - iptables, 321–324
    - overview, 313–314
    - PuTTY, 324–330
  - MisterHouse remote control through Web interface
    - Admin button, 298
    - Back button, 298
    - Comics Pictures button, 299
    - Events Calendar Clock button, 299
    - HTML template, 302–305
    - HVAC Weather button, 299
    - Lights Appliances button, 299
    - Mail Headlines News button, 299
    - main Web page, 297–300
    - Menus button, 298
    - MisterHouse button, 298
    - MrHouse Home button, 299
    - MrHouse Modes button, 299
    - My MH button, 298
    - My MH Web page, 305–312
    - Phone Calls VoiceMail Msgs button, 299
    - Search button, 298
    - Security Cameras button, 299
    - Speech button, 299
    - Statistics Logged Data button, 299
    - TV/Radio Guide MP3 Music button, 299
    - X10 modules, accessing and controlling, 300–302
  - module setup for starter kit (X10), 236–237
  - modules, 231–232, 250–251
  - money saved with DIY Zoning Project, 221
  - Motion, 33
  - motion detectors, 343
  - motion sensors used to control X10, 12
  - mounting weather station, 197–198
  - MP3 format, 131, 137
  - MR26A interface, 230, 250
  - MrHouse Home button (MisterHouse), 299
  - MrHouse Modes button (MisterHouse), 299
  - music format, choosing, 137
  - music played on MythTV, 127
  - Music settings (MythTV), 124
  - My MH button (MisterHouse), 298
  - My MH Web page
    - overview, 305–306
    - Weather Report button, adding, 308–312
    - weather report page, installing, 306–307
  - MySQL configuration (MythTV), 117

**MythTV**

- Appearance settings, 124
  - backend server, configuring, 117–122
  - Capture Cards setting, 118–119
    - on CD, 347–348
  - Channel editor setting, 121
  - computer hardware for, 24
  - deleting recordings, 126–127
  - described, 32, 117
  - DVD settings, 124
  - frontend server, configuring, 122–125
  - Game settings, 124
  - General setting, 118
  - hardware selection for, 114–115
  - Image settings, 124
  - image slide shows played on, 128
  - Input setting, 120–121
  - installation, 115–116
  - main menu options, 123
  - main settings, adjusting, 118–121
  - music played on, 127
  - Music settings, 124
  - MySQL configuration, 117
  - News settings, 124
    - overview, 113
  - Phone settings, 125
  - program guide, populating, 121–122
  - recordings, managing, 125–127
  - scheduling recordings, 125–126
  - Setup menu, 123–125
  - TV settings, 124
  - Video settings, 124
  - Video Sources setting, 119–120
  - videos played on, 128
  - watching recordings, 126
  - watching TV on, 125
  - Weather settings, 124
  - Web settings, 125
- MythWeather**
- described, 20
  - setting up, 207–209
  - viewing information with, 209–210



- native Linux drivers, 40
- Navigation Tree icon (TwonkyVision), 133

**NdisWrapper**

- on CD, 347
  - configuration, 49–50
  - custom kernel, compiling, 50–61
  - drivers, 48
  - hardware setup, 46–47
  - IP network address and mask, 47
  - overview, 45–46
  - passkey, 47
  - requirements for, 46
  - security mode, 47
  - Service Set Identifier (SSID), 47
  - shared key, 47
  - wireless channel number, 47
- netmask, 74
- Network Address Translation (NAT), 74, 328
- Network icon (TwonkyVision), 134
- Networking For Dummies* (Lowe), 73, 89
- new software used on old hardware, 23–24
- News settings (MythTV), 124
- nighttime snacking, automating an alarm to stop, 337–338
- Ninja camera mounts, 341
- noise filters, 282
- Nokia 770 Internet Tablet, 344
- None connection type, 75



- object code, 36
- OGG Vorbis format, 137
- 192.168.1.0 IP network, 75
- online weather
  - browser, getting weather data from your, 203–207
  - desktop, getting weather data on your, 199–203
  - MythWeather, 207–210
- open loop protocol, 262
- Open Shortest Path First (OSPF), 92
- OpenWrt
  - on CD, 348
  - configuration, 81–84
  - Configured Hosts screen, 86
  - Firewall Configuration screen, 86–87
  - Installed Software link, 87
  - overview, 85–88



status page, 85  
 upgrading your WAP to, 78–81  
 optional configuration for Asterisk, 179–181  
 OrbitView program, 156  
 organizer, MisterHouse as, 264  
 ospfd, 99  
 ospf6d, 99  
 Oww (One-wire weather)  
   cable for, 193  
   on CD, 349  
   configuration, 191–197  
   Data Source tab, 194  
   Derived Values tab, 196  
   described, 34, 188  
   Display tab, 194  
   installation, 189–197  
   Internet, putting your weather data on  
     the, 198  
   Log File tab, 194–195  
   Messages tab, 196  
   Stats tab, 195  
   Upload tab, 195

## • *p* •

package manager used to install Quagga,  
 93–95  
 pan feature of webcams, 155–156  
 passkey, 47  
 passphrase, 319  
 PBX (Private Branch eXchange), 158  
 PC interfaces for X10, 230–231  
 PCI card, 41  
 PCMCIA card, 42  
 PDA interface, MisterHouse as, 264  
 Performance icon (TwonkyVision), 134  
 personal video recorder (PVR), 113. *See*  
   also MythTV  
 phase problems for X10, 245  
 Phone Calls VoiceMail Msgs button  
   (MisterHouse), 299  
 Phone settings (MythTV), 125  
 phone systems. *See* smart telephone system  
 Port 22, 320  
 POTS (plain old telephone service), 158  
 Powerlinc interface, 230  
 PPPoE connection type, 76  
 Prism, 44  
 private address space, 73

Private Branch eXchange (PBX), 158  
 private keys, 317–318  
 products X10 for, finding, 14–15  
 Profiles option (Forecastfox), 206  
 program guide, populating, 121–122  
 programs on CD, 346–349  
 Project WiSH, 27–28  
 PSTN Line tab, 173–175  
 public keys, 317–318  
 Public Switched Telephone Network  
   (PSTN), 158  
 purchasing X10 devices, 232–233  
 PuTTY  
   on CD, 348  
   installation, 324–326  
   overview, 324  
   ssh keys generated with, 326–328  
   tunnels, building, 328–330

## • *Q* •

Quagga  
 bgpd, 99  
   on CD, 348  
   compilation, 96–97  
   configuration, 100–102  
   described, 32  
   installation, 96–97  
   isisd, 99  
   ospfd, 99  
   ospf6d, 99  
   overview, 92–93  
   package manager used to install, 93–95  
   ripd, 99  
   ripngd, 99  
   routing with, 99–100  
   vtysh, 99  
   watchquagga, 99  
   on WRT54GL, 98–99  
   zebra, 99

## • *R* •

Radar option (Forecastfox), 206  
 Radio icon (TwonkyVision), 133  
 Rain8, 233  
 receivers, 230  
 recordings, managing, 125–127

*Red Hat Linux Networking and System Administration* (Collings & Wall), 316  
 regular expressions (regex), 312  
 Relay module, 232  
 reloading Web page, creating, 150–151  
 remote control, 33  
 remote control for devices, 341–342  
 remote control software, 33  
 restarting MisterHouse, 275–276  
 RIP (Routing Information Protocol), 92  
 rtpd, 99  
 rtpngd, 99  
 ripping CDs, 137–139  
 root password, 74  
 routers, rebooting, 265  
 Routing Information Protocol (RIP), 92  
 routing with Quagga, 99–100  
 roZetta board (Houston), 263–264  
 RR501 module, 250  
 rt2x00, 44

## • S •

scheduling recordings, 125–126  
 Schorr, Andrew (Quagga), 92  
 scp, 317  
 scripting files on CD, 349  
 Search button (MisterHouse), 298  
 security. *See* home network security; home security  
 Security Cameras button (MisterHouse), 299  
 security mode (NdisWrapper), 47  
 sensors used to control X10, 12  
 serial ports, 283  
 serial setting (MisterHouse), 275  
 server setting (MisterHouse), 275  
 servers, 41  
 Service Set Identifier (SSID), 47  
 Session Initiation Protocol (SIP), 158  
 Session Internet Protocol (SIP), 153  
 Setup menu (MythTV), 123–125  
 Severe Weather option (Forecastfox), 206  
 sftp, 317  
 shared key, 47  
 shareware programs, 346  
 signal attenuation, 245  
 Siren, 233

SlimFire (KR19A) remote, 251  
 smart telephone system  
   Asterisk, 34  
   Asterisk@Home, 34  
   dial plans, 159–161  
   overview, 33, 158  
 Smarthome 3-pin Signalinc coupler-repeater, 282  
 sniffer, 317  
 socket rockets, 342  
 software  
   audio, 129–131  
   CamStream, 145  
   new software used on old hardware, 23–24  
   starter kit (X10), 234–235  
   weather station, 187–188  
   X10 wireless, 252  
 source code, 35–36  
 SPA-3000. *See also* Asterisk  
   configuration, 167–175  
   context, 161–165  
   dial plans, 159–161  
   Line 1 tab, 170–173  
   PSTN Line tab, 173–175  
   System tab, 169  
 SPA-3102, 166  
 speaking ability of MisterHouse, 264  
 Speech button (MisterHouse), 299  
 ssh system, 317–319  
 sshd, 317  
 SSID (Service Set Identifier), 47  
 standalone print servers, 340–341  
 starter kit (X10)  
   building, 233–237  
   hardware for, 235–236  
   house codes, 236–237  
   module setup, 236–237  
   overview, 233–234  
   software for, 234–235  
   unit codes, 236–237  
 starting MisterHouse, 272–274  
 startup script installation, 64–65  
 Static connection type, 76  
 static routes, 90–91  
 Statistics Logged Data button (MisterHouse), 299  
 Stats tab (Oww), 195

Status icon (TwonkyVision), 132  
 status page (OpenWrt), 85  
 StormSiren used to obtain weather updates, 20  
 streaming audio, 139–140  
 streaming media clients and servers, 340  
 streaming music clients, 339–340  
 sunrise scripts, 240–242  
 sunset scripts, 240–242  
 SUSE Linux, 24  
 Synaptic used to install driver for webcams, 142  
 System tab (SPA-3000), 169

## • T •

tables, creating MisterHouse, 284–287  
 TC184W, 233  
 telephone system (smart)  
   Asterisk, 34  
   Asterisk@Home, 34  
   dial plans, 159–161  
   overview, 33, 158  
 telephony, 158  
 telnet, 316–317  
 temperature sensors, 223  
 TempLinc, 233  
 Tepper, Hasso (Quagga), 92  
 terminal window, 35  
 Thermostat Set-back Controller, 212, 218  
 tilt feature of webcams, 155–156  
 timestamping images, 150  
 Tk interface, 263  
 TK10, 30–31  
 TM751 module, 250, 251  
 Today's Forecast option (Forecastfox), 206  
 touchtone controller used to control X10, 12  
 transceiver  
   described, 230  
   setting up, 253  
 transmitters, 230  
 Tree builder icon (TwonkyVision), 134  
 troubleshooting  
   CD, 350  
   CM11A interface, 246  
   X10, 244–248  
 Troxel, Greg (Quagga), 92  
 tunneling, 318

tunnels, building, 328–330  
 TV settings (MythTV), 124  
 TV/Radio Guide MP3 Music button (MisterHouse), 299  
 TW523 interface, 231  
 Twillman, Tymm (BottleRocket), 252  
 TwonkyMedia, 130, 349  
 TwonkyVision  
   Clients icon, 134  
   Content icon, 132–133  
   installing and configuring, 132–134  
   Navigation Tree icon, 133  
   Network icon, 134  
   Performance icon, 134  
   Radio icon, 133  
   Status icon, 132  
   Tree builder icon, 134  
 two-thermostat X10 control system, 216–218  
 TXB16 thermostat  
   overview, 212–213  
   setup for, 214  
   using, 214–215  
   warm house, waking up to a, 219  
   X10 thermostat controls, 212–215  
 TXB16 X10 HVAC system, 233

## • U •

Ubuntu Linux, 24  
 unit code, 229, 236–237  
 Universal Module  
   X10, 233  
   X10 thermostat controls, 216–217  
 universal remote controls, 342–343  
 Upload tab (Oww), 195  
 UPS, 245  
 UR19A remote, 251  
 USB card, 41  
 user code, disabling, 291–292  
 user interfaces for MisterHouse, 263

## • V •

Vanilla 2.4, 57–58  
 Vanilla 2.6, 57  
 version of Linux software, choosing, 23–24  
 video image, adjusting, 146–148

Video Out card, 18  
 Video settings (MythTV), 124  
 Video Sources setting (MythTV), 119–120  
 videoconferencing. *See also* Ekiga  
   CamStream, 34  
   described, 34–35  
   overview, 151–152  
 videos played on MythTV, 128  
 viewing information with MythWeather,  
   209–210  
 VoIP (Voice Over IP), 153, 158  
 vtysh, 99

## • W •

Wall, Kurt (*Red Hat Linux Networking and System Administration*), 316

### WAN information

DHCP connection type, 76  
 None connection type, 75  
 overview, 75  
 PPPoE connection type, 76  
 Static connection type, 76  
 wireless access point (WAP), 75–77

WAP. *See* wireless access point (WAP)

warm house, waking up to a, 219

watching recordings on MythTV, 126

watching TV on MythTV, 125

watchquagga, 99

WAV format, 137

weather, 34

weather applets, 19, 199–203

weather data

  Firefox Web browser, 19, 203–207

  Internet, getting weather reports from,  
   19–20

  MythWeather used to obtain weather  
   updates, 20

  overview, 18

  StormSiren used to obtain weather  
   updates, 20

  weather applets on Linux desktop, 19

  weather station, getting reports from  
   your own, 19

Weather Display, 188

weather monitoring with MisterHouse  
 (MH), 264

Weather Report button, adding, 308–312

weather report page, installing, 306–307

Weather settings (MythTV), 124

weather station. *See also* Oww (One-wire  
 weather)

  building, 188–189

  cable for, 193

  configuration, 191–197

  getting reports from your own, 19

  hardware for, 187–188

  installing software for, 189–197

  Internet, putting your weather data on  
   the, 198

  mounting, 197–198

  overview, 187

  software for, 187–188

Web pages created with HTML template,  
 304–305

Web parameter (MisterHouse), 274

webcams. *See also* CamStream

  described, 34–35

  Ekiga, 34

  finding webcam driver, 142

  installing software by using Synaptic,  
   144–145

  OrbitView program, 156

  overview, 141

  pan feature, 155–156

  setting up Synaptic software repositories,  
   143

  Synaptic used to install driver for, 142

  tilt feature, 155–156

  used for home security, 156

Weeder Technologies boards, 280

whole house blockers, 245

window shades, automating opening and  
 closing, 335–336

Winter, Bruce (MisterHouse), 261

wired networks compared, 41

wireless access point (WAP)

  configuration, 81–84

  described, 39–40

  LAN information, 73–74

  Linksys WRT54GL, 67–69

  OpenWrt, 69–70, 78–81

  overview, 67

  requirements for, 71–73

  WAN information, 75–77

  wireless information, 77–78

wireless channel number, 47

wireless network interface card (NIC), 40

- wireless networking. *See also* NdisWrapper
    - computer for, 40
    - desktop computers, 41
    - drivers, 40
    - 802.11 standards, 42–43
    - hardware components needed for, 41–42
    - laptop computers, 42
    - Linux wireless support, 43–45
    - mini-PCI card, 42
    - native Linux drivers, 40
    - overview, 39–41
    - PCI card, 41
    - PCMCIA card, 42
    - sending TV and stereo signals from any
      - TV, stereo, or CD player, 15–16
    - servers, 41
    - standards, 42–43
    - transmitting MP3 files, 16
    - USB card, 41
    - viewing Linux applications and videos on any TV, 18
    - wired networks compared, 41
    - wireless access point (WAP), 39–40
    - wireless network interface card (NIC), 40
    - WPA-Supplicant, 61–65
  - wireless video sender, 15–16
  - WMA format, 137
  - wmx10, 31
  - WPA-Supplicant
    - on CD, 348
    - compilation, 62
    - configuration, 62–63
    - overview, 61
    - startup script installation, 64–65
  - WRT54GL
    - networking commands, 106–109
    - overview, 98–99
  - WS467, 233
- ✕ •
- XHTML (Extensible HyperText Markup Language), 303
  - XMMS MP3 player, 17
  - X10. *See also* X10 wireless
    - AM466 module, 232
    - AM486 module, 232
    - AM14A module, 232
    - ApplianceLinc three-prong modules, 232
    - baby monitors, 245
    - battery backup power supplies, 245
    - CM11A interface, 13, 25–26, 230, 231, 246
    - CM15A interface, 230, 231
    - CM17A interface, 26, 230
    - CM19A interface, 231
    - commands, sending, 238
    - common problems with, 245–246
    - computer used to control, 12
    - CP290 interface, 231
    - cron program, 242
    - desktop controller used to control, 12
    - dimmers, 246
    - egg timer program, 238–239
    - Eight Relay Controller Latched, 233
    - electrical ratings, 246
    - fun uses for, 13–14
    - functional uses for, 13–14
    - house code, 229
    - isolating problems in, 247–248
    - LampLinc Plus two-way dimmer module, 232
    - LampLinc three-prong dimmer modules, 232
    - Linux software used to control X10 modules, 13
    - LM465 module, 232
    - LM14A module, 232
    - local control, 246
    - Maxi Controller, 233
    - Mini Controller, 233
    - modules, 231–232
    - motion sensors used to control, 12
    - MR26A interface, 230
    - overview, 10–12, 25, 228–229
    - PC interfaces, 230–231
    - phase problems, 245
    - Powerlinc interface, 230
    - products for, finding, 14–15
    - purchasing X10 devices, 232–233
    - Rain8, 233
    - receivers, 230
    - Relay module, 232
    - remote control used to control, 11
    - sensors used to control, 12
    - signal attenuation, 245
    - Siren, 233
    - starter kit, building, 233–237
    - sunrise scripts, 240–242

- sunset scripts, 240–242
- TC184W, 233
- TempLinc, 233
- touchtone controller used to control, 12
- transceivers, 230
- transmitters, 230
- troubleshooting, 244–248
- TW523 interface, 231
- TXB16 X10 HVAC system, 233
- unit code, 229
- Universal Module, 233
- UPS, 245
- what it does, 228–229
- whole house blockers, 245
- WS467, 233
- X10-powered printer, 242–244
- X10 Communicating Thermostat Model
  - TXB16. *See* TXB16 thermostat
- X10 controlled from MisterHouse
  - built-in functions, list of, 288
  - parameters, defining, 284–287
  - receiving X10 commands, 287–296
  - requirements for, 281–282
  - sending X10 commands, 287–296
  - setup for, 282–283
  - tables, creating MisterHouse, 284–287
  - user code, disabling, 291–292
- X10 macros, creating, 289–290
  - `x10.pl`, 292–294
  - `x10_11.pl`, 294–296
  - `x10_test.pl`, 290–291
- X10 Firecracker devices, 30–31
- X10 macros, creating, 289–290
- X10 Mini Timer, 219
- X10 modules, accessing and controlling, 300–302
- X10 power line carrier. *See* X10
- X10 thermostat controls
  - controlled heating, saving money with, 219–223
  - installation, 212–218
  - overview, 212
  - Thermostat Set-back Controller, 218
  - two-thermostat X10 control system, 216–218
  - TXB16 thermostat, 212–215
  - Universal Module, 216–217
  - warm house, waking up to a, 219
- X10 wireless
  - BlueLava, 255, 256–258
  - BottleRocket, installing, 255–256
  - CK18A kit, 251
  - CM15A interface, 250, 251
  - CM17A interface, 250, 251
  - CM19A interface, 250
  - hardware for, 253
  - http server, starting, 254–255
  - interfaces, 250–251
  - KR22A remote, 251
  - KR19A (SlimFire) remote, 251
  - modules, 250–251
  - MR26A interface, 250
  - overview, 249–250
  - RR501 module, 250
  - security, 250, 258
  - setting up, 253–258
  - software for, 252
  - TM751 module, 250, 251
  - tools for, 251–253
  - transceiver, setting up, 253
  - UR19A remote, 251
  - using, 258
- x10mp3 (software), 17
- `x10.pl`, 292–294
- `x10_11.pl`, 294–296
- X10-powered printer, 242–244
- `x10_test.pl`, 290–291



Young, David (Quagga), 92



zebra, 99

Zebra project (Ishiguro), 92