

INDEX

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

SYMBOLS AND NUMBERS

- ' (foot sign), 59
 - < (less-than) symbol, 32
 - @distance<angle, 457
 - !@ (at) symbol, for relative coordinates, 31
 - ↵ (Enter key), 28
 - vs. space bar, 120–121
 - 0 layer, 170
 - blocks on, 215
 - 3D drawing, 580
 - 3D face, 626
 - 3D mesh, 626
 - 3D modeling, 580, 626
 - doorway openings, 587, 588
 - floor plan, 593–596
 - primitive shapes, 608–609
 - rendering, 611–623
 - 3D view setup, 612–613
 - controlling background, 619–620
 - to file, 622–623
 - light source, 614–616
 - saving setup, 621–622
 - shadows, 616–617
 - roof of cabin, 605, 605–607, 606
 - Shade command for, 600
 - steps and balcony, 596–599, 598
 - surface modeling tools, 609–611
 - viewing drawing in 3D, 581–582
 - walls, 583–585, 584, 586
 - window openings, 589–593, 590, 592
 - windows and sliding glass door, 601–604, 602, 604
 - 3D Objects dialog box, 609–610, 610
 - 3D Orbit option on Realtime shortcut menu, 163
-
- ## **A**
-
- absolute coordinates, 30, 626
 - Acad_ISO linetypes, 181
 - acquired tracking point, 242, 243
 - active drawing, 255
 - Add-A-Plot Style Table Wizard, 570
 - Add Profile dialog box, 20, 20
 - Advanced Wizard for drawing setup, 71
 - alias keys, 20, 626
 - aligned dimensions, 435–436, 626
 - aligning viewports, 515–516
 - in AutoCAD LT, 516

- alignment path, temporary, 130
- Alt key, 21
- alternate units for dimensions, 412, 415
- American Institute of Architects, Layering standards, 175
- American National Standards Institute, 314–315
- angle setting, for hatch patterns, 312
- angular dimensions, 412, 436, 626
- angular units, 52, 72–73, 626
 - direction of degrees, 55
 - setting, 54
 - for surveyor units, 457, 457
- ANSI A (portrait) - Color Dependent Plot Styles template, 381, 381
- AR patterns
 - AR-PARQ1 pattern, 331
 - AR-RSHKE hatch pattern, 318
 - scale factor, 315
- Arc command, 102–104, 105
- Arc menu, 103, 103
- Architectural Tick, 408
- Architectural units, 72
 - Decimal units changed to, 56
 - distance entry in decimal form, 82
 - foot sign (') for distances, 59
- Array dialog box, 322, 322–323
- array, for viewport setup, 510
- arrowheads
 - for angular dimensions, 436
 - for dimension lines, 407, 408
 - for radial dimensions, 431, 433
- associative dimension, 626
- associative hatch pattern, 334, 626
- at (@) symbol, for relative coordinates, 31
- attribute, 626
- attribute definition, 626
- attribute extraction file, 626
- attribute extraction template file, 626
- attribute prompt, 626
- attribute tag, 627
- attribute value, 627
- AutoCAD
 - closing, 22
 - Communication Center, 7
 - graphics window, 5–9, 630
 - menu bar, 5
 - title bar, 5, 5
 - starting, 2–4
 - traditional colors, 176
- AutoCAD LT, 2
 - block revision, 253–254
 - Hatch origin, 329
 - Insert Block command, 244
 - Line command with osnaps, 300
 - modes, 98
 - rectangles, 147
 - Select Color dialog box, 173
 - title block, 371
 - tracking, 134, 144, 159
 - viewport alignment, 516
- AutoCAD templates, for title block and border, 381–382
- AutoCAD Text Window, 228–229, 229, 230
- AutoCAPS, for multiline text, 393
- AutoSnaps, 155, 627

B

background color

for hatch patterns, 310

and line color, 171

Background dialog box, 619, 619–620

background, for 3D model rendering, 619–620

Background Mask dialog box, 393

balcony of cabin, 138–142, 141

3D modeling, 596–599, 598

Base command, for Xref insertion point correction, 488

base point, 627

for commands using grips, 280

for copying objects, 105–106

Base row, for justification, 365

Baseline command, 424, 424–425, 425, 426

baseline dimension, 627

baseline for elevations, 276

basic method for tolerances, 417

bathroom of cabin, 154–163

shower unit, 156–157

sink, 158, 158–159

toilet position, 159–163, 161

bearings, 457. *See also* Surveyor units

Bind Xrefs dialog box, 487, 487

binding external references, 486–489, 627

bitmap image, for background of rendering, 619, 621

block definition, 214, 627

Block Definition dialog box, 216–217, 217

options for objects, 226

block reference, 218, 627

updating based on revision, 250

blocks, 214. *See also* sharing information

between drawings; window blocks

color assignment by, 176

converting external reference to, 486

converting to .dwg files, 266–267

creating tool palette for, 336–337, 337

drawing 3 views, 122–124, 123

dynamic, 226–227, 227

examples, 214

Explode command to ungroup, 250

finding in drawing, 228–232

with List command, 228–229

with Properties palette, 231, 231–232

using grips, 228

inserting, 218–226

and flipping, 221–222, 223

and rotating, 220, 220

insertion point for, 217

revising, 250–254

for window, 232

creating, 232–235

boldface text, 386, 391

Bonus Appendix, on dynamic blocks, 227

border

for layouts, 499, 499–500

for tables, 396

for title block. *See* title block and border

boundaries, 43

for hatch patterns, 312, 313

of viewports, 517, 535

box

- completing, 42–45
- extending lines, 43–45
- offsetting lines, 42–43
- trimming lines, 45–49, 46, 47, 48

drawing

- Fillet for line cleanup, 39–42
- Offset command for interior lines, 36–38, 37
- with relative Cartesian coordinates, 32–33
- with relative polar coordinates, 35–36

Break command, 357–359, 358

bullets, for multiline text, 391, 393

buttons, 43

ByLayer, 627

C

cabin. *See also* 3D modeling; walls

- balcony, 138–142, 141

- basic floor plan, 76

- with doors, 120

- bathroom, 154–163

- shower unit, 156–157

- sink, 158, 158–159

- toilet position, 159–163, 161

- dimension settings, 414

- with dimensions, 450

- elevations. *See also* elevations

- hatches, 327

- furniture, 164, 165

- garage addition, 121–122, 122

- dimensioning, 451, 451

- headers, 195–199, 198

- kitchen, 142, 142–154

- counter, 143–145

- sink, 152, 152–154, 153

- stove and refrigerator, 146–151, 151

- roof, 199, 199–202, 208

- eaves, 200–201, 202

- hip lines and ridgelines, 204–209, 206

- on site plan as external reference, 456

- steps and thresholds, 128, 128–137

- back step, 132–135, 135

- front step, 128–132, 132

- thresholds, 136–138, 137

- with steps, thresholds, balcony, kitchen and bath, 127, 162

- windows, 232. *See also* windows

canceling

- commands, 96

- running Osnaps for one pick, 248

Cartesian coordinate system, 627

- for ordinate dimensions, 437

- relative, 30, 31, 31

- box drawing with, 32–33, 100

center line, dimensioning to, 452–453

Center Osnap, 321

centering text, 379

centimeters, for alternate dimension unit, 415

Chamfer command, 41–42

child dimension styles, 431–432

circle

- drawing, 138–142, *139*
- Intersection Osnap with, 149–150
- civil engineering, ordinate dimensions, 439
- clockwise rotation, 101
- closing AutoCAD, 22
- closing palettes, 4
- coinciding lines, selecting one, 152
- color
 - of cursor, 8–9
 - of hatch patterns, 339
 - of layers, 171, 174, 209
 - of objects, 210
 - in plot styles, 570, 571
 - for printing, 570
 - for rendering 3D model, 617–618
 - of selected layers, 471
 - of tooltips, 68, 520
 - traditional set in AutoCAD, 176
 - for viewports, 505–506
 - of words in multiline text, 387
- color book, 178
- Color Control drop-down list, 210
- Color Options dialog box, 8–9, 9
- command line, 627
- Command: prompt, 628
 - for Line command, 26, 26–27
- Command window, 6, 6, 10
 - vs. dynamic display, 76
- commands, 215
 - canceling, 96
 - creating tool palette for, 339–341, *340*

- restarting most recent, 136
- running vs. starting new, 91
- starting, 10, 126
 - transparent use of, 107
- complex linetypes, 182
- compound trim, 92
- concrete hatch, 316, *317*
- cone primitive, *608*, 608
- context menu (shortcut menu), *126*, 126–127, 198, 635
 - for Mtext editing, 390
 - for Realtime commands, 163
- Continue command, 422–423, *423*
- continued dimension, 628
- Continuous linetype, 171
- Convertctb command, 575
- Convertpstyles command, 575
- coordinate readout window, 6, 6, *29*, 29
- coordinate tool tips, 5, 6
- coordinates
 - absolute, 30, 626
 - Drawing Limits setting for corners, 59
 - Line command with, 28–29
 - relative, 30–32, 634
- copies, printing multiple, 547
- copy and paste, 257–258
- copying
 - elevations, 301–302, *302*
 - lines for elevations, 278, *279*
 - objects, 105–107
- corners
 - Fillet to round off, 39–42, *40*
 - of polylines, correcting, 374, *375*

correcting errors, 96–97
 for Trim or Extend, 283

counterclockwise rotation, 101

Create Layout dialog box, 510

Create New Dimension Style dialog box, 406, 406, 432, 432

Create New Drawing dialog box, 25, 52

Create New Table Style dialog box, 395

crosshair cursor, 5, 6, 628
 and active viewport, 515
 disappearance, 155
 extending lines, 9
 in Model Space, 498, 498–499

crossing window, 116, 185, 186, 187–189, 188, 192, 628
 appearance settings, 117

.ctb files, 570

current drawing, external reference as, 475–479

current layer, 183
 Layer Control drop-down list for, 196

current text style, 349

current UCS, 628

cursor, 628. *See also* crosshair cursor
 color of, 8–9
 pickbox, 34

curved surface, 321–325

custom toolbars, 18

Customize dialog box, 340

cutting and pasting, 502–503, 504

cutting edges, 45, 628

cycling, 628

cylinder primitive shape, 591, 592

D

dashed linetype, 130, 180

datum point, for ordinate dimensions, 437

Ddedit command, 440

Decimal angular units, 72

Decimal units, 72
 changing to Architectural units, 56

default, 628

default hatch pattern, 317

default justification point, for multiline text, 389

Defpoints layer, 468

Deg/Min/Sec angular units, 73

deleting
 guideline, 361
 objects, when converted to block, 226

Descartes, René, 31

descenders, and justification, 365

Description (DesignCenter), 264

deselecting objects, 190–191, 191, 192

DesignCenter, 258–264, 336–337
 docked, 258
 floating, 259
 hidden, 260
 options, 264
 Tree View Toggle, 260

deviation method for tolerances, 417

dialog boxes, 2

Dimedit command, 442

Dimension Input Settings dialog box, 67

Dimension menu, 11
 ➤ Radius, 430

- Dimension Style Manager dialog box, *406*,
406, *413*, 413, 431, *431*
- dimension styles, 404–420, 628
 - naming, 405–407
 - overrides, 446
 - parent and child, 431–432
 - scale factor, 410
- dimension text, 628
- Dimension toolbar, *405*
 - Align button, 436
 - Angular button, 436
 - Baseline button, 424
 - current dimension style in, 413, *413*
 - Dimension Edit button, 442
 - Dimension Style button, 406
 - Linear button, 421
 - Ordinate button, 437
 - Quick Leader button, 433
- dimension units, 411–414
- dimension variables, 628
- dimensions, 346, 420–429
 - aligned, 435–436, 626
 - angular, 412, 436, 626
 - Baseline command, *424*, 424–425, *425*, *426*
 - components, 404, *405*
 - Continue command, 422–423, *423*
 - horizontal, 420–425, *422*
 - direction for, 422
 - leader lines, 433–435, *434*
 - modifying, 439–450
 - editing text content, 440–442, *441*, *442*
 - moving, 443, *444*
 - multiline text for, 383
 - ordinate, 436–439, *438*, *439*
 - overrides, 445–447
 - radial, 430–432, *431*, *433*
 - for short distances, 447–450
 - vertical, 427–429, *428*, *429*
- Dimradius command, 430
- Direct Entry method of distance entry, 131,
138, 628
- Direction control dialog box, 55
- display monitor, polyline width distortion
by, 374
- distance
 - Direct Entry method for, 131, 138
 - for Offset command, 82
- Distance (di) command, 248
- @distance<angle, 457
- Distant light, for 3D rendering, 614–616
- docking toolbar, 15–16, 629
- donut, 629
- doors, 97–105
 - 3D modeling of openings, 587, *588*
 - blocks for, 214–227, *223*
 - inserting, 218–225
 - drawing swing, 103–104
 - in elevation, 287–290
 - hatch patterns, *317*, 317
 - rotating, 101–102
 - sliding glass door, 111–119
 - swinging doors, 97–111
 - table for schedule, 394
- Drafting Settings dialog box, *66*, 66–68
 - Dynamic Input tab, 68
 - Object Snap tab, 98, *98*, 154, *155*, 205

- Polar Tracking tab, 130, *130*, 205, *205*
- Snap And Grid tab, 60–61, *61*
- drag and drop, *254–258*, *256*
- Draw menu, 11
 - > Arc, 103
 - > Block, 216
 - > Circle, *138*, 138
 - > 2 Points, 362
 - > Hatch, 310
 - > Line, *26*
 - > Rectangle, 99
 - > Region, 612
 - > Solids, *591*
 - > Box, 583, 587
 - > Surface, 610
 - > 3D Surfaces, 609
 - > Text
 - > Multiline Text, 383
 - > Single Line Text, 351–352
- Draw toolbar, *26*
 - Ellipse button, 158
 - Hatch button, 311
 - Insert Block button, 218
 - Line button, 26, 233
 - Make Block button, 216
 - Polyline button, 371
 - Rectangle button, 99
- drawing area, 5, 6, 56, 629
 - with grid and snap, 62–69
- drawing extents, 629
- Drawing Limits, 56, 59–62, 629
- drawing size, 56–62
- drawing units, 52–56, 629
 - angular units, 52, 72–73, 626
 - direction of degrees, 55
 - setting, 54
 - for surveyor units, *457*, *457*
 - linear units, 72
 - setting, 53–54
- Drawing Units dialog box, 53, *53*, 458
 - Precision drop-down list for Architectural units, *54*
- Drawing*n*.dwg file, 52
- drawings. *See also* external references
 - assigning plot style tables to, *574–577*
 - closing, 25
 - converting to template, 382
 - opening multiple, 254
 - for printing, 544
 - saving, 69–70
 - scale considerations, 305–306
 - sharing information between, 254–271
 - with DesignCenter, 258–264
 - with drag and drop, *254–258*, *256*
 - by inserting drawing, 266–267
 - with palettes, 267–270
 - with Wblock command, 265–266
 - wizards for setup, 71
- driveway on site plan, 460–463, *461*, *462*, *463*
- drop-down lists, 54
- drop-down menus, 11, 126
- Dtext command, 351–352
 - justification point for, 365
 - for title block labels, 376–377

.dwf files, 566
.dwg files, 629
 converting blocks to, 266–267
 default Standard text style, 348
 as external references, 456
.dwt files, 382
Dyn button in status bar, 6, 6–7, 10, 63
dynamic blocks, 226–227, 227, 629
Dynamic Display, 63, 66–69, 629

E

eaves lines, 199, 199
 creating, 200–201
edge, 629
edge surface, 610, 611
Edgemode system variable, 117
Edit menu, 11
Edit Reference In Place command, 480
Edit Text command, 366
efficiency in procedures, 96, 142
eighth-inch scale, 368
Elevation view, 629
elevations, 274, 305
 baseline for, 276
 cabin roof in, 283–287, 284, 285
 copying, 301–302, 302
 door, step and windows, 287–292
 finishing touches, 293, 293
 front, 274, 274–293
 grips to copy lines, 278, 279
 setting up lines for heights, 276–277
 trimming lines, 281–283, 282
 interior, 306, 307
 left and right, 299–304
 rear, 294–299, 295
 revising, 297–299, 298
 Rotate command for, 302–303, 303
 transferring height data between,
 299–300
Ellipse button (Draw toolbar),
 158, 160–161, 161
end command, 99, 100
Endpoint Osnap, 99, 100
 AutoSnap symbol for, 156
 and Distance command, 248
Engineering units, 72
Enter key (↵), 28
 vs. space bar, 120–121
entity. *See* objects
Erase command, 28, 34
erasing
 guideline, 361
 objects, when converted to block, 226
errors
 correcting, 96–97
 for Trim or Extend, 283
 when printing, 562
Esc key, to cancel command, 96
Exit option on Realtime shortcut menu, 163
Explode command, 101, 250, 629
 to convert multiline to single-line
 text, 383
Express menu, 11
Extend command, 43–45, 91, 283
 Undo option, 96–97
extension lines, for dimensions, 407

extents, 629
 as printing option, 548
 exterior wall lines, 77–81
 External Reference dialog box, 464–466, 465
 Unload button, 489
 external reference host file, 630
 external references, 456, 629
 binding, 486–489
 on frozen layers, 488
 modifying drawing, 474–482
 from within host drawing, 479–482
 by making it current drawing, 475–479
 moving and rotating, 472, 472–473
 nested, 488
 path for, 484–486
 setting up, 464–473
 uses for, 483, 483–484
 Extrude tool, 608, 608
 extrusion, 630

F

family of dimension styles, 431
 Favorites (DesignCenter), 264
 feature control frame, 418
 feet as drawing unit, changing inches to, 56
 Field dialog box, 392
 file extensions
 .ctb, 570
 .dwf, 566
 .dwg
 converting blocks to, 266–267
 default Standard text style, 348
 as external references, 456
 .dwt, 382
 .las, 474
 .lin, 182
 .plt, 547
 .rtf, importing, 393
 .stb, 570
 .txt, importing, 393
 File menu, 11
 > Close, 25
 > Exit, 22
 > Open, 78
 > Plot, 545
 > Plot Style Manager, 571
 > Save, 69
 > Save As, 382
 file names, 70
 File Output Configuration dialog box,
 622, 622–623
 file, rendering 3D model to, 622–623
 Fillet command, 39–42, 40, 79–81, 83–84, 85
 for eaves, 200–201, 201
 vs. Trim command, 143
 fillet radius, for polyline offset, 477
 fills, 310, 630
 filters for layers, 468–471
 Find and Replace, for multiline text, 393
 finding blocks in drawing, 228–232
 with List command, 228–229
 with Properties palette, 231, 231–232
 using grips, 228
 Fit to Paper, as plot option, 547

flipping objects. *See* Mirror command

floating toolbars, *15*, 15–16, *17*, 630
and Zoom Window command, 429

floating viewports, 508, 630

floor of cabin, 3D modeling,
593, 593–596, *594*

floor plan, *76*
with doors, *120*
as external references, 482
hatches for, 327–333
origin, 329–330, 330, 332
walls, 332–333
room labels, single-line text for,
353–358, *355*
structural grid for, 359

flyouts, 12–14, *13*

folders, 69
creating, 70
for plot styles, *570*, *570*

Font drop-down list (Text Formatting toolbar), 391

fonts, 349, 350, 630
Text Formatting toolbar to change,
386, 386
for title block, 379

foot sign ('), 59

Format menu, 11
➤ Drawing Limits, 59, 458
➤ Lineweight, 556
➤ Table Style, 394
➤ Text Style, 348, 376, 535
➤ Units, 53, 458

formatting, removing for multiline text, 393

Fractional units, 72

freezing layers, 193–195, 216, 630
3D layers, 589
external references on, 488
to hide in viewport, 529
thawing, 275, 529, 636

front elevation
hatches for, 310–327
concrete hatch, 316, *317*

function keys, 20–21

G

gasket, *165*, 165–166

Geographic Location dialog box, for sunlight calculation, 615, *616*

Geometric Tolerance dialog box, *418*, 418–419

geometric tolerancing, 418

ghosting, 34, 630

glazing, 234

global linetype scale factor, 204

Gourard shading, 599, *600*

grab bars, for toolbar, 16

gradient, for background of rendering, 619

Grads units, 73

Graphical User Interface (GUI), 2, 3
profiles, 19–20
removing features, 7–8

graphics window, 5–9, 630

gray shades, 176

grid, 56–59, 630
after zooming out, 58

default, 57
 dot spacing, 60
 generating letters for symbols, 364, 365
 locking to snap, 61
 text in, 359–368, 360, 362, 363
 grips, 280, 630–631. *See also* selection tools
 to change Mtext line length, 387, 387
 to copy lines, 278, 279
 display for selected object, 185, 186
 for finding blocks in drawing, 228
 to move dimension text, 449
 for single line text, 355
 groundline, 276
 guideline, 234, 234
 erasing, 361
 for grid, 360
 for inserting window block, 239, 239–241

H

Hatch And Gradient dialog box, 311, 311
 Hatch tab, 314
 Inherit Properties, 319
 Hatch command, 310
 Hatch Edit dialog box, 326
 hatch pattern origin, 631
 Hatch Pattern Palette dialog box, 311–312, 312
 ANSI tab, 314–315
 ISO tab, 315
 hatches, 310
 for floor plan, 327–333
 origin, 329–330, 330, 332
 parquet hatch pattern, 331, 331–332
 walls, 332–333
 for front elevation, 310–327
 concrete hatch, 316, 317
 roof, 311–314, 314
 walls, 318, 318
 patterns, 631
 modifying, 325–327
 modifying shapes of, 334, 335
 user-defined, 327–328, 328
 viewing, 314–316
 shading applied to surface, 319–320, 320
 solid fills as, 318, 319
 tool palette for, 337–339
 headers, 195–199, 198
 height
 of table row, 397, 398
 of text, 349
 0 setting in style, 350, 379
 Text Formatting toolbar to change, 385, 385
 in text style, 379
 for words in multiline text, 387
 of tolerance text, 417
 transferring data between elevations, 299–300
 Height drop-down list (Text Formatting toolbar), 391
 Help menu, 11
 for New Features Workshop window, 4
 help, on multiline text, 393
 hip lines, 199, 199
 hip roof, 199

horizontal dimensioning, 420–425, 422

horizontal row of viewports, 526

horizontally centering text, 379

host drawing

- modifying external reference from within, 479–482

- permanently attaching Xref to, 486–489

hotkeys, 21, 126

House Icon (DesignCenter), 264

HSL (Hue, Saturation, Luminance) color model, 177, 177–178

hyperlink, 631

I

icons, 43, 631

implied windowing, 192

importing

- layer states, 474

- raster drawings, 464

- text, 393

In-Place Xref And Block Edit command, 251, 479

- decision to use, 482–484

inches as drawing unit, changing to feet, 56

indentions in multiline text, 388, 388

Indents and Tabs dialog box, 393

Indexing and Demand Loading, 488

Info Palette, 11

information, sharing between drawings, 254–271

- with DesignCenter, 258–264

- with drag and drop, 254–258, 256

- by inserting drawing, 266–267

- with palettes, 267–270

- with Wblock command, 265–266

Insert Block button (Draw toolbar), 218

Insert Block command, 225

Insert dialog box, 219, 487

Insert Field button (Text Formatting toolbar), 392

Insert menu, 11

- > Block, 222, 487

- > External Reference, 464

- > Layout > Create Layout Wizard, 510

- > Xref Manager, 464, 478, 485

Insert Osnap, for single line text, 365

Insert Table dialog box, 397, 397–400

InsertBlock command, 215

inserting

- blocks, 218–226

- drawing in other drawing, 266–267

- window blocks, 235–246, 238

- with osnap tracking and polar tracking, 241–246, 243, 246

- and rotating, 236–237, 238

- using guidelines, 239, 239–241

insertion point, 631

- for block, 217

IntelliMouse, 21

- and Object Snap menu, 129

interior doors, blocks for, 223–225, 224

interior walls, 81–89

International Organization for Standardization, 315

Intersect tool for solids, 609, 609

Intersection Osnap, 149–150, 240, 240, 301–302
 for text position, 351
 isometric view, 613, 631
 italics text, 387, 391

J

jamb, 90, 631
 Jogged command, 430
 justification
 of multiline text, 389, 389–390, 393
 of single-line text, 365, 365
 justification point, 631
 for single line text, 351

K

keyboard, 20–21
 for commands, 91, 126
 kitchen of cabin, 142, 142–154
 counter, 143–145
 sink, 152, 152–154, 153
 stove and refrigerator, 146–151, 151

L

labels, in title block, 376
 landscape orientation, 555
 and plot origin, 554
 for printing, 547
 for viewports, 510

large-format printer, 565, 565
 .las files, 474
 lateral tolerances, 416
 Layer Control drop-down list (Object Properties toolbar), 183
 for current layer, 196
 Layer Filter Properties dialog box, 468–469, 469
 Layer Properties Manager dialog box,
 171–180, 463, 466, 529
 to assign lineweights, 557
 Cabin Visible filter, 470
 Color Books tab, 178, 179
 creating new layers, 172, 172–174
 description, 559
 green checkmark icon, 183
 Layer Filter Tree View box, 171, 468
 Layer List box, 170, 171–172, 175
 layers containing objects, 193
 linetypes, 181
 Phantom linetype, 463
 New Group Filter button, 471
 opening, 170
 plot toggle, 559
 resizing, 468
 True Color tab, 177, 177
 Layer States Manager dialog box, 466, 466,
 471, 473–474
 layers, 631
 for 3D modeling, 583, 587
 of glass, 604
 color assignment by, 176
 color of, 171, 174, 209
 changing multiple, 471

- complexity, 176
 - creating, 170
 - current, 183, 196
 - Defpoints layer, 468
 - filters for, 468–471
 - freezing, 193–195, 216, 630
 - 3D layers, 589
 - and external references, 488
 - to hide in viewport, 529
 - for grid, 359, 360
 - for hatches, 310
 - for headers, 196
 - for line segments, 359
 - linetype assignment to, 179–180
 - lineweights, 556–557
 - names for, 175
 - object assignment to, 186–191
 - for organization, 168–169, 169
 - properties, 209–210
 - setting up, 170–180
 - for tables, 394
 - thawing, 275, 529
 - turning off, 193–195, 435
 - in viewports, 529–534, 530, 531, 534
 - for windows, 236
- Layers toolbar, 5, 5, 170, 170
- Layer Properties Manager button, 170
- Layout tabs, 6, 6, 494, 494, 632
- Layout Wizard, 510, 511
- layouts, 347, 382, 492, 631
- adding multiple viewports, 526–534
 - border for, 499, 499–500
 - multiple viewports on, 509–539
 - page setup for, 493
 - printing with, 563, 563–569
 - with multiple viewports, 564–566
 - setting up, 492–503
 - switching between Model Space and, 507–509
 - title block for, 501, 501–503
 - vs. Model Space, 502
- leader lines, for dimensions, 433–435, 434
- less-than (<) symbol, 32
- light source, for rendering 3D model, 614–616
- lightbulb icon, 193, 194
- Lights dialog box, 614, 614–615
- limits (drawing limits), 56, 59–62, 629
- limits method for tolerances, 417
- .lin file, 182
- Line command, 24–32, 62–65, 233
- with coordinates, 28–29
 - relative coordinates, 30–32
 - for elevations, 278
 - ending, 27
 - with Endpoint Osnap, 129
 - with Quadrant Osnap, 300–301, 301
 - for site plan, 459, 459
 - Undo option, 97
 - vs. Rectangle command, 101
- Linear command, 421, 427
- linear dimensions, 411–412
- linear units, 52, 72
- setting, 53–54
- lines
- extending, 43–45

- offset from itself, 114
- selecting one of coinciding, 152
- trimming, 45–49, 46, 47, 48

Linetype command, 182

Linetype Control drop-down list, 210

Linetype Manager, 204

linetype scale factor, 202, 632

- assigning individual, 203–209

linetypes, 170, 181–182, 632

- assigning to layers, 179–180
- assigning to objects, 210, 292
- creating custom, 182

lineweight, 181, 182, 632

- checking, 567
- determination for printing, 556–559
 - in preview, 561, 562

Lineweight Control drop-down list, 210

Lineweight dialog box, 558, 558

Lineweight Settings dialog box, 556, 559

- changing units, 558

List command, for finding blocks in drawing, 228–229

lists, for multiline text, 393

Load dialog box (DesignCenter), 264

Load or Reload Linetypes dialog box, 180, 180

locking

- toolbars, 636
- viewports, 506, 509

Logical Colors, 176

lowercase, for multiline text, 392, 393

ltscale command, 202

luminance, 178

Lwt button in status bar, 6, 7

M

Make Block button (Draw toolbar), 216

Make Block command, 215, 224–225

margins for printing, 567, 567–568

measurement units, 49. *See also* drawing units

menu bar, 5, 5, 632

- drop-down menus, 11
- underlined letters on, 21

Midpoint Osnap, 114, 157, 157

- and running osnaps, 361

millimeters, for alternate dimension unit, 415

Mirror command, 107–109, 207, 208, 632

- grips for, 280
- for left elevation, 304
- for rear elevation, 294, 295
- toggle to other command, 369

mirror line, 107, 632

mistakes. *See* errors

Model button in status bar, 6, 7

Model/Paper button on status bar, 507

Model Space, 497, 498, 632

- crosshair cursor in, 498, 498–499
- rectangles, 500
- scale for, and zoom, 509
- switching between layout and, 507–509
- vs. layouts, 502
- vs. Paper Space, 539

Model tab, 6, 6, 497–498

Modify Distant Light dialog box, 616

Modify Hatch command, 326

Modify menu, 11

- > Break, 357
- > Copy, 106
- > Erase, 28
- > Explode, 250
- > Fillet, 40
- > Mirror, 108–109
- > Object > Text > Edit, 366, 537
- > Offset, 35
- > Rotate, 101
- > Scale, 460
- > Solids Editing
 - > Subtract, 585, 587, 597
 - > Union, 595
- > Trim, 45

Modify toolbar, 26

- Array button, 322
- Copy button, 106
- Erase button, 28
- Explode button, 383
- Extend button, 44
- Fillet button, 40, 79
- Mirror button, 108
- Move button, 139
- Offset button, 78–79, 90–92
- Rotate button, 101
- Scale button, 460
- Trim button, 86

monitor, polyline width distortion by, 374

mouse, 21–22, 126

Move command

- grips for, 280
- for title block, 503

moving

- dimensions, 443, 444
- external references, 472, 472–473
- rectangles, 369, 370
- single-line text, 355–357, 378
- viewports, 524

Mtext. *See* multiline text

Mtext Editing toolbar, displaying, 392

Mtext shortcut menu, 392–393

multiline text, 346, 382–393, 385, 632

- exploding, 383
- justification, 389, 389–390
- modifying, 391–393
- special characters, 390

Multiline Text Editor, 384, 384–385

N

named objects, 254

- DesignCenter for accessing, 258–259, 258–264

names

- for dimension styles, 405–407
- for layers, 172, 175
- for plot styles, 570, 571
- for text style, 349
- for view, 632

Nearest Osnap tool, 233, 503

nested external references, 488

New button (Standard toolbar), 25, 52

New Dimension Style dialog box

- Alternate Units tab, 415, 416

- Fit tab, 410, 411
 - Lines tab, 407, 407
 - Primary Units tab, 411–414, 412
 - Symbols and Arrows tab, 408, 408
 - Text tab, 408–409, 410
 - Tolerances tab, 416–420, 418
 - New Distant Light dialog box, 615, 615
 - New Features Workshop window, 4
 - New Layer State to Save dialog box, 467, 467
 - New Page Setup dialog box, 494, 494–495
 - New Scene dialog box, 621, 621
 - New Table Style dialog box, 395–396, 396
 - New Text Style dialog box, 348, 349
 - New View dialog box, 299
 - “Not Found” message, as Xref status, 485, 486
 - note text, viewport for, 518
 - Notepad, to create custom linetypes, 182
 - numbering, for multiline text, 391
- O**
-
- Object Properties toolbar
 - Layer button, 466
 - Layer Control drop-down list, 183, 184, 184
 - Layer Properties Manager button, 557
 - Object Snap menu, middle mouse button for, 21
 - Object Snaps (Osnaps), 99, 633
 - Center Osnap, 321
 - Endpoint Osnap, 99, 100
 - AutoSnap symbol for, 156
 - and Distance command, 248
 - Insert Osnap, for single line text, 365
 - Intersection Osnap, 149–150, 240, 240, 301–302
 - Midpoint Osnap, 114, 157, 157
 - and running osnaps, 361
 - Nearest, 233, 503
 - Perpendicular Osnap, 119, 135
 - Quadrant Osnap, 139, 140, 300
 - running, 154–155, 634
 - canceling for one pick, 248, 376
 - disabling, 383
 - and Midpoint Osnap, 361
 - and positioning text, 379–380
 - Snap To None Osnap, 376
 - tracking, for window, 241–246
 - turning off, 247, 284
 - ways of using, 129
 - objects, 632. *See also* blocks
 - 2D with 3D behavior, 612
 - assigning color or linetype to, 210
 - assigning to layers, 186–191
 - copying, 105–107
 - deselecting, 190–191, 191, 192
 - invisible, 193–195
 - mirroring, 107–109
 - moving, 369, 370
 - named, 254
 - options for those converted to block, 226
 - selecting. *See also* selection tools
 - summary, 192
 - Text Window for information about, 228–229, 229, 230
 - oblique angle, for multiline text, 392

- Offset command, 35, 36–38, 37, 41, 90–92, 91, 114, 144–145, 152
 - errors using, 96
 - for exterior walls, 78–79
 - for interior walls, 81–82, 82
 - to mark opening, 42–43
 - specifying distances, 39
 - offsetting lines, 114
 - for border, 370
 - default layer, 200
 - opaque background, for multiline text, 392
 - openings in walls, 90–96
 - exterior, 90–93, 94
 - interior, 94, 95
 - Options button (Text Formatting toolbar), 391
 - Options dialog box, 7–8
 - Display tab, 8, 8, 19, 493
 - Drafting tab, 155–156, 156
 - Files tab, 7
 - Plot And Publish tab, 574
 - Profiles tab, 19, 19–20
 - Selection tab, 34, 34, 117, 228
 - System tab, 4, 25, 381
 - User Preferences tab, 157
 - ordinate dimensions, 436–439, 438, 439
 - organization, layers for, 168–169, 169
 - orientation of print, 555
 - error in preview, 562
 - and plot origin, 554
 - portrait or landscape, 547
 - origin, 633
 - for hatch patterns, 329–330, 330, 332, 631
 - placement for plot, 553–554, 554
 - Ortho mode, 633
 - orthogonal drawing, 633
 - orthogonal lines, 36
 - orthographic projection, 274
 - Osnap button on status bar, 98
 - Osnap Cursor menu, 351, 351
 - Osnap Flyout toolbar, 112, 113
 - Midpoint Osnap, 114
 - Otrack button in status bar, 6, 6, 476
 - overlapping viewports, 535
 - overrides, for dimensioning, 445–447
-
- ## P
-
- Padlock icon in status bar, 6, 7, 14
 - Page Setup dialog box, 576
 - page setup for layouts, 493
 - Page Setup Manager dialog box, 494, 494, 521, 576
 - palettes, 4. *See also* tool palettes
 - Auto-Hide, 270, 270
 - of blocks, 267–270
 - transparency, 268–269, 269
 - Pan button (Standard toolbar), 241
 - Pan command, 633
 - Pan option on Realtime shortcut menu, 163
 - Pan Realtime button (Standard toolbar), 159
 - PANTONE color groups, 177
 - Paper button on status bar, 507
 - paper size for printing, 495, 547
 - printable area for, 513

- Paper Space, 508, 633. *See also* layouts
 - adding text to, 535–538, 536, 537
 - returning to, 506
 - vs. Model Space, 539
- paragraphs, combining for multiline text, 393
- parent dimension styles, 431–432
- parking lot, 167, 167
- parquet hatch pattern, 331, 331–332
- path, 485, 633
 - of current drawing, 5
 - for external references, 484–486
- Pedit command, 522
- pen plotters, 544
- performance, viewport visibility and, 539
- Perpendicular Osnap, 119, 135
- perspective for rendering, 623
- Perspective view, 633
- Phantom linetype, 463
- pick button, 633
- pickbox, 34, 633
- picking, 192
- Plain view, 633
- Pline (Polyline) command, for title block, 371
- Plot dialog box, 545–555, 546, 560
 - expanded version, 554–555, 555
 - layouts and, 564
- Paper Size area, 547
- Plot area, 547–552
 - Display option, 547, 548
 - Extents option, 548, 548
 - Limits option, 549, 549–550
 - View option, 550
 - Window option, 551, 552
- Plot Offset, 553–554, 554
- Plot Scale area, 552–553
- Printer/plotter area, 546–547
- plot style table, 633
- Plot Style Table Editor dialog box, 571
 - Form View tab, 572, 573
 - General tab, 571
 - Table View tab, 572, 572, 573
- Plot Style Table Settings dialog box, 574, 574
- plot styles, 569–577, 633
 - table files, 570–577
 - assigning to drawings, 574–577
 - organization, 571–574
- Plot Styles dialog box, 571
- Plotter Configuration Editor dialog box
 - Device And Document Settings tab, 495
 - paper size adjustment, 521
- plotting. *See also* printing
 - vs. printing, 544, 596
- .plt files, 547
- point filters, 634
- Point Light, 614
- Pointer Input Settings dialog box, 67
- Polar Array tool, 322
- Polar button in status bar, 6, 6, 130, 143
- polar coordinate system, relative,
 - 30, 31–32, 32
 - box drawing with, 35–36
- Polar Tracking, 143, 634
 - for vertically centering text, 379
 - for window placement, 237, 238

Polyline Edit (Pedit) command, 374

Polyline (Pline) command, for title block, 371

polylines, 147, 634

 offsetting, 477

 Osnap points, 503

 for rectangles, 101

 selecting, 374

 for title block, 371

 width distortion by monitor, 374

portrait orientation, 555

 and plot origin, 554

 for printing, 547

precision of drawing units, 53, 634

 drop-down list for Architectural units, 54

 tolerances, 417

Preview (DesignCenter), 264

primitive shapes, 591

 for 3D modeling, 608–609

printable area, 495–496, 497, 497, 500

 for paper size, 513

printer, selecting, 495

printing, 555–563. *See also* layouts; Plot dialog box; viewports

 with large format printer, 565, 565

 layer properties and, 559

 lineweight determination, 556–559

 in preview, 561

 notice bubble after completion, 562

 parameters settings, 560

 preview, 560–563, 561

 site plan, 567–569

 preview, 568

 using layouts, 563, 563–569

 with multiple viewports, 564–566

 vs. plotting, 544, 596

procedures, efficiency in, 96

profiles, 19–20

prompt, 634

properties of layers, 171

Properties palette, 150, 151

 docked or floating, 232

 for finding blocks in drawing,
 231, 231–232

 Linetype Scale, 203

 for text, 364, 364

Properties toolbar, 5, 5, 170, 170

 Linetype Control drop-down list, ByLayer,
 204–205, 205

Q

Quadrant Osnap, 139, 140, 300

Quick Wizard for drawing setup, 71

R

radial dimensioning, 430–432, 431, 433

Radians unit, 73

radio buttons, 2

radius

 for Fillet command, 79

 Properties palette to change, 150

raster drawings, importing, 464

- real world scale, drawing in, 305
- Realtime Pan button (Standard toolbar), 163, 515
- Realtime Zoom button (Standard toolbar), 163
- rear elevation, 294–299, 295, 298
- Rectangle button (Draw toolbar), 99
- Rectangle command, 99, 146
 - for border, 368–370
 - vs. Line command, 101
- Redo button (Standard toolbar), 96, 145
- Redo button (Text Formatting toolbar), 391
- Redraw command, 634
- Refedit toolbar, 252, 252, 480, 480
- Reference Edit dialog box, 251, 251, 480, 534
- reference line, with tracking points, 301, 301
- reference point, for ordinate dimensions, 437
- Reference toolbar, 464
- refrigerator, 146–151, 151
- regeneration, 586, 634
- region, 612
- registration points, 168
- regular selection window, 185, 189, 189, 192, 634
- relative coordinates, 30–32, 634
 - Cartesian coordinate system, 30, 31, 31
 - box drawing with, 32–33, 100
 - polar coordinate system, 30, 31–32, 32
 - box drawing with, 35–36
- Render dialog box, 618, 618
- Render toolbar, Lights button, 614
- rendering 3D model, 611–623
 - 3D view setup, 612–613
 - controlling background, 619–620
 - to file, 622–623
 - light source, 614–616
 - saving setup, 621–622
 - shadows, 616–617
- Revolve tool, 609, 609
- revolved surface, 610, 610
- RGB (Red, Green, Blue) color model, 177, 177
- ridgeline, 199, 199
- right-click menus, 22
- rollover highlighting, 34
- romand.shx font, 350
- romans.shx font, 349, 350
- roof of cabin, 199, 199–202
 - 3D modeling, 605, 605–607, 606
 - in elevation, 283–287, 284, 285
 - hatches, 311–314, 314, 341–342, 342
- room labels on floor plans, single-line text for, 353–358, 355
- Rotate command
 - for elevations, 302–303, 303
 - grips for, 280
 - toggle to other command, 369
- rotating
 - blocks, 220, 220
 - doors, 101–102
 - external references, 472, 472–473
 - window blocks, 236–237
- row in table, height of, 397, 398
- .rtf files, importing, 393
- rubberbanding, 634
- ruled surface, 610, 611
- Ruler button (Text Formatting toolbar), 391

ruler, in Mtext Editor window, 388, 388, 392
running commands, and starting new commands, 91
running Object Snaps (Osnaps)
canceling for one pick, 248, 376
disabling, 383
and Midpoint Osnap, 361
and positioning text, 379–380
running, 154–155, 634

S

SansSerif font, 386
Satellite Dish button in status bar, 6, 7
saturation, 178
Save Drawing As dialog box, 69, 69–70
saving, 69–70
3D model rendering setup, 621–622
printing to file, 547
User Coordinate System, 299
views, 550
Scale command
grips for, 280
for title block, 503
toggle to other command, 369
scale factor, 305–306, 634
and corresponding ratios, 315
of dimension style, 410
for hatch patterns, 312, 315–316
user-defined, 328
for linetype, 202
assigning individual, 203–209
of plot, 552–553
setting viewports with different, 520–526
text and drawing, 347–348
for viewports, and final adjustments, 534
scene, 621
Scenes dialog box, 622
Scientific units, 72
scroll bars, turning off, 8
Search dialog box (DesignCenter), 264
Select Color dialog box, Index Color tab, 173, 173
Select File dialog box, 78
Select Hatch mode, 319
Select Linetype dialog box, 179–180, 180, 181
Select Reference File dialog box, 464
Select Template dialog box, 52–53, 381
selecting polylines, 374
selection mode, 634
selection set, 192, 635
selection tools, 34. *See also* grips
cycling, 152
deselecting objects, 190–191, 191, 192
display, 34–35
summary, 192
selection window, 185–187, 635
appearance settings, 117
Shade command, for 3D modeling, 600
shading
applying to surface, 319–320, 320
Gourard, 599, 600
Shadow Options dialog box, 616, 617

- shadows, in 3D model rendering, 616–617
- shakes (wood shingles), 318
- sharing information between drawings, 254–271
 - with DesignCenter, 258–264
 - with drag and drop, 254–258, 256
 - by inserting drawing, 266–267
 - with palettes, 267–270
 - with Wblock command, 265–266
- short distances, dimensioning for, 447–450
- shortcut menus, 126, 126–127, 198, 635
 - for Mtext editing, 390
 - for Realtime commands, 163
- shower unit, 156–157
- single-line text, 346, 350–382, 635
 - breaking lines around, 357–358, 358
 - justification, 365, 365
 - moving, 355–357, 378
 - for room labels on floor plans, 353–358, 355
 - text in grid, 359–368, 360, 362, 363
 - completed grid, 367
 - title block and border, 368–382
 - AutoCAD templates, 381–382
 - border, 368–370, 370
 - text placement in title block, 375–380, 377, 378, 380
 - title block, 371–374, 372, 374, 375
 - for titles of views, 350–352, 351, 352
- sink
 - in bathroom, 158, 158–159
 - in kitchen, 152, 152–154, 153
- site plan, 457–463
 - with cabin as external reference, 456
 - driveway, 460–463, 461, 462, 463
 - printing, 567–569
 - preview, 568
 - with surveyor units, 456–459, 457
 - property line layout, 458–459, 459
 - viewport for, 524–526
- size of text, for title block, 501
- sliding glass door, 111–119
 - 3D modeling, 601–603, 602, 604
 - opening for, 95, 95–96
- snap. *See also* Object Snaps (Osnaps)
 - locking to grid, 61
- Snap mode, 635
- Snap To None Osnap, 376
- Snapbase, 635
 - default setting, 330
- snowflake icon, 216
- soffit, 277, 635
- solid, 635
- solid fills, 310, 318, 319
- solid modeling, 580. *See also* 3D modeling
 - vs. surface modeling, 611
- Solids toolbar, 591
 - Box button, 587
- space bar, vs. Enter key (↵), 120–121
- spacing between lines, for multiline text, 392
- special characters, in multiline text, 390
- sphere primitive, 608, 608
- Spotlight, 614

- Stack button (Text Formatting toolbar), 391
- Standard AutoCAD linetypes, 182
- Standard text style, 348
- Standard toolbar, 5, 5, 12, 12
 - New button, 25, 52
 - Pan button, 241
 - Pan Realtime button, 159
 - Plot button, 545, 560
 - Properties button, 150
 - QNew button, 381, 458
 - Realtime Pan button, 163, 515
 - Realtime Zoom button, 163
 - Redo button, 96, 145
 - Tool Palettes button, 336
 - Undo button, 96, 144, 145
 - Zoom Previous, 107
- Start menu > All Programs > Autodesk > AutoCAD 2006, 2
- starting AutoCAD, 2–4
 - controlling, 4
- Startup dialog box, 2–4, 3
 - displaying or hiding, 4
 - wizards for setup, 71
- status bar, 6, 6
 - coordinate readout window, 29, 29
 - DYN button, 63
 - Grid button, 57
 - Polar button, 130
 - Snap button, 58
- .stb files, 570
- stove in cabin, 146–151, 151
 - details, 148, 148–150
- strategic zooming, 287
- strategy for drawing, 126–127
 - efficiency in, 96, 142
 - starting commands, 126
- Stretch command, 278, 334
 - grips for, 280
 - for text movement, 355, 356
 - toggle to other command, 369
- structural grid for floor plan, 359
- studs, 422, 635
- Style command, 346
- Style drop-down list (Text Formatting toolbar), 391
- styles
 - for multiline text, 383
 - for tables, 394–396
- Sun Angle Calculator dialog box, 615, 615
- sunlight calculation, Geographic Location dialog box for, 615, 616
- surface modeling
 - tools, 609–611
 - vs. solid modeling, 611
- Surveyor units, 73, 635
 - site plan with, 456–459
- swinging doors, 97–111
 - drawing swing, 103–104
- Symbol button, for multiline text, 392
- Symbol window, 419, 419
- symbols
 - adding to dimensions, 441
 - in grid, generating letters for, 364, 365
 - in multiline text, 390, 392
- symmetrical method for tolerances, 416

T

-
- T-intersections, 84
 - Table Style dialog box, 394–395, 395, 397
 - tables, 394–400
 - design, 397–400
 - for plot styles, 570–577
 - assigning to drawings, 574–577
 - organization, 571–574
 - style definition, 394–396
 - tabulated surface, 610, 611
 - Template Description dialog box, 382, 382
 - template drawings, 635
 - in AutoCAD, for title block and border, 381–382
 - temporary alignment path, 130
 - Temporary Tracking Point, 132–133, 134, 135, 143
 - for ellipse, 158
 - text. *See also* multiline text; single-line text
 - adding to paper space, 535–538, 536, 537
 - editing for dimensions, 440–442, 441, 442
 - importing, 393
 - size for title block, 501
 - Text Color drop-down list (Text Formatting toolbar), 391
 - Text Formatting toolbar, 384, 384–385, 391–392
 - for editing dimensions, 440, 440
 - Text Style dialog box, 348, 376
 - for dimensions, 409
 - text styles, 346–350, 635
 - list of defined, 354, 354
 - for room labels, 348–349
 - text and drawing scale, 347–348
 - texture. *See* hatches
 - thawing, 636
 - frozen layers, 275, 529
 - thickness, 636
 - thresholds, 136–138, 137
 - in elevation, 290, 291
 - tick marks, 408
 - tiled viewports, 508
 - tiling drawings, 254–255, 255
 - title bar, 5, 5
 - title block and border, 368–382, 380
 - AutoCAD templates, 381–382
 - border, 368–370, 370
 - for layouts, 501, 501–503
 - location on large paper, 522
 - text placement in title block, 375–380, 377, 378, 380
 - title block, 371–374, 372, 374, 375
 - titles of views, single-line text for, 350–352, 351, 352
 - toilet position, 159–163, 161
 - tolerances, for dimensions, 412, 416–420, 417
 - tool palettes, 335–341
 - for blocks, 336–337, 337
 - for commands, 339–341, 340
 - for hatch patterns, 337–339
 - Tool Properties dialog box, 337, 338, 338

toolbars, 12–20
 custom, 18
 displaying and arranging, 14–18
 dragging, 15, 15
 floating, 15, 15–16, 17, 630
 flyouts, 12–14, 13
 grab bars, 16
 locking, 636
 vs. keyboard, 91
Toolbars menu, 14, 14
tools, 43
Tools menu, 11
 > Inquiry > List, 228
 > Options, 4, 7
 > Tool Palettes Window, 4, 267, 267
 > Xref And Block In-Place Editing, > Edit
 Reference In-Place, 251, 480, 534
Tooltip Appearance dialog box, 68, 68, 68
tooltips
 color of, 68, 520
 displaying, 63, 63, 64
torus primitive, 608, 608
tracking, 636
tracking point, 636
 acquired, 242, 243
Transparency dialog box, 269, 269
transparent command use, 636
transparent use of command, 107
Tree View Toggle (DesignCenter), 260, 264
Trim command, 45–49, 84, 86–88, 87,
 115–116, 116, 283
 for cabin roof in elevation, 285–286, 286
 for compound trim, 92–93, 93

 for doors and windows on elevation,
 288–289, 289, 290
 for elevation lines, 281–283, 282
 for semicircle, 141, 141
 Undo option, 96–97
 vs. Fillet command, 143
True Color palette, 177
true ratio, 636
turning off layers, 193–195
.txt files, importing, 393

U

UCS icon, 5, 6, 636
 displaying, 295, 582
 turning off, 56–57
 visibility in viewport, 528
underlined text, 386, 391
Undo button (Standard toolbar), 96, 144, 145
Undo button (Text Formatting toolbar), 391
ungrouping blocks, 250
uppercase, for multiline text, 391, 392, 393
User Coordinate System (UCS), 636. *See also*
 UCS icon
 saving, 299
user-defined hatch pattern, 327–328, 328

V

vertex, 30
vertical dimensioning, 427–429, 428, 429
vertical guideline, for text position, 350–351

vertical option for viewport arrangement, 526

vertically centering text, 379

View dialog box, 550

View menu, 11

- > 3D Orbit, 613, 623
- > 3D Views
 - > Plan View > Current UCS, 296, 299
 - > Plan View > World UCS, 612
 - > SE Isometric, 605, 612
 - > SW Isometric, 582
 - > Viewpoint Presets, 612
- > Display > UCS Icon > On, 57, 295, 528, 582
- > Hide, 596
- > Named Views, 299, 550, 621
- > Redraw, 586
- > Regen, 586
- > Shade > Gourard Shaded, Edges On, 599
- > Viewports
 - > 1 Viewport, 518
 - > 3 Viewports, 526
- > Zoom
 - > All, 60
 - > Out, 57, 58

view, restoring previous, 87

viewing modes, 6

Viewpoint Presets dialog box, 612, 613

viewports, 492, 597, 636

active, 515

adding multiple to layout, 526–534

adjusting boundary, 517

adjusting size of default, 505, 505–506

aligning, 515–516

in AutoCAD LT, 516

floating, 508

layers in, 529–534, 530, 531, 534

locking, 506, 509

multiple on layouts, 509–539

setting up, 510–514

for note text, 518

overlapping, 535

printing drawing with multiple, 564–566

setting in different scales, 520–526

for site plan, 524–526

tiled, 508

turning off, 538, 538–539

UCS icon visibility, 528

Viewports toolbar, 506

views, 636

Views (DesignCenter), 264

Views dialog box, 621

visretain command, 474

Visual Effects Settings dialog box, 34, 34

W

walls

3D modeling, 583–585, 584, 586

doors, 97–105

drawing swing, 103–104

rotating, 101–102

- sliding glass door, 111–119
- swinging doors, 97–111
- hatches for, 332–333
- layout, 77–96
 - cleaning up lines, 83–84
 - dimensions, 77
 - exterior wall lines, 77–81
 - interior walls, 81–89
 - openings in walls, 90–96
- offsetting, 145
- warnings, when printing, 562
- Wblock command, 265–266
- website for book, contents, 577
- wedge primitive, 608, 608
- width
 - of letters, for multiline text, 392
 - of polylines, distortion by monitor, 374
- window blocks
 - creating, 232–235
 - inserting, 235–249
 - with osnap tracking and polar tracking, 241–246, 243, 246
 - and rotating, 236–237, 238
 - using guidelines, 239, 239–241
- Window menu, 254, 257, 475
 - Tile Vertically, 255, 255
- windows, 232
 - 3D modeling of openings, 589–593, 590, 592
 - in elevation, 287–290
 - factors in placement, 235
- Windows menu, 11
- windows (selection option), for printing, 552

- wireframe, 583, 584, 637
- wizards, for drawing setup, 71
- wood shingles, 318
- word-processing files, importing, 393
- World Coordinate System, 295, 296, 637
- Write Block dialog box, 265, 265
- WYSIWYG, 637

X

- X coordinate, 29
 - icon for direction, 5, 6
- X scale factor, 221, 222, 237
- Xref, 456. *See also* external references
- Xref Manager dialog box, 478, 478
 - Detach command, 488
- XY plane, 637

Y

- Y coordinate, 29
 - icon for direction, 5, 6
- Y scale factor, 221, 222, 237, 249

Z

- Z axis, 581
- Z coordinate, 29
- zero suppression
 - for linear dimensions, 411–412
 - for tolerances, 417

- Zoom All command, 13
- Zoom command, 56, 637
 - Extents, 83, 156, 249, 249
 - on Realtime shortcut menu, 163
 - magnification change, 83
 - Original, on Realtime shortcut menu, 163
 - Previous option, 87, 107, 186
 - Realtime, 160
 - with window, 85–88, 86
- zoom window, 86, 89
 - accessing from Realtime Zoom shortcut menu, 296
 - forming, 99
 - option on Realtime shortcut menu, 163
- Zoom Window command, and floating toolbars, 429
- zooming, strategic, 287