





Brian C. Benton
George Omura

Mastering AutoCAD® 2021 and AutoCAD LT® 2021

 **SYBEX**
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Contents at a Glance

<i>Introduction</i>	<i>xxvii</i>
Part 1 • The Basics	1
Chapter 1 • Exploring the Interface	3
Chapter 2 • Creating Your First Drawing	33
Chapter 3 • Setting Up and Using the Drafting Tools	81
Chapter 4 • Organizing Objects with Blocks and Groups	121
Chapter 5 • Keeping Track of Layers and Blocks	153
Part 2 • Mastering Intermediate Skills	187
Chapter 6 • Editing and Reusing Data to Work Efficiently	189
Chapter 7 • Mastering Viewing Tools, Hatches, and External References	235
Chapter 8 • Introducing Printing, Plotting, and Layouts	285
Chapter 9 • Adding Text to Drawings	317
Chapter 10 • Using Fields and Tables	355
Chapter 11 • Using Dimensions	377
Part 3 • Mastering Advanced Skills	431
Chapter 12 • Using Attributes	433
Chapter 13 • Copying Existing Drawings from Other Sources	463
Chapter 14 • Advanced Editing and Organizing	493
Chapter 15 • Laying Out Your Printer Output	541
Chapter 16 • Making “Smart” Drawings with Parametric Tools	571

Chapter 17 • Using Dynamic Blocks	593
Chapter 18 • Drawing Curves	627
Chapter 19 • Getting and Exchanging Data from Drawings.	661
Part 4 • 3D Modeling and Imaging	697
Chapter 20 • Creating 3D Drawings	699
Chapter 21 • Using Advanced 3D Features	741
Chapter 22 • Editing and Visualizing 3D Solids	799
Chapter 23 • Exploring 3D Mesh and Surface Modeling.	851
Part 5 • Customization and Integration	903
Chapter 24 • Customizing the Workspace Environment, Linetypes, and Hatch Patterns	905
Chapter 25 • Managing and Sharing Your Drawings.	949
Part 6 • Appendices	999
Appendix A • The Bottom Line	1001
Appendix B • Installing and Setting Up AutoCAD	1021
Appendix C • The Autodesk AutoCAD 2021 Certification.	1043
<i>Index</i>	1047

Contents

Introduction xxvii

Part 1 • The Basics **1**

Chapter 1 • Exploring the Interface **3**

Taking a Guided Tour	3
Launching AutoCAD	4
The AutoCAD Window	5
Using the Application Menu	8
Using the Ribbon	10
Picking Points in the Drawing Area	15
Using the UCS Icon	16
Working in the Command Window	16
Working with AutoCAD	17
Opening an Existing File	17
Getting a Closer Look	18
Saving a File as You Work	22
Making Changes	23
Working with Multiple Files	24
Adding a Predrawn Symbol with the Tool Palettes	28
The Bottom Line	31

Chapter 2 • Creating Your First Drawing **33**

Getting to Know the Home Tab's Draw and Modify Panels	33
Starting Your First Drawing	36
Specifying Exact Distances with Coordinates	41
Specifying Polar Coordinates	42
Specifying Relative Cartesian Coordinates	44
Interpreting the Cursor Modes and Understanding Prompts	45
Understanding Cursor Modes	46
Choosing Command Options	47
Selecting Objects	52
Selecting Objects in AutoCAD	53
Providing Base Points	55
Using Noun/Verb Selection	59
Editing with Grips	64
Stretching Lines by Using Grips	64
Moving and Rotating with Grips	66

Understanding Dynamic Input	69
Displaying Data in a Text Window	74
Displaying the Properties of an Object	75
Getting Help	78
Using the InfoCenter	78
Finding Additional Sources of Help	79
The Bottom Line	79
Chapter 3 • Setting Up and Using the Drafting Tools	81
Setting Up a Work Area	81
Specifying Units	82
Fine-Tuning the Measurement System	84
Setting Up the Drawing Limits	85
Looking at an Alternative to Limits	87
Understanding Scale Factors	87
Using Polar Tracking	88
Setting the Polar Tracking Angle	90
Exploring the Drawing Process	91
Locating an Object in Reference to Others	92
Modifying an Object	93
Planning and Laying Out a Drawing	96
Making a Preliminary Sketch	98
Using the Layout	100
Erasing the Layout Lines	106
Putting on the Finishing Touches	108
Aligning Objects by Using Object Snap Tracking	109
Using the AutoCAD Modes as Drafting Tools	114
Using Grid Mode as a Background Grid	115
Using Snap Modes	117
The Bottom Line	118
Chapter 4 • Organizing Objects with Blocks and Groups	121
Creating and Using a Symbol	121
Understanding the Block Definition Dialog Box	124
Inserting a Symbol	126
Scaling and Rotating Blocks	129
Using an Existing Drawing as a Symbol	131
Modifying a Block	133
Unblocking and Redefining a Block	134
Saving a Block as a Drawing File	136
Replacing Existing Files with Blocks	137
Understanding the Write Block Dialog Box Options	138
Other Uses for Blocks	138
Understanding the Annotation Scale	139
Grouping Objects	142
Modifying Members of a Group	144
Ungrouping, Adding, and Subtracting from a Group	147

Working with the Object Grouping Dialog Box	148
Working with the AutoCAD LT Group Manager	150
The Bottom Line	152

Chapter 5 • Keeping Track of Layers and Blocks153

Organizing Information with Layers.	153
Creating and Assigning Layers.	154
Working on Layers	162
Controlling Layer Visibility	166
Finding the Layers You Want	168
Taming an Unwieldy List of Layers	169
Assigning Linetypes to Layers	176
Adding a Linetype to a Drawing	177
Controlling Lineweights	182
Keeping Track of Blocks and Layers	182
Getting a Text File List of Layers or Blocks	183
The Bottom Line	185

Part 2 • Mastering Intermediate Skills 187

Chapter 6 • Editing and Reusing Data to Work Efficiently189

Creating and Using Templates	190
Creating a Template	190
Using a Template.	191
Copying an Object Multiple Times	192
Making Circular Copies	193
Making Row and Column Copies	195
Fine-Tuning Your View.	197
Finishing the Kitchenette	199
Array Along a Path	200
Making Changes to an Associative Array	201
Developing Your Drawing	205
Importing Settings	206
Using Osnap Tracking to Place Objects	209
Finding an Exact Distance Along a Curve	226
Changing the Length of Objects	228
Creating a New Drawing by Using Parts from Another Drawing	229
Eliminating Unused Blocks, Layers, Linetypes, Shapes, Styles, and More	230
The Bottom Line	232

Chapter 7 • Mastering Viewing Tools, Hatches, and External References235

Assembling the Parts	235
Taking Control of the AutoCAD Display	238
Understanding Regeneration and Redrawing	239
Saving Views	240
Understanding the Frozen Layer Option	244

Using Hatch Patterns in Your Drawings	246
Placing a Hatch Pattern in a Specific Area	246
Adding Predefined Hatch Patterns	248
Positioning Hatch Patterns Accurately	250
Updating a Block from an External File	251
Changing the Hatch Area	253
Modifying a Hatch Pattern	254
Understanding the Boundary Hatch Options	255
Controlling Boundaries with the Boundaries Panel	257
Fine-Tuning the Boundary Behavior	257
Controlling Hatch Behavior with the Options Panel	258
Controlling Hatch Default Layer, Layout Scale, and ISO Line Weight	259
Using Additional Hatch Features	259
Using Gradient Shading	260
Tips for Using Hatch	262
Space Planning and Hatch Patterns	262
Using External References	266
Attaching a Drawing as an External Reference	266
Other Differences Between External References and Blocks	270
Other External Reference Options	272
Clipping Xref Views and Improving Performance	274
Editing Xrefs in Place	277
Using the External Reference Tab	280
Adding and Removing Objects from Blocks and Xrefs	280
Understanding the Reference Edit Dialog Box Options	283
The Bottom Line	284
Chapter 8 • Introducing Printing, Plotting, and Layouts	285
Plotting the Plan	285
Understanding the Plotter Settings	290
Paper Size	290
Drawing Orientation	291
Plot Area	291
Plot Scale	292
Shaded Viewport Options	295
Plot Offset	296
Plot Options	297
Exit Options	298
Plotting Using Layout Views	299
Setting Plot Scale in the Layout Viewports	302
Adding an Output Device	303
Editing a Plotter Configuration	306
Storing a Page Setup	308
Using Electronic Plots	312
Exporting to PDF Through the Plot Dialog Box	312
Exporting to PDF Through the Export To DWF/PDF Ribbon Panel	314
Exporting Autodesk DWF and DWFX Files	315
The Bottom Line	316

Chapter 9 • Adding Text to Drawings	317
Preparing a Drawing for Text	317
Organizing Text by Styles	319
Getting Familiar with the Text and Annotation Scale Control Panels	320
Setting the Annotation Scale and Adding Text	321
Inserting Text	321
Exploring Text and Scale	323
Understanding the Text Style Dialog Box Options	326
Styles	326
Set Current/New/Delete	326
Font	326
Size	326
Effects	327
Exploring Text Formatting in AutoCAD	327
Adjusting the Text Height and Font	328
Understanding the Text Editor Tab	330
Adding Symbols and Special Characters	331
Setting Indents and Tabs	334
What Do the Fonts Look Like?	338
Adding Simple Single-Line Text Objects	340
Justifying Single-Line Text Objects	342
Using Special Characters with Single-Line Text Objects	343
Using the Check Spelling Feature	345
How Check Spelling Works	345
Choosing a Dictionary	346
Substituting Fonts	347
Finding and Replacing Text	349
The Bottom Line	353
Chapter 10 • Using Fields and Tables	355
Using Fields to Associate Text with Drawing	
Properties	355
Adding Tables to Your Drawing	359
Creating a Table	360
Adding Cell Text	361
Adjusting Table Text Orientation and Location	363
Editing the Table Line Work	365
Adding Formulas to Cells	368
Using Formulas Directly in Cells	369
Using Other Math Operations	370
Importing and Exporting Tables	370
Importing a Table	371
Exporting Tables	373
Creating Table Styles	373
Adding or Modifying a Table Style	373
Exploring the Table Style Options	375
The Bottom Line	376

Chapter 11 • Using Dimensions377

- Understanding the Components of a Dimension 377
- Creating a Dimension Style 378
 - Setting Up the Primary Unit Style 380
 - Setting the Height for Dimension Text 382
 - Setting the Location and Orientation of Dimension Text 383
 - Choosing an Arrow Style and Setting the Dimension Scale 384
 - Setting Up Alternate Units 388
 - Setting the Current Dimension Style 389
 - Modifying a Dimension Style 390
- Drawing Linear Dimensions 390
 - Understanding the Dimensions Panel 391
 - Placing Horizontal and Vertical Dimensions 392
 - Continuing a Dimension 393
 - Drawing Dimensions from a Common Base Extension Line 394
 - Adjusting the Distance Between Dimensions 396
- Editing Dimensions 397
 - Appending Data to Dimension Text 397
 - Using Grips to Make Minor Adjustments to Dimensions 399
 - Changing Style Settings of Individual Dimensions 401
 - Associating Dimensions with Objects 405
 - Adding a String of Dimensions with a Single Operation 407
 - Adding or Removing the Alternate Dimensions 408
- Dimensioning Nonorthogonal Objects 409
 - Dimensioning Nonorthogonal Linear Distances 409
 - Dimensioning Radii, Diameters, and Arcs 411
 - Skewing Dimension Lines 415
- Using the Dimension Tool 416
- Adding a Note with a Leader Arrow 419
 - Creating Multileader Styles 421
 - Editing Multileader Notes 424
 - Breaking a Dimension Line for a Leader 424
- Applying Ordinate Dimensions 425
- Adding Tolerance Notation 426
 - Inserting Tolerance and Datum Values 426
 - Adding Inspection Dimensions 427
- The Bottom Line 429

Part 3 • Mastering Advanced Skills 431

Chapter 12 • Using Attributes433

- Creating Attributes 434
 - Adding Attributes to Blocks 434
 - Copying and Editing Attribute Definitions 437
 - Turning the Attribute Definitions into a Block 440
 - Inserting Blocks Containing Attributes 441

Editing Attributes	445
Editing Attribute Values One at a Time	445
Editing Attribute Text Formats and Properties	446
Making Global Changes to Attribute Values	447
Making Invisible Attributes Visible	449
Making Global Format and Property Changes to Attributes	450
Other Block Attribute Manager Options	452
Redefining Blocks Containing Attributes	453
Extracting and Exporting Attribute Information	454
Performing the Extraction	454
Extracting Attribute Data to an AutoCAD Table	459
The Bottom Line	461
Chapter 13 • Copying Existing Drawings from Other Sources	463
Methods for Converting Paper Drawings to AutoCAD Files	463
Importing a Raster Image	464
Working with a Raster Image	466
Scaling a Raster Image	468
Controlling Object Visibility and Overlap with Raster Images	468
Adjusting Brightness, Contrast, and Fade	471
Clipping a Raster Image	472
Turning Off the Frame, Adjusting Overall Quality, and Controlling Transparency	473
Working with PDF Files	477
Importing a PDF	477
Scaling and Osnaps with PDFs	478
Controlling the PDF Display	481
Importing a PDF as an AutoCAD Drawing	483
Reconstructing Imported AutoCAD SHX Fonts	485
Coordinating Geographic Locations	486
Making Adjustments to the Map	489
Finding Measurements and Distances	491
The Bottom Line	492
Chapter 14 • Advanced Editing and Organizing	493
Using External References	493
Preparing Existing Drawings for External Referencing	494
Assembling Xrefs to Build a Drawing	496
Updating Blocks in Xrefs	500
Importing Named Elements from Xrefs	502
Controlling the Xref Search Path	505
Managing Layers	507
Saving and Recalling Layer Settings	507
Other Tools for Managing Layers	510
Using Advanced Tools: Filter and Quick Select	513
Filtering Selections	513
Using Quick Select	518

- Using the QuickCalc Calculator 520
 - Adding Foot and Inch Lengths and Finding the Sum of Angles 522
 - Converting Units with QuickCalc 525
 - Using QuickCalc to Find Points 526
 - Finding Fractional Distances Between Two Points 529
 - Using QuickCalc While in the Middle of a Command 532
 - Storing Expressions and Values 533
 - Guidelines for Working with QuickCalc 535
- The Bottom Line 538

- Chapter 15 • Laying Out Your Printer Output 541**
 - Understanding Model Space and Paper Space 541
 - Switching from Model Space to Paper Space 542
 - Setting the Size of a Paper Space Layout 544
 - Creating New Paper Space Viewports 546
 - Creating a Viewport from a Saved View 547
 - Reaching Inside Viewports 548
 - Working with Paper Space Viewports 551
 - Scaling Views in Paper Space 552
 - Setting Layers in Individual Viewports 554
 - Creating and Using Multiple Paper Space Layouts 558
 - Creating Odd-Shaped Viewports 560
 - Understanding Lineweights, Linetypes, and Dimensions in Paper Space 562
 - Controlling and Viewing Lineweights in Paper Space 562
 - Using the Lineweight Settings Dialog Box 565
 - Controlling Linetype Scales and Paper Space 565
 - Dimensioning in Paper Space Layouts 566
 - Other Uses for Paper Space 569
- The Bottom Line 570

- Chapter 16 • Making “Smart” Drawings with Parametric Tools 571**
 - Why Use Parametric Drawing Tools? 571
 - Connecting Objects with Geometric Constraints 573
 - Using AutoConstrain to Add Constraints Automatically 573
 - Editing a Drawing Containing Constraints 574
 - Using Other Geometric Constraints 578
 - Using Constraints in the Drawing Process 579
 - Controlling Sizes with Dimensional Constraints 579
 - Adding a Dimensional Constraint 580
 - Editing a Dimensional Constraint 581
 - Using Formulas to Control and Link Dimensions 583
 - Adding a Formula Parameter 584
 - Testing the Formula 586
 - Using Other Formulas 587
 - Editing the Constraint Options 588
 - Putting Constraints to Use 590
- The Bottom Line 591

Chapter 17 • Using Dynamic Blocks	593
Exploring the Block Editor	593
Opening the Block Editor.	594
Editing a Block and Creating New Blocks.	595
Creating a Dynamic Block.	596
Adding a Parameter	597
Adding an Action	598
Adding an Increment Value.	600
Editing Parameters and Actions.	602
Keeping an Object Centered	602
Using Constraints in Dynamic Blocks.	604
Adding a List of Predefined Options	608
Creating Multiple Shapes in One Block	612
Rotating Objects in Unison.	617
Filling in a Space Automatically with Objects	621
Including Block Information with Data Extraction.	623
The Bottom Line	625
Chapter 18 • Drawing Curves	627
Introducing Polylines.	627
Drawing a Polyline	627
Setting Polyline Options	629
Editing Polylines.	630
Setting Edit Options	634
Smoothing Polylines.	635
Editing Vertices	636
Creating a Polyline Spline Curve.	646
Using True Spline Curves	648
Drawing a True Spline	648
Understanding the Spline Options.	650
Fine-Tuning Spline Curves	651
Marking Divisions on Curves.	654
Dividing Objects into Segments of Equal Length	654
Dividing Objects into Specified Lengths	657
The Bottom Line	658
Chapter 19 • Getting and Exchanging Data from Drawings	661
Finding the Area of Closed Boundaries	661
Finding the Area of an Object	662
Using Hatch Patterns to Find Areas.	663
Adding and Subtracting Areas with the Area Command	665
Getting General Information	669
Determining the Drawing's Status.	669
Keeping Track of Time	671
Getting Information from System Variables	672
Keeping a Log of Your Activity.	672

- Capturing and Saving Text Data from the AutoCAD Text Window 673
- Understanding the Command Window Context Menu 674
- Storing Searchable Information in AutoCAD Files 675
- Searching for AutoCAD Files 676
- Recovering Corrupted Files. 677
- Using the DXF File Format to Exchange CAD Data with Other Programs. 677
 - Exporting DXF Files 678
 - Opening or Importing DXF Files 679
- Using AutoCAD Drawings in Page Layout Programs 681
 - Exporting Raster Files. 681
 - Exporting Vector Files 685
- Using OLE to Import Data 687
 - Editing OLE Links. 690
 - Importing Worksheets as AutoCAD Tables 690
 - Understanding Options for Embedding Data 693
 - Using the Clipboard to Export AutoCAD Drawings. 694
- The Bottom Line 694

Part 4 • 3D Modeling and Imaging 697

- Chapter 20 • Creating 3D Drawings. 699**
- Getting to Know the 3D Modeling Workspace 699
- Drawing in 3D Using Solids 701
 - Adjusting Appearances 702
 - Creating a 3D Box 702
 - Editing 3D Solids with Grips. 704
 - Constraining Motion with the Gizmo 705
 - Rotating Objects in 3D Using Dynamic UCS 706
 - Drawing on a 3D Object’s Surface 709
 - Pushing and Pulling Shapes from a Solid 710
 - Making Changes to Your Solid 712
- Creating 3D Forms from 2D Shapes 715
- Isolating Coordinates with Point Filters 720
- Moving Around Your Model 723
 - Finding Isometric and Orthogonal Views 723
 - Rotating Freely Around Your Model 724
 - Changing Your View Direction 725
 - Using SteeringWheels 727
 - Changing Where You Are Looking 729
 - Flying Through Your View 730
 - Changing from Perspective to Parallel Projection 731
- Getting a Visual Effect 732
 - Using Visual Styles 732
 - Creating a Sketched Look with Visual Styles 733
 - In-Canvas Viewport Controls 736

Turning a 3D View into a 2D AutoCAD Drawing	736
Using the Point Cloud Feature	738
The Bottom Line	739
Chapter 21 • Using Advanced 3D Features	741
Setting Up AutoCAD for This Chapter	741
Mastering the User Coordinate System	742
Defining a UCS	743
Saving a UCS	746
Working in a UCS	746
Building 3D Parts in Separate Files	748
Understanding the UCS Options	750
UCS Based on Object Orientation	750
UCS Based on Offset Orientation	753
UCS Rotated Around an Axis	754
Orienting a UCS in the View Plane	756
Manipulating the UCS Icon	756
Saving a UCS with a View	757
Using Viewports to Aid in 3D Drawing	758
Using the Array Tools	762
Making Changes to an Associative Array	763
Creating Complex 3D Surfaces	764
Laying Out a 3D Form	764
Spherical and Cylindrical Coordinate Formats	765
Using a 3D Polyline	766
Creating a Curved 3D Surface	767
Converting the Surface into a Solid	772
Shaping the Solid	772
Finding the Interference Between Two Solids	774
Creating Tubes with the Sweep Tool	777
Using Sweep to Create Complex Forms	779
Creating Spiral Forms	781
Creating Surface Models	784
Slicing a Solid with a Surface	786
Finding the Volume of a Cut	787
Understanding the Loft Command	790
Moving Objects in 3D Space	793
Aligning Objects in 3D Space	793
Moving an Object in 3D	795
Rotating an Object in 3D	796
The Bottom Line	797
Chapter 22 • Editing and Visualizing 3D Solids	799
Understanding Solid Modeling	799
Creating Solid Forms	802
Joining Primitives	802

Cutting Portions Out of a Solid	804
Creating Complex Solids	806
Tapering an Extrusion	807
Sweeping a Shape on a Curved Path	808
Revolving a Polyline	809
Editing Solids	812
Splitting a Solid into Two Pieces	812
Rounding Corners with the Fillet Tool	814
Chamfering Corners with the Chamfer Tool	815
Using the Solid-Editing Tools	816
Streamlining the 2D Drawing Process	826
Drawing Standard Top, Front, and Right-Side Views	827
Creating 2D Drawings with the Base View Command	830
Adding Dimensions and Notes in a Layout	836
Using Visual Styles with a Viewport	837
Visualizing Solids	839
The Bottom Line	849
Chapter 23 • Exploring 3D Mesh and Surface Modeling	851
Creating a Simple 3D Mesh	851
Creating a Mesh Primitive	852
Understanding the Parts of a Mesh	853
Smoothing a Mesh	853
Editing Faces and Edges	855
Stretching Faces	857
Moving an Edge	860
Adding More Faces	862
Rotating an Edge	865
Adding a Crease	866
Splitting and Extruding a Mesh Face	868
Creating Mesh Surfaces	871
Revolved Surface	871
Edge Surface	873
Ruled Surface	874
Tabulated Surface	875
Converting Meshes to Solids	876
Understanding 3D Surfaces	877
Editing Surfaces	879
Using Extrude, Surface Trim, and Surface Fillet	881
Using Surface Blend, Patch, and Offset	883
Understanding Associativity	888
Editing with Control Vertices	891
Editing with the CV Edit Bar	895
Making Holes in a Surface with the Project Geometry Panel	897
Visualizing Curvature: Understanding the Analysis Panel	898
The Bottom Line	901

Part 5 • Customization and Integration 903**Chapter 24 • Customizing the Workspace Environment,
Linetypes, and Hatch Patterns 905**

Using Workspaces	905
Customizing the User Interface	907
Taking a Quick Customization Tour	907
Understanding the Customizations In All Files Panel	912
Getting the Overall View	915
Finding Commands in the Command List	916
Opening Preview, Button Image, and Shortcuts	916
Getting to the Core of Customization in the Properties Group	917
Creating Your Own Ribbon Panels and Menus	918
Customizing Ribbon Panel Tools	920
Creating Macros in Tools and Menus	923
Pausing for User Input	925
Opening an Expanded Text Box for the Macro Option	925
Editing Keyboard Shortcuts	926
Saving, Loading, and Unloading Your Customizations	929
Understanding the DIESEL Macro Language	932
Using DIESEL at the Command Line	932
Using DIESEL in a Custom Menu Macro	934
Using DIESEL as a Menu Bar Option Label	935
Using DIESEL and Fields to Generate Text	936
Creating Custom Linetypes	938
Viewing Available Linetypes	939
Creating a New Linetype	940
Understanding the Linetype Code	941
Creating Complex Linetypes	942
Creating Hatch Patterns	944
The Bottom Line	947

Chapter 25 • Managing and Sharing Your Drawings 949

Sharing Drawings Online	949
Sharing Project Files with eTransmit	950
Creating Additional Transmittal Setup Options	952
Publishing Your Drawings	954
Exchanging Drawing Sets	954
Exploring Other Publish Options	957
Creating a PDF or DWF File by Using the Plot Dialog Box	959
Sharing Views for Commenting	961
Using the Shared Views Tool	961
Using the Autodesk Viewer Web Page	964
Adding Hyperlinks to Drawings	965
Creating Hyperlinks	965
Editing and Deleting Hyperlinks	968

Taking a Closer Look at the Hyperlink Options 968

Managing Your Drawings with DesignCenter and the Tool Palettes 969

 Getting Familiar with DesignCenter 970

 Opening and Inserting Files with DesignCenter 973

 Finding and Extracting the Contents of a Drawing 974

 Exchanging Data between Open Files 978

 Loading Specific Files into DesignCenter 979

 Customizing the Tool Palettes with DesignCenter 980

Comparing Drawing Versions to Discover Changes 985

 Using the Drawing Compare Tool 985

 Looking at the Compare Tab Tools 987

Establishing Office Standards 987

 Establishing Layering and Text Conventions 987

 Checking Office Standards 988

Converting Multiple Layer Settings 993

 Exploring Other Layer Translator Options 995

The Bottom Line 996

Part 6 • Appendices 999

Appendix A • The Bottom Line 1001

Chapter 1: Exploring the Interface 1001

Chapter 2: Creating Your First Drawing 1001

Chapter 3: Setting Up and Using the Drafting Tools 1002

Chapter 4: Organizing Objects with Blocks and Groups 1003

Chapter 5: Keeping Track of Layers and Blocks 1003

Chapter 6: Editing and Reusing Data to Work Efficiently 1004

Chapter 7: Mastering Viewing Tools, Hatches, and External References 1005

Chapter 8: Introducing Printing, Plotting, and Layouts 1005

Chapter 9: Adding Text to Drawings 1006

Chapter 10: Using Fields and Tables 1007

Chapter 11: Using Dimensions 1007

Chapter 12: Using Attributes 1008

Chapter 13: Copying Existing Drawings from Other Sources 1009

Chapter 14: Advanced Editing and Organizing 1010

Chapter 15: Laying Out Your Printer Output 1010

Chapter 16: Making “Smart” Drawings with Parametric Tools 1011

Chapter 17: Using Dynamic Blocks 1012

Chapter 18: Drawing Curves 1012

Chapter 19: Getting and Exchanging Data from Drawings 1014

Chapter 20: Creating 3D Drawings 1015

Chapter 21: Using Advanced 3D Features 1016

Chapter 22: Editing and Visualizing 3D Solids 1017

Chapter 23: Exploring 3D Mesh and Surface Modeling 1018

Chapter 24: Customizing the Workspace Environment, Linetypes, and Hatch Patterns	1019
Chapter 25: Managing and Sharing Your Drawings.....	1020
Appendix B • Installing and Setting Up AutoCAD	1021
Before Installing AutoCAD.....	1021
Proceeding with the Installation	1021
Configuring AutoCAD	1022
The Files Tab	1023
The Display Tab.....	1025
The Open And Save Tab.....	1027
The Plot and Publish Tab.....	1030
The System Tab	1030
The User Preferences Tab.....	1032
The Drafting Tab	1034
The 3D Modeling Tab	1035
The Selection Tab.....	1037
The Profiles Tab	1039
Turning On the Noun/Verb Selection Method	1040
Turning on the Grips Feature	1040
Setting Up the Tracking Vector Feature.....	1041
Adjusting the AutoCAD 3D Graphics System.....	1041
Finding Folders That Contain AutoCAD Files	1041
Setting Up AutoCAD with a White Background.....	1042
Appendix C • The Autodesk AutoCAD 2021 Certification	1043
<i>Index</i>	1047

Introduction

Welcome to *Mastering AutoCAD 2021 and AutoCAD LT 2021*. As many readers have already discovered, this book is a unique blend of tutorial and reference, which includes everything that you need to get started and stay ahead with Autodesk® AutoCAD® software. With this edition, you get coverage of the latest features of both AutoCAD 2021 and AutoCAD LT® 2021 software along with detailed information on existing features.

How to Use This Book

Rather than just showing you how each command works, this book shows you AutoCAD 2021 in the context of a meaningful activity. You'll learn how to use commands while working on an actual project and progressing toward a goal. This book also provides a foundation on which you can build your own methods for using AutoCAD and become an AutoCAD expert. For this reason, we haven't covered every single command or every permutation of a command response. You should think of this book as a way to get a detailed look at AutoCAD as it's used on a real project. As you follow the exercises, we also encourage you to explore AutoCAD on your own, applying the techniques that you learn to your own work.

Both experienced and beginning AutoCAD users will find this book useful. If you aren't an experienced user, the way to get the most out of this book is to approach it as a tutorial—chapter by chapter—at least for the first two parts of the book. You'll find that each chapter builds on the skills and information that you learned in the previous one. To help you navigate, the exercises are shown in numbered steps. To address the needs of all readers worldwide, the exercises provide both Imperial (feet/inches) and metric measurements. Some exercises use generic units of measurement, and if the focus of the exercise is not dependent on the measurement system, Imperial is used.

After you've mastered the material in Part 1 and Part 2, you can follow your interests and explore other parts of the book in whatever order you choose. Part 3 takes you to a more advanced skill level. There, you'll learn more about storing and sharing drawing data and how to create more complex drawings. If you're interested in 3D, check out Part 4. If you want to start customizing right away, go to Part 5. You can check out Chapter 25 at any time because it gives you general information about sharing AutoCAD files with your co-workers and consultants. You can also use this book as a ready reference for your day-to-day problems and questions about commands. "The Bottom Line" section at the end of each chapter will help you review and look at different ways to apply the information that you've learned. Experienced users will also find this book a handy reference tool.

AutoCAD and AutoCAD LT 2021

Autodesk has released AutoCAD 2021 and AutoCAD LT 2021 simultaneously. Not surprisingly, they're nearly identical in the way they look and work. You can share files between the two programs with complete confidence that you won't lose data or corrupt files. The main differences are that AutoCAD LT doesn't support all of the 3D functions of AutoCAD 2021, nor does it support the customization tools of AutoLISP® or the .NET Framework. But AutoCAD LT still has plenty to offer in both the productivity and customization areas. Because they're so similar, we can present material for both programs with only minor adjustments.



When a feature is discussed that is available only in AutoCAD 2021, you'll see the AutoCAD Only icon. For the purposes of this publication, the "ACAD only" icon means that the relevant (or adjacent) content applies only to AutoCAD software and not to AutoCAD LT software.

You'll also see warning messages when tutorials vary between AutoCAD 2021 and AutoCAD LT. If only minor differences occur, you'll see either a warning message or directions embedded in the exercise indicating the differences between the two programs.

We've also provided workaround instructions wherever possible when AutoCAD LT doesn't offer a feature found in AutoCAD 2021.

Getting Information Fast

In each chapter, you'll find extensive tips and discussions in the form of sidebars set off from the main text. These provide a wealth of information that we have gathered over years of using AutoCAD on a variety of projects in different office environments. You may want to browse through the book and read these boxes just to get an idea of how they might be useful to you.

The Mastering Series

The Mastering series from Sybex provides outstanding instruction for readers with intermediate and advanced skills in the form of top-notch training and development for those already working in their field, and clear, serious education for those aspiring to become pros. Every Mastering book includes the following:

- ◆ Skill-based instruction with chapters organized around real tasks rather than abstract concepts or subjects
- ◆ Self-review test questions so that you can be certain you're equipped to do the job right

What to Expect

Mastering AutoCAD 2021 and AutoCAD LT 2021 is divided into five parts, each representing a milestone in your progress toward becoming an expert AutoCAD user. Here is a description of those parts and what they will show you.