Table of Contents

Part I — Introduction to CorelCAD 2014. 1

1. Introducing CorelCAD 2014 3

About CorelCAD 4

Benefits of Using CorelCAD 4

Impressive Compatibility 4

Familiar User Interface 5

Drafting Tools. 5

Collaboration. 6

Organized Layouts. 6

Solid Modeling. 6

Flexible Viewing 6

Application Programming Interfaces 6

Platforms 7

CorelCAD System Requirements 7

Language Support. 7

Demo Version 7

Compatibility with CorelDRAW and Corel DESIGNER 8

Importing Into CorelCAD 8

Exporting from CorelCAD. 9

What's Different in CorelCAD for Mac. 9

2. A Quick Tour Through CorelCAD 2014 13

Starting CorelCAD on Windows 7 13

Starting CorelCAD 2014 on Windows 8 15

Starting CorelCAD 2014 on Mac OS X 15

The CorelCAD Window 18

Quick User Interface Tour 19

Crosshair and Other Cursors. 20

application button, quick access toolbar, and Workspaces. 21

Application Button 21

Quick Access Toolbar 22

Workspaces. 22

Menu Bar 23

Command Window 24

Toolbars and Buttons 27

Droplists 28

Ribbon and Information Center 29

Ribbon. 29

Information Center 29

Options Toolbar. 30

Properties Palette 32

Tool Matrix. 35

Turning Off the CS Icon 37

Other UI Elements. 37

Online Help 38

Exiting CorelCAD 39

3. Basic CAD Concepts. 41

Vector Entities 43

Alternative Ways to Specify Entities 45

Specifying Coordinates 46

Keyboard Input 46

Specifying Coordinates 46

2D Cartesian Coordinates 47

3D Cartesian Coordinates 47

Polar Coordinates 47

Cylindrical Coordinates *47*
Spherical Coordinates *47*
Point Filters 48
Direct Distance Entry 48
Mouse Input 49
Selecting Entities 51
Grips Editing 52
Moving and Stretching with Grips *52*
Erasing with Grips *53*
Selecting Multiple Entities 53
Selecting Multiple Entities by Rectangle *53*
Selecting Entities by Location 55
Selecting Entities by Properties 56
AutoCAD Command Compatibility 57

Part II — 2D Architectural Drafting 59

4. Starting New Drawings 61
Before You Begin 61
Preparing CorelCAD for Drawing 61
Starting CorelCAD With a New Drawing 63
Saving Drawings 63
Setting Up Units 68
Limiting the Drawing Boundary 70
Setting the Snap and Grid SPacing 70
Snap Spacing *71*
Grid Spacing *72*
Seeing the Entire Drawing 73
Adding Layers 74
Creating Layers by Naming Them 75
Making Automatic Backups 79
Summary 81

5. Drawing Walls 83

Bringing Back the Office Drawing 85

Drawing Walls 87

Drawing Lines with Absolute Coordinates 87
Drawing Lines with Relative Coordinates 89
Using Entity Snaps 91
Drawing Rectangles 92
Drawing PolyLines 97

Drawing Internal Walls 100

Changing Layers Quickly 100
Drawing Walls with RichLines 101
Placing RichLines 101
Zooming In and Out 102
Defining RichLine Styles 104
Erasing Entities 105
Oops! Unerasing Entities 106
Replacing RichLines 106

Thickening Walls 108

Changing the Lineweight 108
Widening Polylines 109
Offsetting Lines 112
Trimming Lines 114

6. Printing Drawings 117

Printing the Office Drawing 119

Draft Prints for Windows 119
Printing the Office Drawing Manually on Windows 122
Printer/Plotter Options 123
Paper Size Option 124
Print Scale Options 124
Specifying a Custom Print Scale 125
Print Range Options 126
Printing Named Views 126
Printing a Windowed Selection 127
Geometry Orientation 127
Print Offset 128
Other Options 128

Additional Buttons *129*
Additional Options *129*
Shaded Views *130*
PrintStyle Table *132*
Printing the Office Drawing Again on Windows 132
Draft Prints with Mac OS X 133
Printing the Office Drawing Manually on MAC OS X 134
Printer Options *134*
Detailed Print Configuration for Mac OS X 137
Print Range *137*
How to Create and Print a Named View *138*
How to Print a Specified Window *138*
Print Scale *139*
How to Create a Custom Plot Scale *140*
Print Offset *140*
Print Configuration *141*
Print Styles *142*
Options *143*
Saving Settings as Presets *144*
How to Save Print Settings *144*
OS X Options *145*
Printing the Office Drawing with Print Configurations 146
Creating Print Configurations *146*
Borrowing Print Configurations *146*
Using Print Configurations *147*
Previewing the Print 148
Creating Print Configurations 150
Assigning Print Styles 153
Creating Print Styles 153
Print Style Options 155
Applying Print Styles 157
Print Stamps 160
Defining Print Stamps 160
Using Print Stamps 162
Summary 162

7. Adding Symbols 163

Drawing a Desk Symbol 163

Drawing a Unit-size Desk 165

Converting Symbols Into Blocks 166

Inserting Blocks into Drawings 170

Chair Block 172

Rounding Corners 174

Mirroring Arms and Backs 176

Making Window and Door Blocks 179

Drawing Door Symbols 180

Placing Furnishings 183

Sourcing Blocks from the Internet 188

Source of Blocks from Web Sites 188

Downloading and Inserting Blocks 191

Downloading Blocks 191

Inserting Downloaded Blocks 194

Extracting Blocks From Drawings 197

Export Block 198

Summary 198

8. Text and Attributes 199

Placing Simple Text 201

Settings Text Styles 204

Editing Text 207

Switching to Dialog Box Editing 208

Editing Text with Properties 209

Placing Paragraph Text 209

Modifying Paragraph Text 212

Facilities Management 213

Stage 1: Defining Attributes 214

Stage 2: Adding Attributes to Blocks 216

Editing Attribute Data 220

Stage 3: Extracting Attributes 220

Opening Data in Spreadsheets 221

Summary 223

9. Placing Dimensions 225

Linear Dimensions 227

Horizontal Dimensions 227

Vertical Dimensions *228*

Scaling Dimensions *230*

Dimensioning Entities *232*

Parallel Dimensioning *233*

Continued Dimensions 233

Baseline Dimensions *235*

Radial Dimensions 235

Diameter Dimensions *236*

Modifying Dimension Styles 237

Dimension Style Guide *240*

Summary 242

Part III — 2D & 3D Mechanical Design 243

10. Scan and Trace 245

Importing Scanned Images 248

About Path Types *251*

Examining the Attached Image 252

Rotating Entities 252

Scaling Entities 255

Tracing Over Scanned Images 258

Layers and Rectangles 258

Drawing the Side View *258*

Drawing the Front View *261*

Chamfering Entities *264*

Drawing Linestyles *267*

Dual Dimensioning 271

Summary 273

11. Isometric Drafting 275

Setting Up an Isometric Template 277

Isometric Text Styles 279

Isometric Dimension Styles 282

Drawing in Isometric Mode 284

Drawing Isometric Boxes 284

Drawing Irregular Boxes 287

Placing Isometric Text 291

Placing Isometric Dimensions 292

Summary 295

12. Solid Modeling 297

Drawing 3D Solid Primitives 299

Viewing in 3D 300

Adding More Solids 302

Extruding 2D Objects to Create 3D Solids 303

Drawing Cylinders 307

Applying Boolean Operations 309

Subtracting Solids 309

Joining Solids 310

Analyzing Solid Models 311

Summary 312

13. Multiple Viewports, Multiple Drawings . . . 313

Multiple Viewports 315

Sheets 319

Creating Additional Viewports 321

Attaching Multiple Drawings 325

Updating Referenced Drawings 328

Summary 329

Part IV — Appendices 331

A. Alphabetical Command Summary 333

B. Command Aliases 347

C. Keyboard Shortcuts 363

Keyboard Shortcuts for Windows 364

Keyboard Shortcuts for Mac OS X 365

D. Button Clicks & Double Clicks 367

Mouse Buttons 368

Double Click Actions 369