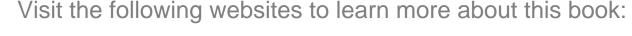
Autodesk Revit 2024 Architecture Basics

From the Ground Up









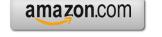






TABLE OF CONTENTS

Preface	i
Acknowledgements	i
Table of Contents	ii
Lesson 1 The Revit Interface Exercise 1-1	
Using the Steering Wheel & ViewCube	1-9
Exercise 1-2 Changing the View Background Exercise 1-3	1-17
Closing and Opening the Project Browser and Properties Palette Exercise 1-4	1-21
Using the System Browser	1-23
Exercise 1-5 Changing the Ribbon Display Exercise 1-6	1-26
Temporary, Permanent, and Listening Dimensions	1-28
Exercise 1-7 Setting File Locations	1-78
Exercise 1-8 Adding the Default Template to Recent Files	1-79
Exercise 1-9 Turning Off the Visibility of Ribbons	1-81
Quiz 1	Q1-1
Lesson 2 Mass Elements	
Exercise 2-1 Shapes	2-2
Exercise 2-2 Create a Conceptual Model	2-10
Exercise 2-3 Adding an In-Place Mass	2-14
Exercise 2-4	
Modifying Mass Elements Exercise 2-5	2-17
Create Wall By Face	2-25
Exercise 2-6 Adding Doors and Windows	2-30
Exercise 2-7	
Creating a Conceptual Mass Exercise 2-8	2-37
Using a Conceptual Mass in a Project	2-47

Additional Projects	AP2-1
Quiz 2	Q2-1
	(
Lesson 3 Floor Plans Exercise 3-1	
Placing a Grid	3-3
Exercise 3-2 Placing Walls	3-7
Exercise 3-3	3 /
Converting an AutoCAD Floor plan	3-19
Exercise 3-4	2.26
Wall Properties Exercise 3-5	3-26
Add Level 1 Interior Walls	3-33
Exercise 3-6	3-33
Add Level 2 Interior Walls	3-36
Exercise 3-7	
Add Doors	3-43
Exercise 3-8	
Define a Starting View	3-50
Exercise 3-9	2.52
Exploring Door Families Exercise 3-10	3-53
Adding Stairs	3-64
Exercise 3-11	3-04
Creating a Handrail on a Wall	3-69
Exercise 3-12	3 07
Modifying the Floor Plan – Skills Review	3-76
Exercise 3-13	• •
Defining a 2-hr Wall	3-79
Exercise 3-14	2 01
Adding an Elevator Exercise 3-15	3-81
Load Family	2.00
Exercise 3-16	3-89
Adjust Room Sizes	3-95
Exercise 3-17	3-73
Mirror Components	3-101
Exercise 3-18	3 101
Create a 3D View	3-106
Exercise 3-19	2 100
Copying Lavatory Layouts	3-108
Exercise 3-20	
Add a Door to a Curtain Wall	3-113
Exercise 3-21	
Modifying a Curtain Wall	3-120
Exercise 3-22	2 125
Curtain Wall with Spiders	3-125

Exercise 3-23	
Adding Windows	3-129
Exercise 3-24	2 127
Floor Plan Layout	3-137
Additional Projects	AP3-1
Quiz 3	Q3-1
Lesson 4 Materials	
Exercise 4-1	
Modifying the Material Browser Interface Exercise 4-2	4-3
Copy a Material from a Library to a Project Exercise 4-3	4-12
Create a Custom Material Library Exercise 4-4	4-16
Create Paint Materials	4-17
Exercise 4-5 Add Categories and Materials to a Custom Library	4-22
Exercise 4-6	
Defining Wallpaper Materials Exercise 4-7	4-23
Defining Vinyl Composition Tile (VCT)	4-27
Exercise 4-8 Define a Glass Material	4-35
Exercise 4-9 Defining Wood Materials	4-40
Defining Wood Materials Exercise 4-10	4-40
Defining Site Materials	4-41
Exercise 4-11 Defining Masonry Materials	4-45
Exercise 4-12	1 13
Assigning Materials to Stairs Exercise 4-13	4-49
Applying Paints and Wallpaper to Walls	4-52
Additional Desirate	A D.4. 1
Additional Projects	AP4-1
Quiz 4	Q4-1
Lesson 5	
Floors and Ceilings	
Exercise 5-1	<i>5</i> 1
Creating Floors Exercise 5-2	5-1
Copying Floors	5-6

Exercise 5-3	5.0
Creating a Shaft Opening Exercise 5-4	5-9
Adding an Opening to a Floor	5-13
Exercise 5-5	3 13
Creating Parts	5-16
Exercise 5-6	
Viewing Parts in a Floor Plan View	5-24
Exercise 5-7	7. 0.6
Adding a Railing	5-26
Exercise 5-8 Creating Ceilings	5-31
Exercise 5-9	J - J1
Adding Lighting Fixtures	5-33
6 6 6	5-33
Additional Projects	AP5-1
Quiz 5	Q5-1
Quiz 3	Q3-1
Lesson 6	
Schedules	
Exercise 6-1	
Adding Door Tags	6-2
Exercise 6-2	
Creating a Door Schedule Exercise 6-3	6-6
Using Combined Parameters	6-12
Exercise 6-4	0-12
Modifying Family Parameters	6-15
Exercise 6-5	
Creating Shared Parameters	6-24
Exercise 6-6	6.20
Adding Shared Parameters to a Schedule Exercise 6-7	6-28
Adding Shared Parameters to Families	6-36
Exercise 6-8	0-30
Creating a Custom Window Schedule	6-42
Exercise 6-9	
Create an Image From a Family	6-49
Exercise 6-10	6.71
Adding an Image to a Schedule Exercise 6-11	6-51
Adding an Image to a Family	6-56
Exercise 6-12	0-30
Creating an Image of a Family	6-59
Exercise 6-13	·
Creating a Window Schedule Using Type Image	6-61
Exercise 6-14	
Using Keynotes	6-63

Ex	kercise 6-15	
	reate a Building Elevation with Keynotes	6-69
	xercise 6-16	
	reate a Keynote Legend	6-76
	xercise 6-17	
	reate a Finish Schedule	6-80
	xercise 6-18	(0(
	ind and Replace Families xercise 6-19	6-86
	Iodifying Family Types in a Schedule	6-87
	kercise 6-20	0-07
	reate a Key Schedule to Calculate Occupancy	6-92
	xercise 6-21	~ ~ -
\mathbf{C}	reate a Schedule Using Formulas	6-95
Ex	xercise 6-22	
	xport a Schedule	6-100
	xercise 6-23	c 400
	ssigning Fonts to a Schedule	6-103
	xercise 6-24	6 106
	sing a View Template for a Schedule	6-106
	xporting a View Template to Another Project	6-108
Addi	tional Projects	AP6-1
Quiz	6	Q6-1
_essc	on 7	
Roof		
Ex	xercise 7-1	
	reating a Roof Using Footprint	7-2
	xercise 7-2	
	Iodifying a Roof	7-6
	xercise 7-3	7-15
	Iodifying a Roof Form Kercise 7-4	7-13
	dding Roof Drains	7 17
Α		/-1/
	xercise 7-5	7-17
Ex	xercise 7-5	7-17
Ex A Ex	kercise 7-5 dding a Gable by Modifying a Roof Sketch kercise 7-6	
Ex A Ex C:	kercise 7-5 dding a Gable by Modifying a Roof Sketch kercise 7-6 reate a Shed Roof	
Ex A Ex C: Ex	dding a Gable by Modifying a Roof Sketch sercise 7-6 reate a Shed Roof sercise 7-7	7-19 7-21
Ex A Ex C: Ex	dding a Gable by Modifying a Roof Sketch sercise 7-6 reate a Shed Roof sercise 7-7 reate a Gable Roof	7-19
Ex A Ex C: Ex C: Ex	dding a Gable by Modifying a Roof Sketch sercise 7-6 reate a Shed Roof sercise 7-7 reate a Gable Roof sercise 7-8	7-19 7-21 7-24
Ex A Ex C: Ex C: Ex	dding a Gable by Modifying a Roof Sketch sercise 7-6 reate a Shed Roof sercise 7-7 reate a Gable Roof sercise 7-8 reate a Gable Roof with Cat Slide	7-19 7-21
Ex A Ex C Ex C Ex	dding a Gable by Modifying a Roof Sketch sercise 7-6 reate a Shed Roof sercise 7-7 reate a Gable Roof sercise 7-8	7-19 7-21 7-24

Exercise 7-10	
Create a Clerestory Roof	7-37
Exercise 7-11	, , ,
Create a Half-Hip Roof	7-47
Exercise 7-12	
Create a Dutch Gable Roof	7-53
Exercise 7-13	7. (2
Create a Cross Gabled Roof Exercise 7-14	7-62
Create a Butterfly Roof	7-65
Additional Projects	AP7-1
Additional Projects	111 /-1
Quiz 7	Q7-1
Lesson 8	
Elevations, Details & Plans Exercise 8-1	
Creating Elevation Documents	8-2
Exercise 8-2	0-2
Using Line Work	8-7
Exercise 8-3	
Creating a Section View	8-11
Exercise 8-4	
Modifying Keynote Styles	8-23
Exercise 8-5	0.21
Adding Window Tags Exercise 8-6	8-31
Changing Window Tags from Type to Instance	8-32
Exercise 8-7	0-32
Creating a Plan Region View	8-36
Exercise 8-8	
Creating a Drafting View	8-40
Exercise 8-9	0.40
Adding a Callout	8-49
Exercise 8-10 Adding a Detail to a Short	0.51
Adding a Detail to a Sheet Exercise 8-11	8-51
Importing a Detail View	8-56
Exercise 8-12	
Reassigning a Callout to a new Drafting View	8-60
Exercise 8-13	
Using a Matchline	8-64
Exercise 8-14	0.71
Modifying a Crop Region Exercise 8-15	8-71
Updating a Schedule Using Shared Parameters	8-74
Exercise 8-16	0-/4
Create a Sheet List	8-75

Exercise 8-17 Create a PDF Document Set	8-79
Additional Projects	AP8-1
Quiz 8	Q8-1
Lesson 9 Rendering Exercise 9-1	
Create a Toposolid Exercise 9-2	9-1
Create a Slab	9-7
Exercise 9-3 Create a Gravel Fill	9-12
Exercise 9-4	
Add Site Components Exercise 9-5	9-15
Defining Camera Views	9-18
Exercise 9-6 Rendering Settings Exercise 9-7	9-22
Render Region	9-25
Exercise 9-8 Space Planning Exercise 9-9	9-30
Building Sections	9-35
Exercise 9-10	0.27
Decals Exercise 9-11	9-37
Creating a 3D Camera View (Reprised) Exercise 9-12	9-42
Rendering Using Autodesk Cloud	9-48
Exercise 9-13 Placing a Rendering on a Sheet Exercise 9-14	9-51
Placing a Path for a Walkthrough	9-57
Exercise 9-15 Playing the Walkthrough	9-59
Exercise 9-16 Editing the Walkthrough Path Exercise 9-17	9-60
Creating an Animation	9-62
Additional Projects	AP9-1
Quiz 9	Q9-1

Lesson 10	
Customizing Revit	
Exercise 10-1	
Creating an Annotation Symbol	10-1
Exercise 10-2	
Creating a Custom Title Block	10-7
Exercise 10-3	
Using a Custom Title Block	10-20
Exercise 10-4	
Creating a Line Style	10-23
Exercise 10-5	
Defining Keyboard Shortcuts	10-25
Exercise 10-6	
Defining Reference Plane Object Styles	10-29
Exercise 10-7	
Creating a Furniture Family	10-31
Exercise 10-8	
Modifying a Family	10-57
Exercise 10-9	10.70
Adding a Shared Parameter to a View Label	10-59
Exercise 10-10	
Managing Family Subcategories	10-72
Quiz 10	Q10-1

Revit Hot Keys

About the Author