Table of Contents xi

Dedication Foreword Acknowledgments About the Author Accessing Tutorial Files Preface Free Teaching Resources for Faculty Accessing Videos of the Tutorials in the Book Dimension Units and Dialog Box Captures Dialog Box Contrast Settings Table of Contents Chapter 1 - Introduction to Autodesk Advance Steel	
Dadication	iii
Foreword	iv
Acknowledgments	V
About the Author	v vi
Accessing Tutorial Files	vi
Preface A South A Sout	vii
Free Teaching Resources for Faculty	viii
Accessing Videos of the Tutorials in the Book	viii
Dimension Units and Dialog Box Captures	ix
Dialog Box Contrast Settings	X
Table of Contents	xi
e ala	
Chapter 1 - Introduction to Autodesk Advance Steel	
Autodesk Advance Steel	1-2
Autodesk Advance Steel Workflow	1-4
Autodesk Advance Steel Interface	1-5
Other Autodesk Advance Steel Palettes	1-8
Understanding the Folder Structure	1-11
The User Coordinate System (UCS)	1-11
Changing Viewpoints and Visual Styles	1-12
Navigating through the Model	1-14
	1-14
Invoking the Advance Steel Tools Home Ribbon Tab vs Other Ribbon Tabs Locating Points in the Drawing Window Selecting Objects Grip Editing Use of Layers in Advance Steel Creating and Editing Auxiliary Objects Creating and Editing Grids Inserting Concrete Objects Inserting Concrete Beam Inserting Concrete Column Inserting Isolated Footing Inserting Continuous Footing Inserting Wall Inserting Polygonal Wall Inserting Curved Concrete Beam Inserting Rectangular Slab	1-15
Locating Points in the Drawing Window	1-15
Selecting Objects	1-16
Grip Editing	1-17
Use of Layers in Advance Steel	1-18
Creating and Editing Auxiliary Objects	1-18
Creating and Editing Grids	1-18
Inserting Concrete Objects	1-25
Inserting Concrete Beam	1-26
Inserting Concrete Column	1-36
Inserting Isolated Footing	1-36
Inserting Continuous Footing	1-38
Inserting Wall Inserting Polygonal Wall Inserting Curved Concrete Beam	1-38
Inserting Polygonal Wall	1-39
Inserting Curved Concrete Beam	1-40
miserting Rectangular state	1-40
Inserting Polygonal Slab	1-41
Editing Concrete Sections	1-41
Hands-On Tutorial	1-42
Skill Evaluation	1-73
Class Test Questions	1-74

Chapter 2 - Inserting and Editing Structural Sections	
	2-2
Inserting Rolled I-sections	2-2
Inserting Channel Sections	2-13
Inserting Angle Sections	2-13
Inserting T Sections 2	2-13
Inserting Circular Hollow Sections (CHS)	2-14
Inserting Z-Steel Sections	2-14
Inserting Flat Sections	2-14
Inserting Round Bar Sections	2-14
Inserting Square/Rectangular Hollow Sections (RHS/SHS)	2-14
Inserting Cold Rolled Sections	2-15
Inserting Other Sections 2	2-15
Inserting Curved Structural Sections 2	2-15
Inserting Structural Sections on Lines, Arcs, or Polylines	2-16
Inserting Structural Sections on Lines or Arcs	2-16
Inserting Structural Sections on Polylines	2-17
Inserting Columns 2	2-18
Inserting Continuous Structural Sections	2-19
Editing Inserted Structural Sections	2-19
Splitting and Merging Structural Sections	2-19
Splitting Structural Sections	2-19
Merging Structural Sections	2-20
Matching Properties of Sections	2-20
Working with Levels	2-21
	2-22
Hands-On Tutorial	2-25
Skill Evaluation	2-71
Class Test Questions	2-72
Hands-On Tutorial Skill Evaluation Class Test Questions Chapter 3 - Advanced Structural Elements - I Advanced Structural Elements Inserting Portal/Gable Frames Inserting Mono-Pitch Frames Editing Portal/Gable/Mono-Pitch Frames Inserting Trusses Hands-On Tutorial Skill Evaluation Class Test Questions Chapter 4 - Inserting the Plates at Beam and Column - Bear The Connection Vault Palette	
Advanced Structural Elements	3-2
Inserting Portal/Gable Frames	3-2
Inserting Mono-Pitch Frames	3-10
Editing Portal/Gable/Mono-Pitch Frames	3-11
Inserting Purlins 3	3-12
Inserting Trusses	3-21
Hands-On Tutorial	3-35
Skill Evaluation	3-49
Class Test Questions	3-50
Chapter 4 - Inserting the Plates at Beam and Column - Bear	m lainta
The Connection Vault Delette	
The Connection Vault Palette Inserting the Plates at Poem Joints	1-2 1-3
0 3	1-3 1-3
I = J	1-23
1 3	1-23 1-23

Table of Contents

	4.00
Base plate cut Joint	4-23
Inserting the Column-Beam Joints	4-24
Knee of frame bolted, with haunch Joint	4-25
Knee of frame at web, with haunch Joint	4-36
Gable wall end plate Joint	4-36
Adding Joints to the Favorites Category	4-37
Editing Joints	4-37
Propagating Joints	4-38
Copying Joints with Master-Slave Relationship	4-39
Upgrading Joint to the Primary Joint	4-40
Adding or Removing Joints from the Joint Group	4-41
Hands-On Tutorial	4-42
Skill Evaluation	4-71
Class Test Questions	4-72
Base plate cut Joint Inserting the Column-Beam Joints Knee of frame bolted, with haunch Joint Knee of frame at web, with haunch Joint Gable wall end plate Joint Adding Joints to the Favorites Category Editing Joints Propagating Joints Copying Joints with Master-Slave Relationship Upgrading Joint to the Primary Joint Adding or Removing Joints from the Joint Group Hands-On Tutorial Skill Evaluation Class Test Questions	
Chapter 5 - Inserting the Beam End to End, Platform Bea	m and
	iii, aiiu
Purlin Joints	
Inserting the Beam End to End Joints	5-2
Apex haunch Joint	5-2
Double apex haunch Joint	5-3
Front plate splice Joint	5-4
Inserting the Platform Beams Joints	5-6
Clip angle Joint	5-6
Clip angle - Skewed Joint	5-13
Double side clip angle Joint	5-13
Single side end plate Joint	5-14
Double side end plate with safety bolt Joint	5-15
Shear plate Joint	5-15
Inserting the Purlins and Cold Rolled Joints	5-17
Double side end plate with safety bolt Joint Shear plate Joint Inserting the Purlins and Cold Rolled Joints Purlin connection Joint Purlin connection with plate Joint Single purlin plate Joint Double purlin splice plate Joint Single Eaves Beam Bracket from Plate with End Plate Joint Double Faves Beam Bracket from Plate with End Plate Joint	5-18
Purlin connection with plate Joint	5-19
Single purlin plate Joint	5-20
Double purlin splice plate Joint	5-21
Single Eaves Beam Bracket from Plate with End Plate Joint	5-21
Double Eaves Beam Bracket from Plate with End Plate Joint	5-22
Hands-On Tutorial	5-23
Skill Evaluation	5-71
Skill Evaluation Class Test Questions Chapter 6 - Advanced Structural Elements - II	5-72
all unit	
Chanter 6 Advanced Structural Floments II	
Chapter 6 - Advanced Structural Elements - II	<i>C</i> 0
Advanced Structural Elements Inserting Bracings	6-2
2.00	6-2
inserting Joists	6-8
Inserting Straight Stairs	6-14
Inserting Hand-Railings	6-28
Inserting Monowills	6-38
Inserting Penalized Monowills	6-42

Hands-On Tutorial Skill Evaluation Class Test Questions	6-44 6-77 6-78
Class Test Questions	0-76
Chanter 7 - Incerting the Bracing Tube and Stair Ininte	
Inserting the General Bracing Joints Gusset plate to column and base plate Joint Gusset plate at one diagonal Joint Gusset plate for 2 diagonals Joint Four diagonals - Middle gusset plate Joint Inserting Tube Joints Tube connection with sandwich plate - additional objects Joint Tube connection with sandwich plates Joint The connection with sandwich plates 2 diagonals Joint	7-2
Gusset plate to column and base plate Joint	7-2
Gusset plate at one diagonal loint	7-10
Gusset plate for 2 diagonals Joint	7-10
Four diagonals - Middle gusset plate Joint	7-11
Inserting Tube Joints	7-11
Tube connection with sandwich plate - additional objects Joint	7-11
Tube connection with sandwich plates Joint	7-16
Tube connection with sandwich plates - 2 diagonals Joint	7-17
Inserting Miscellaneous Joints	7-17
Stair Anchor Base Plate Joint	7-17
Stair Anchor Angle Joint	7-21
Railing joint handrail Joint	7-21
Hands-On Tutorial	7-23
Skill Evaluation	7-51
Class Test Questions	7-52
Chapter 9 Incorting Dietos and Cratings and Controlling	~ tha
Chapter 8 - Inserting Plates and Gratings, and Controlling	s uie
Object Visibility Use of Plates in Advance Steel	0.9
	8-2 8-2
Creating Flat Plates Creating a Rectangular Plate by Specifying its Center Point	8-2
Creating a Rectangular Plate by Specifying Two Corner Points	8-3
Creating a Rectangular Plate by Specifying Three Corner Points	8-3
Creating a Rectangular Frace by specifying Three Corner Points	8-4
Creating a Plate using a Polyline	8-4
Creating a Polyline using a Plate	8-5
Creating Folded Plates	
	8-5
Creating a Folded Plate Without Position Adjustment	8-5 8-6
Creating a Folded Plate Without Position Adjustment Creating a Folded Plate With Position Adjustment	
Creating a Folded Plate Without Position Adjustment Creating a Folded Plate With Position Adjustment Creating a Conical Folded Plate	8-6
Creating a Folded Plate Without Position Adjustment Creating a Folded Plate With Position Adjustment Creating a Conical Folded Plate Creating a Twisted Folded Plate	8-6 8-7
Creating a Polygonal Plate Creating a Polygonal Plate Creating a Polyline Creating a Polyline using a Plate Creating Folded Plates Creating a Folded Plate Without Position Adjustment Creating a Folded Plate With Position Adjustment Creating a Conical Folded Plate Creating a Conical Folded Plate Creating a Twisted Folded Plate Creating a Circular Plate at the Origin	8-6 8-7 8-9
Checking the Plate Unfolding	8-6 8-7 8-9 8-10 8-11 8-12
Checking the Plate Unfolding Setting the Folded Plate Main Object	8-6 8-7 8-9 8-10 8-11 8-12 8-13
Checking the Plate Unfolding Setting the Folded Plate Main Object Editing Flat and Folded Plates	8-6 8-7 8-9 8-10 8-11 8-12 8-13 8-14
Checking the Plate Unfolding Setting the Folded Plate Main Object Editing Flat and Folded Plates Splitting a Plate Using Two Points	8-6 8-7 8-9 8-10 8-11 8-12 8-13 8-14
Checking the Plate Unfolding Setting the Folded Plate Main Object Editing Flat and Folded Plates Splitting a Plate Using Two Points Splitting a Plate Using a Line	8-6 8-7 8-9 8-10 8-11 8-12 8-13 8-14 8-14
Checking the Plate Unfolding Setting the Folded Plate Main Object Editing Flat and Folded Plates Splitting a Plate Using Two Points Splitting a Plate Using a Line Merging Plates	8-6 8-7 8-9 8-10 8-11 8-12 8-13 8-14 8-14 8-14
Checking the Plate Unfolding Setting the Folded Plate Main Object Editing Flat and Folded Plates Splitting a Plate Using Two Points Splitting a Plate Using a Line Merging Plates Shrinking and Expanding Poly Plates	8-6 8-7 8-9 8-10 8-11 8-12 8-13 8-14 8-14 8-15 8-15
Checking the Plate Unfolding Setting the Folded Plate Main Object Editing Flat and Folded Plates Splitting a Plate Using Two Points Splitting a Plate Using a Line Merging Plates	8-6 8-7 8-9 8-10 8-11 8-12 8-13 8-14 8-14 8-14

Table of Contents

Inserting a Rectangular Variable Grating	8-17
Inserting a Bar Grating	8-17
Inserting a Polygonal Variable Grating	8-17
Inserting a Grating at a Polyline	8-18
Creating Plate and Grating Features	8-18
Rectangular contour, center	8-18
Rectangular contour, 2 points	8-20
Circular contour, center	8-20
Circular contour, 2 points	8-21
Inserting a Rectangular Variable Grating Inserting a Bar Grating Inserting a Polygonal Variable Grating Inserting a Grating at a Polyline Creating Plate and Grating Features Rectangular contour, center Rectangular contour, 2 points Circular contour, 2 points Circular contour, 2 points Polygonal contour Element contour Inserting a Corner on a Poly Plate Removing a Corner from the Poly Plate Controlling the Object Visibility Turning off the Visibility of the Selected Objects Turning on the Visibility of All the Objects Showing Only the Selected Objects Turning off the Visibility of the Selected Assemblies	8-21
Element contour	8-21
Inserting a Corner on a Poly Plate	8-24
Removing a Corner from the Poly Plate	8-24
Controlling the Object Visibility	8-25
Turning off the Visibility of the Selected Objects	8-26
Turning on the Visibility of All the Objects	8-26
Showing Only the Selected Objects	8-26
Turning off the Visibility of the Selected Assemblies	8-26
Showing Only the Selected Assemblies	8-27
Cycling through the Display Type of the Objects	8-27
Restoring the Standard Display Type of the Objects	8-27
Hands-On Tutorial	8-28
Skill Evaluation Class Test Questions	8-43 8-44
Chass Test Questions	0 11
Chapter 9 - Extended Modeling and Productivity Too	ls
Creating Cage Ladders	9-2
Creating Spiral Stairs	9-20
Inserting Wallrails	9-25
Selection Tools in the Advance Steel Tool Palette	9-28
Creating Cage Ladders Creating Spiral Stairs Inserting Wallrails Selection Tools in the Advance Steel Tool Palette Display connected objects Clear marked objects Select all marked objects Display objects connected in shop Display connection means Remove marking + display connected objects Remove marking + display objects connected in shop Remove marking + display connection means Creating Beam Cut Features Creating Beam Cut Features Creating Miter Cuts Cutting at an Object Manually Connecting Parts	9-28
Clear marked objects	9-29
Select all marked objects	9-29
Display objects connected in shop	9-29
Display connection means	9-29
Remove marking + display connected objects	9-30
Remove marking + display objects connected in shop	9-30
Remove marking + display connection means	9-30
Creating Beam Cut Features	9-30
Creating Miter Cuts	9-30
Cutting at an Object	9-32
Manually Connecting Parts	9-34
Inserting a Rectangular Bolt Pattern using Two Points	9-35
Remove marking + display connection means Creating Beam Cut Features Creating Miter Cuts Cutting at an Object Manually Connecting Parts Inserting a Rectangular Bolt Pattern using Two Points Inserting a Rectangular Bolt Pattern using the Center Point Inserting a Rectangular Bolt Pattern using the Corner Point	9-35
Inserting a Rectangular Bolt Pattern using the Corner Point	9-36
Inserting a Circular Bolt Pattern using the Center Point	9-36
Splitting Bolt Groups	9-37
Inserting a Weld Point	9-37

Inserting a Line of Weld	9-37
Adding Objects to an Existing Bolted or Welded Connection	9-37
Removing Objects from an Existing Bolted or Welded Connection	9-38
Switching the Connection Pattern Objects	9-38
Hands-On Tutorial	9-40
Skill Evaluation	9-69
Class Test Questions	9-70
cob, ug.	
Removing Objects from an Existing Bolted or Welded Connection Switching the Connection Pattern Objects Hands-On Tutorial Skill Evaluation Class Test Questions Chapter 10 - Adding Custom Connections and Profiles Custom Connections	
Custom Connections	10-2
Inserting Plates Along the Beam Flange	10-3
Inserting Plates on the Beam Flange	10-5
Inserting Plates Parallel to the Beam Flange	10-5
Inserting Plates Along the Beam Web	10-7
Inserting Plates on the Beam Web	10-7
Inserting Plates Parallel to the Beam Web	10-7
Inserting Bolts on Beams	10-8
Inserting Bolts on Beam Gauge Line	10-10
Inserting Studs on the Beams	10-10
Inserting Galvanizing Holes	10-11
Inserting a Plate on an Existing Plate	10-13
Inserting a Plate Perpendicular to an Existing Plate	10-13
Inserting a Plate at an Edge of the Existing Plate	10-13
Creating Custom Connections	10-13
Inserting Custom Connections	10-22
Adding Custom Profiles to the Database	10-23
Hands-On Tutorial	10-29
Skill Evaluation	10-57
Skill Evaluation Class Test Questions Chapter 11 Working with Project Evaluation and Model I	10-58
Chapter 11 - Working with Project Explorer and Model I The Project Explorer Creating Model Views Creating Levels Creating Queries Creating Groups Creating Workplanes The Model Browser Creating Work Area Hands-On Tutorial Skill Evaluation Class Test Questions	3rowser
The Project Explorer	11-9
Creating Model Views	11-4
Creating Levels	11-10
Creating Queries	11-11
Creating Groups	11-14
Creating Workplanes	11-15
The Model Browser	11-18
Creating Work Area	11-22
Hands-On Tutorial	11-26
Skill Evaluation	11-61
Class Test Questions	11-62
₹0, /,	
Chapter 12 - Model Validation and Numbering	
Validating the Structure Model	12-2
Checking Modeling Errors in the Structural Model	12-2
Checking Clashes in the Structural Model	12-5

Table of Contents xvii

Finding the Center of Gravity and Weight of the Structural Model	12-7
Configuring Prefixes for Numbering	12-9
Numbering the Structure Model	12-12
Hands-On Tutorial	12-19
Skill Evaluation	12-49
Configuring Prefixes for Numbering Numbering the Structure Model Hands-On Tutorial Skill Evaluation Class Test Questions Chapter 13 - Generating Drawings using the Drawing I Generating Drawings	12-50
oyll allin	
Chapter 13 - Generating Drawings using the Drawing I	Processes
Generating Drawings	13-2
Generating Drawings Generating Cameras in the Model Creating Cameras on UCS Creating Cameras at the Node The Drawing Processes Locating of Detail Documents The Document Manager Customizing Processes Country Processes Country Processes Country Processes Country Processes	13-2
Creating Cameras on UCS	13-2
Creating Cameras at the Node	13-6
The Drawing Processes	13-7
Locating of Detail Documents	13-12
The Document Manager	13-13
Customizing Prototypes (Templates)	13-22
Customizing Processes	13-24
Hands-On Tutorial Imperial	13-29
Hands-On Tutorial Metric	13-58
Skill Evaluation	13-85
Class Test Questions	13-86
Chapter 14 - Working with Drawing Styles, BOMs, DXF	, and NC Files
The Drawing Styles	14-2
Generating Bill of Material (BOM)	14-6
Customizing BOM Templates	14-14
Generating Machining Files	14-16
Generating NC Files for Beam Cutting	14-16
Generating DXF Files for Plate Cutting	14-17
Configuring NC and DXF Settings	14-17
Inserting Compass Symbol	14-19
Generating Callout Views	14-20
Hands-On Tutorial Imperial	14-22
Hands-On Tutorial Metric	14-45
Skill Evaluation	14-68
Class Test Questions	4-69
20, 96,	
Customizing BOM Templates Generating Machining Files Generating NC Files for Beam Cutting Generating DXF Files for Plate Cutting Configuring NC and DXF Settings Inserting Compass Symbol Generating Callout Views Hands-On Tutorial Imperial Hands-On Tutorial Metric Skill Evaluation Class Test Questions Index Answers to Skill Evaluation	T 1
Index Anguage to Skill Evolution	I-1
Answers to Skill Evaluation	A-1

For Evaluation Only Copyrights Deepak Repairing Copyrights

For Evaluation only copyrights Deepak Repairing Confidence of the Copyrights Deepak Repairing Copyrights Deepak Repairing Confidence of the Copyrights Deepak Repairing Copyrights Deepak Repa