

TABLE OF CONTENTS

Dedication	iii
Foreword	iv
Acknowledgments	v
About the Author	vi
Accessing Tutorial Files	vii
Free Teaching Resources for Faculty	viii
Preface	ix
Table of Contents	xi

Chapter 1 - Working with Project Explorer and Model Browser

The Project Explorer	1-2
Creating Model Views	1-4
Creating Levels	1-9
Creating Queries	1-10
Creating Groups	1-13
Creating Workplanes	1-14
The Model Browser	1-17
Creating Work Area	1-21
Hands-On Tutorial (Structure)	1-25
Hands-On Tutorial (BIM)	1-43
Skill Evaluation	1-49
Class Test Questions	1-50

Chapter 2 - Model Validation and Numbering

Validating the Structure Model	2-2
Checking Modeling Errors in the Structural Model	2-2
Checking Clashes in the Structural Model	2-5
Finding the Center of Gravity and Weight of the Structural Model	2-7
Configuring Prefixes for Numbering	2-9
Numbering the Structure Model	2-12
Hands-On Tutorial (Struc)	2-19
Hands-On Tutorial (BIM)	2-33
Skill Evaluation	2-60
Class Test Questions	2-61

Chapter 3 - Generating Drawings using the Drawing Processes

Generating Drawings	3-2
Creating Cameras in the Model	3-2
Creating Cameras on UCS	3-2
Creating Cameras at the Node	3-6
The Drawing Processes	3-7
Locating of Detail Documents	3-12

The Document Manager	3-13
Customizing Prototypes (Templates)	3-22
Customizing Processes	3-24
Hands-On Tutorial (Struc/BIM) Imperial	3-29
Hands-On Tutorial (Struc/BIM) Metric	3-58
Skill Evaluation	3-84
Class Test Questions	3-85

Chapter 4 - Working with Drawing Styles, BOMs, DXF, and NC Files

The Drawing Styles	4-2
Generating Bill of Material (BOM)	4-6
Customizing BOM Templates	4-14
Generating Machining Files	4-16
Generating NC Files for Beam Cutting	4-16
Generating DXF Files for Plate Cutting	4-17
Configuring NC and DXF Settings	4-17
Inserting Compass Symbol	4-19
Generating Callout Views	4-20
Hands-On Tutorial (Struc/BIM) Imperial	4-22
Hands-On Tutorial (Struc/BIM) Metric	4-45
Skill Evaluation	4-67
Class Test Questions	4-68

Chapter 5 - BIM Data Interoperability with Autodesk Revit

Building Information Modeling Interoperability	5-2
Autodesk Revit and Advance Steel Interoperability	5-2
Downloading Advance Steel Extension for Autodesk Revit	5-2
Downloading Steel Connections Add-in for Autodesk Revit	5-4
Exchanging the Structural BIM Data Between Autodesk Revit and Advance Steel	5-6
Hands-On Tutorial (BIM) Imperial	5-16
Hands-On Tutorial (BIM) Metric	5-34
Skill Evaluation	5-52
Class Test Questions	5-53

Index	I-1
Answers to Skill Evaluation	A-1