

Table of Contents

Introduction.....	1
Objective of This Textbook.....	1
Textbook Outline	1
Textbook Conventions	2
Exercise Files	2
Introduction to Behavioral Modeling.....	3
Configuration for Behavioral Modeling.....	4
Analysis Features.....	5
Introduction.....	5
The Analysis Menu and Toolbar	6
Analysis Dialog Boxes.....	7
Analysis Dialog Boxes (continued)	8
Using Analysis Results in Relations.....	9
Using Analysis Results in Family Tables	9
Datum Graph Feature	10
Using Datum Graphs.....	11
Exercise 1 – Analysis Features.....	12
Sensitivity Analysis.....	25
Introduction.....	25
Sensitivity Analysis.....	26
Sensitivity Study Preferences	26
When to Use a Sensitivity Analysis.....	27
The Graphtool	28
Exporting the Graphtool Results	29
Customizing the Default Graphtool	30
Exercise 2 – Sensitivity Analysis.....	31
Feasibility and Optimization Studies.....	35
Introduction.....	35
Introduction (continued)	36
Feasibility Studies	37
Optimization Studies	38
When to Use a Feasibility Study	39
When to Use an Optimization Study	39
Sensitivity, vs. Feasibility, vs. Optimization.....	39
Feasibility/Optimization Study Preferences and Options	40
Feasibility/Optimization Study Results	41
Feasibility/Optimization Study Completion.....	42
Exercise 3 – Feasibility/Optimization Study.....	43
User Defined Analysis.....	57
Introduction.....	57
The Field Point Feature.....	58

Creating Construction Groups.....	59
User-Defined Analysis.....	60
Exercise 4 – User Defined Analysis.....	61
Motion Analysis	66
Introduction.....	66
Motion Analysis	68
Motion Envelope	69
Exercise 5 – Motion Analysis	70
Excel Analysis	75
Introduction.....	75
Excel Analysis	76
Excel Analysis (continued).....	77
Excel Analysis (continued).....	78
Exercise 6 – Excel Analysis	79
Multi-Objective Design Study.....	81
Introduction.....	81
Terminology	81
Multi-Objective Design Study.....	82
Compute the Master Table Data.....	83
Graph the Results	84
Graph the Results (continued).....	85
Display the Results	86
Save the Results	87
Derived Tables	88
Analysis Methods	89
The Constraints Method	89
The Pareto Method	90
Derived Tables (continued).....	91
Save and Open Studies	92
Exercise 7 – Multi-Objective Design Study.....	93
Analysis Display	97
Introduction.....	97
Saving an Analysis.....	98
Exercise 8 – Analysis Display	99