Contents

Preface ix
Acknowledgments x

Chapter 1
Introduction to Building Information Modeling 1
  The History of BIM 3
  Future Trends 6
  Facility Management Systems 10
  Building Owner Objectives 17
  User Experience 20
  Communication 23
  Procurement 24
  Design Guidelines 26
  Construction Process and Costs 28
  Sustainability 31
  Preventive Maintenance 35
  Chapter Summary Key Points 37

Chapter 2
BIM with a Purpose 41
  Architect’s BIM 43
  Contractor’s BIM 48
  Building Product Manufacturer’s BIM 50
  Owner’s BIM 65
  Data Standards 75
  The Owner’s BIM Requirements Document 79
  Chapter Summary Key Points 114
Chapter 3

BIM—The Paradigm Shift

- Historical Paradigm Shifts 124
- Responding to a Paradigm Shift 126
- Organizational Impact of a Paradigm Shift 130
- Cultural Assessment 131
- The Velocity of Technology Adoption 133

Chapter 4

Strategic Planning

- Development of a SWOT Analysis for an Owner 140
- The Three Ps 147
- Plan of Action 151
- Chapter Summary Key Points 151

Chapter 5

Tactics

- Gap Analysis 153
- The Playbook 159
- Educational Leadership 170
- BIM Content and Specification Library 173
- Chapter Summary Key Points 176

Chapter 6

Execution

- “Boiling the Ocean” Approach 178
- Enterprise Approach 179
- Point Solution Approach 179
- Compliance Approach 180
- Chapter Summary Key Points 182