

PART 1
The Life of a Project 1

- 1 Project Management Concepts 2
- 2 Needs Identification 24
- 3 Proposed Solutions 46
- 4 The Project 76

PART 2
Project Planning and Control 99

- 5 Planning 100
- 6 Scheduling 142
- 7 Schedule Control 196
- 8 Resource Considerations 228
- 9 Cost Planning and Performance 252

PART 3
**People: The Key to
Project Success 289**

- 10 The Project Manager 290
- 11 The Project Team 322

12	Project Communication and Documentation	354
13	Types of Project Organizations	384
	Appendix A Project Management Software	409
	Appendix B Project Management Organizations	419
	Appendix C Project Management World Wide Web Sites	420
	Appendix D Abbreviations	422
	References	423
	RYL Answers	431
	Glossary	450
	Index	455

Contents

Preface xiv

PART 1 THE LIFE OF A PROJECT 1

1 Project Management Concepts 2

Attributes of a Project 4

Project Life Cycle 7

The Project Management Process 10

Benefits of Project Management 13

Summary 17 • Questions 19 • World Wide Web Exercises 20 • Case Study #1 A Not-For-Profit Organization 21 • Case Study #2 E-Commerce for a Small Supermarket 22

2 Needs Identification 24

Needs Identification 26

Project Selection 27

Preparing a Request for Proposal 29

Soliciting Proposals 36

Summary 37 • Questions 38 • World Wide Web Exercises 39 • Case Study #1 A Midsize Pharmaceutical Company 39 • Case Study #2 Transportation Improvements 41

3 Proposed Solutions 46**Pre-RFP/Proposal Marketing 48****Bid/No-Bid Decision 50****Developing a Winning Proposal 51****Proposal Preparation 53****Proposal Contents 54**Technical Section 55 • Management Section 56 •
Cost Section 58**Pricing Considerations 59****Proposal Submission and Follow-up 60****Customer Evaluation of Proposals 61****Types of Contracts 64**

Fixed-Price Contracts 64 • Cost-Reimbursement Contracts 65

Contract Provisions 66*Summary 68 • Questions 70 • World Wide Web Exercises 70 •
Case Study #1 Medical Information Systems 71 • Case Study #2
Wedding Planner 73***4 The Project 76****Planning the Project 78****Performing the Project 80****Controlling the Project 81****Terminating the Project 84**Internal Post-Project Evaluation 87 • Customer Feedback 89 •
Early Project Termination 91*Summary 92 • Questions 93 • World Wide Web Exercises 93 •
Case Study #1 An Electronics Manufacturing Company 94 •
Case Study #2 Factory Expansion Project 95***PART 2 PROJECT PLANNING AND CONTROL 99****5 Planning 100****Project Objective 102****Work Breakdown Structure (WBS) 103****Responsibility Matrix 106****Defining Activities 106**

Developing the Network Plan 106
 Network Principles 110 • Preparing the Network Diagram 116

Planning for Information Systems Development 119
 An IS Example: Internet Applications Development for
 ABC Office Designs 122

Project Management Software 125

*Summary 127 • Questions 129 • World Wide Web Exercises 131 •
 Case Study #1 A Not-for-Profit Medical Research Center 131 •
 Case Study #2 The Wedding 133 • Appendix Microsoft Project 135*

6 Scheduling 142

Activity Duration Estimates 144

Project Start and Finish Times 146

Schedule Calculations 147

Earliest Start and Finish Times 148 • Latest Start and
 Finish Times 151 • Total Slack 154 • Critical Path 157 •
 Free Slack 159

Scheduling for Information Systems Development 161
 An IS Example: Internet Applications Development for
 BC Office Designs (Continued) 163

Project Management Software 165

*Summary 169 • Questions 171 • World Wide Web Exercises 175 •
 Case Study #1 A Not-for-Profit Medical Research Center 177 •
 Case Study #2 The Wedding 177 • Appendix #1 Probability
 Considerations 178 • Appendix #2 Microsoft Project 189*

7 Schedule Control 196

Project Control Process 198

Effects of Actual Schedule Performance 201

Incorporating Project Changes into the Schedule 201

Updating the Project Schedule 203

Approaches to Schedule Control 205

**Schedule Control for Information
 Systems Development 209**

An IS Example: Internet Applications Development for
 ABC Office Designs (Continued) 210

Project Management Software 211

*Summary 212 • Questions 215 • World Wide Web Exercises 216 •
 Case Study #1 A Not-for-Profit Medical Research Center 216 •
 Case Study #2 The Wedding 217 • Appendix #1 Time-Cost
 Trade-Off 218 • Appendix #2 Microsoft Project 222*

8 Resource Considerations 228**Resource-Constrained Planning 230****Planned Resource Utilization 231****Resource Leveling 232****Resource-Limited Scheduling 234****Project Management Software 240**

*Summary 241 • Questions 242 • World Wide Web Exercises 243 •
Case Study #1 A Not-for-Profit Medical Research Center 243 •
Case Study #2 The Wedding 244 • Appendix Microsoft Project 244*

9 Cost Planning and Performance 252**Project Cost Estimates 254****Project Budgeting 256**

Allocating the Total Budgeted Cost 256 • Developing the
Cumulative Budgeted Cost 257

Determining Actual Cost 260

Actual Cost 260 • Committed Cost 260 • Comparing Actual
Cost to Budgeted Cost 261

Determining the Value of Work Performed 262**Cost Performance Analysis 265**

Cost Performance Index 267 • Cost Variance 268

Cost Forecasting 269**Cost Control 270****Managing Cash Flow 272****Project Management Software 274**

*Summary 275 • Questions 276 • World Wide Web Exercises 278 •
Case Study #1 A Not-for-Profit Medical Research Center 278 •
Case Study #2 The Wedding 279 • Appendix Microsoft Project 280*

PART 3 PEOPLE: THE KEY TO PROJECT SUCCESS 289**10 The Project Manager 290****Responsibilities of the Project Manager 292**

Planning 292 • Organizing 293 • Controlling 293

Skills of the Project Manager 293

Leadership Ability 294 • Ability to Develop People 297 •
Communication Skills 299 • Interpersonal Skills 301 • Ability
to Handle Stress 302 • Problem-Solving Skills 303 • Time
Management Skills 304

Developing the Skills Needed to Be a Project Manager 304**Delegation 305****Managing Change 308**

*Summary 314 • Questions 315 • World Wide Web Exercises 315 •
Case Study #1 Codeword 316 • Case Study #2 A Growing
E-Business Company? 317*

11 The Project Team 322**Project Team Development and Effectiveness 324**

Stages of Team Development and Growth 324 • The Effective
Project Team 328 • Barriers to Team Effectiveness 331 • Being
an Effective Team Member 333 • Team Building 335

Conflict on Projects 336

Sources of Conflict 337 • Handling Conflict 339

Problem Solving 340

A Nine-Step Approach to Problem Solving 341 •
Brainstorming 343

Time Management 344

*Summary 347 • Questions 348 • World Wide Web Exercises 349 •
Case Study #1 RD Processing 349 • Case Study #2
Team Problems 351*

**12 Project Communication
and Documentation 354****Personal Communication 356**

Oral Communication 356 • Written Communication 358

Effective Listening 358**Meetings 359**

Types of Project Meetings 360 • Effective Meetings 364 • Types
of Project Reports 371 • Preparing Useful Reports 373

Project Documentation and Controlling Changes 374

*Summary 376 • Questions 378 • World Wide Web Exercises 379 •
Case Study #1 Office Communications 379 • Case Study #2
International Communications 381*

13 Types of Project Organizations 384**Functional-Type Organization 387****Project-Type Organization 390****Matrix-Type Organization 391****Advantages and Disadvantages 396**

Functional Organization Structure 398 • Project Organization Structure 398 • Matrix Organization Structure 399

Summary 400 • *Questions* 401 • *World Wide Web Exercises* 402 • *Case Study #1 Multi Projects* 402 • *Case Study #2 Manufacturing Divisions* 405

Appendix A Project Management Software 409

Project Management Software Features 409

Criteria for Selecting Project Management Software 413

Advantages of Using Project Management Software 415

Concerns about Using Project Management Software 416

Project Management Software Vendors 417

Summary 417 • *Questions* 418 • *World Wide Web Exercises* 418

Appendix B Project Management Organizations 419

Appendix C Project Management World Wide Web Sites 420

Appendix D Abbreviations 422

References 423

Reinforce Your Learning Answers 431

Glossary 450

Index 455