

PRACTICAL GUIDE TO PROJECT PLANNING

Ricardo Viana Vargas



Auerbach Publications

Taylor & Francis Group

Boca Raton New York

Auerbach Publications is an imprint of the
Taylor & Francis Group, an **informa** business

Contents

Acknowledgments	ix
Introduction	xi
About the Author	xiii
I Basic Project Management Concepts	1
1.1 What Is a Project?.....	1
1.2 Project Characteristics.....	1
1.3 Project Management Benefits.....	2
1.4 Causes of Project Failure	2
1.5 Project Life Cycle.....	3
1.6 The Project Life-Cycle Phases.....	4
II Project Planning Using the PMBOK® Guide 3rd Edition	7
2.1 Introduction.....	7
2.2 Breaking down the PMBOK Guide through MINDMAPS®	9
2.3 Project Management Areas	11
2.4 Integration Management.....	12
2.5 Scope Management.....	17
2.6 Time Management	21
2.7 Cost Management	25
2.8 Quality Management.....	28
2.9 Human Resources Management	31
2.10 Communication Management.....	35
2.11 Risk Management.....	38
2.12 Procurement Management	42
III Project Plan Documents.....	47
3.1 Introduction.....	47
3.2 Integration Management.....	47
3.2.1 Project Charter	47
3.2.2 Preliminary Project Scope Statement.....	48
3.2.3 Project Plan.....	48
3.2.4 Top-Level Gantt Chart.....	49
3.2.5 Integrated Change Control System.....	49
3.2.6 Stakeholders Priority Matrix.....	50
3.2.7 Lessons Learned Log.....	50
3.3 Scope Management.....	50
3.3.1 Scope Statement	50
3.3.2 Work Breakdown Structure (WBS).....	50
3.3.3 WBS Dictionary.....	52
3.3.4 Scope Management Plan.....	52
3.4 Time Management	53
3.4.1 Activity List	53
3.4.2 Gantt Chart	53
3.4.3 Leveling Gantt Chart.....	54

3.4.4	Network Diagram	54
3.4.5	Milestones Chart.....	55
3.4.6	Schedule Management Plan.....	55
3.5	Cost Management	56
3.5.1	Project Task Budget.....	56
3.5.2	Allocated Resources Budget.....	56
3.5.3	Cash Flow	57
3.5.4	S-Curve	57
3.5.5	Cost Management Plan	58
3.6	Quality Management.....	58
3.6.1	Quality Management Plan.....	58
3.7	Human Resources Management	58
3.7.1	Organizational Chart.....	58
3.7.2	Project Team Directory.....	59
3.7.3	Responsibility Matrix	59
3.7.4	Who Does What (Role Diagram).....	59
3.7.5	Human Resources Management Plan	60
3.8	Communication Management.....	61
3.8.1	Communication Management Plan.....	61
3.9	Risk Management.....	61
3.9.1	Risk Management Plan.....	61
3.10	Procurement Management	62
3.10.1	Statement of Work	62
3.10.2	Procurement Management Plan	62
IV	New Frontiers Project Plan.....	65
	Version 3.0	65
4.1	Project Integration Management	65
4.2	Project Scope Management	77
4.3	Project Time Management	135
4.4	Project Cost Management.....	156
4.5	Project Quality Management	169
4.6	Project Human Resources Management.....	176
4.7	Project Communications Management	184
4.8	Project Risk Management	196
4.9	Project Procurement Management	205

Acknowledgments

This work is the result of the cooperation of many people. I would like to express my gratitude to

- Auerbach Publications, for the trust and interest in my work
- My wife and my two daughters for all their love and for their understanding of all my endless trips
- The entire project management community and all the PMI members for always believing in and supporting my work
- My dear graduate, postgraduate, and MBA students, colleagues in this work journey
- My friend Matheus Monteiro Rodrigues for his assistance with the figures, Mindmaps®, and the formatting for this book
- All my clients, for believing in and always supporting my work
- My relatives, team members, friends, and students, who provided the entire foundation for this book

Introduction

This book was born out of a market need that I began noticing when I first started working in project management. Everybody was interested in seeing examples of project documents to discuss and analyze the models and best practices used in the PMI standards, published in the PMBOK Guide.

It is my intention in this book to present, in a direct and practical way, the example of a project that can be analyzed in regard to all management aspects, including the management of scope, time, costs, quality, HR, communication, risks, procurement, and integration.

The example reviewed in this book covers implementation of a project management office (PMO) within a company division, including all the steps, beginning with the diagnosis up to the results achieved. All project documents are presented and discussed in the book, and are available on the attached CD, thus allowing readers to track and develop their own projects at the same time they are reading the book.

I look forward to wide appreciation for this book and hope that it may enhance the efforts of those already engaged in projects, allowing even beginners to achieve a full understanding of the environments related to their work.

Good reading and enduring success.

Ricardo Viana Vargas, M.Sc., IPMA-B, PMP

About the Author

A specialist in planning, management, and control of projects, Ricardo Viana Vargas has been responsible over the past ten years for more than 30 major projects in Brazil and Latin America, coordinating a team of more than 500 project management specialists in areas such as telecom, IT, finance, and energy, with a portfolio of more than \$5 billion. He is a partner of Macrosolutions, a consulting company specializing in project management, portfolio management, and risk management.

Ricardo Vargas is the author of eight books and a DVD. He has been published in Brazil and in the United States, with more than 75,000 books sold. In 2005, Vargas received the PMI Distinguished Award and also the PMI Product of the Year Award for his PMDome Workshop, considered the best training solution for project management.

A PMI-certified Project Management Professional (PMP) and International Project Management Association certified as IPMA Level B, Vargas has a bachelor's degree in chemical engineering and a master's degree in production engineering from Federal University of Minas Gerais (UFMG). He has also a master's degree in project management from George Washington University. He was the first professional worldwide to be a Microsoft Certified Office User Specialist in MS Project 2002 and is an acknowledged reviser of the most important reference in the world concerning project management, the PMBOK Guide®, being a member of the project team for updating the guide. Vargas was also the chair of the Translation Verification Committee for the PMBOK Guide translation to Brazilian Portuguese.

He has been a professor in many M.B.A. and other graduate courses in Brazilian and American schools, presenting several technical papers in his specialty area in Brazil, the United States, Europe, and Asia.

He was elected a member of the board of directors of the Project Management Institute (PMI), the most important worldwide organization focused on project management, for the 2007–2009 term. He is the first South American citizen and resident to have this position. He is also a member of the Association for Advancement of Cost Engineering (AACE), the American Management Association (AMA), the International Project Management Association (IPMA), the Institute for Global Ethics (IGE), and the Professional Risk Management International Association (PRMIA). He can be reached at ricardo.vargas@macrosolutions.com.br or www.macrosolutions.com.br.