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PM Crash Course™ for IT Professionals

Real-World Project Management Tools and Techniques for IT Initiatives

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Introduction

Every part of every business depends on information technology. Consider the infrastructure behind a company's communication system. Does it support a rich feature set including working from a smart phone? The conferencing, forwarding, and follow features are all enabled through IT.

Consider the marketing communications department. This team often uses a wide variety of applications from bridge conferencing to video development and uploading. The marketing communications team needs desktop applications, publishing applications, Web development tools, video development and editing tools, and Internet search capabilities. All of these applications and tools are dependent on the IT infrastructure.

Just think of the amount of IT infrastructure behind the accounting department. This group doesn't function in isolation, their tools need to integrate with sales, shipping and receiving, and expense management. They have to be able to close the company's books in a matter of days at the end of each quarter and each year. The annual report the company produces each year has a list of tools a mile long that support its development.

When implemented correctly, IT can add significant value to the business. Technology and how it is used to grow a company can be, and often is, a competitive advantage. A business can attribute a rise in productivity, in large part, to technology and its ability to improve business processes. IT professionals are often faced with extremely challenging project deployments, as well as initiatives that are mission-critical to their organizations.

For IT project managers, a strong understanding of the discipline of project management is invaluable—both to success with individual projects and to their overall careers. However, while you have an idea of what project management is, are your perceptions accurate? Do you know that project management is a science and an art? Do you fully understand the difference good project management can make on your projects? Do you realize that there are key things you should do and not do?

By completely thinking through and mapping IT projects using project management methodologies and best practices, a project manager saves the project time and money, and increases the probability of project success.

The fact that you are reading this book indicates you realize that better knowledge of the discipline of project management will make a difference in how your projects have been going and how your own career in project management is progressing.

PM Crash Course™ for IT Professionals is full of project management tools that you can apply immediately to your IT projects—to deliver them on time, on budget, and with fewer headaches.

Scope of This Book

Please note, this book does not cover all aspects of project management. The scope of this book is to show you the tricks of where to focus your project management efforts to make the greatest immediate impact. The book will help you start controlling your projects rather than allowing them to control you. The end result of reading this book will be projects that are completed faster, cheaper, and easier. And of course, your reputation as a project manager will benefit immensely as well.

This is a business book with an emphasis on the value of integrating project management and technology in organizations. Focusing on project management creates high value productivity. It promotes a thorough and systematic process that emphasizes rapid identification, assessment, and response to the issues arising out of today's complex IT projects and environments.

By reading the book, completing the exercises, and answering the Questions for Discussion at the end of each chapter, you will gain a solid set of skills to immediately apply the discipline of project management, the methodology, and numerous best practice ideas.

Who Should Read This Book?

PM Crash Course™ for IT Professionals is intended for IT professionals like you, who find themselves responsible for completing a project, but who do not have formal project management training. You are looking for easy-to-use tools and processes to make an immediate impact on your current IT project. We believe this book distills the most important things you need to know in order to make a difference on your project right now.

How This Book Is Organized

This book is designed to be read quickly and easily cover-to-cover, beginning with an overview of IT project management and an all-important "How to Use This Book" chapter. It is also useful as a desk reference to keep handy throughout a project life cycle.

This revolutionary Course in a Book® covers the basics of project management, including planning, scheduling, budgeting, and more. It also moves beyond the basics to cover a number of real-world project management tools and techniques for IT initiatives—like defining IT project charters and requirements, breaking down IT roadmaps into manageable pieces, capturing and using historical data, identifying and managing stakeholders, defining IT project scope, and more.

The authors provide indispensable practical checklists, templates, and exercises to reinforce your learning of these concepts. The book includes dozens of tricks, insights, and contributions from real project managers sharing what has made a difference for them when managing real-world projects.

- **Chapter 1, "Before You Read This Book"**—This chapter serves as an introduction to the world of IT project management.

- **Chapter 2, "How to Use This Book"**—This chapter explains the numerous features within each chapter to make your learning more fun, interesting, and relevant to the real world.

The core chapters 3-15 cover the following topics:

- **Chapter 3, "Understanding the Project Management Process"**—This chapter identifies and defines the project management processes and the project life cycle, and the dynamic role of a project management plan. The chapter discusses how to identify key project constraints and explains how IT-centric processes complement project management methodologies.

- **Chapter 4 , "The Project Charter"**—This chapter defines the project charter and discusses the measurable metrics used to determine the success of a project.

Chapter 5, "Incrementalization: Breaking the Work into Projects"—Key concepts in this chapter include understanding the definition of a project, and identifying the differences between project, program, and portfolio management. It illustrates the value of breaking work into projects that can be planned, managed, and controlled.

Chapter 6, "Gaining, Creating, and Using Historical Data"—In this chapter you will learn the value of using historical information from past projects to take advantage of successes and avoid repeating the mistakes of others. You will also identify what type of project data is most beneficial to capture for the benefit of future projects. The practice of documenting historical information helps to continuously improve project process efficiencies.

Chapter 7, "Identifying and Managing Stakeholders"—Understanding who the stakeholders are on your project as well as what and how to communicate with them keeps everyone focused and is key to preventing problems throughout the project.

Chapter 8, "Finalizing Project Objectives—The Project Scope Statement"—This chapter outlines the difference between product and project scope and explains the business value of the project scope statement.

Chapter 9, "Preventing Scope Creep: The Work Breakdown Structure and WBS Dictionary"—This chapter is all about the hierarchical way to break a project into smaller, more manageable components or work packages as a major precursor to budgeting, scheduling, communicating, allocating responsibility, and controlling the project.

Chapter 10, "Real-World Estimating"—In this chapter, you identify the challenges in accurately estimating time or cost, and learn numerous techniques to improve estimating.

Chapter 11, "Real-World Scheduling"—This chapter describes how to create a realistic project schedule and teaches you how to read and understand a project management network diagram so you can define the critical path and use it to adjust the project to meet the required delivery date.

The Project Charter

Goals of This Chapter

Upon completion of this chapter, you should be able to:

- Define what is a project charter

- Give examples of soft and hard metrics of a project

Have you ever been asked to do a project, only to discover that the project did not have support of upper management and had a high probability of being cancelled? Are cancelled projects a common occurrence in your organization? To gain support and cooperation for projects, a project manager must obtain a project charter that has been signed off by the project's sponsor.

The project charter, developed in the initiating process of a project, is a formal document issued by the project's sponsor that authorizes the project and the project manager. A project charter dramatically reduces the risk of a project being cancelled due to lack of support or perceived value to the company. It documents the overall objectives of the project and helps manage the expectations. Think of it as a target for the project. The document needs to be broad enough so it does not need to be changed, as the project evolves. If the project charter is changed, the changes have to be approved the sponsor.

A project charter is owned by upper management and/or the project sponsor. The charter gives the project manager and his or her team the high-level scope, schedule, and resource window from which to operate. If events change those overall parameters, the sponsors must be contacted and approve the actions.

It is important not to confuse the project charter and the project management plan. The charter is owned by the executive sponsor. The project management plan is owned by the project manager. The project planning process, covered in depth in the following chapters, expands the project charter to a detailed project management plan Any deviations to the plan that are still within the overall window of the project charter can be handled by the project manager and the

project team. Many times, however, project sponsors are included in the decision-making process to manage expectations and to give early warning of events that could at a later time impact the charter parameters.

What Is Included in the Project Charter?

The project charter includes fundamental information used to authorize and establish the basis for a project. The charter justifies the project in terms of its value to the company.

Project Title and Description This section includes a simple, high-level description of what is the project. For example, the description may be to upgrade all existing TDM-based desk phones to IP telephones; or to implement softphones on all sales personnel laptops.

Project Manager Assigned and Authority Level This section names the project manager and states whether he or she can determine, manage, and approve changes to the budget, schedule, staffing, etc. The charter gives the project manager authority to make use of company resources to complete the project and may be a big help on projects when authority must be used to gain cooperation.

What a project manager is given authority to do is very company-specific. Some companies allow the project manager to select resources; others require the sponsor to be involved. Some companies allow the project manager to come up with a detailed schedule that meets a requested end date. Others are not concerned with a required end date and let the project manager tell them how long the project will take.

Business Case This section of the charter explains what business problem is being solved with the project. It addresses the question of why the project is being undertaken. The project manager needs to know this, as he or she will need to make many day-to-day decisions, keeping the business case in mind.

Resources Preassigned In this section of the project charter, the sponsor identifies how many and what resources will be provided for the project. Some projects come with a limited number of human resources available or with some team members preassigned. Some team members may need office space, computers, or other capital expense items. Some team members may be in a different geographic location, impacting the project it different ways than a wholly localized team.

Stakeholders This is the sponsor's impression as to who are the stakeholders. Stakeholder analysis comes later in the project management process.

Stakeholder Requirements as Known This section of the project charter identifies the high-level requirements related to both project and product scope. Known stakeholder requirements are the requirements that have been used to justify the project. Further work to clarify and finalize the requirements will come later.

Product Description/Deliverables This section includes the project sponsor's indication of what specific product deliverables are wanted, and what will be the end result of the project. It is important to have a clear picture of what constitutes the end result of the project. Is it a report on an emerging technology or a network upgrade? Should the report include recommendations to implement the technology, or is it limited to fact gathering? A measure of project success is that all the deliverables are met.

Measurable Project Objectives This section addresses how the project ties into the organization's strategic goals, and includes the project objectives that support those goals. The objectives need to be measurable and will depend on the defined priority of the project constraints.

Soft metrics are typically difficult to quantify. If you receive a project charter with only soft metrics, consider it a red flag for needing to establish solid metrics prior to beginning the project. Alternatively, by adding hard metrics to a soft metric statement, the metric can become more meaningful. Hard metrics have a unit of measure (e.g., a percentage of change, a specific dollar value, a unit of time).

Examples of soft metrics include:

- Improve client satisfaction
- Increase product quality
- Improve process flow
- Increase employee productivity
- Improve information flow

Examples of hard metrics include:

- Increase in sales by a defined percentage
- Reduce costs by a defined percentage or specific dollar amount
- Reduce product production waste by a defined percentage
- Reduce manufacturing time by a defined period of time on a per unit basis

A project manager should encourage the project sponsor to convert soft metrics. Instead of "increase product quality," try using "reduce defective products by [a defined percentage.]" Instead of "increase employee productivity," consider using "increase the number of calls handled by each contact center agent by [a defined percentage], allowing us to handle more calls with the existing staff."

Notice in each of the interviews in Appendix C how different metrics are used when developing the project charter. The key "ah-ha" that spans all of the interviews is that the metrics selected for a project's charter are selected specifically to support the company's bigger vision or strategy. This was consistent whether the firm was vertically market-centric, conducting internal IT projects, or implementing IT projects for an external customer.

Project Approval Requirements This section identifies what items need to be approved for the project, and who will have sign-off. The question "What designates success?" is answered.

High Level Project Risks Potential threats and opportunities for the project are listed here. In-depth risk identification occurs later in the planning processes.

Signature and Approval The charter requires a signature from the project's sponsor. The signature is necessary in order to give authority and make the project official. Depending on the environment in which your project will be completed, there could be more than one signature necessary on the project charter.

Project Charter

Project Title and Description (*What is the project?*) **Customer Satisfaction Fix-It Project**

Over the last few months, the quality assurance department has discovered many of our customers' orders for our XYZ equipment have taken the customer ten times longer to place through our computer network than our competitors' networks. The purpose of this project is to investigate the reasons for the problem and propose a solution. The solution will be authorized as a subsequent project. Quality Control has detailed records of their findings that can be used to speed up this project.

Project Manager Assigned and Authority Level (*Who is given authority to lead the project, and can he/she determine, manage, and approve changes to budget, schedule, staffing, etc.?*)

Jan Navratil shall be the project manager for this project and have authority to select team members and determine the final project budget.

Business Case (*Why is the project being done? On what financial or other basis can we justify doing this project? Describe the project purpose and justification.*)

This project is being completed in order to prevent a further breakdown of customer satisfaction. We expect that improved customer satisfaction will increase revenue to the company in the first year by at least $200,000 due to a decrease in service calls. As a side benefit, we hope that the project will generate ideas on improving customer satisfaction while fixing this problem.

Resources Preassigned (*How many or which resources will be provided?*)

Steve Peterson and Julie Dirksen are already dedicated to the project because of their expertise in computer networks of this type. Other resources will be determined by the project manager.

Stakeholders (*Who will affect or be affected by the project (influence the project), as known to date?*)

Stakeholders include Jason Craft representing Quality Control, Jennie Rutter in Customer Service, and Eric Rudolf in Marketing. These resources are available to assist the project as needed by the project manager.

Stakeholder Requirements As Known (*Requirements related to both project and product scope*)

Attached to this document are the detailed specifications for the existing system, the requirements that the existing system was designed to meet. It is expected that this project will not change how the system affects the existing requirements.

The project must include utilizing the data available from Quality Control.

Product Description/Deliverables (*What specific product deliverables are wanted, and what will be the end result of the project?*)

1. A work breakdown structure, due within two weeks, that outlines the plan for accomplishing the project, followed one week later by a list of risks in completing the project.
2. A report that outlines what can be changed, how much each change will cost, and the expected decrease in the time it takes to place an order resulting from each change. Few words are necessary in the report, but it must be created electronically and be agreed to by the representatives for Quality Control, Customer Service, and Marketing, in addition to the project team.
3. A list of the interactions with our customers necessary to complete the changes.

Measurable Project Objectives (*How does the project tie into the organization's strategic goals? What project objectives support those goals? The objectives need to be measurable and will depend on the defined priority of the project constraints.*)

The objective of this project is to improve customer satisfaction by reducing the time customers spend placing orders via the computer network to 10 percent of the current time. Scope and customer satisfaction are the top priorities on this project, closely followed by schedule and then cost.

> ► **Summary milestone schedule:** Due no later than September 1, 20XX.
> ► **Summary budget:** U.S. $50,000.

Project Approval Requirements (*What items need to be approved for the project, and who will have sign-off? What designates success?*)

Approvals for this project include:
> ► The sponsor will approve the WBS before planning efforts continue.
> ► The sponsor will approve the list of risks before planning efforts continue.

Final project approval will be determined by the sponsor.

High-Level Project Risks (*Potential threats and opportunities for the project*)

> ► Because this project analyzes customer satisfaction, the project may help generate ideas to improve customer satisfaction, resulting in higher levels of customer retention.
> ► Because we have little experience in this area, implementing an inadequate solution could cause more frustration and more time delays for customers, resulting in additional lost business.
> ► Because this problem is greatly troubling to our customers, project delay could result in lost customers, jeopardizing the likelihood of meeting this year's sales goals.
> ► Because assessment of this system is difficult, changes to the system could affect the requirements the system was designed to meet, resulting in impacts to other business functions.

Project Sponsor Authorizing This Project:

_____   _____

Connor Mulcahy, Executive Vice President   Kerry Mulcahy, Vice President

Sample Project Charter

Do not underestimate the value of the project charter. The project charter is such an important document that a project should not be started without one. If the project charter serves as a definition of how success will be measured, then without a project charter, the project and project manager cannot be successful.

A project charter provides, at a minimum, the following benefits:

- Formally recognizes (authorizes) the existence of the project, or establishes the project—this means a project does not exist without a project charter
- Designates the parameters within which the project manager has the authority to operate
- Gives the project manager authority to spend money and commit resources
- Provides the high-level requirements for the project
- Links the project to the ongoing work of the organization

A project charter is needed because:

- It ensures the project manager understands the sponsor's needs
- It provides key information needed to get started
- It provides a reference document to make sure everyone is on the same page later in the project
- It provides the basis to plan the project
- It empowers and protects the project manager by describing what he or she is being asked to accomplish

Exercise:

What's Wrong with This Picture?

Using what you have learned in this chapter, analyze this sample project charter.

Project Charter
Project Title:
Move all of the in-house contact center agents to home-based offices
Project Manager Assigned:
Contact Center Director
Goal:
To complete the transfer of personnel in 90 days
Business Case:
Home agents will be happier and thus will be able to resolve more customer calls
The company real estate expenses will be reduced
Product Description:
Transfer contact center agents out of corporate offices into home-based offices
Signed and Approved By:
Crystal Clearly (Contact Center Director)

Answer:

The project charter has a title, but no detailed project description.

The project manager is assigned, but what exactly is the contact center director going to do on this project?

The goal is to complete the employee transfer to home offices in 90 days, but what happens if the agents have small children at home? How will supervision of the agents be handled?

Are there any assumptions or constraints?

Does this project have financing? Who is responsible for setting up the home offices to OSHA standards?

This product description does not give enough details to know what is and is not going to be included in the employee transfer. What are the deliverables? What are the due dates for the deliverables?

Crystal Clearly is one of the sponsors, but if the entire contact center team of agents is being transferred, human resources, IT, and the telephony team should also be included as sponsors.

Exercise:

Create a project charter for your real-world project.

Project Charter		
Project Title		Project Manager
Project Description		
Project Manager Authority Level		
Business Case		
Resources Preassigned		
Stakeholders	Stakeholder Name	Stakeholder Requirements
Product Description	Describe the features & functions of the product of the project	
Deliverables	List the deliverables below	
	Deliverable:	Due date:
Measurable Project Objectives		
Prioritized Constraints	Number according to priority (1 is highest, 7 is lowest)	
	Time:	Cost:
	Quality:	Risk:
	Customer Satisfaction:	Resources:
	Scope:	
Project Approval Requirements		
Risks Known at This Time		
Sponsor Signature	Signature	
	Printed Name	
	Date	

Throughout the Project

The planning process will determine if the project can be completed within the confines of the project charter. Any changes to the project charter must be approved by the signer of the project charter. Any change to the project charter can affect the entire plan for completing the project (e.g., the cost, schedule, and risks for the project) and should be considered a huge change to the project.

REAL WORLD IT "After you have identified the project, try to find every possible thing you can do to draw out the information and get it down on paper. It will give you a very good idea of exactly what it is going to take to get it complete."
–Abe McCallum, CEO, Clikthrough, Inc.
Read the complete interview with Abe McCallum in Appendix C.

During the life of the project, stakeholders can easily lose track of what the project is trying to accomplish. Here are some tricks for using the project charter to prevent this from happening.

TRICKS OF THE TRADE The project manager can use the project charter to remind everyone involved on the project exactly what the project is. It is a great help in preventing or limiting scope creep.

TRICKS OF THE TRADE Have the project charter graphically designed (so it looks official). Then send color copies to all stakeholders and team members' bosses to post on their walls. This keeps the focus on what is the project, and therefore what is not in the project, thereby preventing some scope creep. It will also keep team members reminded of the project, making them more apt to complete their work assignments.

TRICKS OF THE TRADE Design the approved project charter to be used as a screensaver by all team members throughout the project. This keeps the project in the minds of the team members, and serves as a visible reminder to all who see it that an important project is underway.

Scope Creep

Work unofficially added to the project that is outside of the defined project objectives

TRICKS OF THE TRADE® Review the charter with the team members at team meetings one-third and two-thirds of the way through the project in order to keep them focused on the project. Not only will this prevent some scope creep, it will also help the team see if they are off track.

Team Members

Team members' role in the project charter can include:

- Review the project charter when they are assigned to the project
- Provide feedback on the project charter to make sure it is complete and understandable
- Make sure all the work they do falls within the project charter
- Evaluate any requested changes to make sure they fall within the project charter
- Reread the project charter during the project to keep it in focus

Chapter Summary
Key Concepts
A project charter:

- Is a high-level target for the project
- Authorizes the project and the project manager
- Must be approved before project work begins

Project charter metrics:

- Must be measurable
- Are often used to determine project success

Soft metrics are:

- Difficult to measure
- Broad, open statements

Hard metrics are:

- Easily measured
- Specific and precise
- Used to justify the business value of a project

Questions for Discussion
Why should a project manager NOT begin a project without an approved project charter?

Describe the fundamental information included in a project charter document.

How can the project charter be used during completion of project work?

Action Plan

1. What will you do differently in your real-world project management as a result of reading this chapter?
2. Add new items to your personal Tricks list in Chapter 2.

What Action?	Why?	By When?	Who Will Be Involved?	Who Will Be Affected?	Status

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