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Project Management

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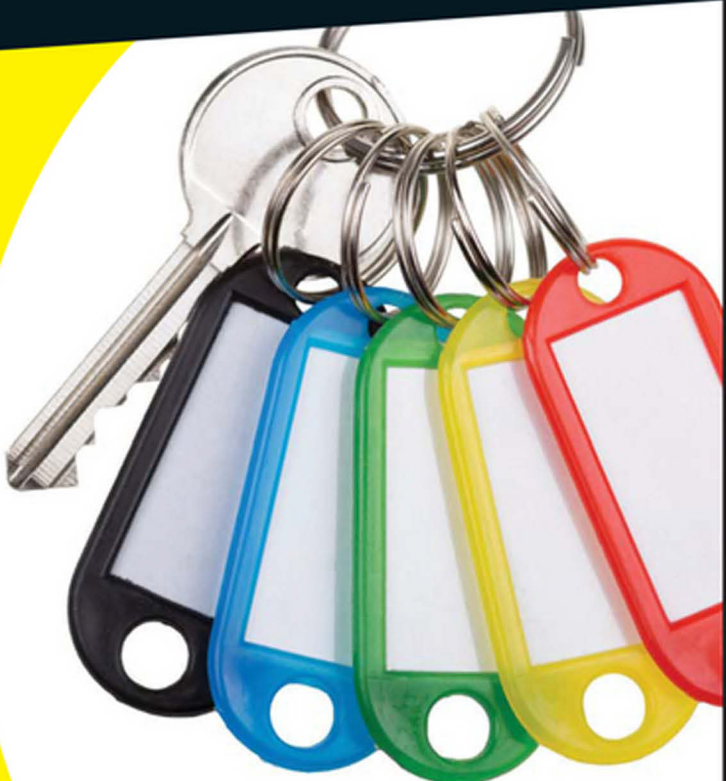

Learn to:

- Plan techniques to make project planning both easier and more effective
- Manage resources and stay on track and within a budget
- Keep things under control during the project
- Understand common causes of project failure

Nick Graham
Founder and Director of Inspirandum Ltd

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Second Edition

by Nick Graham and
Stan Portny

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Project Management For Dummies®, Second Edition

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Contents at a Glance

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Introduction

Projects have been around since ancient times. Noah building the ark, Leonardo da Vinci painting the *Mona Lisa*, Edward Gibbon writing *The Decline and Fall of the Roman Empire*, Jonas Salk developing the polio vaccine – all projects. And, as you know, these projects were all masterful successes. (Well, the products were a spectacular success, even if schedules and resource budgets were sometimes overrun!)

Why, then, is the topic of project management of such great interest today? The answer is simple: the audience has changed and the stakes are higher.

Historically, projects were large, complex undertakings. The first project to use modern project management techniques – the development of the Polaris weapons system in the early 1950s – was a technical and administrative nightmare. Teams of specialists planned and tracked the myriad of research, development and production activities. They produced mountains of paper to document the intricate work. As a result, people started to view project management as a highly technical discipline with confusing charts and graphs; they saw it as inordinately time consuming, specialist driven and definitely off limits for the common man or woman!

Because of the ever-growing array of huge, complex and technically challenging projects in today's world, people who want to devote their careers to planning and managing them are still vital to the projects' success. Over the past 25–30 years, however, the number of projects in the regular workplace has skyrocketed. Projects of all types and sizes are now *the* way that organisations accomplish work involving development and change.

At the same time, a new breed of Project Manager has emerged. This new breed may not have set career goals to become Project Managers – many among them don't even consider themselves to be Project Managers. But they do know that they must successfully manage projects to move ahead in their careers. Clearly, project management has become a critical management skill for many, not just a career choice for a few.

Even though these Project Managers realise they need special tools, techniques and knowledge to handle their new types of assignments, they may not be able to devote large amounts of time to acquiring them, which is where this book comes in. This book is devoted to that vast majority of Project Managers.

About This Book

This book helps you recognise that the basic elements of successful project management are straightforward. The book provides information and explains powerful techniques that help you plan and manage projects successfully. Here, you discover too that a major challenge to a successful project is dealing with the multitude of people whom a project may affect or need for support. You find plenty of tips, hints and guidelines for both the *hard skills* such as planning and the *soft skills* for working with people in and around your project.

But knowledge alone won't make you a successful Project Manager – you need to apply it. This book's theme is that project management skills and techniques aren't burdensome tasks you perform because some process requires it. Rather, they're a way of thinking, communicating and behaving to help you achieve successful delivery. They're an integral part of how people approach all aspects of their work every day.

Like all 'For Dummies' books, this one is written to be direct and easy to understand. But don't be misled – the simple text still navigates all the critical tools and techniques you'll need to support your project planning, scheduling, budgeting, organising and controlling.

You'll find that we present the information in a logical and modular progression. Examples and illustrations are plentiful – so are the tips and hints. And there's some attempt at humour from time to time to keep the writing down to earth. The idea is that you finish this book feeling that good project management is a necessity and that you're determined to practise it!

To help you navigate through this book, we use the following conventions:

- *Italics* point out new words and alert you to their definitions, which are always close by. On occasion, italics also add emphasis.
- **Bold** text indicates keywords in bulleted lists or highlights action parts in numbered lists.

Web addresses are a problem because they change and the information so quickly goes out of date. However, you'll find that the text gives enough information for you to search for a particular site or reference where you want to follow something up with a search on the Internet.

Foolish Assumptions

When writing this book, we assumed that a widely diverse group of people will read it, including the following:

- Senior managers and junior managers (tomorrow's senior managers)
- Experienced Project Managers and people who've never been on a project team
- People who've had significant project management training and want to catch up on the latest ideas, and people who've had none
- People who've had years of real-world business and government experience, and people who've just started work

We assume that you have a desire to take control of your environment. After reading this book, we hope you wonder (and rightfully so) why all projects aren't well managed – because you'll think these techniques are so logical, straightforward and easy to use. But we also assume you recognise the big difference between *knowing* what to do and *doing* it. You'll have to work hard to overcome pressures that conspire to prevent you from using these tools and techniques. Pressures include any people senior to you who think that if you don't plan and control a project, it all works out fine just the same, only you'll have saved time and so deliver faster. Interestingly, the same people don't take that view when organising their family holidays.

Finally, you'll find that you can read this book repeatedly and find out something new each time. Think of this book as a comfortable resource that has more to share as you experience new situations.

Icons Used in This Book

The small icons in the left margins of the book are to alert you to special information in the text. Here's what they mean:

This icon gives a real or hypothetical situation to illustrate a particular point in the main text.

This icon is for things that help you get to grips with terms or issues that are a bit more technical, or at least that sound more technical.

This icon to points out important information you want to keep in mind as you apply the techniques and approaches.

The Tip icon highlights something you can use to improve your project management practices.

This icon highlights potential pitfalls and dangers.

Beyond the Book

You may find every now and then that you need some additional information or just a quick recap project management.

In addition to the material in the print or e-book you're reading right now, this book also comes with some access-anywhere goodies on the Internet. Regardless of how good your memory is, you can't possibly remember everything related to project management, so check out the free Cheat Sheet at `www.dummies.com/cheatsheet/projectmanagementuk`, which will bring back the most important points about the subject.

You can also find more helpful tidbits of information and advice online at `www.dummies.com/extras/projectmanagementuk`.

Where to Go from Here

You can read this book in many ways, depending on your own project management knowledge and experience and your current needs. However, it's worth starting out by taking a minute to scan the table of contents and thumb through the sections of the book to get a feeling for the topics.

If you're new to project management and are just beginning to form a plan for a project, first read Parts I and II, which explain how to plan outcomes, activities, schedules and resources. If you want to find out how to identify and organise your project's team and other key people, start with Chapter 11 and Part III. If you're ready to begin work or you're already in the midst of your project, you may want to start with Part IV to look for advice on keeping things on track. Or feel free to jump back and forth, hitting the topics that interest you the most.

No matter how you make your way through this book, plan on reading all the chapters more than once – the more you read a chapter, the more sense its approaches and techniques will make. And who knows? A change in your job responsibilities may create a need for certain techniques you've never used before. Have fun!

Part I

Understanding Projects and What You Want to Achieve

web extras

For Dummies can help you get started with lots of subjects. Go to www.dummies.com to learn more and do more with *For Dummies*.

In this part . . .

- Come to grips with how projects are structured, and learn how to think through the life cycle of your project.
- Get the inside track on why projects are likely to be needed within a business.
- Learn how to answer the question 'Is this really a project?', because not everything is.
- Understand who's likely to have an interest in your project, and how you have to deal with them.

Chapter 1

Success in Project Management

In This Chapter

- Understanding what makes a project a project
- Seeing what's involved in project management
- Coming to grips with the Project Manager's role
- Knowing what it takes to be a successful Project Manager

Organisations are constantly changing, and ever faster, as they adapt to new market conditions, new financial conditions, new business practices, new legal requirements and new technology. Then there is work to be done such as upgrading or moving premises, installing new facilities, carrying out major maintenance, improving manufacturing processes and re-branding commercial products. A lot of that work is carried out with projects, and as a result businesses are increasingly driven to find individuals who can excel in this project-oriented environment.

Taking on a Project

Because you're reading this book, the chances are that you've been asked to manage a project for the first time or that you're already running projects and are looking to see whether you can find easier and better ways of doing things. If the project is indeed your first one, that's a challenge and may well give you the chance to excel in something you haven't done before; for many, managing a project even opens a door to a new career.

The really good news here, whether you're completely new or have some experience, is that project management has been around for a very long time. In that time, Project Managers have come up with highly effective strategies and a range of very practical techniques. You can benefit from all that experience, and this book takes you through what you need to know. You may be a bit guarded even now because you've heard of, read about or even seen, an

awful lot of project problems and failures. More really good news is that most project failure comes from well-known and avoidable problems; you really don't have to be part of the failure statistics if you manage your project in the right way.

So, hang on tight – you're going to need an effective set of skills and techniques to steer your projects to successful completion. This chapter gets you off to a great start by showing you what projects and project management really are and by helping you separate projects from non-project work. The chapter also gives you some insight into exactly why projects go wrong. That will help you become absolutely determined to do things right and succeed where so many others have failed.

This book offers a generic approach to project management and isn't based on any one approach. Specifically, if you're interested in the PRINCE2® project method then you might like to get hold of a copy of *PRINCE2 For Dummies*. That book will help you to understand the method, but be aware that PRINCE2 hasn't set out to cover all that's involved in project management. It's focused on planning and control but doesn't even cover all of that, so you'll find a lot in this book that isn't in the PRINCE2 one.

Avoiding the Pitfalls

By following a sound approach to the project, you automatically avoid many of the pitfalls that continue to contribute to, or cause, project failure on a mind-boggling scale. You may ask why, if good ways of doing things exist, people ignore them and then have their projects fail. Good question. People make the same project mistakes repeatedly, and they're largely avoidable. You may have come across the joke by comedian Tommy Cooper:

> *I went to the doctor and said 'Every time I do this, it hurts.' The doctor said, 'Well, don't do it then.'*

A national public project run in the UK to create a database of offenders for use by the Prison Service, Probation Service and others has attracted heavy criticism for poor management. The National Audit Office, which checks up on government departments, investigated and reported that the project was delayed by three years, and the budget was double the original, but the scope had been radically cut back. Edward Leigh MP, chairman of the powerful Public Accounts Committee in Parliament at the time described the scheme as a 'spectacular failure' and 'a master-class in sloppy project management'.

The following list takes a quick look at the main causes of project failure; you'll find the remedies in later chapters in the book. The list makes for depressing reading, particularly if you recognise some elements in parts of

your own organisation. Nevertheless, it gives a good background against which to contrast successful project management and the approach and techniques set down in this book.

- **Lack of clear objectives:** Nobody's really sure what the project is about, much less are people agreed on it.
- **Lack of risk management:** Things go wrong that someone could easily have foreseen and then controlled to some degree, or even prevented.
- **No senior management 'buy in':** Senior managers were never convinced and so never supported the project, leading to problems such as lack of resource. Neither did those managers exercise effective management supervision (good project governance) as they routinely do in their other areas of responsibility.
- **Poor planning:** Actually, that's being kind, because often the problem is that no planning was done at all. It's not surprising, then, when things run out of control, and not least because nobody knows where the project should be at this point anyway.
- **No clear progress milestones:** This follows on from poor planning. The lack of milestones means nobody sees when things are off track, and problems go unnoticed for a long time.
- **Understated scope:** The scope and the Project Plan are superficial and understate both what the project needs to deliver and the resource needed to deliver it. Project staff (often team members) then discover the hidden but essential components later in the project. The additional work that is necessary then takes the project out of control, causing delay to the original schedule and overspending against the original budget.
- **Poor communications:** So many projects fail because of communication breakdown, which can stem from unclear roles and responsibilities and from poor senior management attitudes, such as not wanting to hear bad news.
- **Unrealistic resource levels:** It just isn't possible to do a project of the required scope with such a small amount of resource – staff, money or both.
- **Unrealistic timescales:** The project just can't deliver by the required time, so it's doomed to failure.
- **No change control:** People add in things bit by bit – scope creep. Then it slowly dawns on everyone that the project's now grown so big that it can't be delivered within the fixed budget or by the set deadline.

That's ten reasons for failure, but you can probably think of a few more. The interesting thing about these problems is that avoiding them is, for the most part, actually not that difficult.

Deciding Whether the Job is a Project

Before you start to think too deeply about how to set up the project, the first thing to do is check whether it really is one. No matter what your job is, you handle a myriad of assignments every day: prepare a memo, hold a meeting, design a sales campaign or move to new offices. Not all these assignments are projects. So what makes something a project?

Some people say that everything is a project, even making a cup of tea. Don't listen to them. And don't be fooled by references to 'the Project Manager' in TV programmes like *The Apprentice* either, unless you want an object lesson in how not to do things; Lord Sugar really should know better.

You can think about three things to determine whether a job is a project:

- Is it a one-off job or something that's ongoing? If the job is ongoing, like producing bars of soap on a production line or taking customer orders, then it's business as usual, not a project.
- Does the job justify project controls? Project management means incurring some overheads, although you can find advice in this book on how to keep overheads to the minimum. But the fact remains that there will be overheads in a project (such as for planning, approval and control) and some jobs are so small or straightforward that they just don't justify that degree of control.
- This last one may sound a little weird, and it certainly doesn't fit with the formal definitions; it's the question, 'Do you want to handle the job as a project?' You may choose to deal with a block of work as a project, but I wouldn't – so, in some instances, you have a choice.

Understanding the four control areas

Different project approaches have slightly different definitions of a project; here's one:

A *project* is a temporary undertaking performed to produce a unique product, service or result.

The 'unique product' is true, but don't let that put you off setting up projects that are effectively repeated, such as organising the annual company conference. Although, strictly speaking, the task is unique each time, you will nevertheless find large areas of commonality with previous projects so you don't need to reinvent the wheel. For example, you can probably adapt last year's plans rather than starting from scratch.

Large or small, projects involve the following four areas of control:

- **Scope:** What the project will deliver
- **Time:** When the project will deliver
- **Quality:** So often forgotten, but an essential dimension
- **Resource:** Necessary amounts of staff time, funds and other resources such as equipment and accommodation that the project needs

You need to balance these areas for each project, and you can see immediately why so many projects get into difficulties. You look at a project, think about the four control factors and say to yourself, 'They want that scope, to that quality level, with just that resource and by then? They've got to be joking!' Strangely, organisational managers often commit projects to failure by insisting on unachievable deadlines or unrealistic resources. What's even more strange is that those same managers are then surprised and even angry when the projects inevitably get into difficulties and fail.

Getting the balance right in the early part of the project when you do the main scoping and planning is, obviously enough, essential. Jerry Madden of NASA, the American space agency, produced a great document called 'One Hundred Rules for NASA Project Managers'. Rule 15 is:

> *The seeds of problems are laid down early. Initial planning is the most vital part of a project. The review of most failed projects or project problems indicate the disasters were well planned to happen from the start.*

It's also useful to think about the four areas of control when dealing with change in the project. Chapter 14 includes a 'four dog' model to help you think about the interaction. Although many other considerations may affect a project's performance, the four components are the basis of a project's definition for the following reasons:

- The only reason the project is run is in order to produce the results specified in its scope.
- The project's end date is often an essential part of defining what constitutes success. In some cases, the project must provide the result by a specified time in order to meet its goal (it's 'time-critical').
- The quality requirement is a vital part of the balance and may be the most important element, even though many organisational managers are preoccupied with time and cost. But what's the point of delivering an unusable heap of garbage on time and within budget?
- The availability of resources can affect which products the project can produce and the timescale in which it can produce them.

Quality can be a very important factor, and is sometimes the most important, so do think about it carefully. A project to build and install a new air traffic control system for the south of the UK was criticised for being over budget and late on delivery. As a number of people have pointed out though, if you're sitting in an aeroplane circling while waiting to land at London Heathrow Airport – one of the world's busiest – would you rather that they'd got the air traffic control system in on time and to budget or that they'd got it right?

Recognising the diversity of projects

Projects come in a wide assortment of shapes and sizes. For example, projects can:

- **Be large or small:**
  - Building the new Crossrail link across London at a cost of around £15 billion and taking seven years to complete.
  - Preparing the annual report for the department may take you six days to complete and may also be a project.
- **Involve many people or just you:**
  - Training all 10,000 of your organisation's sales staff worldwide in the working of a new product is a project.
  - Redecorating an office and updating the furniture and equipment is also a project.
- **Be defined by a legal contract or by an informal agreement:**
  - A signed contract between you and a customer that requires you to build a house defines a project.
  - An informal agreement by the IT department to install new software in a business area defines a project.
- **Be business related or personal:**
  - Conducting your organisation's five-yearly strategy review is a project.
  - Preparing for a family wedding is also a project – and a much more pleasant one than the five-yearly strategy review.

No matter what the individual characteristics of your project are, you can use the same four elements of scope, time, quality and resource to think it through.

A project by any other name – just isn't a project

People often confuse the following two terms with *project:*

- **Process:** A *process* is a series of routine steps to perform a particular function, such as a procurement process or a budget process. A process isn't a one-time activity that achieves a specific result; instead, it defines *how* you do a particular function every time. Processes such as the sequence of things you need to do to buy materials are often parts of projects.
- **Programme:** A *programme* (sometimes controlled with programme management) is a set of projects that need to be coordinated in some way. Perhaps it's a strategic programme to change the whole way the organisation works, or perhaps it's a group of projects with significant interdependencies that all need to be managed to finish at the same time. See Chapter 17 for more on programmes.

Understanding the four stages of a project

Every project, whether large or small, goes through a series of stages and this book will follow four. Other approaches may group things slightly differently, and start earlier with an initial idea for a project, but the sequence will still be pretty much the same.

In this book the successive sections of the project are referred to as *stages.* You may hear the term *phases* used sometimes, particularly in software, but don't be thrown by that because it's just an alternative name.

- **Starting the Project:** This stage involves thinking through the project proposal at a high, 'sketch' level. That includes assessing the business need for the project and its overall characteristics, which will indicate how it should be run. For example, it may be business-critical or very high-risk. You must also give some thought on who should be involved in the project if it goes ahead and check if those people are available. You'll normally put all of this sketch-level information in a document called an *Outline Charter* (or just Outline for short), or your organisation may refer to it as a *Project Brief.* The stage will end with agreeing, or maybe not, to go on to the next stage and prepare a detailed Project Plan.
- **Organising and Preparing:** This stage includes developing a full Project Plan that specifies what the project will deliver, the work to be done and the time, cost and other resources required. Then you'll need to work the Business Case up into full detail from the sketch version you

prepared for the Outline. There will be other plans too, such as for how you will control risks and how you will manage stakeholders. You'll normally produce two main planning documents in this stage. There's the Project Charter which covers the strategic parts of the project such as the Business Case, and the PMP (Project Management Plan) which covers the more tactical things such as the Project Plan, the Risk Plan and the Quality Plan. Then you'll need to produce a more detailed Stage Plan for the first Delivery Stage so the project can move on smoothly if the Charter and PMP are approved. If this all sounds a lot, don't get too worried and that's for two reasons. First, you need to think things through properly if the project is to run smoothly. Second, in a smaller project especially, these plans may be quite short.

- **Carrying Out the Work:** This stage involves doing the planned work. You'll normally split this up into a sequence of Delivery Stages, though in a very small project you might opt for having just one. During each Delivery Stage you'll be monitoring and controlling performance to ensure that things are going to plan, and doing the more detailed planning of successive Delivery Stages as the project continues. Controls used during the stage may include things like progress checks, progress meetings, risk reports and verifying that the required quality is being achieved. Each stage will finish with a *Stage Gate* to check that everything is okay before going on to the next stage.
- **Closing the Project:** This stage involves a clear shut-down of the project work and then assessing the results, assigning project team members to new work, closing financial accounts. You should always carry out an evaluation of how things went and measure the benefits achieved. However, as some benefits might not come on-stream for a while, you may also need one or more further reviews after the project to measure them. Outputs from this stage should also include suggestions for applying lessons learned (good and bad) from this project to future projects.

For small projects, this entire life-cycle can take a few days. For larger projects, it can take years! Chapter 2 goes though these stages – the life of your project – in more detail so you can see exactly what you need to be doing and when.

In a perfect world, projects run smoothly and always go exactly to plan. However, because you don't live in a perfect world and because your project certainly won't be running in one, you need to be flexible. When starting to think about your project, you need to allow for:

- **The unknown and uncertain:** Projects are rarely 100 per cent predictable. The normal territory of projects is that, to some extent at least, you're going into the unknown. Therefore, your plans need to allow for things going off track. Sometimes the uncertain areas are predictable,