Integrated Program Management for Dummies

Learn to:

- Understand if IPM is right for your organization
- Use IPM to save time and money on projects and programs
- Choose an IPM system that works for your company

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About Deltek

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Introduction

You know what a project is, right? For a lot of people, it’s a great alternative to scissors, because a big project often causes people to pull their hair out. And as for a program, which is essentially a group of related projects — well, it’s a wonder some program managers have any hair left.

For those who value their hair, as well as their sanity and the bottom line of their budget, there’s integrated program management. It’s a whole way of planning and running projects and programs more effectively, more cost-efficiently, more profitability, with fewer surprises, greater predictability, and more hair left over at the end.

Integrated program management, or IPM for short, is an excellent approach for just about any organization whose existence revolves around landing and completing projects. It’s about getting your people, processes, and tools to play nicely together, spending more time getting things done and preventing problems, and less time chasing data around and putting out fires.

About This Book

Integrated Program Management For Dummies spells out IPM concepts in a way we hope is accessible and easy to understand. Whatever your background in program management — seasoned program manager, program controls professional, even an executive — this book provides you a basic but thorough grounding in the principles of IPM.

As the chapters progress, we discuss what IPM is, what it’s good for, and how you can tell if it’s right for your situation. We discuss how IPM is all about people, processes, and tools, and spell out the four pillars of IPM. Flip a few more pages and you’ll find a detailed outline of the many technological tools of IPM, a “day in the life” scenario that spells out just how IPM works, and some helpful appendices.
The authors of this book are IPM practitioners who have led the implementation of IPM processes and tools at several major corporations. We’re currently employed by Deltek, and we’ve included some information about Deltek-specific products because we know them really well. The Deltek writers worked with For Dummies editors to turn it into a For Dummies book.

Foolish Assumptions

Just going out on a limb here, but we’re assuming a few things about you, the reader:

- You have an interest in IPM, for your job or the good of your organization.
- You’re not already an expert in IPM, and maybe just recently found yourself operating in an IPM environment and hope to get up to speed.
- You’re eager to get some knowledge onboard and get going on your IPM work.

Icons Used in This Book

Like all the For Dummies books you’ve seen out there, this one uses icons to help you spot specific types of information.

This icon lands next to paragraphs containing tips we hope will help you get your IPM implementation off on the right track.

You’re in a hurry, we know. But if you’re zipping through this book, please slow down a moment when you see this icon and be sure to absorb the information next to it.

Maybe you’re one of those highly detailed people and really need to grasp all the nuts and bolts, even the most techie parts. If so, these tidbits are right up your alley.

Projects and programs are filled with pitfalls and dangers. Unless you’re a glutton for punishment, you’ll want to heed the warnings we put in the spotlight.
Chapter 1

Getting to Know Integrated Program Management

In This Chapter
▶ Defining a project
▶ Planning a program
▶ Bundling programs into portfolios
▶ Understanding IPM

We get the introductions out of the way before we go any further. Reader, meet the concept called integrated program management, and get to know its nickname, IPM. It’s a set of processes, people, and tools that drive structure and discipline into your project or program.

The purpose of IPM is to plan, analyze, and monitor projects or programs through an integrated system rather than some haphazard, seat-of-the-pants approach. IPM will help your company be more profitable, providing predictability and helping you reduce surprises. Your new friend will offer you an objective measure of progress while delivering early-warning indicators through trends and estimates. IPM takes project management to the next level by providing structure and a common lexicon for the entire team.

In this chapter, you get to know IPM better by relating it to basic project, program, and portfolio management principles. It’s important to understand these principles if you hope to have a full grasp of IPM.
What Is a Project?

It may be building that deck onto the back of your house. Or preparing to launch a major fund-raising drive at church. Or your daughter’s display for the science fair. Your life is filled with projects, even before you set foot in the office on Monday, so of course you know what a project is.

Still, it’s helpful to spell this out to be sure that everyone’s on the same page. When we talk about a *project* in the context of our IPM discussion, we’re talking about a task or group of tasks with a specific beginning and end. This project has a defined product that will be delivered or objective that will be demonstrated at its conclusion. As an example of a project, we discuss the development of an imaginary new product called “Missile 1.”

Also — unlike a backyard deck project that before you’re finished may end up also including a hot tub, a new gas grill, a fire pit, and some really cool landscaping — the kind of project we’re talking about here has a specific scope. Unlike that backyard project that threatens to drain your bank account, our project has an assigned budget. And, again unlike the deck project that’ll get done when it gets done, the kind of project we’re talking about is tied to a defined schedule.

Failing to achieve the scope, spending more than the budget allows, or completing the project late all represent some degree of failure in the execution of this project. That means if you hope to deliver a successful project, your organization must manage each of these components carefully.

So who handles this management? The project manager, of course. This professional is responsible for these three really important factors: the *scope* (that’s the product or service to be delivered), the *cost* (generally the materials and the labor), and the *start-to finish schedule* (you know what that means).

If it were as simple as that sounds, good project managers would be a dime a dozen and there wouldn’t be any need for educational programs on the subject. In reality, there’s plenty to know about the field of project management, and you can take a deeper dive by visiting the Project Management Institute at [www.pmi.org](http://www.pmi.org).
Get With the Program!

Now that a project has been solidly defined, this section takes a step back to get more into the picture. A program is a group of related projects that you’re managing in a coordinated way in order to gain the kind of operational visibility and control that you just can’t achieve if you’re managing the projects individually.

Put another way, a program is a set of related activities with a long-term goal. Projects that make up a program typically have something in common, something related to capability and the overarching result.

Program management, then, helps you to understand and organize the relationships between these complex and interconnected projects. Through this coordination, you’re better able to drive the projects toward achieving the overall program goals or desired organizational outcomes.

Many benefits arise from coordinating projects in this manner. You’ll gain an extra-clear understanding of your resources along with a greater ability to manage change. You’ll be better able to keep people following the right processes, and you’ll be able to standardize your management of risks and opportunities.

Going back to the example from the discussion of projects, think now of “Missile 1” as a program that’s split into individual projects covering development, production, and creation of spares.

Building Your Portfolio

They say birds of a feather flock together. Same thing with programs, except that when programs of a feather get together, it’s not a flock but a portfolio.

A portfolio is a collection of programs and projects that are grouped together to facilitate effective management and make sure that they align with the corporate strategic goals.

A portfolio can be more than a bigger-picture way to handle your projects; it also may be longer in duration. A project may have a
specific end, but a portfolio exists as long as the company stays in that particular line of business. The programs and projects that make up the portfolio will evolve over time as new contracts are awarded and others close out, but the portfolio carries on.

For a portfolio, there’s usually some logical basis for a particular grouping of programs and projects. If you go back to the “Missile 1” product example, a portfolio might include multiple and completely different missile programs. For instance, it might encompass a branch of service, a specific technology, or a certain type of service provided. These groupings are strategic, enabling portfolio managers to focus in on the broad environment, measure overall performance, and maintain adherence to processes.

Figure 1-1 depicts a missile product portfolio made up of two separate and distinct programs, along with the projects that make up each program. Each level of the hierarchy requires its own management strategies and tactics.

Figure 1-1: A portfolio of missile programs and projects.

Understanding IPM

Integrated program management isn’t really a new concept, but it’s not entirely well-defined. It’s an especially hot topic these days, and various interested parties across the project management scene are seeking to find a common definition of just what IPM is. Here are some varying thoughts:

- IPM is the planning and execution of a project so that cost, schedule, technical performance, suppliers, quality, risks, and resources are integrated in a closed-loop fashion.
- IPM utilizes multiple toolsets to provide tracking and predictive information on the status of a program or project.
with the goal of providing insight for making daily decisions.

- IPM is a simultaneous and coordinated application of project management tools, methods, and processes intended to improve project execution, control, and governance.

As you can see, the experts have somewhat different ways of explaining and defining IPM. On the other hand, most will agree that IPM:

- Involves the planning and execution of programs and projects
- Needs people to implement the methodology
- Utilizes multiple tools that are integrated
- Provides tracking and predictive information
- Is simultaneous and coordinated
- Improves project success

IPM is an overall methodology for program management. It’s not the same thing as earned value management, or EVM, as some people might suppose, though EVM also combines scope, schedule, and cost into an integrated way for objectively measuring performance. EVM is, in fact, a subset of integrated program management.

If you throw all the definitions into a pot and boil them down, you end up with the four pillars of IPM: plan, analyze, and monitor, and do so through an integrated system. In other words, plan your program, keep an eye on it through careful analysis, monitor change, and make sure that the systems are integrated (see Figure 1-2).

![Plan Analyze Monitor One Integrated System](image)

**Figure 1-2:** To enable and support the four pillars, your organization will need to invest in your people, processes, and tools.

Put it that way and it sounds pretty simple. The four pillars will benefit all levels of the organization, from the portfolio through the program and down to the project. IPM’s major
focus is to help teams execute programs and deliver the right product, at the right time, at the right cost. We talk more about these four pillars in Chapter 5.

As you might guess, the human component is the hardest to manage but is probably the most important. You can’t control people 100 percent of the time, yet they’re the key to adhering to processes as well as implementing and maintaining the IPM tools. More on this topic in Chapter 4.

Twelve steps for analyzing the status of your program

The Defense Acquisition University has developed a 12-step model for program managers, giving them a disciplined, sequential approach to evaluate the scope, schedule, and budget data they need to determine current program status. The results of this analysis are the foundation for oversight reporting to higher levels of management.

Here are the steps:

✓ Step 1: Data collection
✓ Step 2: Acquisition program baseline analysis
✓ Step 3: Contract analysis
✓ Step 4: Technical and risk analysis
✓ Step 5: Data validity check
✓ Step 6: Network schedule analysis
✓ Step 7: Performance measurement baseline analysis
✓ Step 8: Schedule drivers
✓ Step 9: Cost drivers
✓ Step 10: Estimate at completion (EAC) and price at completion (PAC)
✓ Step 11: Financial analysis
✓ Step 12: Integrated product teams (IPT)
In This Chapter

▶ Meeting the program management challenges
▶ Winning more contracts
▶ Gaining visibility and control

For everything from major corporations to governmental agencies, life is a series of projects and programs. That's just the way it is. How you handle these projects and programs is up to you. You can go with the flow and tackle challenges as they hit you, or you can control the flow, anticipate the challenges, and stay on top of the progress of your projects and programs.

If you’re reading this book, there’s a good chance that you’re already of a mind to choose the latter course. This chapter explores why integrated program management is the best way to go.

The Challenges of Program Management

What time is it right now? If you’re like a lot of project managers, your projects and programs tend to keep you awake... night after night. And if you’re losing sleep anyway, the middle of the night’s a great time to read up and find a better way to handle your projects.
The challenges that haunt your sleep tend to fit into five major categories, and they affect all types of programs, regardless of your organization’s size, maturity, or complexity:

- Questionable data
- Disconnected processes
- Lack of accountability
- Surprises and delays
- Wasted time chasing information

Disparate systems are among the root causes of project management insomnia, and they happen to be a way of life on the project management scene today. There are specialty tools for all the disciplines: cost, schedule, resource management, quality, supply chain, and risk. These tools can be different from project to project, and the differences make it tough to have consistent reporting and process adherence across a project — much less a program or portfolio. It’s no wonder that people at all levels of the organization struggle to get the right data at the right time.

Then there’s the problem of disconnected processes. Sure, we have processes, but who has the time to fully understand and follow them, or connect the dots between them? Part of the problem is that there may be vast differences in processes from program to program, and sometimes even from one phase of a program to another. These processes also tend to evolve over time, and even slight variations in individual processes can add up to significant differences from program to program.

As time goes on and you work hard to stay on top of the project, systems and processes that should relate to one another often become a nightmare of complexity and maintenance. So what do you do? Create more ad hoc processes, tools, and reports in order to get to the information you so desperately need to keep the project on track. If all goes well, you somehow find a way to keep up and gather the information across the team, processes, and tools, but it sure isn’t easy and it doesn’t happen overnight.
Training issues also are among the sleep interrupters. The 2011 Deltek GovCon Clarity report shows a trend toward higher certification programs across organizations of all sizes and industries. Organizations are learning that high-performing program managers are the key to success, so they’re investing more in training and developing these valuable employees.

Getting Project Management Professional (PMP) certification can pay handsome dividends for you and your team. Find out more about PMP by visiting www.pmi.org/PMP.

Managing to Win

Incorporating IPM is an excellent way to tackle all these issues that keep you and other project managers up at night. But there’s another attractive benefit: Embracing IPM may help you win and retain more projects.

Think about it. Spending cuts and a tougher economic climate are part of our daily existence, which means organizations can gain a great competitive advantage by helping their customers squeeze the most from every dollar. IPM can help provide that edge.

Companies that are thriving and growing in today’s climate are doing so because they’re meeting goals, obtaining the right information, ensuring that teams are following processes, gaining confidence in their data, and eliminating time-wasting manual processes for collecting information. Ultimately, they’re managing with confidence rather than by instinct. The key to keeping tabs on your projects and programs is improving visibility of all the details (see Figure 2-1).

The reality is that just one schedule delay or cost overrun on a program can put that program at risk. For smaller companies, that could mean the difference between posting a profit or taking a loss for the year.

Yes, profit margins are that tight: Fully half of all government contractors either experienced a loss or posted a profit of 5 percent or less, according to the 16th Annual Government
Contractor Industry Survey Highlights Book. IPM will help your project, program, or portfolio teams manage these razor-thin margins and will help keep you in the money-making business.

![Diagram showing Program Management, Results Based Management, and Portfolio Management]

**Figure 2-1: Improving visibility.**

### Clearer Visibility and Tighter Control

Seeing is believing. Project managers and executives alike must be able to see project management information if they’re going to effectively manage and control their projects (see Figure 2-2). To achieve complete financial and business control, it’s critical to have visibility into six essential areas of your organization’s project management and financial operations:

- Forecast accuracy
- Collaboration
- Risk and opportunity management
- Project portfolio management
- Change management
- Actionable information
Organizations that implement solutions delivering these six elements of visibility provide program managers and executives the tools they need to improve predictability, avoid surprises, and better manage their profit margins.

**Accurate forecasts begin at the project level**

Your organization’s success begins with having a reliable financial forecast. This forecast represents the best guess of what will happen financially over the next year, based on historical data as well as an evaluation of external markets and economic indicators.

To create an accurate forecast, you’ve got to have solid project-level forecasting that includes a dependable determination of the estimated costs at completion. These forecasts then roll their way up through the programs and portfolio,
allowing management to quickly and proactively adjust plans and strategies to stay on track as a company.

**Collaboration requires communication**

Surprises are a project manager’s worst nightmare. What may surprise you is that surprises don’t have to happen, and some timely communication may be all that’s required to prevent a lot of them.

For example, in many cases, people working somewhere on the project are well aware of situations that put the project at risk of overrunning or missing schedule goals. But what happens if that critical information never makes it to the people who can solve the problems? With better communication across functional organizations, individuals can be held accountable for completing their project tasks, and surprises can be avoided.

That sounds simple enough, but how can better communication become part of the project’s DNA? Role-based views into project status are one answer for managing the avalanche of data, as well as alerts that warn managers of potential issues.

**Better ways to manage risk and opportunity**

As we mention earlier, companies are managing on tighter and tighter margins, thanks to increased competition and the realities of today’s economic climate. A project may end up being canceled if it exceeds the customer’s expected cost and schedule. Organizations therefore need visibility to manage these risks and take advantage of opportunities proactively.

You can get that visibility through the use of risk management solutions. The idea is to have the organization perform quantitative and qualitative risk analyses, then make these risk evaluations available to everyone who needs them as part
of the culture of communication. By providing risk information to the right role at the right time, you can improve your organization’s decision-making and enable positive planning throughout the company.

**Care and feeding for your project portfolio**

Your company’s project pipeline requires constant care and feeding. In order to maintain and grow the business, you must have visibility into the status of existing projects as well as the mix of projects in the pipeline. In addition, you need visibility and control over the bidding process as well as over the projects and programs themselves. Throughout your projects and programs, all parties involved need to measure project performance consistently.

For all this to happen, it takes instant access to both summary and detailed project information. With the right information, executive management can make any necessary adjustments to maintain profitability.

**Change happens, so you’d better manage it**

If there are contractual changes to a project that increase the cost or have an impact on the schedule, your company is entitled to adjust the contract price. That’s not always easy. You need a way to improve the efficiency and accuracy of these kinds of adjustments to contract prices and schedules.

“What if” analysis can simplify the process of determining the impact of any particular change on schedules, costs, and resource requirements. Once changes are made, they must be communicated throughout the project team, ideally by having an automated workflow capability and increased visibility.
Finding and tracking actionable information

It’s inevitable. Every project is bound to experience pitfalls and risks. What’s more, problems that impact one project can affect others, too. The challenge is to identify, plan for, evaluate, communicate, and manage these obstacles.

Once a risk or issue is identified, you must be able to assign someone the responsibility to tackle it. This action is critical if you’re going to keep important matters from slipping through the cracks. Of course, IPM offers solutions.

A role-based dashboard solution that pinpoints risks or issues requiring immediate attention is vital for anyone working on a project. If the right people receive warnings in time to take action, you’ll have a fighting chance of preventing minor risks and issues from expanding into major headaches.
Chapter 3
Taking the Plunge and Choosing IPM

In This Chapter
▶ Determining your organization’s maturity
▶ Getting started with IPM

Is integrated program management right for everyone? Well, maybe not absolutely everyone, but IPM offers benefits to a whole lot more people and organizations than know it. It’s best not to wait until you have a problem or project failure to explore IPM.

Simply put, any organization that lives and breathes program management can benefit by implementing IPM. When you get right down to it, the project and program management process is essentially the same regardless of the size or type of project. You define the scope, plan the work, manage the effort, and ultimately deliver something to your customer.

That’s not to say that building a power plant is the same as designing a fighter jet, but the end goal really is quite similar: delivering what your customer asked for — on time and within budget. In this chapter, we explore how to determine whether IPM is right for your organization, and assuming that it is, how to get the ball rolling.
Is Your Organization Mature Enough for IPM?

Many people assume that they must have a highly mature program management office (PMO) to implement an IPM approach, but that’s really not necessary. It truly doesn’t matter where your organization is on the maturity ladder; if projects are your lifeblood, IPM is the right answer.

So just how mature is your organization with regard to program management? The maturity ladder in Figure 3-1 can give you some insight.

**Figure 3-1:** The maturity ladder can provide guidance into any process.

Capability Maturity Model Integration (also known as CMMI) is a process-improvement approach designed to help organizations improve their performance. *The Project Management Body of Knowledge* (it’s the *PMBOK Guide* for short) is a great reference tool as you begin looking at your project management maturity.

Integrated project (not program) management is a core process area for appraising as a CMMI Level 3 company; see Figure 3-2 for a better understanding of maturity levels.
Getting Started with IPM

Before you get any further, you’ll need to be sure the major players in your organization are onboard with the IPM concept. From there, it’s a matter of defining the processes that you’ll be impacting, and ensuring that those processes are a part of your organization’s culture and rhythm. Then, you’re ready to get the IPM process rolling.

Get organizational buy-in

Before implementing IPM, members of your organization need to understand how it will impact them as individuals and how this will enable better program management and improve visibility and control within their programs. Explaining that will help you make the sale and gain the buy-in you need to succeed.

A study commissioned by management consultancy Arthur D. Little states that “profit and external competition continue to drive a majority of corporate change initiatives.” Yet, two-thirds of the executives surveyed found that the most
significant barrier to change was a lack of buy-in among their managers and employees.

**Define your project management processes**

To succeed at IPM, it’s critical to establish defined and usable processes and procedures. Consistency across the organization is essential, allowing decision-makers to respond quickly while maintaining consistency.

Look into the *PMBOK Guide* and you’ll see that it is a great resource for standard terminology and guidelines related to project management. The *PMBOK Guide* is process-based. It is divided into nine knowledge areas containing processes that need to be accomplished within its discipline in order to achieve an effective project management program.

IPM encompasses scope, cost, quality, resources, communication, risk, and procurement. It’s the whole enchilada!

**Instill the processes into the organization’s culture**

IPM isn’t a series of boxes to check off and declare, “I’m done!” It represents a shift in culture, and the benefits are reaped throughout the organization. Every member of the program team, as well as those in support functions, will gain from IPM. That said, all these people need to embrace the processes you’ve identified. The processes must permeate your organization’s culture.

So what’s in it for the people you’re bringing along for this ride? Through the use of IPM, projects and programs have a higher success rate, thus improving customer satisfaction and benefitting every member of the firm. As time goes by, the company grows, profits increase, and new business is earned. That’s when employees see the financial benefits.
Maintain a consistent business cadence

_Cadence_ is a rhythm that brings program management and execution together. This rhythm keeps everyone in the organization or the program team synchronized and executing at an ideal pace.

The cadence ensures that everyone on the program team, including the customer and subcontractors, knows his or her role, responsibilities, and due dates. With the program team in sync, the IPM process works smoothly and efficiently.

Facilitate IPM across your organization

After you make the decision to implement integrated program management, you must determine how your organization as a whole will adopt the new way of doing things. Here are some of the primary tasks involved in introducing IPM throughout your enterprise:

- **Identify a focal point:** Choose a person who will oversee the IPM implementation. This person is a focal point who is responsible for the coordination of the people, processes, and tools.

- **Establish a center of excellence:** Many organizations have implemented what they call a program management center of excellence. The center performs the same duties as a focal point but is centralized within the organization to facilitate a more consistent IPM approach. A distinct advantage is that a center of excellence is better able to standardize reporting, information distribution, and data flow.

- **Set up a program management office:** Often called the PMO for short, the program management office focuses on project management best practices. An effective PMO integrates processes to eliminate duplication of effort,
evaluate and refine processes, and train personnel to use the tools and methods that successful project execution will require.

✓ **Train the program team**: Training should focus not only on tools, but also on specific processes and how each process addresses project management objectives. You get everyone onboard at the outset, and this step should help to keep them on the bus.
Chapter 4

People, Processes, and Tools

In This Chapter
▶ Finding the right people for the team
▶ Building the right processes
▶ Selecting the right tools
▶ Achieving maturity in program management
▶ Getting the team onboard

You can’t have integrated program management without the integration of people, processes, and tools. As we discuss in Chapter 3, your organization’s maturity when it comes to IPM is directly related to how these three components work together.

Executives often claim that people are the organization’s most important asset. That certainly holds true when it comes to implementing integrated program management. Put the right people in place, and the next two pieces fall into place a lot more easily.

Processes are critical, too. You can’t have projects and programs without the processes that make them happen, and you can’t have success if people don’t follow the processes. As for tools, the people need them in order to effectively navigate through the processes. Amazing how that all fits together, isn’t it?
In this chapter, we shed more light on combining people, processes, and tools. And we offer tips on evaluating your organization’s program management maturity, and moving up the maturity ladder.

**People Power**

We start with the best-case scenario, which is that you’ve got the luxury of taking the time you need to line up the right people. For each project, you want to align the people with the right skills, background, expertise, and attitude that match the project’s goals and objectives.

Achieve this and you will have a major part of the challenge solved. A project can succeed with less-than-perfect processes and tools, but it has no chance for success if the team isn’t aligned with the project’s goals and objectives.

Consider how people interact and you’ll have a good framework for setting up a smooth project. People are social creatures, and a project needs to be social, too. What do creatures from worker bees to human beings do to ensure that they’re all working toward the same goal? They communicate.

How many times have you heard “I can’t solve a problem I don’t know about?” The power of transparency and access to information can’t be overstated. Communication is about more than simply consolidating information and submitting reports. It’s about partnering with people effectively and controlling the influencing factors that impact the team.

Here are the key factors that facilitate healthy and productive social behavior on a project:

- **Build transparency:** Communicate the right information at the right level at the right time.
- **Ensure access to information:** It’s critical to provide timely, secured, and uncomplicated access to information and processes.
- **Choose the right tools:** These tools need to be integrated as well as simple to use and maintain.
Move critical information upward: Reward and encourage the escalation of issues.

Make an investment: Invest in people, processes, and tools.

Build the Processes, Then Keep Improving Them

Processes describe what people are supposed to be doing. To improve your overall IPM competency, you must have consistency in processes and ensure that your people understand and support those processes.

Having uniform processes across projects and organizations allows managers to look at the information in the same way. That increases the likelihood that they’ll interpret information correctly, react more effectively, and really improve the outcome.

Of course, people aren’t just social creatures; they’re sometimes stubbornly set in their ways. Simply having processes doesn’t necessarily mean people will follow them.

That’s why it’s important to have the ability to monitor adherence to your processes. Effective IPM tools allow you to review, audit, and monitor process steps. This is how you improve the overall process: by monitoring the process along with the team’s ability and willingness to adhere to it.

For example, a review of the steps in the process and the areas in which people struggle to follow them may point the spotlight at an unrealistic or unnecessary process step. Adjusting that step may improve process adherence, but if you don’t have the step-by-step details, you won’t be able to make the adjustment. Remember, “I can’t solve a problem I don’t know about.”

Here are some things to consider as you roll out your processes:

- Start with the basics, then go big.
- Be consistent and apply processes uniformly.
✓ Involve the team to help gain buy-in.
✓ Train, train, and then train some more.
✓ Monitor the process.
✓ Adjust or improve the process.

Over time, you’ll begin to see the team get into a business rhythm. The quality of the information will improve and you’ll begin to see trends and opportunities for improvement.

The Project Management Institute’s A Guide to the Project Management Body of Knowledge (that’s the PMBOK Guide) is a great source of information.

**You Need the Right Tools**

Tools are a very important component of integrated program management. Later in this book we explore how tools can have a dramatic effect on your ability to gain visibility and control in a system that depends on the integration of people, processes, and tools.

You can’t just run down to the hardware store to get these tools, though. In today’s world, it’s important to do your homework when selecting tools. The first step is to understand your process and information requirements. Spend all the time you need in this area, because it has a direct bearing on the tools that you select.

The right tool can work wonders, but not necessarily miracles. A common misconception is that if you select the right tool, you’ll just push a button and automatically and exponentially improve visibility and control.

In fact, tools are mere enablers. They can help facilitate and promote operational efficiency, no doubt about it. But tools are completely useless, and in fact can hinder visibility and control, if they’re not implemented correctly and wrapped around sound people and processes.
Here are some questions to think about while considering tools and their role:

✓ Should I use experts to help me select the right tool?
✓ Can I check references from similar types of businesses?
✓ What is the level of integration and relationship between tools?
✓ How closely will the tool meet my needs?
✓ Can the tool tailor information based on my role in the organization?
✓ Can I interact with the system without pulling team members away from their busy day?
✓ Will the system notify me if I need to take a step in a process?

Achieving Maturity in Your Program Management

Often the evolution of project management capabilities lags behind other areas in the company. It isn’t until a critical issue emerges, or perhaps new management techniques are imposed on the winner of a new contract, that an organization finally realizes the virtue of improving its program management maturity.

One Monday morning some compelling event — good or bad or maybe a bit of both — motivates an executive to take action and launch a study. Leaders quickly learn that the tools and process infrastructure aren’t in place to improve competency around project management. Panic sets in.

There are many factors that can have a serious impact on the organization and need to be examined. Project managers aren’t getting timely or accurate information, forecasts are incomplete and inaccurate, there’s little to no accountability, the organization wastes huge blocks of time pulling information together for presentations — and everyone still gets surprised.
So where should you start? First, it’s important to understand where you are in terms of capability. A good way to measure is known as the Program Management Maturity Model.

Once you know where you stand, you’re ready to invest in the people, processes, and tools to improve. That is to say, if doing so is your goal. Well, why wouldn’t it be? The answer is that it may not be cost-effective or even productive to strive for Level 5 on the maturity model. At least not right now. Level 3 may fully support your business objectives for now, and you’ll stand to gain enormous benefit from simply achieving that level of program management maturity.

Understand where you are and where you need to go. And don’t bite off more than you need to chew right now.

A maturity model not only helps you determine how mature your organization is in managing programs, it will also tell you how to improve and achieve higher levels. These steps will help guide your organization strategically and give you something to rally the organization around.

Keep in mind that you don’t always need to take gargantuan steps. Incremental steps designed to methodically turn the organization in the right strategic direction may be all you need. Over time, you will see steady improvements. As you monitor and correct course, you will begin to notice improvements.

The following sections dive a little deeper into the Program Management Maturity Model, discuss what the levels mean, and examine how to move from one level to another. The Project Management Institute’s PMBOK Guide is a fantastic reference for beginning this journey. It is a generally accepted standard, filled with best practices.

It may be helpful to refer to Figure 3-2 in Chapter 3. As the diagram illustrates, you can attain greater IPM maturity as you bring your organization’s processes to the next level.

**Level 1: Initial process**

At this level, you’ll notice that *ad hoc* processes are difficult to follow, there’s little to no adherence to process, and chaos
and fire drills are regular occurrences. On the bright side, management has some awareness of the problems. You’ve got a lot of work to do, but when you’re on Level 1, there’s nowhere to go but up!

To get to the next level:

✓ Create and document processes and procedures.
✓ Obtain management buy-in and support.
✓ Ensure that functional management is engaged in the project management of the highest profile and most critical projects.
✓ Track, monitor, and analyze cost, schedule, and technical performance, even if you have to do so manually at this point.

Level 2: Structured process and standards

When you hit Level 2, you’ll notice that responsibility assignments are being made, training is being rolled out on processes and tools, there’s broad involvement in process development and process improvement, and management supports and encourages the work that’s being done. True, the process isn’t standardized throughout just yet, but it is applied on the most important projects. You have access to mid- to summary-level information, and the organization is using generic tools and subject matter experts for planning and scheduling.

To get to the next level:

✓ Apply and standardize the project management process across the organization and, practically speaking, on every project.
✓ Formally document and communicate processes for both internal and external team members.
✓ Directly involve and engage management with project teams.
Use tools to automate the process.

Evaluate project performance and performance improvement opportunities on a project-by-project basis, looking for lessons learned and opportunities for improvement.

**Level 3: Organizational standards and institutionalized processes**

At this point, you’ll notice that processes are clearly defined, standardized, repeatable, widely applied, and adopted. You have access to detail and summary-level information, as well as project performance analysis. You’ll feel good about the organizational focus and confident in the quality of information and processes.

But there are still another couple of levels. To get to the next level:

- Manage projects with a clear appreciation of how projects performed in the past, and then apply that experience to your future planning.

- Consider current project performance metrics to drive your decisions and any corrective action plans you’re applying today.

- Understand and consider the project plan and performance as it relates to the overall corporate strategic business plan and objectives.

- Ensure that all members of the management team fully understand and appreciate their roles in the project, and that they’re effectively engaged with their responsibilities at the right time, in the right way, and at the right level.

- Implement tools that specialize in supporting your project management process. Ensure that they integrate the critical interaction between people, processes, and tools.
Level 4: Managed process

By the time you hit Level 4, you'll notice that sophisticated tools are employed to improve forecasts and predictability, there’s corporate-wide integration of mandated processes, and even management is using data to make decisions.

You’re doing great! And as we said before, maybe you’re doing as well as you need to at this point. But if you want to take one more step, consider these actions:

✓ Establish processes that can be used to improve project management competency.
✓ Identify lessons learned and examine your progress with a critical and objective eye.
✓ Use that information to adjust and improve your policies, procedures, and standards.
✓ Identify ways to continuously improve.

Level 5: Optimized process

Okay, you’re at Level 5! How do you know? You’ll notice measurement of process improvement and efficiency, and be impressed that continuous process improvement is a way of doing business. The business rhythm is established, the team is prepared to deal with surprises, and everyone is forward-thinking when it comes to planning.

Now, to get to the next level:

✓ Ha . . . fooled you! There isn’t a next level. Congratulations are in order, because you’ve reached the pinnacle of project management maturity. This doesn’t mean you’re old, and though you may have gained a couple of gray hairs getting here, hopefully you didn’t have to pull your hair out. What it really means is you have the right combination of people, processes, and tools all interacting together in a way that optimizes your ability to deliver what you committed to deliver technically (that’s the scope) on time (that’s the schedule) and within budget (the cost).
Persuading the Team

Of course, none of this is going to happen without the support of the team. The age-old challenge of cultural change and the ability of the organization to grow and mature are absolutely critical. But they represent an often-overlooked dimension to driving improvement in overall project management maturity. There are many challenges that can stall your program management, but few can cause it to fail faster than a lack of buy-in.

The team must embrace the tools and processes, but will only get behind them if all players understand how they fit in. Even more important, they must truly grasp and agree with why it’s important to make these changes. Change can be unsettling to many, and there are a number of ways to help people jump on the bandwagon:

- Communicate the vision so they understand the problem you’re trying to solve, along with the definition of success.
- Provide a plan with measurable milestones.
- Engage the team early and often.
- Listen, don’t just inform.
- Consider their feedback carefully.
- Make them part of the process.
Integrated program management is a disciplined framework for managing projects and programs in a way that benefits all levels of the organization. The ultimate goal is simple: to successfully execute projects and programs. In order to execute projects, teams must implement the four pillars of IPM: plan, analyze, monitor, and do so in an integrated system.

Using a pillar concept to illustrate IPM makes it sound quite simple, but in practice, project teams often struggle with the concepts. In many cases, teams want to hurry up and get to work. Perhaps they hear project managers dictate daunting schedules: “The first contract milestone is due in 60 days and we can’t be late.”

Creating such milestones is certainly important, but if the overall plan isn’t carefully designed and the scope well understood, the project is in danger of suffering not for 60 days but sometimes for many years. When planning is poor, the “analyze” and “monitor” pillars turn into a chore of creating useless data.
In this chapter we explore the four pillars of IPM and explain the importance of each of them.

**Plan, Plan . . . and Then Plan Some More**

Yes, that headline may sound redundant, and its advice may sound tedious. The point is that you can’t skimp on the planning pillar of IPM. Not if you’re in a hurry or impatient, not if your budget is tight, not if the boss is breathing down your neck. If you don’t plan adequately, you’re bound to regret it sooner or later.

**Understand your scope**

The scope of a project simply defines what is to be developed or delivered. For example, if you’re developing a new vehicle, the scope might include specifying size, weight, fuel efficiency, speed, load capacity, durability, emissions, and noise.

Typically, the scope of a project is defined in a statement of work — at the risk of confusing female pigs, these statements are known as SOWs. The SOW document becomes the basis for the cost and the schedule. Make sure the entire team (including your customer) agrees to the scope right from the start.

Project managers should avoid performing work not specified in the contract. If your work starts to veer from the originally outlined scope, you’re experiencing what’s known as scope creep, which is mostly likely to occur when requirements aren’t clearly defined. Steer clear of scope creep — not because it’s creepy but because it’s work that you won’t get paid for, which will cause pain in the bottom line.

Carefully defined scope and clear success criteria are among the most important aspects of project management, and thus are key focus areas for all good project managers. And understand that keeping the scope in line isn’t just about steering clear of uncompensated work. It’s also about managing the customer’s expectations and ensuring that the project is seen as successful.
If your project seems complicated and daunting, you may be missing the *work breakdown structure* (WBS), which is a product-oriented hierarchy that breaks your project into manageable chunks of work. The WBS also happens to be the foundational reporting structure for your project, so it should include elements that cover the entire scope of the project. You’ll often see the WBS depicted in a tree structure to break the project into manageable pieces.

Depending on the industry in which you work, there may be standards for how a WBS should be constructed. Take the government as an example. The Department of Defense’s MIL-HDBK-881 defines a product-based framework for consistent WBS elements. For contractors working on space programs, a common WBS standard is found within NPR7120.5D Appendix G. Simply search for these terms in your favorite search engine to find up-to-date details.

Create a project schedule

Now we talk about IMPs. No, not mischievous, impish children; we’re talking about the project’s *integrated master plan*, which lays out the work in a logical, hierarchical flow. There are no dates on the IMP, but it does tie to the work outlined in the SOW, including all program/project events. Each event should be supported by specific accomplishments or exit criteria that determine completion of the event. This is how the team knows what “done” looks like.

The *project schedule*, which is also known an *integrated master schedule* (IMS), must contain all the time-phased activities needed to deliver the entire project scope. It should encompass all the plans created for the project, and embody quality, subcontract, and technical plans. The IMP should also spell out all the work necessary to support the events, accomplishments, and exit criteria outlined in the IMP.

Although the schedule is tied to the lowest level of the WBS, it is so much more than just a list of project activities. It should include logical relationships among the activities. Once all the activities, durations, and relationships are tied together, you’ll see that the IMS maps directly to the WBS. It allows the project team to have a single point of reference for all activities.
A good way to start creating a schedule is to break down each element of scope into discrete activities. Once that’s done, you can create activities in your scheduling software to produce a project schedule. You’ll need to establish a snapshot or baseline, against which you’ll measure progress. Do this carefully and you’ll have the basis for understanding how your project is performing, and the schedule baseline will also provide the starting point of the cost baseline. A good scheduling tool can help you manage the project plan and track multiple types of logical relationships and resources.

Projects don’t just complete themselves; for the work to be completed, they require resources (people, materials, equipment, and sometimes, subcontractors). How well you manage these resources is a critical factor in the success or failure of the project.

**Your project’s resources**

Project management best practices connect resources directly with the schedule. This process is called *resource loading the schedule*. The schedule provides the time element that specifies when resources are needed; the type of resources you need and their relationship to one another will ultimately determine the cost. To effectively manage a project, the project manager must carefully plan and balance when each resource will be added to the project, as well as when that resource is pulled off the job.

Resources are very often thought of as labor (in other words, people) and nonlabor (test equipment, travel, materials, and basically anything that doesn’t breathe). Most schedules will include all the labor you need to work on the project. The nonlabor resources are often planned and tracked in enterprise resource planning (ERP) or material requirements planning (MRP) systems, which we discuss later in the book.

It’s hard to overstate just how important this part of the planning process is. Not having key resources, materials, people, or equipment in the right place at the right time can stop a project cold. Poor resource management is one of the largest contributors to schedule delays and cost overruns.
Materials requirements planning can help you maintain minimal inventory balances while still ensuring that materials are available for production and on-time customer delivery of products. Materials requirements planning helps you to plan manufacturing activities, delivery schedules, and required procurement activities.

**Planning the cost**

Keeping costs in line is a top priority, whether you’re managing an internal initiative or a project for a customer. Your project team will need to develop a project budget to help manage and execute the project. You know what a budget is: simply the time-phased amount of money allocated to complete a project, deliverable, or activity.

Use the resource-loaded schedule to create your total project budget in your cost management system. If you’re planning and tracking your nonlabor resources in MRP or ERP systems, don’t forget to combine them with the labor resources in your resource-loaded schedule. The resourced schedule and nonlabor resources from ERP or MRP can be combined and imported into the cost management system to establish a cost baseline in hours and currency. Follow this process and your cost and schedule baseline will be in lockstep.

**Planning for the unknown unknowns**

Donald Rumsfeld, the former U.S. Secretary of Defense, famously stated that “there are also unknown unknowns; there are things we do not know we don’t know.” His statement was the target of a lot of jokes, but project managers know there’s a lot of truth to it. An unknown unknown is an unexpected danger lurking in the shadows, threatening to derail your project. You can predict many dangers, but you need to be ready to tackle those you had no way of predicting.

The point here is to take the time to deeply understand risks and opportunities before setting cost and schedule baselines, even as your teams get ready to rush out and get started. The most extreme risk with the lowest probability could have the
greatest impact on the outcome of the project, so take it seriously.

Identify the potential risks and put together mitigation plans. You won’t necessarily be able to afford to mitigate all risks, but by completing these plans, you will be able to make trade-offs and understand where you’ll get the biggest bang for your preventive buck. Look closely at opportunities, because they can be used to bank more profit or allow you to mitigate more risks.

*Management Reserve*, or MR, is money set aside to be used for unplanned but in-scope work. Risk mitigation activities use up some of your MR, so be careful planning which mitigations are declared critical. You don’t want to burn through your MR and have no reserve.

**Analyzing and Monitoring What’s Going On in Your Project**

Analyzing and monitoring your work are both critical for ensuring project success. Multiple ways to analyze and monitor your schedule and your cost are available, and we explore some of them here.

**Schedule analysis**

After a project begins, you need to collect status information on a regular basis — typically weekly or monthly — from people involved in the project. Status information has two key components:

- Percentage of schedule activities that are complete
- Work and cost remaining to complete each activity, called the *estimate to complete* (ETC)

Every project has changes, and most every project will fall behind schedule at times. These issues aren’t necessarily big problems, but that’s often up to you. How you manage the changes and issues will determine whether you complete the project on time.
Managing the critical path

The critical path in a schedule is the sequence of activities that must be completed on schedule for the entire project to be finished by a specified date. As a result, it’s the longest path in the schedule. If an activity on the critical path is delayed by one day, for example, the entire project will be delayed by one day unless another activity on the critical path can be accelerated by one day.

Also, when any technical aspect of the project proves to be more complex than anticipated, cost overruns and schedule slips often occur. Understanding the relationship among scope, cost, schedule, and risk is critical to successful execution of the project.

There are many types of schedule metrics and analysis techniques that relate to critical path methodology, or CPM. One example is the DCMA 14 point check to test the “wellness” of the schedule. Critical chain scheduling is an alternative methodology that is completely different from CPM in that it focuses on resource availability. The PMBOK Guide is a great reference for understanding schedule analysis techniques.

Analyzing the cost

There are many methods of cost analysis. For starters, you can look into the enterprise resource planning (ERP) system and see your actual costs.

Actual costs are just what the name implies: The costs relating to people, subcontractors, equipment, or materials that are charged to the project. Comparing actual costs to the baseline will provide spend variances, which help you understand how you’re spending (the reality) compared with how you thought you would be spending (the plan).

Committed costs are another key piece of information, and are identified in the ERP system as costs that are committed through purchase orders but aren’t yet incurred. These costs can include both materials and subcontract costs, as negotiated on the purchase order.
For manufacturing companies, the *bill of materials* is a key element that affects costs and change throughout the project lifecycle. Engineer-to-order projects must account for engineering changes during the manufacturing process that may affect the wellness of the project.

It's vital for project manufacturers to be able to plan and cost jobs based on project requirements — and be able to track details of jobs in progress while maintaining the integrity on the manufacturing floor. They need to integrate accounting and project management functions and incorporate materials functionality to quickly resolve day-to-day capacity and resource planning, procurement, inventory, and production issues.

The estimate to complete (ETC) is a key piece of status and forecast information. The ETC is best created by the individuals who are responsible for completing the work. This is simply the work remaining to complete an activity, usually expressed in hours or currency.

If you add actual costs to an ETC you’ll end up with an EAC, or *estimate at completion*. The EAC represents the total cost of the project at completion, including estimates for getting to completion from where the project is now. If you compare the EAC to the total budget, you can see what you thought the project was going to cost versus the reality you’re experiencing at this point in the project.

Keep in mind that analysis can be completed for all levels of the organization. What interests a project manager versus a program manager versus a portfolio manager will be slightly different, but the base information is all coming from diligent managers at the project level.

There are many formulas that will provide valuable insight into your project performance. You’ll find a roundup of these formulas in *Earned Value Management For Dummies*, Deltek Special Edition, by Kim Koster, Dave Wallace, Jason Kinder, and Chris Bell (Wiley).

**Assessing the risk**

As you monitor the risk plan, account for risks that have cropped up and keep track of risks that you already put into
your risk plan. Be cognizant of the warning signs and make sure you investigate and then explain, mitigate, or address any new risks in future planning. That’s how you decrease performance problems, cost increases, and schedule slips. Indicators of risks include the following:

- Cumulative cost or schedule variances or projected variances at project completion
- Dramatic decreases in management reserve, those funds that you set aside for project contingencies
- Scope creep, or increases in areas that aren’t related to contract changes
- Engineering changes

### Checking out supply chain risk

A number of factors can create supply chain risk, including poor quality of parts, late delivery, natural disaster, and poor supplier communication on specifications. Materials requirements planning is a tool that looks at all variables of production and inventory status to monitor any risk to production. Action messages allow planners to react to delayed purchase order delivery, changes to customer delivery expectations, or design changes through engineering.

### Minimizing labor pains to maximize project success

Managing labor pools truly takes a village. It all starts with the proposals for new work. Estimates that are created for new projects typically document the number of people that will be needed on the project along with the skill sets to complete the job. Typically a proposal will include a factor known as the probability of award. This factor gives the resource manager a good idea of the people that would be required for potential work.

During project execution, the project manager must accurately estimate once again the number of individuals as well as the skill sets needed to perform the scope of work, because these factors may have changed from the original proposal.
The resource manager must make judgments regarding people: how many, what skill sets, and when.

These estimates must be as accurate as possible. Having too much or too little labor on hand is a drain on company profitability. That’s why the resource plan includes both potential and firm (existing) projects.

Once the resource plan is established, it passes to human resources, which must either hire or reallocate the resources. This process takes time, so the plan must be created far enough in advance to allow HR time to get the job done. Keep in mind that hiring and firing is a huge cost for the company.

**Keeping tabs on materials and production**

Production management requires the ability to monitor and react quickly to constant changes in demand-driven manufacturing environments. These changes can include customer requests, engineering changes, machinery down-time, absentee employees, and many other uncontrollable situations that can cause shop floor bottlenecks. Always keep the production manager up to date on these events so the manager can reschedule and reprioritize in a timely fashion.

Being able to plan, track, and manage activities in a project-driven materials environment requires a continuous stream of accurate, real-time information. Without it, managers will have a tough time engaging in effective planning, procurement, inventory, and manufacturing operations. Information should be equally integrated across projects, reporting, and compliance.

Specialized software can completely integrate all aspects of the project environment. The best systems integrate accounting and project management functions and incorporate materials functionality to quickly resolve day-to-day capacity and resource planning, procurement, inventory, and production issues.
Change? Is It Monitored?

Change management is a huge challenge for any professional associated with managing projects. Always make sure the collective team (both customer and contractor) understands project scope and agrees on a process for handling changes.

When talking about success, we mean delivering the right product (technical specifications) at the right time (on schedule), and at the agreed-upon price. As we have discussed, scope comprehension requires a lot of time during the upfront planning stage. Agreeing on the following items upfront will help your team to successfully track change:

- Have a deep understanding of the statement of work (SOW).
- Develop an integrated master plan (IMP).
- Define the integrated master schedule (IMS).
- Define a change management process upfront.

There are two major sources of scope creep; the first is the customer. In the spirit of teamwork, the customer may ask the project manager to perform out-of-scope work. The customer is, of course, always right, so the project manager may take on the scope with an IOU. The second source of scope creep is the contractor. Engineers have a tendency to want to make the best product they can even though it may exceed project requirements. In both instances, the effect on the project is the same; profit, schedule, and cost are jeopardized.

Contractors asked to tackle new scope can help protect their bottom line by performing a what-if analysis and understanding how the new scope will affect the overall cost as well as the schedule of the project. Multiple scenarios as well as risk/opportunity analysis should be performed to discern the optimal solution. Such analysis must focus not just on the risk/opportunity relating to the new work, but also on risk/opportunity that may affect the overall project.

In addition, when taking on new scope, contractors must ensure that they have a process for incorporating and tracking change. The artifacts that document change are sometimes called schedule or budget change requests, contract...
modifications, corrective actions, lessons learned, and work authorization documents. Establishing the process upfront is critical.

How can you keep up with the changes? Financial and project management software tools can help improve efficiency and accuracy of adjustments to contract prices, baselines, and schedules.

The Program Management System Must Be Integrated

There’s a lot of detail in the preceding pages — lots of data to track and analyze and communicate. Now you can see why an integrated system must exist in order to effectively manage projects, programs, and portfolios.

An integrated system can be manual, but in today’s high-tech world, automation is the preferred way to go. An integrated software system will capture, integrate, and organize project information.

Depending on your level in the organization you may need different types of information, and a good system will provide the pertinent information to the right role at the right time. Look for more discussion regarding integrated program management systems in Chapter 6.
Chapter 6

Better IPM through Technology

In This Chapter
▶ Integrating your technology
▶ Deciding whether to build or buy
▶ Understanding IPM software
▶ Using software for planning and scheduling
▶ Automating cost management and earned value management
▶ Choosing analytics/intelligence software
▶ Mitigating your risks in an automated way
▶ Managing your manufacturing with MRP
▶ Getting to know ERP

Achieving visibility and control in an integrated system can be time-consuming, cumbersome, and error-prone, to say the least. It’s a good thing that many disciplines in integrated program management can be automated and improved through the use of technology.

In this chapter we explore whether it’s better to build or to buy, then examine many of the IPM and key program management applications that you’ll want to employ as you implement integrated program management.

Integrated Technology

Although technology can build the IPM dream, it also can create nightmares if it’s not handled properly. As people work
hard to attain project goals and objectives, they often resort to creating *ad hoc* tools and processes to get the job done. The problem is that they end up with separate and disparate systems, making it difficult to control, analyze, and monitor processes.

The good news is that technology today can help you establish common processes to ensure that team members know what they need to do and how they need to do it. An integrated program management system provides visibility and control of independent but integrated applications, leveraging dashboards, collaboration, and workflow.

How integrated is integrated? The key tenets of a true integrated program management system include the ability to:

- Deliver information to the right people at the right time.
- Filter information at the right level of detail.
- Focus the information based on your role and responsibility in the organization.

**Make versus Buy**

Technology is evolving rapidly, and organizations constantly weigh the option of building their own IPM system rather than buying one. As you ponder which choice is best for your situation, ask yourself the following questions:

- How much customization will I require to fit my needs?
- How suitable to my needs is the software I’m considering?
- How much would it cost to design, develop, deploy, and maintain a system?
- How fast can I build and deploy a system, compared with buying and deploying one?

If you consider the questions and determine that commercially available software meets 60 to 80 percent of your needs, you’re better off buying it. The cost, effort, and time associated with building far exceeds the cost of buying and deploying, so you need to have pretty extensive customization needs to make it worth building your own system.
Look into IPM Software

In many cases, the person responsible for managing the organization’s scheduling application and earned value software is reluctant to allow project team members access to the software. The person is afraid that others will mess up the integrity of the data. So how can you deal with a project in which there are hundreds of people from whom you need to collect planning and status information? You sure don’t want to do all that data entry yourself. You need a way for the team to view information and enter status details without affecting the source system of record.

Integrated program management offers the solution. What IPM applications do is quite remarkable. They allow input from multiple people and incorporate new innovations in business process management automation, role-based portals, subscription-based e-mail alerts, and customizable forms.

As of this writing, applications that offer similar workflow-driven capabilities include Microsoft SharePoint, OpenText ECM, and EMC Documentum. Unfortunately, platform solutions such as content management and business process automation aren’t purposefully built for use in program management and earned value management.

The first commercially available off-the-shelf integrated program management software that combines these capabilities is Deltek PM Compass. This business process automation solution is built specifically for project management professionals. The application streamlines the program management process by tightly integrating scope, schedule, and cost information through a customizable workflow and alerting engine. It will help deliver more consistent and reliable performance so that you can stay focused on customer success.

A number of applications are focused on the foundational information that feeds an integrated program management solution. General types include advanced planning and scheduling (APS) software, cost management or earned value applications, analytics systems, risk programs, material requirements planning (MRP) applications, and ERP software.
Software for Planning and Scheduling

To manage earned value effectively, you need to start with a planning and scheduling application. Software packages such as Microsoft Project Professional, Deltek Open Plan, and Oracle’s Primavera offer the capabilities you need to manage the plan.

When you look for planning and scheduling software to use in EVM project management, look for an application that lets you do the following things:

✓ Enter activities with durations.
✓ Define relationships among activities.
✓ Calculate the critical path of a project.
✓ Define multiple types of relationships (finish to start, start to start, and so on).
✓ Organize activities by a work breakdown structure (WBS).
✓ Support multiple synchronous users.
✓ Integrate with cost-management or EVM applications.
✓ Support cross-project relationships and resource availability.
✓ Assign resources (material, equipment, or people) to tasks.

If your organization works on projects for the U.S. Department of Defense, the software should also allow you to conduct a 14-point schedule assessment. It’s required for defense projects. See www.dcma.mil for more information.

Cost Management or EV Software

Earned value software applications give you the ability to manage a time-phased budget, actual costs, and time-phased...
forecasts, and then perform earned value calculations. Several off-the-shelf earned value software solutions are out there for purchase, including Deltek Cobra, Deltek MPM, and Dekker TRAKKER.

Tools such as these often integrate with popular planning and scheduling applications (that’s where they get schedule data) and integrate with accounting systems (to obtain actual cost data). An earned value software solution should allow you to perform the following tasks:

- Load budget data from your planning and scheduling applications.
- Automatically load actual cost data from most accounting systems.
- Calculate earned value using all approved methods.
- Create detailed time-phased reports or high-level, multiple-project reports.
- Submit standard monthly reports in many formats, including CPR 1–6, C/SSR, CFSR, 1921, 533M, and 533Q.

There’s a good chance your organization manages more than just one project (that’s probably why you’re reading this book). Be sure to consider this when selecting the right cost-management application. Look for software that supports multiple projects and multiple resource rate applications and values. For U.S. government projects, the software should be able to export data using the latest UN/CEFACT XML standard.

At the time of this writing, CPR Format 6 was in review, expected to be released in 2012.

Applications for Analytics and Intelligence

To take your earned value and scheduling software to the next level and streamline your process, you may want to add an earned value (EV) analytics or business intelligence application to the mix. Your choices include MS Excel, IBM Cognos, SAP Business Objects, Oracle BI, and Deltek wInsight.
An EV analytics solution summarizes detailed EV performance information graphically, which helps program managers and executives to identify the causes of a problem more easily. Your customer can also use an EV analytics application to measure your performance on a monthly basis. If you have this tool, you then have the ability to analyze the program’s performance in exactly the same way that your customer would.

EV analytics solutions have a long history of helping project management professionals with common key performance indicators (KPIs) that measure project health. Deltek wInsight is a widely accepted software application that federal and state agencies and industries use to integrate earned value into their management processes.

From the team leader’s desktop to the corporate boardroom, from the program office to the Pentagon, wInsight is a good choice for measuring contractor performance. To get a proactive view of project performance and see what your customer is seeing, make sure the software you choose is a widely accepted product that supports key performance metrics, such as DCMA trip wire metrics, independent estimate at complete analysis, trend analysis, and so on.

**Manage That Risk**

Remember that managing your project is all about keeping control of scope, schedule, and cost. Keep in mind that project risk can impact any one of these factors at any time. Risk management is a project management discipline that seeks to minimize or account for project risk and opportunities.

Although project risk can’t be eliminated, actions can be taken to minimize the impact to the project. (Risk management is a topic worthy of its own book, so we definitely had better touch on it here.)

More organizations are realizing the benefits of taking an active approach to risk management by implementing a software system across major projects and throughout the whole organization. This approach can help with:

- Better informed planning and decision making
- Identification and effective exploitation of opportunities
More business won and profitability delivered

Reduced insurance premiums through the proof of effective risk management

Enhanced credit ratings and reduced cost of borrowing

The ability to identify emerging risks

Some of the most prominent choices of project risk management software include Barbecana’s Full Monte, Deltek Active Risk Manager, American Systems Risk Radar, and Oracle Primavera Risk Analysis.

Expect your enterprise risk management software to improve project profitability and reduce unwanted surprises. You’ll want software that allows executives, project professionals, and subcontractors to make informed decisions by centralizing risk and opportunities related to technical scope, schedule, and cost.

**The Right Materials in the Right Place at the Right Time**

If your company is in the business of manufacturing things, your daily challenges include ensuring that you have enough of the right product in inventory to meet demand. In an ideal world, a product would be manufactured and shipped right away.

A project, product, or task can be adversely impacted in a big way if critical parts or materials aren’t planned and inserted into the manufacturing process at the optimum time. That’s why companies use *materials requirements planning* (MRP) applications: To ensure that the right type of materials are on hand, in the right quantities, at the right time and at the lowest possible cost.

MRP will help you answer the following questions:

- What is our demand?
- Do we have enough supply? What parts need to be procured? Manufactured?
- How many are required?
When are they required?
What action needs to be taken?

Your choices of materials requirements planning software include Deltek Costpoint, SAP, Oracle, Sage, Microsoft Dynamics, and Epicor.

**Execute by Automating**

Production managers require real-time visibility of the day-to-day operations on their production floors. Maintaining spreadsheets and reporting operational details after the fact does little to prevent problems and delays, or quickly solve them should they occur.

Similarly, shop floor employees’ manual transactions don’t allow managers to easily and accurately monitor reports on labor cost and time utilization on the shop floor. And if managers have to manually ensure their production workforce is performing tasks as planned, that can affect not only product costs but the organization’s ability to deliver products to customers on time.

Beyond that, valuable production time is wasted waiting on material, machines, or personnel to add value to the product. If parts, people, or equipment aren’t readily available, production comes to a standstill. That could be the result of waiting for the completion of a routing operation step, delays in receiving materials, misplaced parts, resource issues, or machinery downtime.

Shop floor employees may find themselves manually entering transactions into multiple systems — such as Deltek Time, Deltek Costpoint, Shop Floor MES, and TIPQA — to comply with aerospace and defense-related industry traceability requirements. These multiple entries result in decreased labor utilization and slow the production process as finished goods aren’t being delivered to stock on a timely basis.

Clearly, this is another great place for some automation. Employing a more automated solution not only increases efficiency, it also helps manufacturers deal with change. Successful production management requires the ability to
monitor and react quickly to constant change in demand-driven manufacturing environments. These changes can include customer requests, engineering changes, machinery downtime, absentee employees, and many other uncontrollable situations that can result in shop floor bottlenecks. It is imperative that production managers be able to view these events and reschedule and reprioritize in timely fashion.

Manufacturing execution systems will help you answer the following questions:

✓ What are the production schedule priorities?
✓ Who is working on what?
✓ How close are we to being completed?
✓ What corrective actions need to be made? When are they required?

Choices of manufacturing execution software include Deltek Costpoint, SAP, Oracle, Sage, Microsoft Dynamics, and Epicor.

Consider an ERP Solution

The purpose of an enterprise resource planning system is to facilitate the flow of information between all business functions inside the boundaries of the organization and manage the connections to outside stakeholders.

An ERP system will automate and integrate internal and external management information across an entire organization. This includes finance, accounting, manufacturing, sales, services, customer relationship management, and many other areas.

ERP systems centralize business data, bringing benefits such as these:

✓ Eliminating the need to synchronize changes between multiple systems — consolidation of finance, marketing and sales, human resource, and manufacturing applications.
✓ Enabling standard product naming/coding.
✓ Providing a comprehensive enterprise view (no “islands of information”) and facilitating decision-making by making real-time information available to management anywhere, anytime.

✓ Protecting sensitive data by consolidating multiple security systems into a single structure.

Choices of ERP software include Deltek Costpoint, SAP, Oracle, Sage, Microsoft Dynamics, and Epicor.

**Holding Up the Pillars**

We run through a bunch of different software tools in this chapter, and which are right for your organization depends entirely on your situation. The important point is that all of the software tools support the pillars of integrated program management: plan, analyze, monitor . . . in an integrated system such as the one shown in Figure 6-1.

![Diagram showing PM Compass, Program Insight and Control, Business Process Management, and IPM Components with Schedule Management, Resource Management, Cost Management, Analytics, MRP/ERP, and RIO Management]

**Figure 6-1:** Integrated program management is a combination of multiple components.
Superior project execution is critical for organizations with business models that depend on winning new projects and completing existing ones. Yet many project-based organizations rely on disconnected processes and disparate, siloed systems that make it difficult for project teams to function efficiently. Their leaders find it hard to gain the critical visibility and control they need to manage individual projects as well as the overall business.

These organizations struggle to meet important objectives:

- Obtaining the right information at the right time.
- Ensuring that processes are followed.
- Gaining confidence in the data they produce and report.
- Eliminating time wasted through manual processes and information-gathering.
- Managing with data, rather than by instinct.

Some organizations, however, achieve considerable success in addressing these concerns by using the principles of integrated program management. In this chapter, we walk through
a day in the life of a project team utilizing the Deltek IPM Platform and Deltek’s integrated IPM components.

**Hour by Hour with IPM**

Successful project-based companies are those with processes that deliver comprehensive, timely visibility into their projects as well as solid control over them. They’re implementing integrated program management and continuing to mature their people, processes, and tools.

Through this “day in the life” overview, you can see exactly how the integrated Deltek IPM solution enables organizations to reduce surprises, increase forecast predictability, and manage profit — thereby improving visibility and control.

**9:00 a.m.**

Jason, one of the organization’s control account managers (they call them CAMs), arrives at the office, gets a cup of coffee, sits down at his desk, and logs into Deltek PM Compass. Jason sees a personalized, interactive program command center that allows him to monitor the status of the control accounts within each project for which he’s responsible, all in one place. Right in front of Jason, in his PM Compass view, is an alert reminding him that he’s expected to deliver an updated status report for his control accounts to the scheduler in 30 minutes.

Through PM Compass, Jason accesses the status for each of his individual projects, including date, percent complete, and work remaining. All this information comes directly from Deltek Open Plan, which is the organization’s scheduling system, and is displayed right there inside PM Compass. Jason sees an alert in his command center telling him a risk has emerged: A subcontractor wasn’t able to meet the customer’s weight requirement for a specific part, so the overall component will need to be redesigned. That means an activity that was supposed to take 100 hours will now take 200. Jason enters updates to the schedule via PM Compass.
9:30 a.m.

Susan, the scheduler responsible for creating the master schedule, accesses the individual status reports from Jason and other CAMs through her role-based PM Compass workspace. She reviews all the proposed changes and, with a single click of a button, accepts the changes in a special copy of the program that evaluates schedule impacts before incorporating the changes in the baseline or working plan.

10:00 a.m.

Susan can now evaluate the collective impact of the proposed changes in the overall program. The program control analyst reviews and approves the proposed changes and potential impacts before Susan, with a single click of a button, formally updates the Open Plan baseline and working schedule. The approved changes have a significant impact on the overall program, shifting the critical path and moving the delivery schedule out one month.

10:30 a.m.

Walter, the program control analyst (PCA) responsible for cost and earned value analysis metrics, imports actual from the organization’s financial system and schedule information from the Open Plan scheduling system into Deltek Cobra to analyze performance — and produce earned value metrics. Deltek Cobra is a powerful system for managing project costs, measuring earned value, and analyzing budgets, actual, and forecasts. Walter then uses the integration wizard in Cobra to automatically attach resources to activities.

Using Cobra’s automated pricing capabilities, Walter recalculates the added costs for the project that result from the scheduling changes caused by the approved changes and redesigned part on Jason’s project. This reconciliation allows Walter to look at costs and schedules together with his budget, plan, and actual to gain an accurate picture of project performance. Cobra allows the organization to meet ANSI requirements for full cost/schedule integration and will enable the organization to pass any requested audits while saving
Walter from the tedious process of manually pulling together the necessary information.

**Noon**

On his lunch break, Jason, the CAM, decides to check in on his projects. He logs onto PM Compass over the Internet and sees an alert that tells him he’s exceeded a threshold on the schedule (thanks to that part that needs redesign) and informs him that a variance (VAR) is required. To avoid any delays in submitting the VAR, Jason opens a link in PM Compass to the VAR form. Because all CAMs within the organization must use the same form, all VARs are standard and compliant with the organization’s business processes.

Jason uses the form to explain the variance, the impact, and the corrective action he expects to take, and submits it through a workflow process for approval by the scheduler and the program manager. Because Jason has followed this standardized process — and all approvals are electronically signed and time- and date-stamped, the organization will later on be able to see who approved the VAR and ensure that its processes were followed. Also, if Jason, his program manager, an executive, or anyone else needs to see where the VAR is in the approval process, they can access a report on their PM Compass command center and see the status without having to ask for a report from the scheduler. They can also see what triggered the initial alert and drill down to see the details.

**1:00 p.m.**

Walter, the PCA, goes to his PM Compass workspace, which presents him with an exception report detailing anomalies in the data. The report might highlight inconsistencies, such as a task that’s 50 percent complete but has no actuals charged, or actuals with no work done. The PCA can see every instance of inconsistencies across multiple projects and drill down to the details to determine the reason for any inconsistency. Walter gets these data validity reports before they’re submitted to customers — that eliminates surprises, and he’ll be ready to answer any customer questions. Walter also has the option of setting parameters for indices he wants to see, so that he can manage by exception.
1:45 p.m.

Susan, the scheduler, accesses a cost/schedule validation report that has been automatically sent to her PM Compass workspace. This report pinpoints places where the costs and schedule don’t match, but this time everything matches. The report confirms cost/schedule integration, enables traceability, and demonstrates compliance. Susan also has it on hand to show to the customer if requested.

2:50 p.m.

Margaret, the program manager, views her PM Compass role-based command center for project status for all her projects and sees everything that’s happened since 9 a.m. She’s confident in the data because she knows it’s already been validated. But she’s concerned because she instantly sees that Jason’s project has slipped. She goes into Deltek ARM to see the mitigation steps Jason has set up and the cost implications of his mitigation plan. As Jason completes the steps, Margaret will be able to track them and will be alerted when the mitigation is complete.

5:14 p.m.

Don, the vice president of programs, goes to PM Compass to view his entire portfolio of programs. As he checks on the status of all his projects, including profits and schedule status, he sees that Margaret’s project is now late. As he looks at Deltek ARM through his PM Compass command center, he is able to determine that while the delay is a sizeable risk for Margaret’s project, it is not a large risk for his entire portfolio of programs. With this information on relative risks, Don is better able to track the overall risk for his portfolio of projects. Next, Don carefully reviews his forecasts versus actual as well as other key performance indicators to evaluate high-level performance trends and objectives.

Don may also be curious about how accurate his forecasts were and whether actuals are in line with forecasts for revenue and profitability. As a result, he can better manage overall profits for his program. Next, he looks at a report on his overall product line in PM Compass that allows him to review his
overall project mix to make sure he has the right upcoming projects to diversify his project portfolio and optimize project mix and revenue potential.

**What Was Learned Today**

A Deltek integrated program management solution, such as the system we’ve just explored, gives project teams and key stakeholders a single interactive command center from which to gain visibility and control of their programs.

The IPM platform enables enhanced reporting and control over day-to-day program execution, giving project teams an opportunity to get in front of negative emerging trends instead of uncovering them after it’s too late. The IPM platform is designed to push important information and metrics to people in the organization responsible for driving and controlling the project.

Powerful reporting and analytics mean teams no longer need to manually pull together information, and that dramatically improves efficiency. Automated workflows ensure process compliance and enforce repeatable business cadence, supporting auditable and accurate data. Because all project status and cost information is pushed to key program stakeholders, integrated program management provides current actionable information.

Organizations armed with the Deltek Integrated Program Management solution are able to reduce surprises, increase forecast predictability, and manage their profits, gaining complete visibility and control over their businesses.
Chapter 8

Ten Myths about IPM

In This Chapter
▶ Easing the stress
▶ Counting the cost
▶ Understanding where IPM works
▶ Meeting clients’ expectations
▶ Paying attention to people and processes
▶ Selling the system
▶ Mitigating the risks

What do you believe about integrated program management? You could always be mistaken, you know. In this chapter, we take a look at ten things that some people think they know about IPM, and explain why they’re just myths.

IPM Will Add Stress to an Already Busy Day

Ask experts on workplace stress and they can rattle off lots of causes. One of the biggest triggers is workload. So won’t it just add stress if your organization goes to the trouble of adopting IPM? Think again. Also on the workplace stressor list is lack of control, and IPM goes a long, long way toward alleviating that particular source of stress. Another often-listed source of stress? Poor communication. IPM is all about easing stress through greater communication of details, data, problems, and solutions.
**IPM Is Expensive and Difficult**

Yes, there’s an upfront cost to effectively implement IPM and integrate all project management tools into a closed-loop system. But consider that cost similar to buying project insurance. Do this correctly, and IPM gives you visibility and control into your projects, programs, and portfolio. Implemented in a constructive manner, IPM will easily pay back the initial investment in dollars, time, and accuracy in project visibility.

**IPM Is Only for Large, Mature Projects**

You may think that only the largest and most mature projects and organizations can successfully implement integrated program management. In fact, IPM is a great idea for projects of all sizes, contract types, and maturity. As we discuss all the way back in Chapter 1, IPM involves project planning and execution, using multiple tools for tracking and predictive information, all in an integrated system. Note that it doesn’t say “for large projects only.” In reality, IPM is a methodology for managing any project or program, regardless of maturity or size.

**IPM Is Not for Manufacturing Projects**

Just because IPM is challenging to implement on manufacturing projects doesn’t mean it should be avoided. These projects have the largest profit margins in the portfolio. The riskiest part of these kinds of projects is the development phase. It’s likely a lot of money has been spent trying to mitigate risk. When you finally reach the promised land of production, that’s the time most opportunities are created. Improvements in producibility, economic order quantities of material, and other cost reductions can now be realized. Managing the scope, schedule, and cost on these contracts is in the best interest of the portfolio manager.
Clients Really Just Want the Project Done Well

All’s well that ends well, right? If you can deliver a good project or outcome at the end, you’re a winner. Well, maybe for some clients. But in today’s world of cutthroat competition, most clients will be wowed by the up-to-date knowledge, visibility, and solid program insight you gain through IPM — not just at the end of the project but every day along the way. That makes it all the more likely you’ll land the next project. So will your ability to squeeze costs out of the project without hurting quality. Really, the effort pays off.

IPM Will Keep Your Client’s Expectations Reasonable

Well, nobody can promise that. There’s no guarantee that your boss or your client won’t ask for the moon. What IPM will do is encourage a very precise understanding of the project’s scope, right from the start. It’ll put everyone on the same page. What’s more, it’ll formalize the process of change, so that the client who really does want the moon can understand how much more that will cost and how much longer it’ll take to deliver. Part of IPM is setting solid expectations — and understanding that success is simply the ability to meet those expectations.

Pick the Right IPM Products and Success Will Be Pushbutton

Oh, if only you could take a pill and alleviate your project headaches. IPM can seem almost magical, with the potential that some carefully chosen and connected software applications will instantly make life smoother and easier. Well, there are a few more steps than that. Remember that integrated program management isn’t just about tools; people are a key ingredient. To be successful, you need to build healthy and productive social behavior among the project team, starting
by creating an atmosphere of openness and communication. That’s more than just a software implementation.

**Okay, Tools and People, and That Takes Care of Things**

Again, not quite. People, tools, and don’t forget the processes. IPM points you in the direction of creating uniform processes across projects and throughout the organization. If everybody’s reading the same piece of music, the symphony’s going to sound a whole lot better.

**IPM Practically Sells Itself to the Project Team**

Your project team members will thank you once IPM is in place, things are running smoothly, and profits are on the rise. But they may curse you before then. Maybe a little, anyway. To bring them along, you need to communicate the vision about the problems IPM will solve and the success it will yield. Connect with team members early on, and offer them plenty of opportunities to participate and provide feedback.

**IPM Will Remove the Risk from Your Project**

No, IPM doesn’t prevent risk. What it does is help you and all players to anticipate and understand risk, and effectively plan for it. You know what might happen, understand how to recognize the early warning signs, and have a plan in place so that you can act quickly once you spot the warnings.
Appendix A

Glossary

**actual costs:** The sum of costs actually incurred in accomplishing the work performed.

**Capability Maturity Model Integration (CMMI):** A process improvement approach with the goal of helping organizations improve their performance.

**control account manager (CAM):** A member of the organization responsible for control account performance and for the management of resources to accomplish these tasks.

**critical path:** The sequence of activities that must be completed on schedule for the entire project to be completed by a specified date. It’s the longest path in the schedule.

**estimate at complete (EAC):** A value expressed in either dollars or hours, representing the projected final costs of work when completed. The EAC is calculated as actual costs plus estimate to complete.

**estimate to complete (ETC):** A value expressed in either dollars or hours, representing the cost of the work required to complete a task.

**integrated master plan (IMP):** An event-based, top-level plan consisting of a hierarchy of events supported by specific accomplishments; each accomplishment is associated with specific criteria that must happen in order to claim completion.

**integrated master schedule (IMS):** The IMS is developed so that tasks and milestones are clearly defined. It is updated regularly to identify elements that are behind as well as those ahead of schedule.
**portfolio**: A collection of programs and projects that are grouped together to facilitate effective management and align with the corporate strategic goals.

**project**: A task or group of tasks with a specific beginning and end, and with a defined product delivered or objective demonstrated at its conclusion.

The *Project Management Body of Knowledge (PMBOK Guide)*: The preeminent global standard for project management. It represents generally recognized good practices in the profession, but also reflects project management’s continually evolving knowledge.

**Project Management Professional (PMP) credential**: The most important industry-recognized certification for project managers, the PMP is globally recognized and demanded, and demonstrates that you have the experience, education, and competency to successfully lead and direct projects.

**project manager (PM)**: This is the person (it could be you!) responsible for managing scope, schedule, and cost of the project.

**program**: A group of related projects managed in a coordinated way to gain operational visibility and control in a way that’s not possible when managing projects individually.

**statement of work (SOW)**: A document that becomes the basis for defining what is to be developed or designed.

**work breakdown structure (WBS)**: A product-oriented hierarchy that breaks your project into manageable chunks of work.
Appendix B

Resources

Web Resources

✓ Project Management Institute: PMI is the world’s leading nonprofit membership association for the project management profession, with more than half a million members and credential holders in more than 185 countries. This group’s worldwide advocacy for project management is supported by globally recognized standards and credentials, extensive research programs, and professional development opportunities (www.pmi.org).

✓ Deltek: Deltek IPM is an integrated suite of project management software applications that easily integrate cost, scheduling, risk, and resource information — empowering your program team with reliable program status they can trust (www.deltek.com/products/ipm).

✓ Defense Acquisition University: DAU provides a full range of basic, intermediate, and advanced certification training, assignment-specific training, applied research, and continuous-learning opportunities. The university also fosters professional development through mission assistance, rapid-deployment training on emerging acquisition initiatives, online knowledge-sharing tools, and continuous-learning modules (www.dau.mil).

Conferences

✓ Deltek Insight: At Deltek Insight, you can exchange ideas and network with business peers, industry analysts, executives, product experts, and consultants. If you’re involved in planning, managing, executing, or winning projects you don’t want to miss it! Learn more at www.deltekinsight.com.

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International Integrated Program Management Conference: This is the premier conference focusing on IPM, featuring guest speakers, professional educational seminars, tools tracks, topical workshops, and practice symposia.

PMI Global Congress: The world’s premier project management educational and networking event.
Use IPM to plan and run your projects and programs more effectively and profitably!

Integrated program management, or IPM for short, is an excellent approach for just about any organization whose existence revolves around landing and completing projects. IPM exists to plan, analyze, and monitor projects or programs through an integrated system, rather than some haphazard, seat-of-the-pants approach.

Use IPM to obtain an objective measure of project progress while delivering early-warning indicators through trends and estimates. Take program management to the next level by providing structure and a common language for the entire team!

- **IPM 101** — find out what IPM is and how your company can benefit from it
- **Get what you need to start IPM** — people, processes, and tools are key to developing a successful IPM system; combining the three effectively is also important
- **Understand the four pillars of IPM** — plan, analyze, and monitor, and do so with an integrated system
- **Building versus buying** — depending on your needs, it may be more cost-effective to buy an off-the-shelf IPM product

Learn more at [www.deltek.com/dummies](http://www.deltek.com/dummies)