Chapter 12
Performance Reporting

Project performance reporting involves collecting key data concerning the performance status of the project at a particular point in time, synthesizing the data into meaningful information, and then communicating the performance information to project stakeholders to familiarize them with the project's progress toward its objectives. Effective project performance reporting supports two key components of successful project management: open and strong lines of communication and transparent communication of information.[1]

The intent of performance reporting is threefold: (1) to determine and communicate how project resources are being used to achieve the objectives of the project, (2) to provide information on current performance against the project plan and performance baseline, and (3) to use the information to enable informed project decisions.

The tools presented in this chapter are intended to assist project managers in effectively fulfilling this threefold intent. Just as performance reporting is a required activity of all project managers, the following performance reporting tools should be a part of every project manager's PM Toolbox. We begin by looking at the project reporting checklist.

Project Reporting Checklist

There are many types of project status reports and great variation in the type of information contained in the status reports. This is due in large part to variations in reporting needs and desires of project stakeholders, variation of industry reporting standards and practices, and variations in the size and complexity of projects themselves. Project status report form and content is therefore situational, but needs to be standardized and consistent with the needs of the project stakeholders who are on the receiving end of the report. How does one establish and maintain standard messaging?

A simple and effective tool to consider is the project reporting checklist. The checklist assists the project manager in determining the correct status information to include in a report and to consistently provide the information over time.

Developing the Project Reporting Checklist

To be effective, a project status report must be current, concise, accurate, and contain only the information needed to keep stakeholders abreast of progress and the resources used to accomplish the project's objectives.

The project reporting checklist will be different for every organization because every organization has its own unique set of information required for project reporting. Developing a standard set of checklist items is good practice, as it drives consistency in project reporting

format and content within an organization.

The items contained within the checklist are developed by first understanding the information required by the project sponsor and other key project stakeholders. Then, additional items can be included that are unique to a particular project or to the project's second tier stakeholders.

Table 12.1 illustrates an example set of project reporting items to consider as a reference and starting point for developing your own customized project reporting checklist. The checklist shown is somewhat extensive, so keep in mind that the best project status report is concise and to the point. Developing your custom checklist will involve using a subset of items shown in Table 12.1.

Table 12.1 Example Project Reporting Checklist

Status	Checklist Items
Project Scope	
☑	Have the project objectives been changed?
☑	Have the deliverables in the project plan changed?
☑	Have there been any changes to the project scope?
☑	Are there any scope changes awaiting approval?
Project Schedule	
☑	Has the schedule been updated?
☑	Is the project progressing on the critical path or critical chain?
☑	Does the time expended to date vary from the project plan?
☑	Do we have adequate resources to maintain the schedule?
☑	Are project subcontractors or partners on schedule?
☑	What is the estimated completion date?
Project Budget	
☑	Has the budget been updated?
☑	Is the available budget to date in alignment with the project plan?
☑	What is the average monthly budget burn rate?
Project Performance	
☑	Have all deliverables been met to date?
☑	Have all project milestones been met to date?

☑	What is the earned value (EV)?
☑	What is the schedule variance (SV)?
☑	What is the schedule index (SI)?
☑	What is the cost variance (CV)?
☑	What is the cost index (CI)?
Issues	
☑	Are there any current issues that need to be reported?
☑	What are the resolution plans for any open issues?
☑	Do our subcontractors or partners have any current issues?
☑	Do any issues require project sponsor or top management action?
Risks	
☑	What are the HIGH-level risks?
☑	What are the risk response plans for all HIGH-level risks?
☑	What is the overall risk profile of the project?
☑	Do any risks require project sponsor or top management action?
General	
☑	Is the project being impacted by any external factors?
☑	Are there any quality issues associated with the project outcomes?
☑	Are we receiving payments as planned?
☑	Are there any actions or decisions needed on the part of the project sponsor or top management?

The “Status” column can be used to indicate that the information needed to develop a project status report has been collected. Some project managers add an additional column to the checklist labeled “Source” to indicate where the source of information resides, or to provide a hyperlink to the source data itself.

Using the Project Reporting Checklist

Most organizations have a defined point in time when reporting of project performance is expected to begin. This can be as early as once formal project initiation is determined. Whenever the point, the project manager should begin using the checklist to formulate the

content that will be included in his or her project reports.

In practice, the content included in a project report is fairly repetitive over time. However, it is valuable to review the checklist periodically to serve as a memory jogger to provide additional information in a report, which may not be repetitive in nature. This is normally the type of information included in the "general" section of the checklist.

Additionally, different information may be required by the project stakeholders as a project progresses through the various stages of the project cycle. A review of the project reporting checklist during these stage transitions will help the project manager modify the reporting content accordingly.

Benefits

The greatest value that project managers gain from the use of the project reporting checklist is knowledge gained about the project reporting requirements of their project stakeholders. It helps to ensure they are reporting the most important project performance information, as determined by their stakeholders.

The checklist also helps to ensure that the information contained in a project report is both concise in nature and accurate at the time it is reported.

The Project Strike Zone

The first principle of project performance reporting, as stated previously, involves understanding and communicating how well project performance is progressing toward achievement of the project objectives. Many times, project managers become overfocused on progress against their cost and schedule baselines, and forget that the real intent of a project is to achieve the business objectives driving the need for the project.

The project strike zone is an excellent tool for evaluating and communicating progress toward achievement of the *project objectives*. It is used to identify the critical objectives for a project, to help a project manager and his or her stakeholders track progress toward achievement of the key business results anticipated, and to set the boundaries within which a project manager and team can operate without direct top management involvement.

As shown in Figure 12.1, elements of the project strike zone include the project objectives, target and threshold values, an "actual" field that provides indication of where a project is operating with respect to the target and threshold limits, and a high-level status indicator.[2]

Project Strike Zone				
Project Objectives	**Strike Zone**		**Actual**	**Status**
	Target	**Threshold**		
Value Proposition				Green
• Increase market share in product segment				
• Order growth within 6 months of launch	10%	5%	7% (est)	
• Market share increase after 1 year	5%	0%	4% (est)	
Time-Benefits Target				Red
• Project Initiation approval	1/03/2018	1/15/2018	1/04/2018	
• Business case approval	6/01/2018	6/30/2018	6/01/2018	
• Integrated plan approval	8/06/2018	8/20/2018	8/17/2018	
• Validation release	4/15/2019	4/30/2019	6/29/2019	
• Release to customers	7/15/2019	8/01/2019	TBD	
Resources				Green
• Team staffing commitments complete	6/30/2018	7/15/2018	7/1/2018	
• Staffing gaps	All project teams Staffed as min level	No critical path resource gaps	Staffed	
Technology				Green
• Technology identification complete	4/30/2018	5/15/2018	4/28/2018	
• Core technology development complete	Priority 1 & 2 tech's Delivered @ Alpha	Priority 1 tech's Delivered @ Alpha	on track	
Financials				Yellow
• Program Budget	100% of Plan	105% of Plan	101% est	
• Product Cost	$8500	$8900	$9100 est	
• Profitability Index	2.0	1.8	1.9 est	

Figure 12.1 Example Project Strike Zone

Bill Shaley, a senior project manager for a leading telecom company, described the culture within his company this way: "Managing a project in this company is like having a rocket strapped to your back with roller skates on your feet—there's no mechanism for stopping when you're in trouble." Sound familiar? The project strike zone is such a mechanism that is designed to stop a project, either temporarily or permanently, if the negotiated threshold limits are breached, at which point the project is evaluated for termination or replan and continuation.

Developing the Project Strike Zone

Developing an effective project strike zone is a critical activity for ensuring that the project manager, project team, top management, and other stakeholders all understand and agree on the objectives of the project. It is also critical for establishing the boundary conditions that will drive effective decision making on the project.

Defining a meaningful project strike zone requires quality information from a number of sources. The initial set of objectives is derived directly from the approved project business case (Chapter 3). To be able to establish and later negotiate the control limits for each

objective with the project manager, the project sponsor also needs to know the project team's capabilities and experience and past track record, and balance thresholds against the new project's complexities and risks accordingly.

Identify Project Objectives

Identification of the project objectives begins during the initiation stage of a project. The factors represent a subset of the metrics normally tracked by a project team. The project strike zone should include only the measures that represent the high-level project objectives (often the business objectives). The project objectives will be unique to every organization, and are derived directly from strategic management and portfolio management processes (Chapter 2).

The strike zone is most effective when the objectives identified are kept to a critical few (usually five to six), as this focuses the project and top management's attention on the highest priority contributors to the success of the project. The factors deemed as “must haves” often include market, financial, and schedule targets, and value proposition of the project output.

Set the Recommended Target and Threshold Values

The target and threshold control limits shown in Figure 12.1 form the strike zone of success for each project objective. The target value for an objective is that which the project business case and baseline plan is based on. The target values should be pulled directly from the project business case.

The threshold values represent the upper or lower limit of success for the project objectives.[3] Some discussion and debate is normally required to get an understanding of how far off target an objective can range, and still constitute success for the project. For example, the target project budget may be set to $500,000. But if additional spending of 5 percent is allowable, then the budget threshold can be set at $525,000. This means that even though a project team misses the target budget of $500,000, they are still successful from a project budget perspective if they spend up to $525,000.

Negotiate the Final Target and Threshold Values

Once the project manager establishes the recommended target and threshold values for each project objective, the project manager presents the information to the senior executive sponsoring the project. Based on the complexity and risk level of the project, and on the capability and track record of the project manager and team, the project sponsor may adjust the values accordingly. For example, on a project that is low complexity, low risk, and is being managed by an experienced project manager, the range between target and threshold values may be opened up to allow for a higher degree of decision-making empowerment for the project manager. Conversely, on a project that is of higher complexity, risk, or is being managed by an inexperienced project manager, the range between target and threshold values will be tighten up to limit the decision-making empowerment of the project manager, at least initially.

Once the targets and boundaries are negotiated, the team should be empowered to move

rapidly as long as they do not violate one of the strike zone threshold values.

Using the Project Strike Zone

The project strike zone provides many uses to project managers, the executive sponsor of a project, and to the project governance body. Project managers utilize it to formalize the critical project objectives for the project, to negotiate and establish the team's empowerment boundaries with executive management, to communicate overall project progress and success, and to facilitate various trade-off decisions throughout the project cycle (see “When Things Go Bad”).

Executive managers utilize the project strike zone to ensure that a new project's definition supports the intended business objectives, and to establish control limits in order to ensure that the project team's capabilities are in balance with the complexity of the project. When used properly, it provides top managers a forward-looking view of project alignment to the business objectives. When problems are encountered, the tool's structure is intended to provide an early warning of trending problems, followed by a clear identification of “showstopper” conditions based on the level of achievement of the project objectives. If a project is halted, senior executives can either reset the project objective targets or thresholds, modify the scope of the project to bring it within the current targets, or, in the extreme case, cancel the project to prevent further investment of resources.

Executive managers and the project governance body set the boundary conditions (targets and thresholds) of the project strike zone between which the project manager can operate, thereby empowering the project manager to make decisions and manage the project without direct top management involvement. As long as the project progresses within the strike zone of each project objective, the project is considered on target and the project manager remains fully empowered to manage the project through its life cycle. However, if the project does not progress within the strike zone of each project objective, the project is not considered on target and the top managers must directly intervene.

When Things Go Bad

Santiam was the code name for a multimillion-dollar new product development project within a leading consumer electronics company. One of the primary strategic goals of the company was to move into a market outside of their traditional business. The product to be produced by the Santiam project team was the first introduction into the new market. To be successful, introducing the product into the market at the correct time, capturing a portion of the market share, and selling the product at a better price than their competitors were all critical project objectives needed to achieve the strategic business goal of entering the new market.

As most project managers know, however, the best developed plans are not immune to risks and alternative realities associated with doing business in a dynamic environment—

the Santiam project was no exception. Six months into execution, word came from a supplier of a key component that technological difficulties had been encountered. One of the intermediate schedule dates identified in the project strike zone was in jeopardy.

During the next project review with her executive leadership team, Mellissa Bingham, the Santiam project manager, presented the updated project strike zone with status on the product introduction date criteria presented as YELLOW (caution to management). Details of the current issue were discussed and risks associated with achieving the success criteria were reviewed. A mitigation recommendation to place a representative from the quality organization at the supplier's location to continuously monitor the situation and assist with solutions was approved by the executive team. The Santiam project team was given the go-ahead to continue development of the product but under a heightened state of risk awareness.

After an additional three weeks' time, it became clear that the problem had become a critical issue for the project when the supplier announced a six-week slip in delivery schedule. This six-week delay would cause a significant delay of the product into the market, turning the product introduction project objective in the project strike zone from “YELLOW” to “RED”—meaning the project needed immediate top management intervention. An analysis of the other project objectives showed that a delayed launch would jeopardize the desired market share capture and drive the profitability index below the acceptable threshold value of 1.8 (see Figure 12.1).

In effect, the business case for the project was in the red zone. Bingham had the information she needed to make a recommendation to her project sponsor. Her recommendation would be to cancel the Santiam project to prevent significant future losses to the business. Project discontinuance decisions are never easy, especially when thousands, or in this case, millions of dollars have already been spent. In the end, Bingham's executive leadership team utilized the information in the project strike zone as the basis for their decision to cancel the project.

Benefits

In practice, the value of the project strike zone is achieved through the direct communication and interaction between the project manager and the sponsor of the project in setting the vision and key success parameters. These parameters are then recorded in the strike zone and become the management and tracking focus for keeping the project aligned to its business and project objectives.

Use of the tool fosters a “no surprises to senior management” behavior by increasing the flow of relevant information between the project team and top management. This results in an efficient means of elevating critical issues and barriers to success for rapid decision making and resolution.

When used appropriately, it enables empowerment of the project manager and team by

establishing the boundaries for authority, responsibility, and accountability. Too often, we hear project managers tell us that they have all the responsibility for driving project success but lack the authority. The project strike zone is the best tool we are familiar with to balance both sides of this equation.

The Project Dashboard

In today's frenzied pace of many projects, project managers need to understand how the project they are responsible for is performing with respect to the key performance indicators, but they rarely have sufficient time to read through a number of detailed status reports from their functional teams. From this time-versus-information dilemma grew the concept of the project dashboard.[4]

Much like the dashboard of an automobile provides the driver a quick snapshot of the current performance of the vehicle, the project dashboard provides the project manager an up-to-date view of the current status of his or her project. Unlike the project strike zone, which focuses on performance against the higher-level project objectives and business goals, the project dashboard focuses on the current state of the lower-level key performance indicators (KPIs).

The dashboard should be designed as an easy to read and concise (often a single page) representation of all KPIs as illustrated in Figure 12.2.

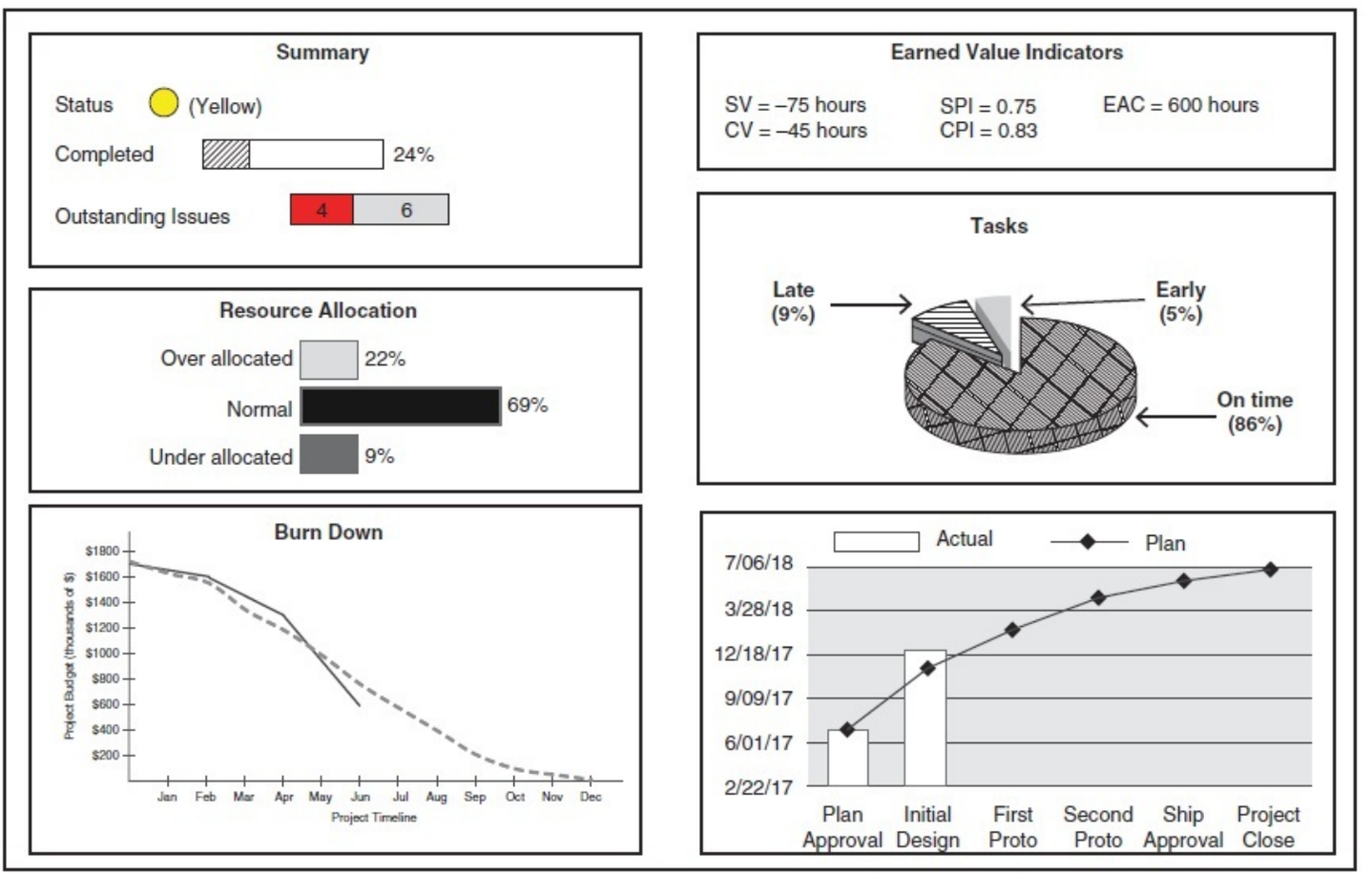

Figure 12.2 Example Project Dashboard

There are many types of project dashboards in use and available as reference for designing your own customized dashboard that represents the information most relevant and critical to your project. We like the design of the dashboard shown in Figure 12.2 because of its graphical nature, it provides a variety of project status measures, and it is concise.

Designing a Project Dashboard

The project dashboard is one of the most flexible and customizable tools in a project manager's PM Toolbox. As stated earlier, it needs to be designed around the particular KPIs of a project. Since each project is unique, each project will have somewhat unique performance indicators and therefore will likely have a unique project dashboard design.

Identify the Key Performance Indicators

Design of the project dashboard begins with the identification of the KPIs for the project. These typically can be found in other tools such as the project business case or project charter (Chapter 3).

The project objectives, identified and quantified in the project strike zone, define the end state of the project in terms of what value the project brings to the sponsoring organization. The KPIs quantifiably measure how well the project is performing toward accomplishment of the project objectives.

The project KPIs are part of a measurement hierarchy that must be understood. Business outcomes support an organization's strategic goals, project objectives support the business outcomes, and KPIs support the project objectives. If, for instance, a strategic goal for an enterprise is to be the leader in a particular market segment, a business outcome in support of that strategic goal would be first-to-market advantage with their new products or offerings. A project objective would in turn have to quantifiably define the project completion date that ensures first-to-market position for the project outcome. Two important project KPIs would likely complete the measurement hierarchy: (1) performance to schedule, and (2) resource allocation percentage (if resources are not close to 100 percent allocated to plan, schedule will likely suffer).

The KPIs identified in the project dashboard should directly measure performance toward achieving the project objectives documented in the project strike zone. The KPIs represented in the project dashboard in Figure 12.2 include performance to schedule, performance to budget, performance to cost, and resource utilization.

Outline the Dashboard Layout

Based on the KPIs selected in the previous step, you have an idea of what information should be shown on your dashboard. Now you need to determine *how* you want to present that information on the project dashboard.

To accomplish this, take a few minutes to sketch the structure of the dashboard as shown in Figure 12.3. Nothing fancy here, just sketch out the location of the information on the page. The

goal is to design the dashboard so it is both comprehensive in content and is appealing to the eye of the recipient.

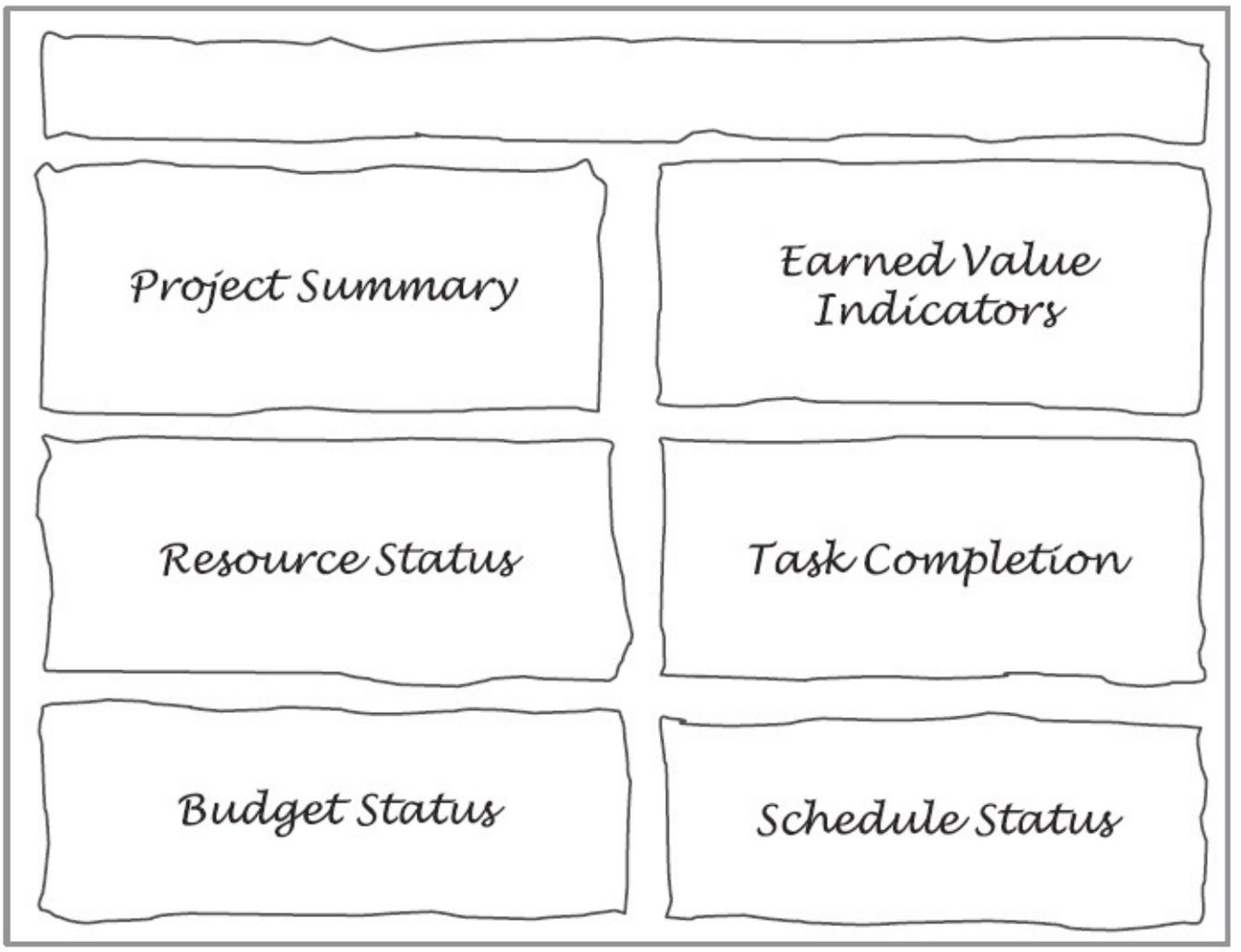

Figure 12.3 Example Dashboard Structure Layout

Populate the Dashboard

The final step in designing the project dashboard involves locating the pertinent performance data and representing it on the dashboard. Whenever possible, use graphical representations as they facilitate a speedier analysis of the current performance on the part of the recipient than a text-based representation.

Some project managers embed hyperlinks within the top-level performance graphics that link to detailed data about the KPI of interest. For instance, if additional detail is needed for the *performance to schedule* KPI, a link can be provided to a detailed Gantt chart, milestone analysis chart, or even the schedule section of the current detailed status report for the project.

Using the Project Dashboard

The project dashboard can be used as both a communication tool and decision support tool by project managers. By using the project dashboard to synthesize lower-level performance data

into higher-level information, a project manager becomes armed with the right information he or she needs to communicate the current status of the project with respect to the KPIs. Additionally, many decisions have to be made during the course of a project, some large and some small, and the project dashboard serves as the basis of past and current information from which decisions can be driven (see "Tips for Using Project Dashboards").

The project dashboard is also used to consolidate and display performance information that resides in various project data sources. For example, schedule performance data may reside in a Gantt chart, budget performance data in burn down chart, and cost performance data in the earned value management system. The dashboard becomes a single source of key performance information for a project.

The project dashboard also serves as a data source for the development of an overall project status report. The project manager can use the dashboard as the data source for the performance against the KPIs information that is normally included as part of the summary project report.

Tips for Using Project Dashboards

With the overall simplicity of a project dashboard, project managers need to remember that dashboards are not, in and of themselves, a panacea. The dashboard is only as effective as the design of its structure, the value of the measures and metrics chosen, the accuracy of the data represented, and how effectively the dashboard is used to drive communication and decisions.

Project managers must avoid descending into a quantitative and analytical quagmire when using dashboards. There is a real return on investment that must be maintained in that the value gained from the use of the project dashboard must be greater than the cost of obtaining and analyzing the information contained within it.

Beware of false and conflicting information that may show up in a dashboard. Take the time to ensure that the information is current, accurate, and that it conveys an accurate message about the performance of the project against the KPIs. If not, the dashboard may do you more harm than good.

Benefits

The project dashboard provides many benefits for project managers; we discuss a few of the most significant. First, the dashboard helps the project manager focus on the key performance indicators and how the project is operating relative to the indicators. To gauge exactly how well a project team is performing, the dashboard allows the project manager to capture and report specific data points relative to the KPIs.

The visual nature of the project dashboard provides a concise snapshot in time of project performance that enables quick analysis of progress, as well as easy identification of data

outliers and correlations (e.g., correlation between resource utilization and schedule performance).

If trend information is included in the dashboard, the project manager has the ability to make informed decisions based on both past performance and future prediction of performance. Used in this manner, the dashboard becomes a valuable decision support tool that is based on business intelligence.

The Summary Status Report

A project manager spends much of his or her time communicating the status of the project to various stakeholders. This reporting takes the form of both formal and informal communications, from hallway conversations to formal project reviews and decision checkpoint meetings with top management and other key stakeholders. Regardless of whether the status is formal or informal in nature, the message should remain consistent.

Consistent communication of project progress is a critical element of cross-project collaboration. Any significant deviations or changes to the project must be communicated by the project manager. In like fashion, any changes that have occurred on any of the functional teams must be communicated to the project manager. Late or ineffective communication can quickly result in rework, delays, and added cost to a project.

The summary status report is a document that highlights and briefly describes the status of the project, reporting on the scope, cost, and time variance, showing significant accomplishments, identifying issues, predicting trends, and stating actions required to overcome issues, risks, and reverse negative trends. Contrary to the beliefs of many that the report is about the history of the project, the report should be about the future of the project that is based on its past. An example of a summary status report is illustrated in Figure 12.4.

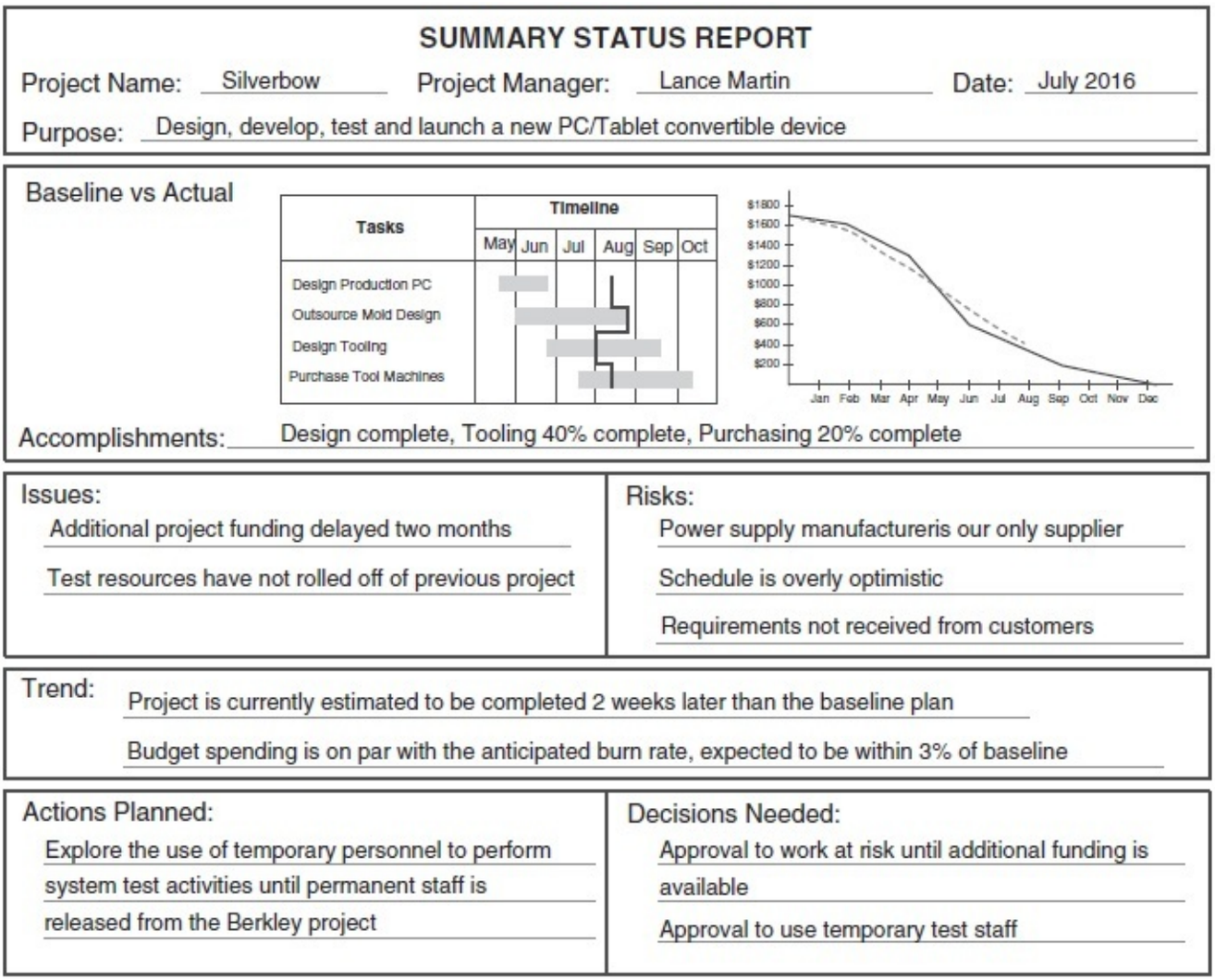

Figure 12.4 Example Summary Status Report

Developing a Summary Status Report

Producing a meaningful summary status report starts off with quality information inputs. A solid project baseline plan is the foundation for a good progress report. When the project baseline plan with various baselines—scope, cost, and schedule, for example—is available, then they are compared to the actual state of the project to assess its performance. The actual state is derived from work results and other project records. Through work results, for example, we report which tasks or deliverables are completed and resources expended, presenting them by means of schedule and cost control tools such as the jogging line and earned value analysis.[5] Other information describing the project execution may be included in project records such as correspondence, minutes of meetings, and progress statements.

Design the Reporting System

Defining the purpose, hierarchy, frequency, responsibilities, and distribution of the summary status report is what we call the *reporting system*. This provides consistency in style and format, enabling comparison with previous and future reports for the particular project and

other projects. The purpose statement normally centers on whether the report is for internal or external stakeholders. In most cases, the detail and amount of information for internal reports will be different from external reports. For example, external reports generally focus on helping the customer determine the status of work being funded and need to be structured accordingly. Each of the two types of reports may need a hierarchical structure, including the summary status report, the detailed progress report, and backup data.

The summary status report provides the crucial points of the overall report while enabling management to review performance progress and trends at a glance. The detailed report contains the general status of the project, major developments, significant variances, major problems, predictions of final schedule and cost, and specifications of corrective actions. Essentially, both the summary and detailed report address the same types of information but in a very different level of detail (see "The Case of Over Reporting"). Because of these similarities, we focus only on the methodology of the summary status report.

The purpose and hierarchy set the stage for the frequency of the report. The report cadence is often defined by the primary recipient, but we also see commonalities based on size and length of projects. For example:

- Weekly reporting for small projects that are 6 months in duration.
- Biweekly reporting for medium projects that are 12 months in duration.
- Monthly reporting for large projects that are 24 months in duration.

These experientially developed benchmarks are based on the belief that each of the projects should have a similar number of summary reports—26 for small, 26 for medium, and 24 for large projects. The point is not the sheer number of status reports, but rather a consistent number of control cycles. Added to these should be the so-called unscheduled reports, prepared in response to unexpected events of a critical nature that F. L. Harrison calls "Red Bandits" to aptly describe their potential to act as project showstoppers.[6] Finally, defining responsibilities in preparing the report and who needs to see it completes the design of the reporting system.

Determine the Variances

With the reporting system in place, it is time to turn the project data being collected into useful information about the performance of the project. Begin by determining the variance between the baseline and the actual project status. A comparison of the project baseline plan and the actual work results should easily yield the variance—that is, the difference between the two. Take, for example, the example progress report.

How the variance is collected is situational, and involves a number of other tools. If for example the project is a small departmental project, it might use the Jogging Line to indicate the schedule variance. Such a non-project-driven department might easily opt to show only this type of variance. In a different situation, where this would be a large project to design and deploy performance metrics throughout a project-driven firm, the milestone analysis might be used to identify the schedule and cost variance, or even the full-scale earned value system

might be employed and supported by verbal descriptions about the quality and scope variances.

Ensure that you are reporting progress at the project level. A good strategy is to use the WBS as a framework, as described in the WBS section in Chapter 5. The process of reporting starts at the work package level, identifying the variances and aggregating them up the WBS hierarchy to establish the variances for the whole project. Subsequent steps of identifying issues, predicting trends, and specifying corrective actions should follow the same approach of using the WBS as the framework. One way to do that is to use the system of rehearsals and progress meetings described in Chapter 9.

The Case of Overreporting

This is a progress reporting story of a project manager in an enterprise information technology (IT) department that, unfortunately, is all too common. According to the project manager, "project managers in our group write a project status report every month for every project they manage. I am expected to show how much time I spend on each project, including all administrative work. Frankly, every project manager just reports 100 percent of their regular work hours, even though we may be working 120 percent or 130 percent of our regular work hours, just to minimize the amount of work we have to report on.

These are really very long reports, almost always 6 to 7 pages. I usually manage four to five projects at a time and do a report for each of them. It takes a lot of time to write them and frankly, it is time I should be using to manage my projects. I have a hard time believing that our managers really spend time reading 20 to 25 detailed reports each month."

This is a case of overreporting in which value is lost for both the project managers and their leaders. A better approach would be to provide a summary progress report that would add more value to everyone involved.

Identify Issues and Risks

If there is a variance, especially an unfavorable one, report the issues causing the variance. Also, identify the risks that may occur in the future, and report the impact they may have on the project. The first area (issues) probes to learn what present problems are at the root of the variance and what their impact on the project is. The second area (risks) looks into the future to predict possible troubles and assess their future impact (see the section on issues and risks in Figure 12.4 for an example). The point, of course, is to figure out how the project can deal with them now. For instance, consider a project where the project manager just learned that one of their major materials suppliers might be on the verge of bankruptcy. This possible event would be identified as a high-level risk, worthy of reporting on the summary status report. The team would immediately develop a contingency strategy instead of waiting to hear a few months later about the bankruptcy, at which point they might be helpless to correct the impact

of the issue on the project.

Generally, issues impacting the project progress may come from any area of work. It may be useful to use an issues tracker to track all project issues (see “Keeping an Issues Database”). Issue logs are an effective way of tracking problems on the project. The issues that are impacting the project, or those that need top management involvement to resolve, are carried forward to the summary status report. Figure 12.5 shows an example issues log.

Project Issue Log

Issue #	Issue Description	Date Raised	Owner	Priority	Status
1	Second round of funding not approved	10/8/2018	Williams	1	Closed
2	Research data not available until January	10/25/2018	Owens	1	Open
3	Quick set-up feature broken	10/26/2018	Powers	2	Open
4	Vendor missed 1st delivery	11/23/2018	Gupta	1	Closed
5	.....				
6	.....				

Figure 12.5 An Example Issues Tracker

Keeping an Issues Database

Learning from past experience is a way for many organizations to continuously improve. A technique that helps classify such learning and offers improvement strategies to future generations of projects is use of an issues database. Simply, it records three types of information: (1) issues of significant impact that occurred in past projects, (2) the nature of the impact that happened or was prevented from happening, and (3) what actions were or could be used to successfully resolve such issues.

How is the database developed? Searching through risk logs of past or current projects and post-project reviews helps identify the preceding types of information. Issues of a similar nature are then grouped. For example, groups may include *team* issues, *process* issues, *vendor* issues, *scheduling* issues, *risk management* issues, and so on. Computerized databases of this sort that are searchable are of special value.

What can the database do for a project? It can serve as a checklist for planning future projects. Also, it can serve as a predictive tool by identifying issues and risks in monitoring schedule, cost, and scope. Additionally, the database offers “premade” impact assessment and actions to mitigate impacts.

Predict Trends

This section of the report shows the predicted future performance based upon the current status of the project. Although forecasts of this type are not easy and are notoriously vulnerable, their essence is less in their accuracy and more in their creation of early-warning signals. For example, in the summary status report in Figure 12.4, “project is currently estimated to be completed 2 weeks later than the baseline plan” is a clear warning, one that mandates action to attempt to reverse the trend. The ability to forecast the trend, week after week, or whatever the report frequency, is paramount in building an anticipatory climate where project teams are alert about the project's past progress but even more about what the future bears.

Specify Actions

If trends are unfavorable, this section identifies actions that should be taken to prevent them and deliver to the baseline plan. With a look into the future, which is our trend, we need to specify corrective actions, assess their impact, and assign an owner in the report. Along with the trend, the specification of corrective actions is perhaps the most valuable part of the report because it enables project teams to be proactive. While the performance progress is important in telling where we are, it is no more than the project history—there is really nothing that we can do to correct or change it. Our only opportunity to change the project is in the future, and that is what the trend and corrective actions offer: an opportunity to anticipate and shape the future by acting—now.

Using the Summary Status Report

Whether small or large, projects need the summary status report. Pressed for resources, small projects—especially in a multiproject environment—will likely issue the summary report as their only report, doing away with a detailed report.

Although many will prepare the report in a formal, written format per predetermined frequency, it is not unusual for managers of small projects to report status verbally (see “The Case of Underreporting”).

The Case of Underreporting

We heard this story during a ten-minute lunch with a project manager for a technology firm, Eric Biesot. According to Biesot, “we develop components for our internal customers who build them into their new products for external customers. With seven projects that I am managing right now, I don't really have time to write progress reports. This is really the case for all the project managers. All of us run multiple projects at a time, too many we believe, and no one has time for reporting since we typically work 70 hours a week.

My boss would like to have the reports, but knowing how busy we are, he doesn't require them. He was in our shoes before he was promoted to this position, so I guess he understands what kind of situation we are in. He does ask us in our weekly staff meetings if we have any problems he can help with. But he can't really help much because he has no resources to help out. I usually develop a Gantt chart for each project, but with this pace of work, I just don't have time to keep them updated.”

This is a case of severe underreporting and a dangerous situation to be in. This project manager, his manager, and their organization will be in a continuously reactive or “fire-fighting” situation without the use of a streamlined summary status report for each project.

An hour may be sufficient to prepare a typical summary status report for a small or medium sized project. Even as time requirements go higher with the size and complexity of projects, it is clear that a few hours of a large project team's time should suffice for the summary report production. This assumes that extra time—perhaps running in tens of hours—was spent to generate the performance data that feeds into the report.

Benefits

If we view time spent on developing the report as an investment, then return on this investment can be very lucrative in multiple ways. First, the process that results in the report ensures a proactive cycle of project control, communicating information about project problems and status to all concerned, including top management, and taking actions to put the project back on track.

Second, the summary status report is a vehicle to secure stakeholders' involvement in the project. By feeding them with information about the past and future of the project, we help them see the big picture and understand the impact of their contribution. This, in turn, helps maintain their motivation and coordination with others, further strengthening the team cohesion.[7]

Third, the cycle of reporting instills discipline. Busy managers often get carried away by daily pressures, the regularity of reports is a forcing function that makes them sit down, collect data on project health, look into the project future, and form opinions dictating actions. Such work, unlike their daily firefighting of project problems, is the clear essence of project management

—think, predict, act.

If a project manager functions in an *influence without authority* environment, the report offers a fourth benefit. The progress report gives the project manager a voice to top management. Having higher management's ear and demonstrating that he or she can clearly communicate the current progress of their project helps the project manager increase his or her influence.

The Project Indicator

In most organizations, the project manager is required to provide verbal status to top management on a regular basis, both in informal or more formal project reviews. The project indicator is used by the project manager to summarize the *overall* status of a project based upon the input and discussion with the project team. There is a direct correlation between the summary status report in the previous section and the project indicator. The project indicator is a presentation device to communicate the information contained in the summary report. The tool gives the project manager a high-level view of the total project and helps him or her to determine if the project remains successfully on track or if there are potential barriers and issues that must be addressed.

It is effective to have a common project indicator format in use on all projects for consistency and comparability of information. The reporting format should include all critical project elements that are important to top management so that they can quickly evaluate progress on projects and determine which need more of their focus and attention. An example project indicator is displayed in Figure 12.6.

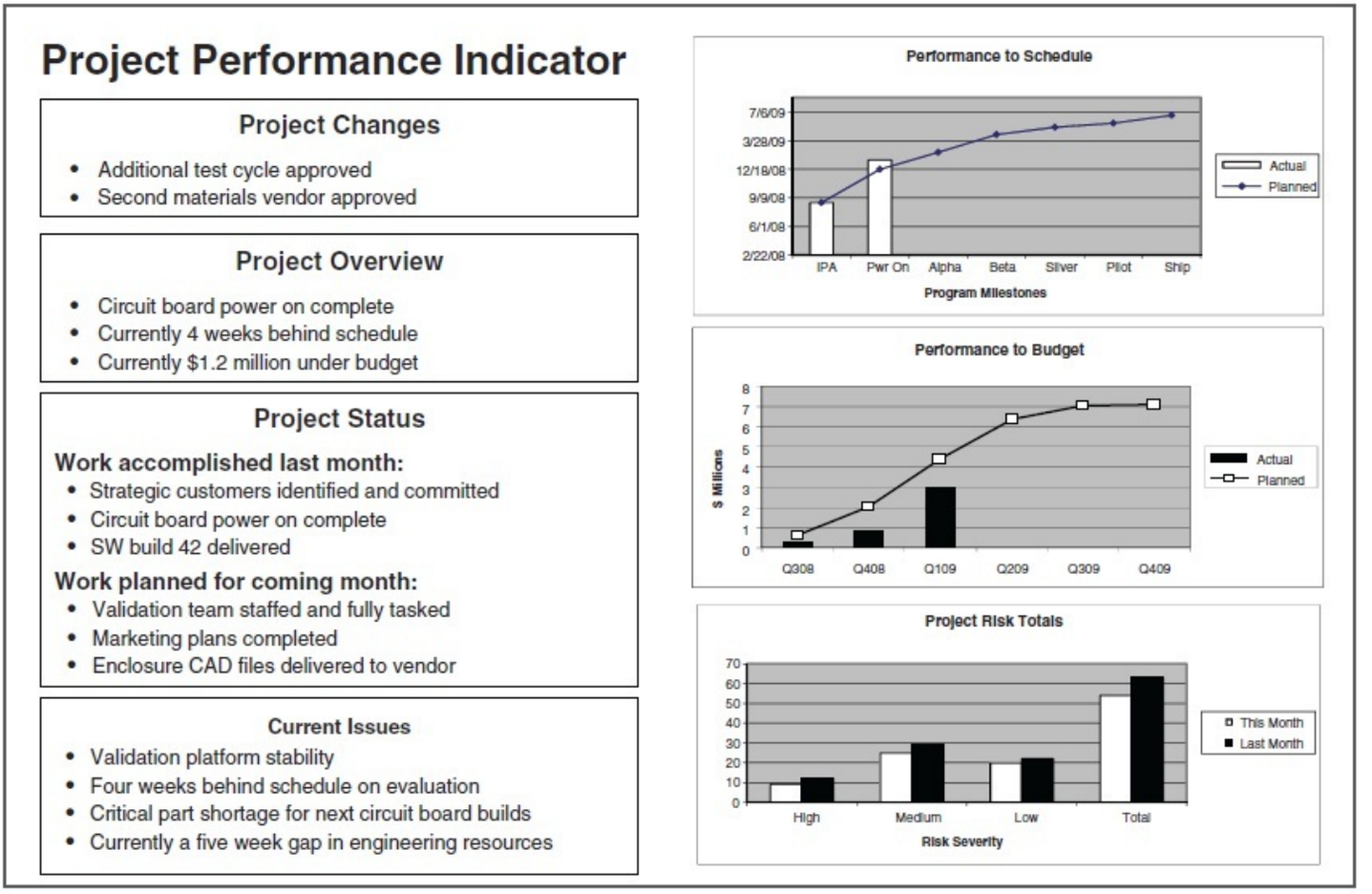

Figure 12.6 Example Project Indicator

The project indicator is brief and limited to one or two pages. It is meant to give a concise, but comprehensive description of current project status, key issues and changes that have been encountered, performance against project performance metrics, and the management of critical risk events.

Developing the Project Indicator

Creating a project indicator begins with understanding the information that should be included and communicated in the informal or formal project review with top management. As stated previously, it is useful to top managers if all project indicators are consistent in form and content. This is probably another application of the 80/20 rule; 80 percent of the information contained in the project indicator should be common to all projects being evaluated by the organization's top management, and 20 percent of the information should be unique to each project. In general, the project indicator should include the following information:

- Significant changes to the project.
- Work completed since the last review.
- Work planned during the next reporting period.
- Performance against plan.

- Issues encountered.
- Risks identified.

Changes to the Project

A brief description of the significant changes to the project that may have an impact on performance should always be included in a project indicator. Example changes include significant scope increases or decreases, changes in project budget or funding, changes in project resources, and changes to the project objectives.

Work Completed

This section of the project indicator provides an overview of the key elements of work completed since the last project report. This would include the achievement of project milestones, completion of project deliverables, the resolution of major blocking issues, removal of risk events, and the completion of key project events such as a customer review or signing of a partnership agreement.

Work Planned

A high-level description of the work that is planned between the current reporting cycle and the next should be included in the project indicator. This allows for a discussion on not just what has occurred in the past, but also what will occur in the near future, and what you as the project manager are anticipating in the next work cycle.

Performance Information

The project indicator should provide a concise description of how the project is performing against the key performance indicators. This can be accomplished either graphically (which is always preferred when communicating to senior managers), or in text. If the project is using earned value management (Chapter 10), the earned value analysis values should be included in this section.

Issues

This section of the indicator should concisely describe the major issues that the project team is working to resolve. Be short and concise on your descriptions. Remember that the project indicator is meant as a verbal communication tool, so issues are briefly described on the indicator and then explained to whatever detail is needed during the ensuing conversation with top managers. For every issue communicated on the project indicator, there must be an action plan employed.

Risks

Much like the project issues, a concise description of the critical risk events should be included in the project indicator. Try to limit the risks to the critical three to five events that the project team is working to eliminate or mitigate. Even better, a summarization of progress

against risks may be a better representation of project risks, such as is shown in Figure 12.6.

Other Items

Since each project is unique, include a section in the indicator that addresses information that pertains strictly to the project at hand. For reference on what to include in this section, the "General" section in the project reporting checklist covered at the beginning of this chapter is a good source.

Using the Project Indicator

As stated earlier, the project indicator is a verbal communication tool. It is used to communicate overall project status to the top management of an organization. In the process it also facilitates the necessary discussion between the project manager and his or her senior leaders. For each item included in the indicator, ensure you have the backing details to engage in a conversation, or include the right member of your project team who can speak to the details.

The indicator can become the means to engage top management in the critical aspects of the project, and facilitate a request for assistance if and when needed.

The project indicator can also be used for effective communication of project status to the project team. Often, project team members are not privy to the overall status of the project they are a part of. To be most effective when used in this manner, the project team should be briefed *after* top management so pertinent aspects of the conversations with management can also be communicated to the team members.

To provide a complete overview of project status, many project managers present the project indicator along with the project strike zone. This provides a more holistic message that incudes operational status as well as a review of the project objectives and current performance against those objectives.

Variations

Some project managers use indicators within their project teams to facilitate intrateam progress reporting. In this use case, the functional project team leaders prepare and present a more detailed and focused functional indicator that reflects the work of each functional team (see Figure 12.7 for an example).

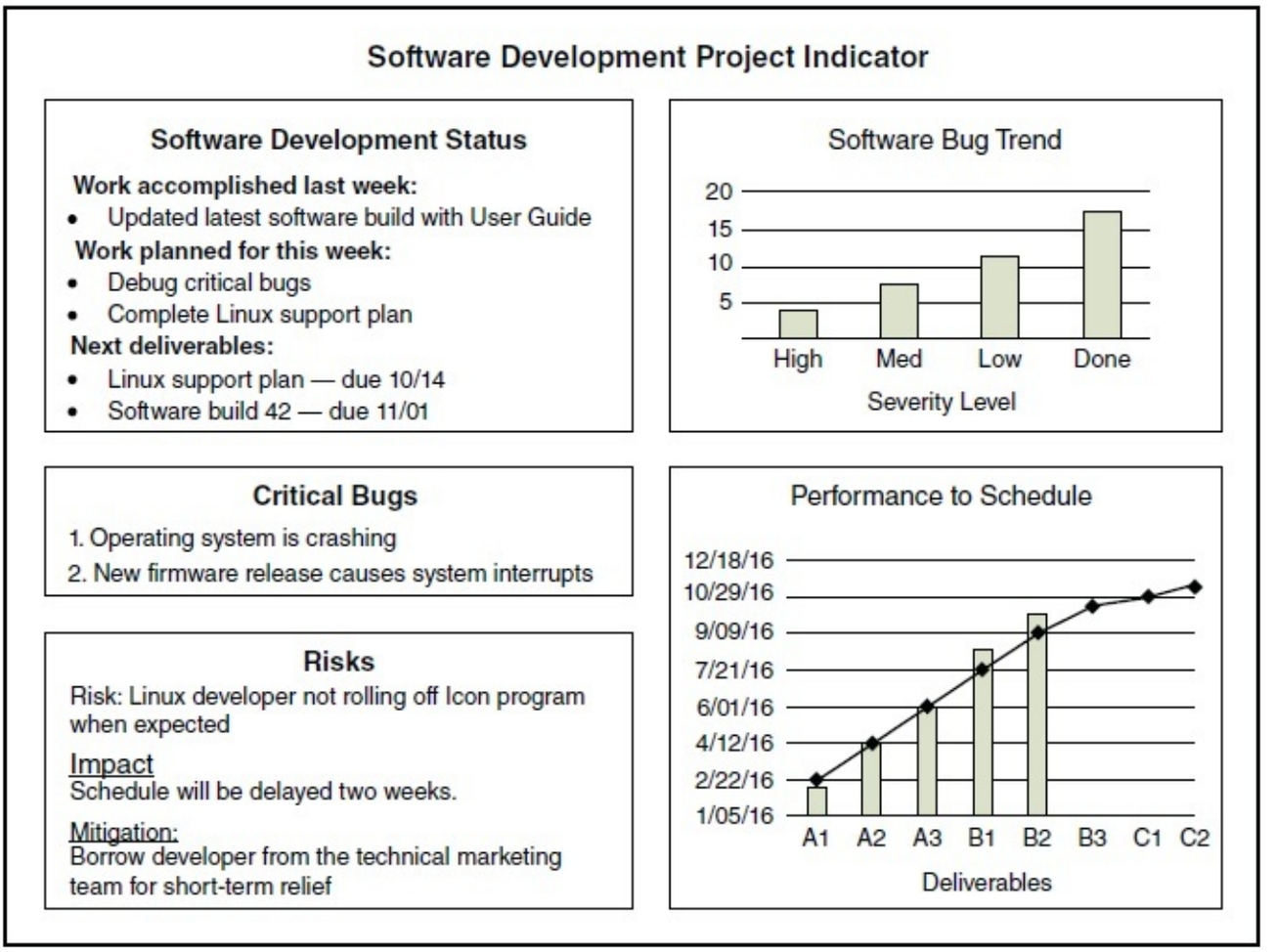

Figure 12.7 Example Functional Indicator

The project manager must work with each functional team leader to determine the best format and content to present in the functional indicator. By requiring (or encouraging depending on a project manager's style) the functional leaders to keep their functional indicators current, the project manager will receive a comprehensive yet concise report on fuctional team status on a regular basis (recommended weekly). Additionally, the information in the functional indicators can be used as a data source for building the project indicator.

Benefits

The project indicator provides project managers a consistent format and data model for determining the current status of their project, for understanding the most critical challenges their project team is facing, and a gross-level indication of how their project is trending against the baseline plan.

The project indicator also serves as a key communication vehicle between the project manager and the top managers that highlights key cross-project issues that need to be elevated to senior leadership for resolution. It effectively facilitates focused discussion between the project manager and their managers. For project managers that are uncomfortable having these discussions with their senior leaders, or those that are new to the opportunity, the project indicator also provides a mental prop and cue card for discussion topics to cover.

Choosing Your Reporting Tools

The tools presented in this chapter are designed for various project performance reporting situations. Matching the tools to their most appropriate usage is sometimes a bit confusing. To help in this effort, Table 12.2 lists various performance reporting situations and identifies which tools are geared for each situation. Consider this table as a starting point, and create your own custom project situation analysis and tools of choice to fit your particular project management style.

Table 12.2 Project Reporting Tools

Situation	Reporting Checklist	Project Strike Zone	Project Dashboard	Project Indicator	Summary Project Report
Prepare information to report	✓		✓		
Tailor reporting information based on project life cycle	✓				
Communicate performance against project objectives		✓		✓	✓
Facilitates project-level decision making		✓	✓	✓	
Communicate performance against operational KPIs			✓		✓
Communicate functional status to project manager			✓	✓	
Communicate overall project status to top managers		✓		✓	✓
Describe current issues			✓	✓	✓
Communicate project trends and risks		✓	✓	✓	✓
Best for written status reporting					✓
Best for verbal status reporting		✓	✓	✓	

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7. Project Management Institute, 2013.