

PROJECT COMMUNICATIONS MANAGEMENT

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Project Communications Management includes the processes required to ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information. It provides the critical links among people, ideas, and information that are necessary for success. Everyone involved in the project must be prepared to send and receive communications in the project “language” and must understand how the communications they are involved in as individuals affect the project as a whole. **Figure 10–1** provides an overview of the following major processes:

- 10.1 Communications Planning**—determining the information and communications needs of the stakeholders: who needs what information, when will they need it, and how will it be given to them.
- 10.2 Information Distribution**—making needed information available to project stakeholders in a timely manner.
- 10.3 Performance Reporting**—collecting and disseminating performance information. This includes status reporting, progress measurement, and forecasting.
- 10.4 Administrative Closure**—generating, gathering, and disseminating information to formalize phase or project completion.

These processes interact with each other and with the processes in the other knowledge areas as well. Each process may involve effort from one or more individuals or groups of individuals based on the needs of the project. Each process generally occurs at least once in every project phase.

Although the processes are presented here as discrete elements with well-defined interfaces, in practice they may overlap and interact in ways not detailed here. Process interactions are discussed in detail in Chapter 3.

The general management skill of communicating (discussed in Section 2.4.2) is related to, but not the same as, project communications management. Communicating is the broader subject and involves a substantial body of knowledge that is not unique to the project context. For example:

- Sender-receiver models—feedback loops, barriers to communications, etc.
- Choice of media—when to communicate in writing versus when to communicate orally, when to write an informal memo versus when to write a formal report, etc.
- Writing style—active versus passive voice, sentence structure, word choice, etc.
- Presentation techniques—body language, design of visual aids, etc.
- Meeting management techniques—preparing an agenda, dealing with conflict, etc.

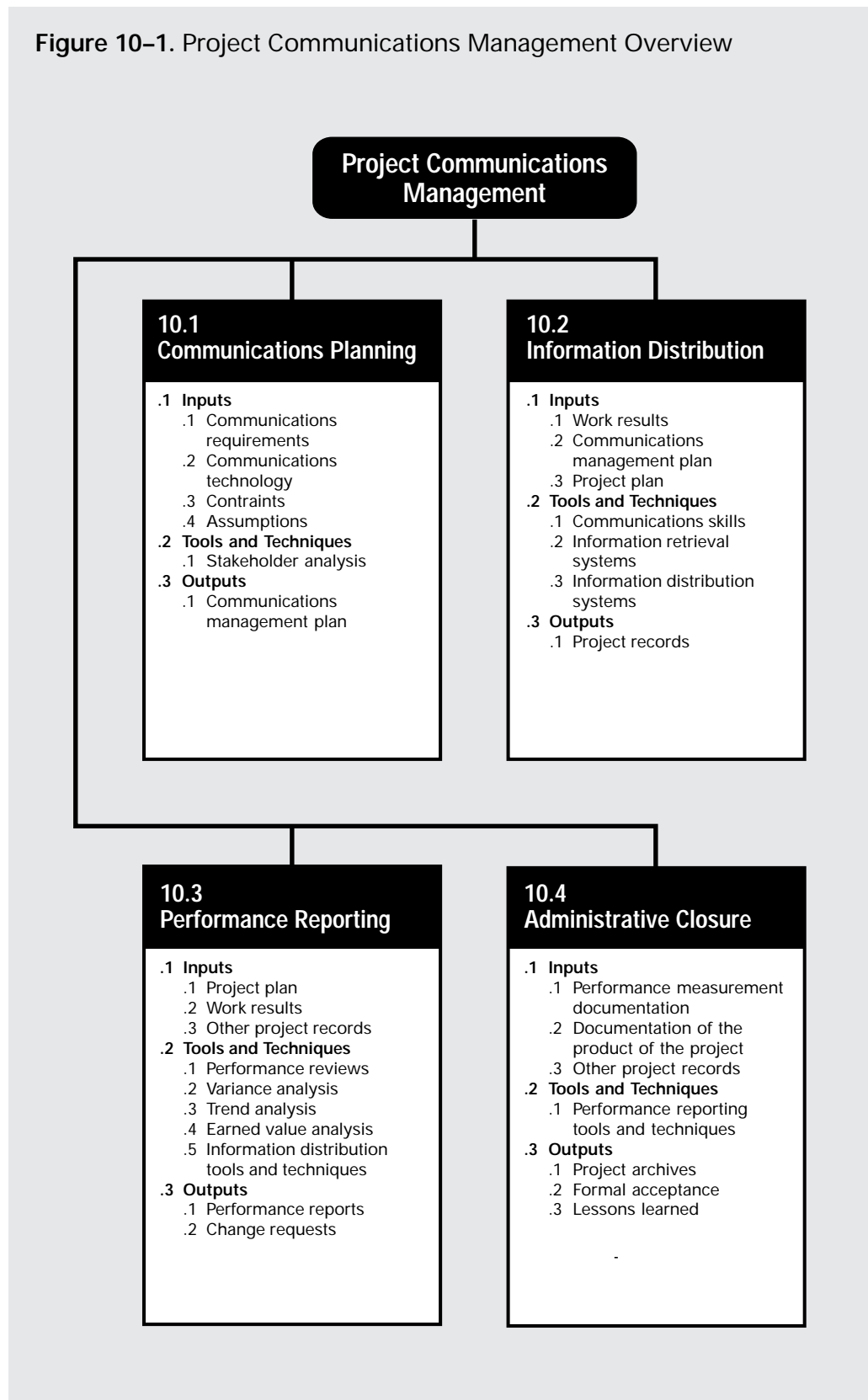
10.1 Communications Planning

10.2 Information Distribution

10.3 Performance Reporting

10.4 Administrative Closure

Figure 10-1. Project Communications Management Overview

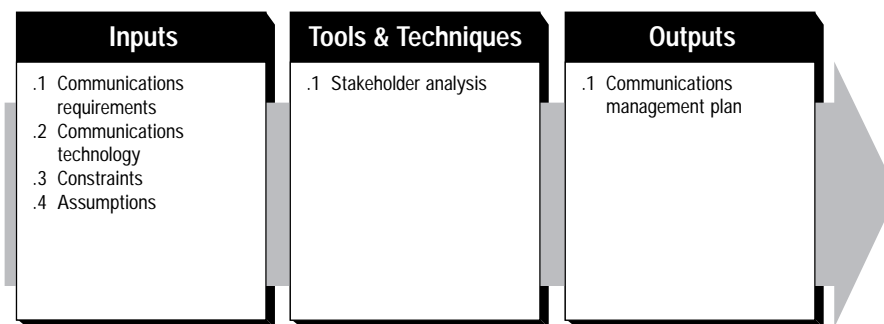


10.1 COMMUNICATIONS PLANNING

Communications planning involves determining the information and communications needs of the stakeholders: who needs what information, when will they need it, and how will it be given to them. While all projects share the need to communicate project information, the informational needs and the methods of distribution vary widely. Identifying the informational needs of the stakeholders and determining a suitable means of meeting those needs is an important factor for project success.

On most projects, the majority of communications planning is done as part of the earliest project phases. However, the results of this process should be reviewed regularly throughout the project and revised as needed to ensure continued applicability.

Communications planning is often tightly linked with organizational planning (described in Section 9.1) since the project's organizational structure will have a major effect on the project's communications requirements.



10.1.1 Inputs to Communications Planning

- .1 **Communications requirements.** Communications requirements are the sum of the information requirements of the project stakeholders. Requirements are defined by combining the type and format of information required with an analysis of the value of that information. Project resources should be expended only on communicating information which contributes to success or where lack of communication can lead to failure. Information typically required to determine project communications requirements includes:
 - Project organization and stakeholder responsibility relationships.
 - Disciplines, departments, and specialties involved in the project.
 - Logistics of how many individuals will be involved with the project and at which locations.
 - External information needs (e.g., communicating with the media).
- .2 **Communications technology.** The technologies or methods used to transfer information back and forth among project elements can vary significantly: from brief conversations to extended meetings, from simple written documents to immediately accessible on-line schedules and databases. Communications technology factors which may affect the project include:
 - The immediacy of the need for information—is project success dependent upon having frequently updated information available on a moment's notice, or would regularly issued written reports suffice?
 - The availability of technology—are the systems that are already in place appropriate, or do project needs warrant change?
 - The expected project staffing—are the communications systems proposed compatible with the experience and expertise of the project participants, or will extensive training and learning be required?
 - The length of the project—is the available technology likely to change before the project is over in a manner that would warrant adopting the newer technology?

- .3 Constraints.** Constraints are factors that will limit the project management team's options. For example, if substantial project resources will be procured, more consideration will need to be given to handling contract information.

When a project is performed under contract, there are often specific contractual provisions that affect communications planning.

- .4 Assumptions.** Assumptions are factors that, for planning purposes, will be considered to be true, real, or certain. Assumptions generally involve a degree of risk. They may be identified here or they may be an output of risk identification (described in Section 11.1).

10.1.2 Tools and Techniques for Communications Planning

- .1 Stakeholder analysis.** The information needs of the various stakeholders should be analyzed to develop a methodical and logical view of their information needs and sources to meet those needs (project stakeholders are discussed in more detail in Sections 2.2 and 5.1). The analysis should consider methods and technologies suited to the project that will provide the information needed. Care should be taken to avoid wasting resources on unnecessary information or inappropriate technology.

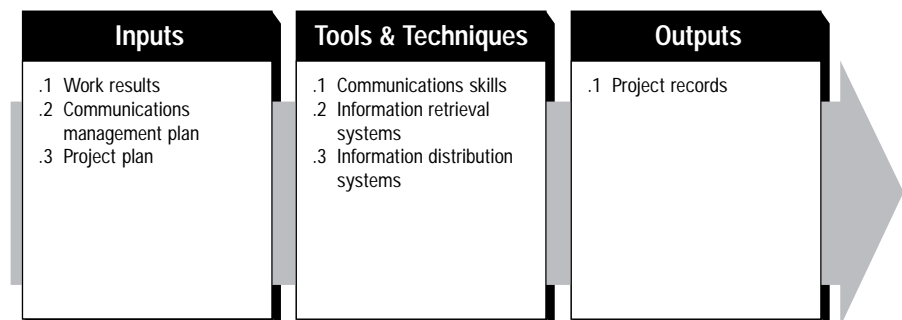
10.1.3 Outputs from Communications Planning

- .1 Communications management plan.** A communications management plan is a document which provides:
- A collection and filing structure which details what methods will be used to gather and store various types of information. Procedures should also cover collecting and disseminating updates and corrections to previously distributed material.
 - A distribution structure which details to whom information (status reports, data, schedule, technical documentation, etc.) will flow, and what methods (written reports, meetings, etc.) will be used to distribute various types of information. This structure must be compatible with the responsibilities and reporting relationships described by the project organization chart.
 - A description of the information to be distributed, including format, content, level of detail, and conventions/definitions to be used.
 - Production schedules showing when each type of communication will be produced.
 - Methods for accessing information between scheduled communications.
 - A method for updating and refining the communications management plan as the project progresses and develops.

The communications management plan may be formal or informal, highly detailed or broadly framed, based on the needs of the project. It is a subsidiary element of the overall project plan (described Section 4.1).

10.2 INFORMATION DISTRIBUTION

Information distribution involves making needed information available to project stakeholders in a timely manner. It includes implementing the communications management plan as well as responding to unexpected requests for information.



10.2.1 Inputs to Information Distribution

- .1 **Work results.** Work results are described in Section 4.2.3.1.
- .2 **Communications management plan.** The communications management plan is described in Section 10.1.3.1.
- .3 **Project plan.** The project plan is described in Section 4.1.3.1.

10.2.2 Tools and Techniques for Information Distribution

- .1 **Communications skills.** Communications skills are used to exchange information. The sender is responsible for making the information clear, unambiguous, and complete so that the receiver can receive it correctly and for confirming that it is properly understood. The receiver is responsible for making sure that the information is received in its entirety and understood correctly. Communicating has many dimensions:
 - Written and oral, listening and speaking.
 - Internal (within the project) and external (to the customer, the media, the public, etc.).
 - Formal (reports, briefings, etc.) and informal (memos, ad hoc conversations, etc.).
 - Vertical (up and down the organization) and horizontal (with peers).
- .2 **Information retrieval systems.** Information can be shared by team members through a variety of methods including manual filing systems, electronic text databases, project management software, and systems which allow access to technical documentation such as engineering drawings.
- .3 **Information distribution systems.** Project information may be distributed using a variety of methods including project meetings, hard copy document distribution, shared access to networked electronic databases, fax, electronic mail, voice mail, and video conferencing.

10.2.3 Outputs from Information Distribution

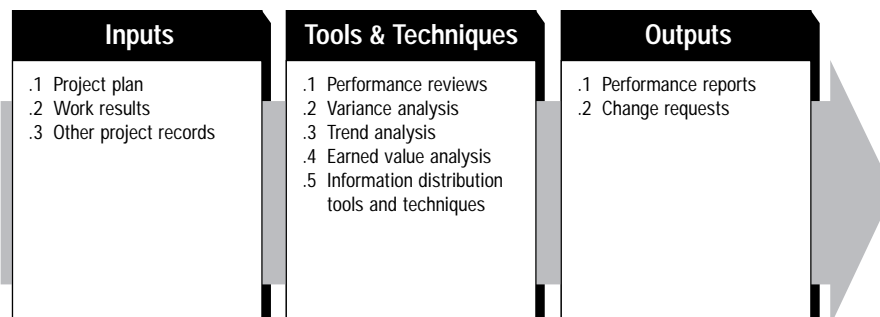
- .1 **Project records.** Project records may include correspondence, memos, reports, and documents describing the project. This information should, to the extent possible and appropriate, be maintained in an organized fashion. Project team members may often maintain personal records in a project notebook.

10.3 PERFORMANCE REPORTING

Performance reporting involves collecting and disseminating performance information in order to provide stakeholders with information about how resources are being used to achieve project objectives. This process includes:

- Status reporting—describing where the project now stands.
- Progress reporting—describing what the project team has accomplished.
- Forecasting—predicting future project status and progress.

Performance reporting should generally provide information on scope, schedule, cost, and quality. Many projects also require information on risk and procurement. Reports may be prepared comprehensively or on an exception basis.



10.3.1 Inputs to Performance Reporting

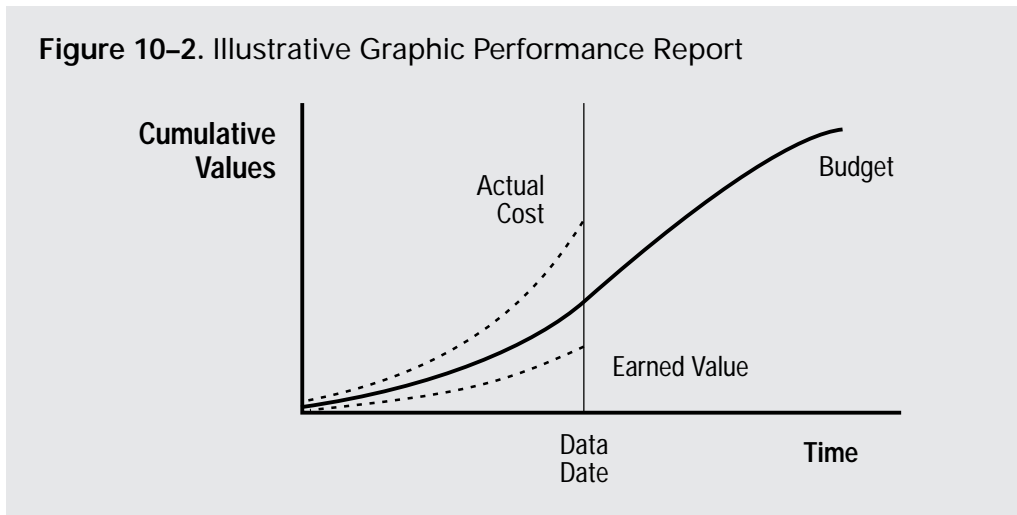
- .1 **Project plan.** The project plan is discussed in Section 4.1.3.1. The project plan contains the various baselines that will be used to assess project performance.
- .2 **Work results.** Work results—which deliverables have been fully or partially completed, what costs have been incurred or committed, etc.—are an output of project plan execution (discussed in Section 4.2.3.1). Work results should be reported within the framework provided by the communications management plan. Accurate, uniform information on work results is essential to useful performance reporting.
- .3 **Other project records.** Project records are discussed in Section 10.2.3.1. In addition to the project plan and the project's work results, other project documents often contain information pertaining to the project context that should be considered when assessing project performance.

10.3.2 Tools and Techniques for Performance Reporting

- .1 **Performance reviews.** Performance reviews are meetings held to assess project status or progress. Performance reviews are typically used in conjunction with one or more of the performance reporting techniques described below.
- .2 **Variance analysis.** Variance analysis involves comparing actual project results to planned or expected results. Cost and schedule variances are the most frequently analyzed, but variances from plan in the areas of scope, quality, and risk are often of equal or greater importance.
- .3 **Trend analysis.** Trend analysis involves examining project results over time to determine if performance is improving or deteriorating.
- .4 **Earned value analysis.** Earned value analysis in its various forms is the most commonly used method of performance measurement. It integrates scope, cost, and schedule measures to help the project management team assess project performance. Earned value involves calculating three key values for each activity:
 - The budget, also called the budgeted cost of work scheduled (BCWS), is that portion of the approved cost estimate planned to be spent on the activity during a given period.
 - The actual cost, also called the actual cost of work performed (ACWP), is the total of direct and indirect costs incurred in accomplishing work on the activity during a given period.
 - The earned value, also called the budgeted cost of work performed (BCWP), is a percentage of the total budget equal to the percentage of the work actually completed. Many earned value implementations use only a few percentages (e.g., 30 percent, 70 percent, 90 percent, 100 percent) to simplify data collection. Some earned value implementations use only 0 percent or 100 percent (done or not done) to help ensure objective measurement of performance.

These three values are used in combination to provide measures of whether or not work is being accomplished as planned. The most commonly used measures are the cost variance ($CV = BCWP - ACWP$), the schedule variance ($SV = BCWP - BCWS$), and the cost performance index ($CPI = BCWP/ACWP$). The cumulative CPI (the sum of all individual BCWPs divided by the sum of all individual ACWPs) is widely used to forecast project cost at completion. In some application areas, the schedule performance index ($SPI = BCWP/BCWS$) is used to forecast the project completion date.
- .5 **Information distribution tools and techniques.** Performance reports are distributed using the tools and techniques described in Section 10.2.2.

Figure 10–2. Illustrative Graphic Performance Report



10.3.3 Outputs from Performance Reporting

- .1 **Performance reports.** Performance reports organize and summarize the information gathered and present the results of any analysis. Reports should provide the kinds of information and the level of detail required by various stakeholders as documented in the communications management plan.

Common formats for performance reports include bar charts (also called Gantt charts), S-curves, histograms, and tables. **Figure 10–2** uses S-curves to display cumulative earned value analysis data while **Figure 10–3** displays a different set of earned value data in tabular form.

- .2 **Change requests.** Analysis of project performance often generates a request for a change to some aspect of the project. These change requests are handled as described in the various change control processes (e.g., scope change management, schedule control, etc.).

10.4 ADMINISTRATIVE CLOSURE

The project or phase, after either achieving its objectives or being terminated for other reasons, requires closure. Administrative closure consists of verifying and documenting project results to formalize acceptance of the product of the project by the sponsor, client, or customer. It includes collection of project records, ensuring that they reflect final specifications, analysis of project success and effectiveness, and archiving such information for future use.

Administrative closure activities should not be delayed until project completion. Each phase of the project should be properly closed to ensure that important and useful information is not lost.

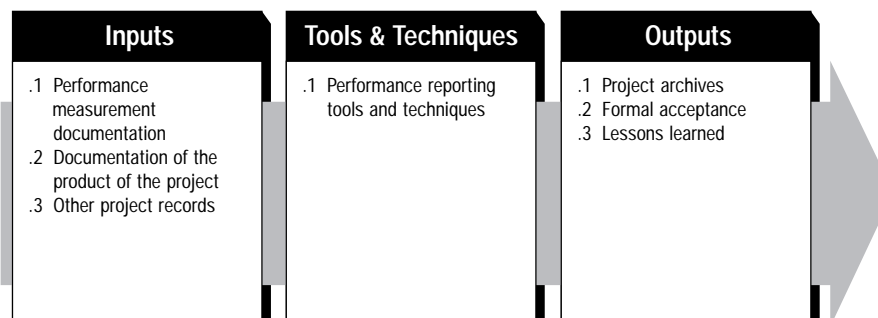


Figure 10-3. Illustrative Tabular Performance Report

WBS Element	Budget (\$)	Earned Value (\$)	Actual Cost (\$)	Cost Variance (\$)	Cost Variance (%)	Schedule Variance (\$)	Schedule Variance (%)
1.0 Pre-pilot planning	63,000	58,000	62,500	-4,500	-7.8	-5,000	-8.6
2.0 Draft checklists	64,000	48,000	46,800	1,200	2.5	-16,000	-33.3
3.0 Curriculum design	23,000	20,000	23,500	-3,500	-17.5	-3,000	-15.0
4.0 Mid-term evaluation	68,000	68,000	72,500	-4,500	-6.6	0	0.0
5.0 Implementation support	12,000	10,000	10,000	0	0.0	-2,000	-20.0
6.0 Manual of Practice	7,000	6,200	6,000	200	3.2	-800	-12.9
7.0 Roll-out plan	20,000	13,500	18,100	-4,600	-34.1	-6,500	-48.1
Totals	257,000	223,700	239,400	-15,700	-7.0	-33,300	-14.9

10.4.1 Inputs to Administrative Closure

- .1 **Performance measurement documentation.** All documentation produced to record and analyze project performance, including the planning documents which established the framework for performance measurement, must be available for review during administrative closure.
- .2 **Documentation of the product of the project.** Documents produced to describe the product of the project (plans, specifications, technical documentation, drawings, electronic files, etc.—the terminology varies by application area) must also be available for review during administrative closure.
- .3 **Other project records.** Project records are discussed in Section 10.2.3.1.

10.4.2 Tools and Techniques for Administrative Closure

- .1 **Performance reporting tools and techniques.** Performance reporting tools and techniques are discussed in Section 10.3.2.

10.4.3 Outputs from Administrative Closure

- .1 **Project archives.** A complete set of indexed project records should be prepared for archiving by the appropriate parties. Any project-specific or program-wide historical databases pertinent to the project should be updated. When projects are done under contract or when they involve significant procurement, particular attention must be paid to archiving of financial records.
- .2 **Formal acceptance.** Documentation that the client or sponsor has accepted the product of the project (or phase) should be prepared and distributed.
- .3 **Lessons learned.** Lessons learned are discussed in Section 4.3.3.3.