State of Michigan (SOM)

PROJECT MANAGEMENT KEY TERMS, DEFINITIONS AND ACRONYMS

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Key Terms, Definitions, and Acronyms

Following is a list of common terms, definitions, and acronyms used within the project management industry. While many of these terms are not mentioned within the body of SUITE documents, they are nonetheless important to understand project management. If you need further information on any of the subjects in the following list, please consult the State of Michigan Project Management Methodology (PMM) and the variety of sources listed in the Resources and Reference list in the Appendix. These terms are taken from several sources, including State of Michigan SUITE documents and the Project Management Body of Knowledge (PMBOK®).

- A -

Acceptance Criteria – Those criteria, usually stated in a contract and/or SOW, that includes deliverables, performance requirements and essential conditions, which must be met to complete project deliverables and be accepted.

Acquisition Process – The process of acquiring personnel/goods/services for new or existing work within the general definitions of contracts requiring an offer and acceptance, consideration, lawful subject matter, and competent parties.

Action Item Status – A list of problem issues including a description, point of contact, and dates of action and resolution.

Action Plan – A plan that describes what needs to be done and when it needs to be completed. Project plans are action plans.

Activity – The work or effort needed to achieve a result. An activity consumes time and usually consumes resources.

Activity Definition – Identifying the specific activities which must be performed in order to produce the various project deliverables.

Activity Duration – The time in calendar units between the start and finish of a schedule activity. See also *duration.*

Activity Duration Estimating – Estimating the number of work periods that will be needed to complete individual activities.

Actual Cost – Total costs incurred (direct and indirect) in accomplishing work during a given time period.

Administrative Closure – Generating, gathering, and disseminating information to formalize project completion.

Alternative Analysis – Breaking down a complex scope situation for the purpose of generating

and evaluating different solutions and approaches.

Analysis – The study and examination of something complex and the separation into its more simple components. Analysis typically includes discovering not only what the parts of the item being studied are, but also how they fit together. An example is the study of schedule variances for cause, impact, corrective action, and results.

Application Area – A category of projects that have a common element not present in all projects. Application areas are usually defined in terms of either the product of the project (i.e., by similar technologies or industry sectors) or the type of customer (e.g., internal vs. external, government vs. commercial). Application areas often overlap.

Approve – To accept as satisfactory. Approval implies that the item approved has the endorsement of the approving entity. The approval may still require confirmation by somebody else, as in levels of approval. In management use, the important distinction is between approve and authorize. See Authorization.

Areas of Responsibility – Used to define the person or organizational entity responsible for specific policy areas, processes, and procedures as identified. The current levels of responsibility are Legislature, Department of Management and Budget, state agency, and customer.

Arrow Diagramming Method (ADM) – A network diagramming technique in which activities are represented by arrows. The tail of the arrow represents the start and the head represents the finish of the activity (the length of the arrow does *not* represent the expected duration of the activity). Activities are connected at points called "nodes" (usually drawn as small circles) to illustrate the sequence in which the activities are expected to be performed.

Authorization – The power granted by management to specified individuals allowing them to approve transactions, procedures, or total systems. Defined as the final organization authority.

Assumptions – Factors that, for planning purposes, are considered to be true, real, or certain without proof or demonstration.

Authorized Work – An effort that has been approved by higher authority and may or may not be defined.

- B -

Backward Pass – The calculation of late finish dates and late start dates for the uncompleted portions of all network activities. Determined by working backwards through the network logic from the project's end date.

Baseline – The original plan (for a project, a work package, or an activity) plus or minus approved changes. Usually used with a modifier (e.g., cost baseline, schedule baseline performance measurement baseline).

Budget – When unqualified, refers to an estimate of funds planned to cover a project or specified period of future time. When approved, the estimate for the project or any work breakdown component or any schedule activity.

Budget At Completion (BAC) – The estimated total cost of the project when done.

Planned Value – The sum of the approved cost estimates including any overhead allocation) for activities (or portions of activities) scheduled to be performed during a given period (usually project-to-date).

Bottom-Up Estimating (Technique) – A method of estimating a component of work. The work is decomposed into more detail. An estimate is prepared of what is needed to meet requirements of each of the lower, more detailed pieces of work, and these estimates are then aggregated into a total quantity for the component of work. The accuracy of bottom-up estimating is driven by the size and complexity of the work identified at the lower levels.

Business Impact Analysis – Identifies project constraints, alternatives, and related assumptions as they apply to the initiation phase.

Business Plan – Model used by a manager for planning and scheduling project work.

- C -

Calendar Unit – The smallest unit of the calendar produced. This unit is generally in hours, days, or weeks. It can also be grouped in shifts.

Champion – A person who takes on personal responsibility for the successful completion of a "visionary project."

Change Control – The process of controlling, documenting, and storing the changes to control items. This includes proposing the change, evaluating, approving or rejecting, scheduling and tracking.

Change Control Board (CCB) – A formally constituted group of stakeholders responsible for approving or rejecting changes to the project *baselines.*

Change in Scope – A change in objectives, work plan, or schedule resulting in a material difference from the terms of previously granted approval to proceed.

Change Management Process – A set of tasks or procedures established to ensure that project performance is measured to the baseline and changes are reviewed, approved or rejected, and the baseline is updated.

Change Request – Requests to expand or reduce the project scope, modify the costs or budgets, or revise schedules.

Chart of Accounts – Any numbering system used to monitor project costs by category (e.g., labor, supplies, materials). The project chart of accounts is usually based upon corporate chart of accounts of the primary performing organization.

Charter – A document issued by the initiator of the project, usually the project sponsor, that formally authorizes the existence of the project, and provides the project manager with the authority to apply organizational resources to project activities.

Code of Accounts – Any numbering system used to uniquely identify each element of the *work breakdown structure.*

Concept – An imaginative arrangement of a set of ideas.

Conceptual Project Planning – The process of developing broad-scope project documentation from which the technical requirements, estimates, schedules, control procedures, and effective project management will all flow.

Concurrent Engineering – An approach to project staffing that, in its most general form, calls for implementers to be involved in the design phase. Sometimes confused with *fast tracking.*

Configuration Control – The process of evaluating, approving or disapproving, and managing changes to controlled items.

Configuration Management (CM) – The technical and administrative application of configuration control. It includes the maintenance of a configuration control unit, change and version control standards, and configuration of control facilities. Configuration Management is a formal discipline which provides project team members and customers with the methods and tools used to identify the product developed, establish baselines, control changes to these baselines, record and track status, and audit the product.

Constraint – The state, quality, or sense of being restricted to a given course of action or interaction. An applicable restriction or limitation, either internal or external, to the project that will affect the performance of the project or a process.

Contingency – 1) something that may happen: an event that might occur in the future, especially a problem, emergency, or expense that might arise unexpectedly and therefore must be prepared for, 2) provision made against future unforeseen events

Contingency Planning – The development of a management plan that identifies alternative strategies to be used to ensure project success if specified risk events occur.

Contingency Reserve – A separately planned quantity (contingency) used to allow for future situations may be planned for only in part (sometimes called "known unknowns"). For example, rework is certain, the amount of rework is not. Contingency reserves involve cost, schedule, or both. Contingency reserves are intended to reduce the impact of missing cost or schedule objectives. Contingency reserves are not included in the project's cost and schedule baselines.

Contract – A contract is a mutually binding agreement, which obligates the seller to provide the specified product, and obligates the buyer to pay for it. Contracts generally fall into one of three broad categories:

Fixed price or lump sum contracts – This category of contract involves a fixed total price for a well-defined product. Fixed price contracts may also include incentives for meeting or exceeding selected project objectives such as schedule targets.

Cost reimbursable contracts – This category of contract involves payment (reimbursement) to the contractor for its actual costs. Costs are usually classified as direct costs (costs incurred directly by the project, such as wages for members of the project team) and indirect costs (costs allocated to the project by the performing organization as a cost of doing business, such as salaries for corporate executives). Indirect costs are usually calculated as a percentage of direct costs. Cost reimbursable contracts often include incentives for meeting or exceeding selected project objectives such as schedule targets or total cost.

Unit price contracts – The contractor is paid a preset amount per unit of service (e.g., $70 per hour for professional services or $1.08 per cubic yard of earth removed) and the total value of the contract is a function of the quantities needed to complete the work.

Contract Administration – Managing the relationship with the seller.

Contract Closeout – Completion and settlement of the contract including resolution of all outstanding items.

Control – The process of comparing actual performance with planned performance, analyzing variances, evaluating possible alternatives, and taking appropriate corrective action as needed.

Control Charts – Control charts are a graphic display of the results, over time and against established control limits, of a process. They are used to determine if the process is in control or in need of adjustment.

Control Item – A project element that is considered a unit for the purpose of configuration management. This includes such items as software modules, versions of software systems, project design document, project plans, and other associated documents.

Control System – A mechanism that reacts to the current project status in order to ensure accomplishment of project objectives.

Core Processes – Processes that have clear dependencies and that require the same order on most projects.

Corrective Action – Changes made to bring expected future performance of the project into line with the plan.

Cost Benefit Analysis (CBA) – Provides information to make a balanced decision about the cost and benefits, or value, of various economic choices about various alternatives within the project.

Cost Budgeting – Allocating the cost estimates to individual project components.

Cost Control – Controlling changes to the project budget.

Cost Estimating – Estimating the cost of the resources needed to complete project activities.

Cost of Quality – The costs incurred to ensure quality. The cost of quality includes quality planning, quality control, quality assurance, and rework.

Cost Performance Baseline – A specific version of the time-phased budget used to compare actual expenditures to planned expenditures to determine if preventive or corrective action is needed to meet the project objectives.

Cost Performance Index (CPI) – 1) A measure of cost efficiency on a project. It is the ratio of earned value (EV) to actual costs (AC). CPI= EV divided by AC.T 2) the ratio of budgeted costs to actual costs (BCWP/ACWP). CPI is often used to predict the magnitude of a possible cost overrun using the following formula: original cost estimate/CPI = projected cost at completion.

Cost/Schedule Impact Analysis (CSIA) – The process followed to determine the cost and/or schedule impact of a specific change with a project.

Cost Variance (CV) – Any difference between the estimated cost of an activity and the actual cost of that activity.

Crashing – Taking action to decrease the total project duration after analyzing a number of alternatives to determine how to get the maximum duration compression for the cost.

Create Work Breakdown Structure (WBS) (Process) – Partitioning the project deliverables and project work into smaller, more manageable components known as activities, tasks and work package.

Critical Activity – Any activity on a *critical path.* Most commonly determined by using the *critical path method.* Although some activities are "critical" in the dictionary sense without being on the critical path, this meaning is seldom used in the project context.

Critical Path – The sequence of tasks that determine the minimum schedule for a project. If one task on the critical path is delayed, the schedule will be late.

Critical Path Method (CPM) – A network analysis technique used to predict project duration by analyzing which sequence of activities (which *path)* has the least amount of scheduling flexibility (the least amount of *float).* Early dates are calculated by means of a *forward pass* using a

specified start date. Late dates are calculated by means of a *backward pass* starting from a specified completion date (usually the forward pass' calculated project *early finish date).*

Critical Success Factors – Identified factors that must be present in order for the project to be successful in terms of scope/budget/schedule. Used to *alert* the sponsor to factors that the project needs to have in place.

Current Finish Date – The current estimate of the point in time when an activity will be completed.

Current Start Date – The current estimate of the point in time when an activity will begin.

- D -

Data Date – The point in time that separates actual (historical) data from future (scheduled) data. Also called *as-of date.*

Decision Tree Analysis – The decision tree is a diagram that describes a decision under consideration and shows the implications of choosing one or another of the available alternatives. This analysis incorporates probabilities and the costs of each logical path of events.

Decomposition – The process of breaking down activities and the work package to a manageable level.

Deflection – The act of transferring all or part of a risk to another party, usually by some form of contract.

Deliverable – Any measurable, tangible, verifiable outcome, result, or item that must be produced to complete a project or part of a project. Often used more narrowly in reference to an *external deliverable,* which is a deliverable that is subject to approval by the project sponsor or customer.

Design Documents – Technical documents that lay out in great detail the anticipated design of the project deliverable.

Determine Budget (Process) – The process of totaling the estimated costs of individual activities and tasks to establish an authorized budget baseline.

Development – The actual work performed to develop the Information Technology Project.

Dummy Activity – An activity of zero duration used to show a *logical relationship* in the *arrow diagramming method.* Dummy activities are used when logical relationships cannot be completely or correctly described with regular activity arrows. Dummies are shown graphically as a dashed line headed by an arrow.

Duration – The amount of time to complete a specific task given other commitments, work, vacations, etc. Usually expressed as workdays or workweeks.

Duration Compression – Shortening the project schedule without reducing the project scope. Duration compression is not always possible and often requires an increase in project cost.

- E -

Early Finish Date – In the *critical path method,* the earliest possible point in time on which the uncompleted portions of an activity (or the project) can be finished based upon the network logic and any schedule constraints. Early finish dates can change as the project progresses and changes are made to the Project Plan.

Early Start Date – In the *critical path method,* the earliest possible point in time in which the uncompleted portions of an activity (or the project) can start, based upon the network logic and any schedule constraints. Early start dates can change as the project progresses and changes are made to the Project Plan.

Earned Value – A method for measuring project performance. It compares the amount of work that was planned with what was actually accomplished to determine if cost and schedule performance is as planned.

Effort – The number of labor units required to complete an activity or other project element. Usually expressed as staff hours, staff days, or staff weeks. Should not be confused with *duration.*

Estimate – An assessment of the likely quantitative result. Usually applied to project costs and durations and should always include some indication of accuracy (e.g., +/- x percent). Usually used with a modifier (e.g., preliminary, conceptual, feasibility). Some application areas have specific modifiers that imply particular accuracy ranges (e.g., order-of-magnitude estimate, budget estimate, and definitive estimate in engineering and construction projects).

Estimate At Completion (EAC) – The expected total cost of an activity, a group of activities, or of the project when the defined scope of work has been completed. Most techniques for forecasting EAC include some adjustment of the original cost estimate based on project performance to date. Also shown as "estimated at completion." Often shown as EAC = Actuals-to-date + ETC.

Estimate To Complete (ETC) – The expected additional cost needed to complete an activity, a group of activities, or the project. Most techniques for forecasting ETC include some adjustment to the original estimate based on project performance to date. Also called "estimated to complete."

Ethics – In the conduct of their operations, state organizations and their employees will employ information technology in a legal and ethical manner consistent with government statutes, rules, and regulations. Information technology will not be used for purposes that are unrelated

to the state organization's mission or violates state or federal law. Contract provisions, including software licensing agreements, will be strictly enforced.

Exception Reporting – The process of documenting those situations where there are significant deviations from the specifications of a project. The assumption is made that the project will be developed within established boundaries. When the process falls outside of those boundaries, a report is made on why this deviation occurred.

Expected Monetary Value – The product of an event's probability of occurrence and the gain or loss that will result. For example, if there is a 50 percent probability that it will rain, and rain will result in a $100 loss, the expected monetary value of the rain event is $50 (.5 x $100).

- F -

Facilitating Processes – Interactions among processes that are more dependent on the nature of the project.

Fast Tracking – Compressing the project schedule by overlapping activities that would normally be done in sequence, such as design and construction. Sometimes confused with *concurrent engineering.*

Feasibility Study – A formal document in the Initiation Phase that analyzes and discusses the technical feasibility of a project.

Financial Audit – A thorough examination of a project by an evaluation team which includes a detailed overview of the project's financial procedures, budgets, records, etc. It may deal with a project as a whole or the separate individual parts of a project.

Financial Closure – The process of completing and terminating the financial and budgetary aspects of the project being performed. It includes both (external) contract closure and (internal) project account closure.

Finish Date – The day and sometimes time associated with a schedule activity's completion. Can also be a phase, task and/or project completion date. Usually qualified by one of the following: actual. planned, estimated, scheduled, early, late, baseline, target, or current.

Float – The amount of time an activity may be delayed from its early start without delaying the project finish date. Float is a mathematical calculation and can change as the project progresses and changes are made to the Project Plan. Also called *slack*, *total float*, and *path float*.

Forward Pass – The calculation of the early start and early finish dates for the uncompleted portions of all network activities.

Free Float – The amount of time an activity can be delayed without delaying the *early start* of any immediately following activities.

Functional Manager – A manager responsible for activities in a specialized department or function (e.g., engineering, manufacturing, marketing).

Functional Organization – An organization structure in which staff are grouped hierarchically by specialty (e.g., production, marketing, engineering, and accounting at the top level; with engineering further divided into mechanical, electrical, and others).

Function Point – Unit of measure to quantify the overall size and complexity of a computer application.

Functional Requirements – What the systems/products are, do, or provide from the customer's point of view.

- G -

Gantt Chart (Tool) – A graphic display of coordinated schedule-related information. In the typical bar chart, schedule activities or work breakdown structure components are listed down the left side of the chart, dates are shown across the top, and activity durations are shown as date-placed horizontal bars. The time units of measure can be customized to highlight a certain time period or project phase.

Grade – A category or rank used to distinguish items having the same functional use (e.g., "hammer"), but do not share the same requirements for quality (e.g., different hammers may need to withstand different amounts of force).

Graphical Evaluation and Review Technique (GERT) – A network analysis technique that allows for conditional and probabilistic treatment of *logical relationships* (i.e., some activities may not be performed).

Guideline(s) – Used to define a collection of steps that are recommendations to be followed to meet a stated policy(s).

- H -

Hammock – An aggregate or summary activity (a group of related activities is shown as one and reported at a summary level). A hammock may or may not have an internal sequence.

Hanger – An unintended break in a *network path.* Hangers are usually caused by missing *activities* or missing *logical relationships.*

Historical Information –Documentation and data from prior projects including project files, WBSs, records, correspondence, closed contracts, and closed projects. Normally used in the estimation process of similar type projects.

Identify Risks (Process) – The process of determining which risks may affect the project and documenting their characteristics.

Impact Statement – A cause and effect report generated at the manager level to show the impact that new projects will have on current schedules and resources as they enter the work stream.

Implementation – Occurs when products have completed testing are moved into production or into their working environment. Normally used as a term on Information Technology projects.

Independent Project Oversight – A process that employs a variety of quality control, inspection, testing measurement, and other observation processes to ensure that planned project objectives are achieved in accordance with an approved plan. Project oversight is usually done by an independent entity (separate from the project team) trained or experienced in a variety of management and technical review methods. Project oversight includes both technical and management oversight.

Initial Risk Identification – The process during the initial concept phase of identifying risks that might impact a project. The risk identification process is recommended for agencies to evaluate a project.

Initiation – Committing the organization to begin a project phase.

- L -

Lag – The amount of time after one task is started or finished before the next task can be started or finished. For example, in a finish-to-start dependency with a 10-day lag, the successor activity cannot start until 10 days after the predecessor has finished.

Late Finish Date – In the *critical path method,* the latest possible point in time that an activity may be completed without delaying a specified milestone (usually the finish date).

Late Start Date – In the *critical path method,* the latest possible point in time that an activity may begin without delaying a specified milestone (usually the project date).

Lead – The amount of time that precedes the start of work on another task.

Leadership – The way in which the project manager influences the project team to behave in a manner that will facilitate project goal achievement.

Lessons Learned – The learning gained from the process of performing the project, so that other projects can be performed better. Lessons learned can be identified at any point in the project, and should be documented in the Project Notebook.

Life Cycle – The type of methodology to be used in project development, e.g. System Development Methodology, Information Engineering Methodology, or Rapid Application Development Methodology.

Life Cycle Costing – The concept of including acquisition, operating, and disposal costs when evaluating various alternatives.

Logical Relationship – A dependency between two project activities, or between a project activity and a milestone. See also *precedence relationship.* The four possible types of logical relationships are:

- Finish-to-start: the "from" activity must finish before the "to" activity can start.
- Finish-to-finish: the "from" activity must finish before the "to" activity can finish.
- Start-to-start: the "from" activity must start before the "to" activity can start.
- Start-to-finish: the "from" activity must start before the "to" activity can finish.

- M -

Management Project Oversight – The process of evaluating and monitoring the project management processes that exist for a given project and ensuring that the stated process conforms to the project plan.

Management Reserve – A separately planned quantity used to allow for future situations which are impossible to predict (sometimes called "unknown *unknowns").* Management reserves may involve cost or schedule. Management reserves are intended to reduce the risk of missing cost or schedule objectives. Use of management reserve requires a change to the project's cost baseline.

Master Schedule – A summary level project schedule that identifies the major deliverables and work breakdown schedule components and key schedule milestones.

Matrix Organization – Any organizational structure in which the project manager shares responsibility with the functional managers for assigning priorities and for directing the work of individuals assigned to the project.

Methodology – Used to define the processes, policies, and guidelines that are included as part of the framework for project management.

Milestone – A significant event in the project usually completion of a major deliverable.

Milestone Schedule – A summary-level schedule, which identifies the major milestones.

Mission Statement – A concise statement, usually one paragraph, summarizing what the project is about and what it will accomplish.

Mitigation – Taking steps to lessen risk by lowering the probability of a risk event's occurrence or reducing its effect should it occur.

Monitor and Control Project Risks (Process) –Tracking, reviewing, evaluating and directing the progress to meet the performance objectives defined in project documentation such as Project Charter and/or in the SOW.

Monitor and Control Risks (Process) –Developing and implementing risk response plans, tracking and evaluating identified risks, monitoring residual risks, identifying new risks and opportunities, and continual assessment of risks throughout the project.

Monitoring – The capture, analysis, and reporting of project performance, usually as compared to plan.

Monte Carlo Analysis – A schedule risk assessment technique that performs a project simulation many times in order to calculate a distribution of likely results.

- N -

Near Critical Activity – An activity that has low total float.

Network Analysis – The process of identifying early and late start and finish dates for the uncompleted portions of project activities. See also *Critical Path Method, Program Evaluation and Review Technique,* and *Graphical Evaluation and Review Technique.*

- O -

Opportunity – Usually identified in Risk Assessment and Mitigation activities. It is a variable or situation that could be favorable to the project. Such as a positive set of circumstances, a positive set of events, and/or a risk that will have a positive impact on project objectives.

Order of Magnitude – This is an approximate estimate made without detailed data that is usually produced from cost data. This type of estimate is used during the formative stages of an expenditure program for initial evaluation of the project.

Organizational Breakdown Structure (OBS) – A depiction of the project organization arranged so as to relate *work packages* to organizational units.

Organizational Planning – Identifying, documenting, and assigning project roles, responsibilities, and reporting relationships.

- P -

Parametric Estimating – An estimating technique that uses a statistical relationship between historical data and other variables (e.g., square footage in construction, lines of code in software development) to calculate an estimate.

Pareto Diagram – A histogram that, ordered by frequency of occurrence, shows how many results were generated by each identified cause.

Path – A set of sequentially connected activities in a *project network diagram.*

Path Convergence – In mathematical analysis, the tendency of parallel paths of approximately equal duration to delay the completion of the milestone where they meet.

Percent Complete – An estimate, expressed as a percent, of the amount of work which has been completed on an activity or group of activities.

Performance Reporting – Collecting and disseminating information about project performance to help ensure project progress.

Performing Organization – The enterprise whose employees are most directly involved in doing the work of the project.

PERT Chart – A specific type of *project network diagram.* See *Program Evaluation and Review Technique.*

Policy – A succinct statement that gives direction to state organizations to support IT implementation. Policies are high-level, overall statements that do not dictate specific procedural steps or processes. Directives issued by management for guidance and direction where uniformity of action is essential.

Portfolio – A collection of projects or programs and other work that are grouped together to facilitate effective management of that work to meet objectives.

Portfolio Management – The centralized management of one or more portfolios, which includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work, to achieve specific strategic business objectives.

Post Implementation Evaluation Report (PIER) – Documents the successes and failures of the project. It provides a historical record of the planned and actual budget and schedule. Other selected metrics on the project can also be collected based upon state organization procedures. The report also contains recommendations for other projects of similar size and scope.

Precedence Diagramming Method (PDM) – A network diagramming technique in which activities are represented by boxes (or nodes). Activities are linked by *precedence relationships* to show the sequence in which the activities are to be performed.

Precedence Relationship – The term used in the *precedence diagramming method for a logical relationship.* In current usage, however, precedence relationship, logical relationship, and dependency are widely used interchangeably regardless of the diagramming method in use.

Process – A set of interrelated actions and activities performed to achieve a prespecified set of products, results, or services.

Predecessor Activity –A task or activity that precedes, or comes before, another task or activity. In the *precedence diagramming method,* the "from" activity.

Priority – The imposed sequences desired with respect to the scheduling of activities within previously imposed constraints.

Procedure – Used to define a collection of steps that the organization is responsible for implementing to ensure that policies and process requirements are met. The agency may use guidelines to develop these procedures.

Product – General terms used to define the end result of a project delivered to a customer.

Product Description Statement – A non-formal, high level document that describes the characteristics of the product/process to be created.

Program – A group of related projects managed in a coordinated way. Programs usually include an element of ongoing activity.

Progress Analysis – The evaluation of progress against the approved schedule and the determination of its impact. For cost, this is the development of performance indices.

Program Evaluation and Review Technique (PERT) – An event-oriented network analysis technique used to estimate project duration when there is a high degree of uncertainty with the individual activity duration estimates. PERT applies the *critical path method* to a weighted average duration estimate.

Project – A temporary endeavor undertaken to create a unique product or service.

Project Administration – Entails making Project Plan modifications that may result from such things as: new estimates of work still to be done, changes in scope/functionality of end-product(s), resource changes and unforeseen circumstances. It also involves monitoring the various Execution Phase activities, monitoring risks, status reporting, and reviewing/authorizing project changes as needed.

Project Charter – A document issued by senior management that provides the project manager with the authority to apply organizational resources to project activities.

Project Communications Management – A subset of project management that includes the processes required to ensure proper collection and dissemination of project information. It consists of communications planning, information distribution, performance reporting, and administrative closure.

Project Concept Document – The document that is the foundation for making a decision to initiate a project. It describes the project purpose and high level planning information to determine project viability.

Project Control – A project management function that involves comparing actual performance with planned performance, and taking corrective action to yield the desired outcome, when significant differences exist.

Project Cost Management – A subset of project management that includes the processes required to ensure that the project is completed within the approved budget. It consists of *resource planning, cost estimating, cost budgeting,* and *cost control.*

Project Duration – The elapsed time from project start date through to project finish date.

Project Human Resource Management – A subset of project management that includes the processes required to make the most effective use of the people involved with the project. It consists of *organizational planning, staff acquisition,* and *team development.*

Project Initiation – A process that occurs before the organization has begun the Project Planning Phase and denotes a series of steps to have the project externally approved and started, including selection of the project manager.

Project Integration Management – A subset of project management that includes the processes required to ensure that the various elements of the project are properly coordinated. It consists of *Project Plan development, Project Plan execution,* and *overall change control.*

Project Management – The application of knowledge, skills, tools, and techniques to project activities in order to meet project requirements.

Project Manager – The individual appointed and given responsibility for management of the project.

Project Network Diagram – Any schematic display of the logical relationships of project activities. Always drawn from left to right to reflect project chronology. Often incorrectly referred to as a "PERT chart."

Project Oversight – A process that employs a variety of quality control, inspection, testing measurement, and other observation processes to ensure that planned project objectives are achieved in accordance with an approved plan. Project oversight is usually done by an independent entity (separate from the project team) trained or experienced in a variety of management and technical review methods. Project oversight includes both technical and management oversight. (Same as Independent Project Oversight).

Project Phase – A collection of logically-related project activities, usually culminating in the completion of a major *deliverable.*

Project Plan – A formal, approved document used to guide both project execution and project control. The primary uses of the Project Plan are to document planning assumptions and decisions, facilitate communication among stakeholders, and document approved scope, cost, and schedule baselines.

Project Procurement Management – A subset of project management that includes the processes required to acquire goods and services from outside the performing organization. It consists of *procurement planning, solicitation planning, solicitation, source selection, contract administration,* and *con tract closeout.*

Project Quality Management – A subset of project management that includes the processes required to ensure that the project will satisfy the needs for which it was undertaken. It consists of *quality planning, quality assurance,* and *quality control.*

Project Risk Management – A subset of project management that includes the processes concerned with identifying, analyzing, and responding to project risk. It consists of *risk identification, risk quantification, risk response development,* and *risk response control.*

Project Schedule – The planned dates for performing activities and the planned dates for meeting milestones.

Project Scope Management – A subset of project management that includes the processes required to ensure that the project includes all of the work required, and only the work required, to complete the project successfully. It consists of *initiation, scope planning, scope definition, scope verification,* and *scope change control.*

Project Time Management – A subset of project management that includes the processes required to ensure timely completion of the project. It consists of *activity definition and activity sequencing, activity duration estimating, schedule development,* and *schedule control.*

Project Transition Checklist – A document that ensures that the activities of the Planning Phase have been finished, reviewed, and signed off so that the project may move from the Planning Phase into the Execution Phase.

- Q -

Quality – A composite of attributes (including performance features and characteristics) of the product, process, or service required to satisfy the need for which the project is undertaken.

Quality Assurance (QA) – The process of evaluating overall project performance on a regular basis to provide confidence that the project will satisfy the relevant quality standards.

Quality Control (QC) – The process of monitoring specific project results to determine if they comply with relevant quality standards and identifying ways to eliminate causes of unsatisfactory performance.

Quality Management – A collection of quality policies, plans, procedures, specifications, and requirements is attained through quality assurance (Managerial) and quality control (Technical).

Quality Planning – Identifying which quality standards are relevant to the project and determining how to satisfy them.

- R -

Remaining Duration – The time, expressed in calendar units, needed to complete an activity.

Requirements Document – A formal document that outlines the high level requirements of a technical project.

Reserve – A provision in the Project Plan to mitigate cost and/or schedule risk. Often used with a modifier (e.g., *management reserve, contingency reserve)* to provide further detail on what types of risk are meant to be mitigated. The specific meaning of the modified term varies by *application area.*

Resource – Something that lies ready for use or that can be drawn upon for aid or to take care of a need.

Resource Leveling – Any form of *network analysis* in which scheduling decisions (start and finish dates) are driven by resource management concerns (e.g., limited resource availability or difficult-to-manage changes in resource levels).

Resource-Limited Schedule – A project schedule whose start and finish dates reflect expected resource availability. The final project schedule should always be resource-limited.

Resource Loading Profiles – Detailed staffing plan including number of personnel by type over time.

Resource Planning – Determining what resources (people, equipment, materials) are needed in what quantities to perform project activities.

Responsibility Assignment Matrix – A structure which relates the project organization structure to the *work breakdown structure* to help ensure that each element of the project's scope of work is assigned to a responsible individual.

Retainage – A portion of a contract payment that is held until contract completion in order to ensure full performance of the contract terms.

Risk – An uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives.

Risk Assessment – Review, examination, and judgment of whether or not the identified risks are acceptable. Initial risk assessment is used as a tool to determine project oversight requirements.

Risk Event – A discrete occurrence that may affect the project for better or worse.

Risk Identification – Determining which risk events are likely to affect the project.

Risk Management – The art and science of identifying, analyzing, and responding to risk factors throughout the life of a project and in the best interests of its objectives.

Risk Mitigation – The act of revising the project's scope, budget, schedule, or quality in order to reduce uncertainty on the project.

Response Development – Defining enhancement steps for opportunities and mitigation steps for threats.

- S -

Schedule – The planned dates for performing activities and for meeting deliverables.

Schedule Baseline –The first approved project schedule. It is used to compare actual results to the original plan to determine if preventive or corrective action is needed to meet the project objectives. Also is used to derive historical information for future similar type projects.

Schedule Compression – Shortening the project schedule duration without reducing the project scope.

Schedule Development – Analyzing activity sequences, activity durations, and resource requirements to create the project schedule.

Schedule Performance Index (SPI) – The ratio of work performed to work scheduled.

Schedule Variance (SV) – Any difference between the scheduled completion of an activity and the actual completion of that activity.

Scope – The sum of the products and services to be provided as a project.

Scope Change – Any change to the project scope. A scope change almost always requires an adjustment to the project cost or schedule.

Scope Creep – The gradual addition of new requirements to the original product specifications.

Scope Definition – Decomposing the major deliverables into smaller, more manageable components to provide better control.

Scope Planning – Developing a written scope statement that includes the project justification, the major deliverables, and the project objectives.

Scope Statement – A document capturing the sum of products and services to be provided as a project. The Scope Statement is part of the Project Plan.

Scope Verification – Ensuring that all identified project deliverables have been completed satisfactorily.

Slack – Term used in *PERT* or arrow diagramming method for *float.*

Specification Documents – Documents that provide specific information about the project deliverable characteristics.

Slippage – The tendency of a project to exceed original estimates of budget and time.

Sponsor – The individual or group that provides the financial resources, in cash or in kind, for the project.

Stakeholder – Individuals and organizations who are involved in or may be affected by project activities.

Start Date – The day and sometimes the time associated with a schedule activity's start, usually qualified by one of the following: actual, planned, estimated, scheduled, early, late, target, baseline, or current.

Statement of Work (SOW) – A narrative description of products or services required to be included in a Request for Purchase (RFP) and/or supplied under contract.

State Organization – Used to define a general state organizational level consisting of the Agency and Departments interchangeably. Reference to Agency (with a capital "A") is used for specific reference to an Agency or that specific organizational level.

Status Reports – A report containing information on a specific project, indicating if the project is ahead of schedule, on schedule, or behind schedule in relation to the project plan.

Successor Activity – A task or activity that succeeds, or comes after, another task or activity. In the *precedence diagramming method,* the "to" activity.

- T -

Task – Well defined components of project work. Also can be referred to as a *work package*.

Team Member – The individuals, reporting either part time or full time to the project manager, responsible for some aspect of the project's activities.

Template – A *document* in a predefines format that provides a defined structure for collecting, organizing and presenting information and data. Templates are often based upon documents created during prior *projects*. Templates can reduce the *effort* needed to perform *work* and increase the consistency of *results*.

Testing – The actual test of the products or processes created within the development phase of an Information Technology project.

Time-Scaled Network Diagram – Any *project network diagram* drawn in such a way that the positioning and length of the activity represents its duration. Essentially, it is a bar chart that includes *network logic.*

- V –

Variance – A quantifiable difference, deviation, or divergence away from the known baseline or expected value.

Variance Analysis (Technique) – Investigation and discovery of the difference between the actual and planned quantitative outcomes of the scope, cost, and /or schedule. A detailed look at the variables in specific components variances that are associated with defined factors affecting the scope, cost, and schedule variables.

- W -

Workaround (Technique) – A response to a negative risk event. Distinguished from contingency plan in that a workaround is not planned in advance of the occurrence of the risk event.

Work Breakdown Structure (WBS) – A deliverable-oriented grouping of project elements which organizes and defines the total scope of the project including milestones and deliverables. Each descending level represents an increasingly detailed definition of a project component. Project components may be products or services.

Work Effort – 1) The amount of time to complete the specific task only, i.e. the amount of time required from start to finish with no other interruptions (other commitments, work, meetings, etc.). 2) Physical or mental activity directed towards doing or making something.

Work Package – A deliverable at the lowest level of the *work breakdown structure.* Can also be referred to as a *task.*