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## Project Portfolio Management

Artech India's Project Portfolio Management succeeds in coordinating a series of projects under a solo portfolio comprised of important data, covering project objectives, expenditure, timelines, activities, resources and other minor but significant aspects. This helps in guiding the project management in an efficient manner by exploiting resources appropriately, accurate testing and delivering the goods in set time period. Therefore, PPM provides a standard and valuable system to evaluate the effectiveness of Project progress and required modifications for developing innovative project practices.

### Project Request & Project Proposal Development:

At Artech India, our IT experts analyse the Project guidelines provided by the client to identify the precise problems to be addressed, their solution, as well as various available alternatives. This phase is really important for the success of overall project planning and its adequate execution.

This phase focuses on the following aspects of the Project portfolio management:

- Responsibilities and their deployment to achieve objectives.
- Required material to execute project - equipment, computer support, human resources, cost, etc.
- Details about the design of the project.
- Application of surveys or interviews to analyse the project details.
- Formulation of the project deadlines.

Artech India prepares a 'Project Request & Project Proposal Development' document that covers all the abovementioned points comprehensively. In first phase of this document, it includes the introduction of the Project and its background information. The second phase deals with the complexities and its cost-related information.

Artech India provides its clients a clearer view of the Project through this document. We believe in empowering our clients and involve them in Project functioning procedures in a creative mode.

### Project Status Reporting:

Project Status Reporting is another tool that Artech India has adapted to its functional approach to provide a step-by-step progress account of the Project events. A routine Project Status Report is an insight in the Project progress level and all the difficulties it is facing at the current time. At Artech India, these Project status reports are an integral part

of the Project profile management and it begins as soon as the Project begins. Artech India follows the following standards in the Project Status Report:

**Communication Strategy:** Under this category, all kinds of strategic communication occurs, like the arrangement of meeting pattern and meeting agenda, telephonic conferences, and email, memos, forms or project management software.

**Content Strategy:** Under this category, the basic content of the various status reports as well their format is discussed briefly. It also covers the meeting agendas.

**Phase Strategy:** Here, the anticipated frequency and time limit is determined for specific status reports for analysing the project progress.

**Feedback Strategy:** Status reporting, at Artech, works both ways. It is complemented with adequate feedback from all the involved parties.

**Emergency Communication Strategy:** In case, any deadline is missed, it must be reported immediately. This emergency communication keeps the tab on the missed deadlines.

## Project Review:

Artech India follows a standard Project Review process - executed during the project completion period. It is carried out to collect Project details, such as implemented procedures, their effects and final output.

In a few cases, where the Project is executed over a longer period, we divide the review system in various phases and consistently analyse the Project progress at the end of each important phase.

Our project analysts, Project Manager and other operational staff combine their views and create a joint review for the Project. The process, which aims at adequate examination of the Project planning and execution, evaluates all aspects, like deadlines, Project outputs and other important things.

The Project Review process consists of:

- **Review Meeting:** Project Manager and team members have a final meeting for sharing experiences during the Project. A final meeting with senior management is then carried out to review the Project successes and failures.

- **Actual Effort Spent Calculation:** Recalculation of efforts spent in the Project is carried out. The Project Manager provides input for the updation of the organisation-wide statistical data.
- **Project Plan Updation:** Project Plan is updated with the latest available data (if it has not already been done).
- **Recognising the minor and major achievements of the Project.**
- **Areas with scope for improvement are studied and analysed to find a suitable solution.**
- **Processes and procedures, especially those that have failed to achieve their purpose adequately, are analysed.**
- **These conclusions are then used for application in future projects.**

**Client Communication:** As per the communication requirement identified in the Project plan, the Project Manager sends a communication to the client.

**Record Management:** The Project Manager ensures final safekeeping of records and sources as per the Configuration Management Plan.

**Project Closure Document:** The final Project Closure document, listing out the experiences from the Project, its successes and failures, is prepared and filed for future reference. It includes statistical analysis (metrics towards schedule and cost variance).

### **Project Management Resource Facility:**

Artech India has built a high-tech Project management resource facility at Bangalore with an eye to capitalizing on its large pool of resource expertise. This facility has all the amenities required to execute an IT software project.

This Artech facility provides the ‘look and feel with profound expertise’ in Project management resources. Our Project management facility also provides a strong integration of all projects with their separate reporting status. Artech India has adapted a simple approach and inherent flexibility while implementing the project execution and resource management.

Our Project management resources engage in planning, developing, administering and managing people, procedures and communication that occur as the Project evolves from the first-round model to set execution. These activities are aimed at utilising resources in the best possible manner.

At its most basic level, Project and resource management is a way for institutions to ensure that they are producing a quality end product while optimising their available resources and limiting the fiscal effect of unanticipated risks.

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## Project Management Process Model:

Project Management Process Model overlays the entire software development process from beginning to end. In order to conduct a successful project, this process is followed by all Project Lead/Managers.

The Project Management Process begins from understanding and planning what is to be done in the Project, the required resources, tasks and milestones, and efforts needed. It involves follow-up of schedules, monitoring and control for the entire project lifecycle and the project closure.

## Project Management Tools:

Artech India exploits a group of IT Project management tools during a project's lifecycle. These tools enable our managers to work with a minimum of redundant effort.

**Change Management:** Change Management tool tracks all change requests for individual projects. It includes assigning and prioritising change requests, as well as coordination and review with the client. Impact analysis acts as an input to risk management for mitigation steps if required. The Change Management process is independent of any other modules of Project management. A continuous process throughout the Project lifecycle, it is a crucial implementation tool needed for the Project success.

All changes are categorized on the basis of the complexity and critical nature of the Project. Changes that do not require client intervention are directed to resources for execution. In case client intervention is required, the relevant resource is immediately notified and based on the approval or rejection, the changes are either executed or deferred.

**Communication Management:** Communication Management describes the process establishing communication protocols and procedures between Artech and our clients. As part of our primary focus in Project management, Communication Management is given high priority. In keeping with open communication, our clients are encouraged to communicate directly with the Project team whenever required. However, if any issue needs to be highlighted, we provide an escalation mechanism that follows a hierarchy defined in the Escalation Hierarchy Section of the Project management plan.

The communication protocols and procedures are established by the Project Manager, in consultation with our client, during the Project planning stage. Communication planning includes determining the information needs of the stakeholders, the frequency at which they need the information and the appropriate format of presentation of the information. These are documented in the Project management plan and are periodically revisited to ensure that information needs are continually met. It is anticipated that during initial stages the need for communication will be very high but as the Project evolves, communication needs will moderate to that of a regular, steady state need.

Artech organises client meetings at client decided intervals and provides structured walk-through, demonstrations and/or presentations of work proceedings at pre-decided Project milestones to ensure that all Project stakeholders are kept informed. Other reports, like Project progress reports, quality test results, quality trends, bug-fix reports and delivery status reports, are reviewed during Management Review or Steering Committee Review. Our technical team and account executive stay in constant touch with the client to ensure speedy issue resolution at various levels (eg, technical, technology, business functions).

We make optimal utilization of technology (email, phone, fax, data dictionary sharing) to set up the best means of information dissemination. Towards this end, we have set up an international private leased line between our development centres in Morristown, New Jersey and New Delhi, India, to provide instantaneous voice and data connectivity, as required. Both of our development centres are equipped with state of the art facilities to support large development projects.

**Scope Management:** Scope Management ensures that the Project includes all work required to achieve the goals of the client. Scope Management activities are mainly centred during the initial stages of the project. While planning and definition are the main activities of this management area, scope control is an integral process of the Project and takes place throughout the Project lifecycle. Change requests that pertain to addition, modification or removal of features will automatically trigger scope control. Artech guides the client throughout the Project to work within the defined perimeter of the Project scope. However, the control and planning process takes care of any changes to Project scope.

**Cost management:** Artech's cost management procedure ensures that the project is completed within the estimated budget or within the parameters of the approved changes. Our cost estimation is based primarily upon 'Function Point Analysis'. A combination of the number of function points and the function point matrix along with the time schedule, resource, and other overheads contribute to our project costing. Artech is continually striving to provide a best-value product to all our customers. All tasks are initially assigned role description-based resources, which further define the profile and level of expertise required to accomplish the task. Artech pools resources from our internal employees and available talent in the market.

A major part of this process is constant monitoring to control cost. The initial budget is further checked by a mid-term project analysis to identify deviations or potential deviations. Project metrics related to cost and schedules also serve as an input for future projects.

**Time Management:** Time Management is primarily concerned with the process required to ensure timely completion of the Project tasks. The process involves defining tasks and sub-tasks to accomplish a goal. The goal in this case is completion of a deliverable within the allotted time and budget. The tasks are defined in terms of activities, scope and constraints. All tasks are detailed to provide clarity. The tasks are arranged in accordance with the development methodology. Based on the development model, all tasks are arranged to complete the deliverables according to the level of task. Lower-level tasks are an input to the higher level-tasks, which, in turn, provide input further up the hierarchy. Activity duration is estimated based on the 'Function Point Analysis' model of task effort estimation.

Based on the above input, a schedule of activities is formed to outline starting and ending days. Artech uses Microsoft Project for scheduling tasks and monitoring progress. Critical path analysis is done to quantify project lag/slack time. MS Project is also used for assigning resources, defining milestones, adding tasks constraints, assigning dependencies, etc. We further use MS Project to monitor and level task assignments, manage over-allocation/under-allocation of tasks to specific resources. The schedule at the design stage is an estimated schedule. During the course of the lifecycle of the Project, the Project Manager adjusts the schedule to reflect the actual timeline, manages changes to work plan, and reports on the effect of these changes on the Project's schedule. All changes are based on the basic guidelines provided by the contract. In case of any major changes, the client/stakeholders of the project are notified and the Project Manager obtains written authorization to proceed.

### **Project Management Training and Education:**

At Artech India, collective growth is the result of individual growth. We focus on the employees' expertise growth and their escalation in terms of personal and professional ways. Artech India works in diverse fields. Artech employees from different realms work together to achieve collective output in a world of change.

The structured Project management approach enables the Company to bring together parties with diverse needs and requirements sometimes over a wide geographic spread to achieve desired outcomes.

The bottom line is about improving business performance by applying specific principles time and again to bring in projects on time, within budget, and to specifications.