PROJECT ANAGEMENT LOOLS CUSTOMER & COMPETITIVE INTELLIGENCE FOR PRODUCT, PROCESS, SYSTEMS & ENTERPRISE EXCELLER

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- READER CSE
- SPM LECTURE-005



Objectives

- Understand the difference between a project and project management
- Develop a working knowledge of how to properly scope a project for success
- Schedule project activities using a Gantt chart

What is a Project?

A project is a *sequence of unique*, *complex*, and *connected activities* having *one goal* or purpose and that must be completed by a *specific time within budget*, and *according to specifications*.

Project Management Criteria

- Projects are oriented towards a goal.
- There is something <u>unique</u> about every project.
- Projects have a finite duration.
- Projects require coordination of interrelated activities.

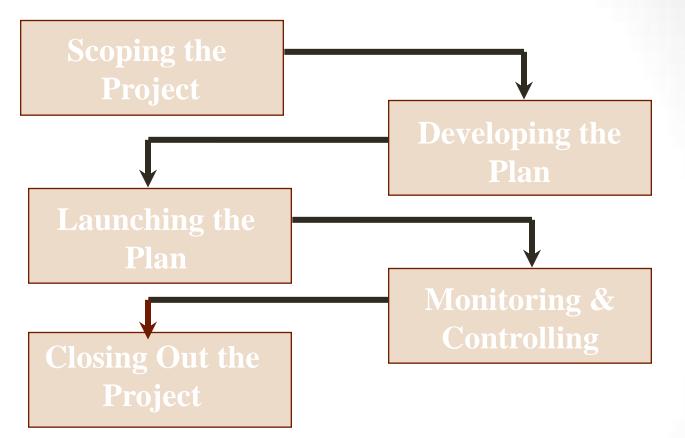
What is Project Management?

- Project management is a set of principles and tools for
 - Defining
 - Planning
 - Executing
 - Controlling ... and
 - Completing a PROJECT

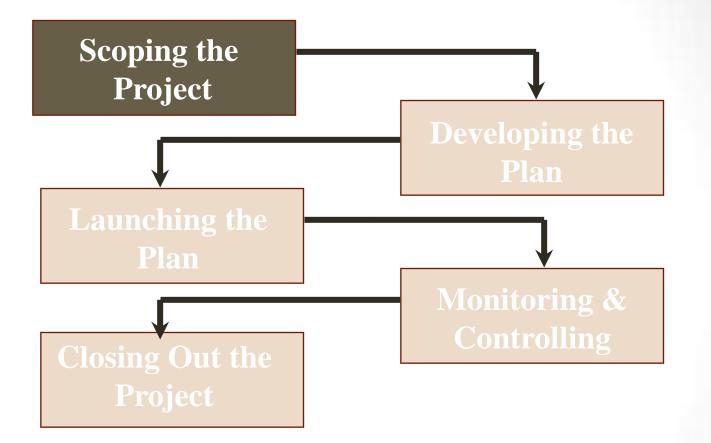
Why is Project Management Important?

- Organize your approach
- Generate a credible schedule
- Track progress and control your project
- Identify where to focus your efforts
- Identify problems early before they are crises
- Saves you TIME....MONEY

If you fail to plan, PLAN TO FAIL



Five Phases of Project Management



Five Phases of Project Management



Scoping The Project

A short, crisply phrased piece of information covering

- -- what is to be done
- -- why it is to be done
- -- value it provides if it is done

Do not use technical language!

Scoping Document

Scoping Document Example

- Problem/opportunity
- Project name, sponsor, manager
- Singular Project Goal
- Objectives that are Specific, Measurable, Assignable, Realistic, Time based (SMART)
- Success criteria
- Assumptions, risks, obstacles

Scope the Project: Problem/Opportunity

- A statement of fact that everyone in the organization will accept as true
- Should communicate why the project should be accomplished

Scope the Project - Goal

- A project has one primary goal: to give purpose and direction
 - Defines the final deliverable and outcome
 - States in clear terms what is to be accomplished
 - Is a reference point for questions about scope and purpose of the project

SMART Objectives

- -**S**pecific
- **M**easurable
- Assignable
- **R**ealistic
- Time-related

Success Criteria

- Clearly states the bottom-line impact
- Quantifies outcomes so success can be measured

Scope the Project – Objectives & Success Criteria

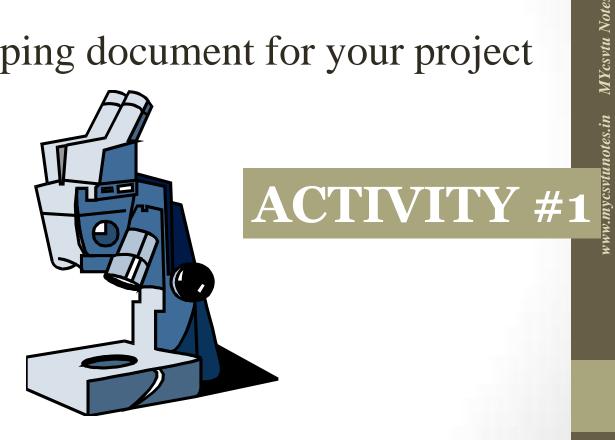
- Identify factors that might affect the outcome or completion of the project
- Used to alert management to factors that may interfere with project work
- Types of assumptions and risks
 - Technological
 - Environmental
 - Interpersonal
 - Cultural
 - Political

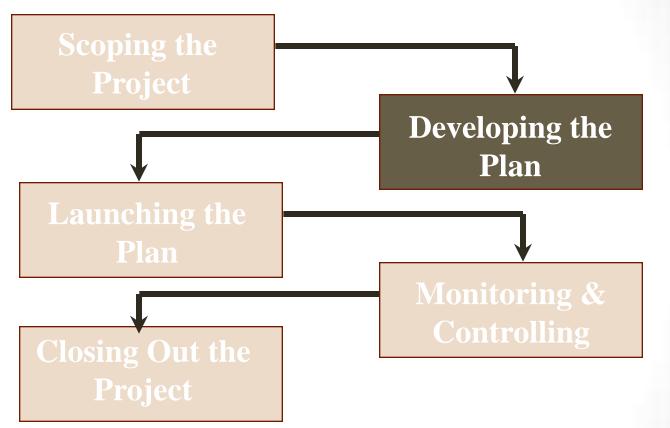
Scope the Project: Assumptions, Risks

Project Scoping Form					
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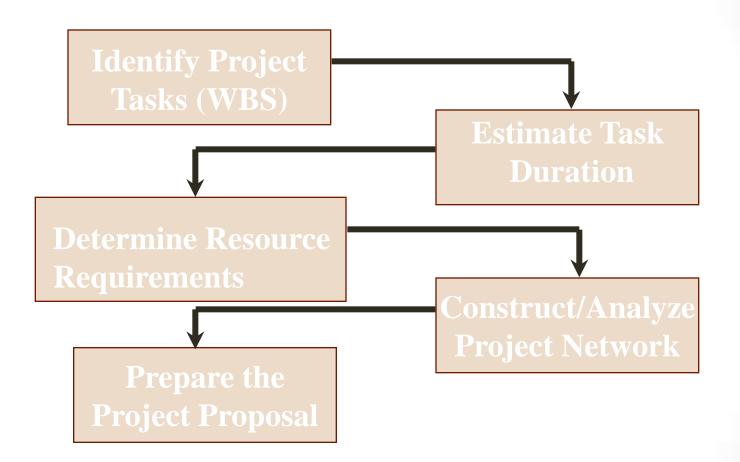
Scope the Project

• Create a scoping document for your project





Five Phases of Project Management



Developing The Plan

Planning the Project: Work Breakdown Structure (WBS)

- A WBS is the functional decomposition of a system
- Breaks the project into chunks of work at a level of detail that meets planning and scheduling needs

Prepare at home (level 1 task)

Create Grocery List (level 2 task) check pantry for needed items (level 3 task) check refrigerator for needed items check items in refrigerator for expiration date Determine method of payment

Transport to store

Select method of transportation, e.g., car Select route Drive to store Park

Prepare at store

Select method of holding groceries Plan for gathering groceries etc.

WBS Example: Grocery Store

WBS Completeness

- Status/completion are measurable
- Clearly defined start/end events
- Activity has a deliverable
- Time/cost easily estimated
- Activity duration within acceptable limits
- Work assignments are independent

Project Planning Activity

ACTIVITY #2

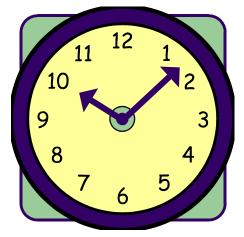
• Create a work break down structure (WBS) for the project you identified in the scoping document. Identify and sequence tasks.

Project Planning: Resources

- People skills and value
- Facilities
- Equipment
- Money
- Materials
- Time

Duration - Estimation

- Similarity to other activities
- Historical data
- Expert advice



Duration Is a Cause of Variation

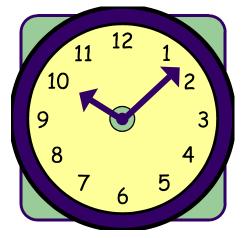
- Sources of variation:
 - Varying skill levels
 - Unexpected events
 - Efficiency of work time



– Mistakes and misunderstandings

Resource Activity

- Identify all the resources required for each activity
- Estimate the duration of each task



Dependencies

- Linkage between and among activities/tasks
- Dependencies create the backbone of the project network



Dependencies

- Finish to start
- Predecessor Task: A

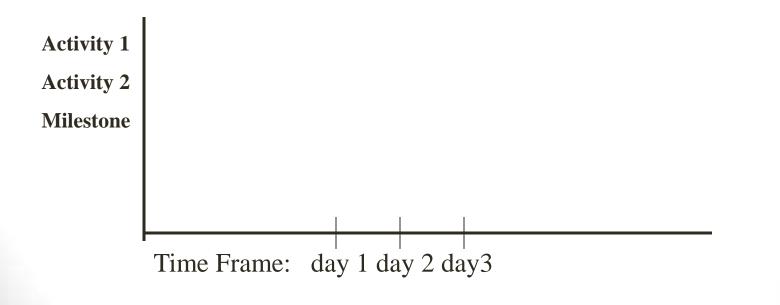


- Successor Task: B
- Arrow head indicates dependency relationship: Task B cannot begin until Task A is complete

Gantt Chart

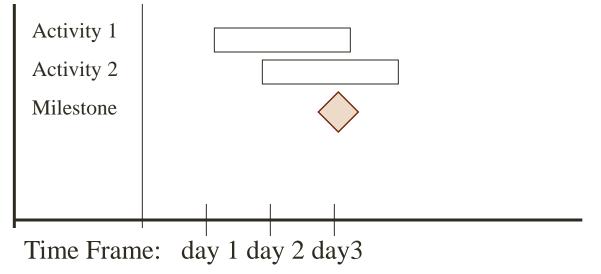
- Visual scheduling tool
- Graphical representation of information in WBS
- Show dependencies between tasks, personnel, and other resources allocations
- Track progress towards completion

- List all tasks and milestones from the WBS along the vertical axis
- List time frame along the horizontal axis



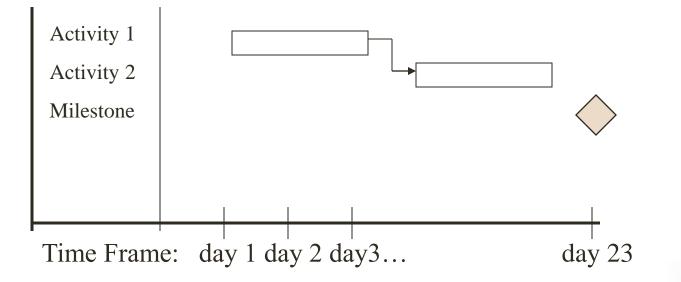
Building a Gantt Chart

- Activities: Create box the length of each activity time duration
 - E.g., activity one is scheduled from day1-day3
- Milestones: Create a diamond on the day the milestone is scheduled to be completed

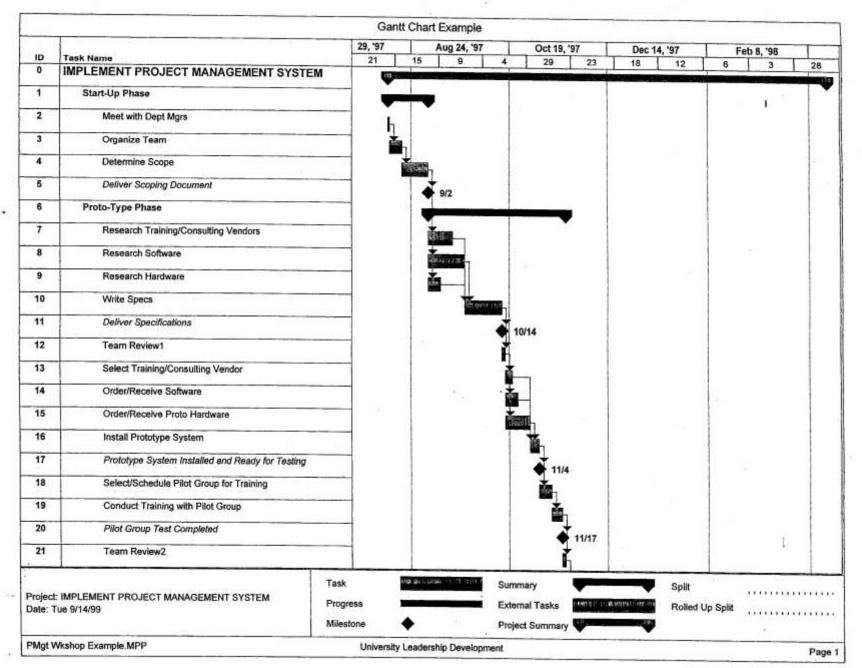


Building a Gantt Chart

- Dependencies: Show dependencies between activities with arrows
 - E.g., activity 2 cannot start until activity 1 is complete

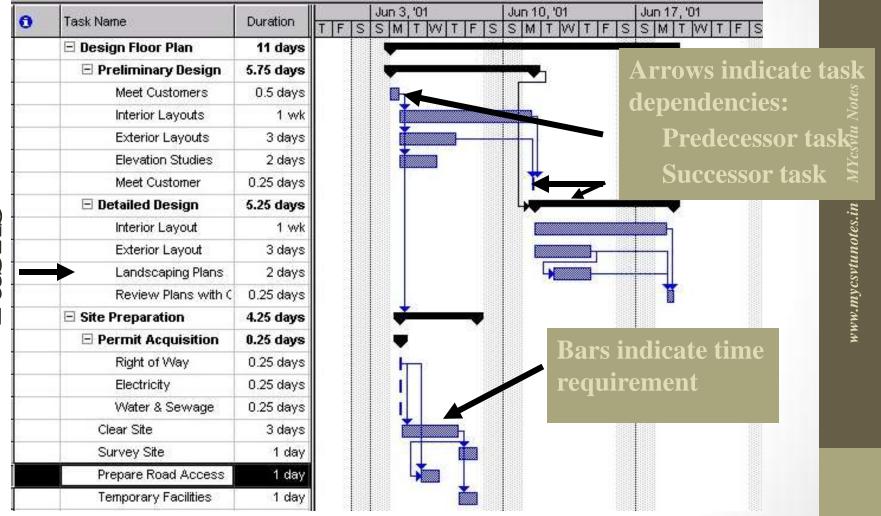


Building a Gantt Chart



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Gantt Chart – Example



Estimated time to complete a task

Tasks

Responsibility Matrix

• Creates accountability by assigning each task to a person

Task	Joe	Mary	Renee
Activity 1		X	
Activity 2	X		
Activity 3			X

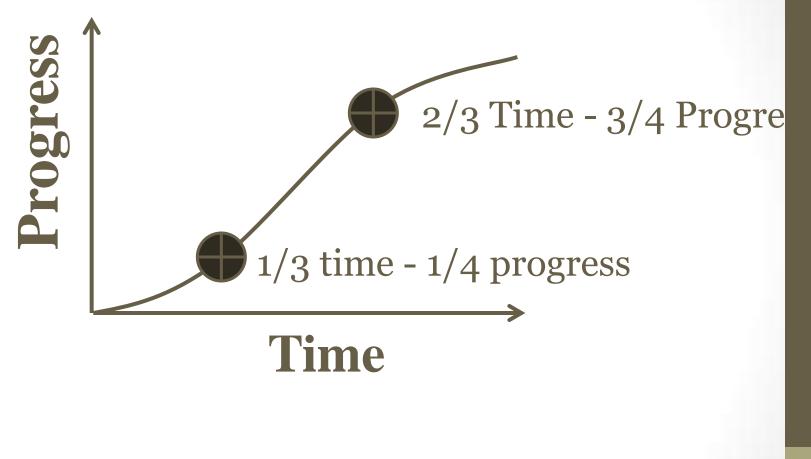
Gantt Chart Activity

ACTIVITY #3

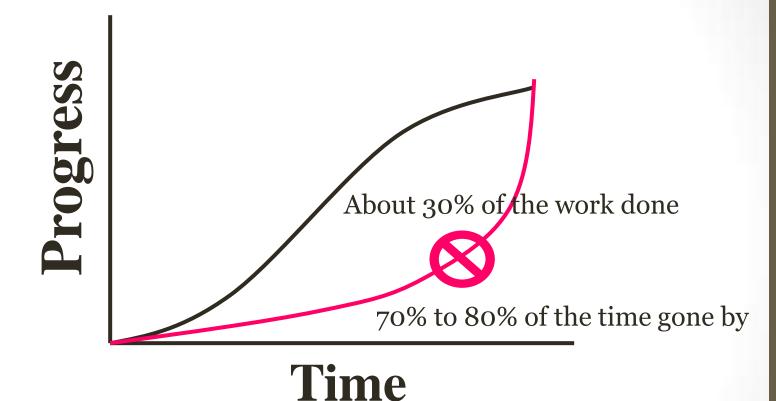
 Based on the WBS (tasks, durations, and dependencies) create a Gantt Chart <u>and</u> Responsibility Matrix.

Look Out for the Creepers!

- <u>Scope Creep</u> Change is constant must be accommodated (Comes from the *customer*)
- *Hope Creep* Check status reports
- *Effort Creep* Status reports record progress, but there is no change in the % completed
- *Feature Creep* Similar to Scope Creep but comes from *the provider*.



Standard S Curve



The Curve To Avoid!

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Background

- What is the difference between project management and program management?
- Is the distinction important to you?
- is this merely semantics?
- How is the distinction helpful to you in your work?
- What is the relationship between the two and how do they work together?
- Naturally we believe there is a lot to be gained from thinking at the program level but we'd love to hear what other professionals think as we get the PMO department on the air

Project Management Context

- Project management exists in a broader context that includes program management, portfolio management and project management office.
- Frequently, there is a hierarchy of strategic plan, portfolio, program, project and subproject, in which a program consisting of several associated projects will contribute to the achievement of a strategic plan.

Programs and Program Management

- A program is a group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually.
- Programs may include elements of related work outside of the scope of the discrete projects in the program.

For example:

- A new car model program can be broken up into projects for the design and upgrades of each major component (for example, transmission, engine, interior, exterior) while the ongoing manufacturing occurs on the assembly line
- Many electronics firms have program managers who are responsible for both individual product releases (projects) and the coordination of multiple releases over a period of time (an ongoing operation).

Programs also involve a series of repetitive or cyclical undertakings

- Utilities often speak of an annual "construction program," a series of projects built on previous efforts
- Many nonprofit organizations have a "fundraising program," to obtain financial support involving a series of discrete projects, such as a membership drive or an auction
- Publishing a newspaper or magazine is also a program with each individual issue managed as a project. This is an Example of where general operations can become "management by projects".
- In contrast with project management, program management is the centralized, coordinated management of a group of projects to achieve the program's strategic objectives and benefits.

Portfolios and Portfolio Management

- A portfolio is a collection of projects or programs and other work that are grouped together to facilitate effective management of that work to meet strategic business
- objectives.
- The projects or programs in the portfolio may not necessarily be interdependent or directly related.
- Funding and support can be assigned on the basis of risk/reward categories, specific lines of business, or general types of projects, such as infrastructure and internal process improvement.

Portfolio management

- Organizations manage their portfolios based on specific goals.
- One goal of portfolio management is to maximize the value of the portfolio by careful examination of candidate projects and programs for inclusion in the portfolio and the timely exclusion of projects not meeting the portfolio's strategic objectives.
- Other goals are to balance the portfolio among incremental and radical investments and for efficient use of resources.
 Senior managers or senior management teams typically take on the responsibility of portfolio management for an organization.

Subprojects

- Projects are frequently divided into more manageable components or subprojects, although the individual subprojects can be referred to as projects and managed as such. Subprojects are often contracted to an external enterprise or to another functional unit in the performing organization. Examples include:
- Subprojects based on the project process, such as a single phase in the project life cycle
- Subprojects according to human resource skill requirements, such as plumbers or electricians needed on a construction project
- Subprojects involving specialized technology, such as the automated testing of computer programs on a software development project.
- On very large projects, the subprojects can consist of a series of even smaller subprojects.

Project Management Office

- A project management office (PMO) is an organizational unit to centralize and coordinate the management of projects under its domain. A PMO can also be referred to as a "program management office," "project office," or "program office."
- A PMO oversees the management of projects, programs, or a combination of both.
- The projects supported or administered by the PMO may not be related other than by being managed together.
- Some PMOs, however, do coordinate and manage related projects. In many organizations, those projects are indeed grouped or are related in some manner based on the way the PMO will coordinate and manage those projects.
- The PMO focuses on the coordinated planning, prioritization and execution of projects and subprojects that are tied to the parent organization's or client's overall business objectives.

Project Management Office

- PMOs can operate on a continuum, from providing project management support functions in the form of training, software, standardized policies, and procedures, to actual direct management and responsibility for achieving the project objectives.
- A specific PMO can receive delegated authority to act as an integral stakeholder and a key decision-maker during the initiation stage of each project, can have the authority to make recommendations, or can terminate projects to keep the business objectives consistent.
- In addition, the PMO can be involved in the selection, management, and redeployment, if necessary, of shared project personnel and, where possible, dedicated project personnel.

Features of a PMO

- Shared and coordinated resources across all projects administered by the PMO
- Identification and development of project management methodology, best practices, and standards
- Clearinghouse and management for project policies, procedures, templates, and other shared documentation
- Centralized configuration management for all projects administered by the PMO
- Centralized repository and management for both shared and unique risks for all projects

Features of a PMO

- Central office for operation and management of project tools, such as enterprise-wide project management software
- Central coordination of communication management across projects
- A mentoring platform for project managers
- Central monitoring of all PMO project timelines and budgets, usually at the
- enterprise level
- Coordination of overall project quality standards between the project manager and any internal or external quality personnel or standards organization.

Differences between project

Project managers and PMOs pursue different objectives and, as such, are driven by

- different requirements. All of these efforts, however, are aligned with the strategic needs of the organization.
- A project manager is responsible for delivering specific project objectives within tee constraints of the project, while a PMO is an organizational structure with specific mandates that can include an enterprisewide perspective.
- The project manager focuses on the specified project objectives, while the PMO manages major program scope changes and can view them as potential opportunities to better achieve business objectives.
- The project manager controls the assigned project resources to best meet project objectives, while the PMO optimizes the use of shared organizational resources across all projects.
- The project manager manages the scope, schedule, cost, and quality of the products of the work packages, while the PMO manages overall risk, overall opportunity, and the interdependencies among projects.
- The project manager reports on project progress and other project specific information, while the PMO provides consolidated reporting and an enterprise of projects under its purview.

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Project Vs. Program

- What's a 'program'?
- Mostly differences of scale
- Often a number of related projects
- Longer than projects
- Definitions vary
- Ex: Program Manager for MS Word

- Projects retain the definition of being unique, finite efforts.
 Programs are on-going and group similar projects.
- In one company, the boiler plate project documents are relevant to the program area. For example, a communications plan is defined consistently for the program, since many of the players are the same
 this is then already defined for the project, and needs very little modification at the initiation of the project.
- Programs may have strategic purpose or oversight of the projects within.
- One mistake I think people make is calling a large scale project with many sub-plans a program. Just because it's big, doesn't make it a program.

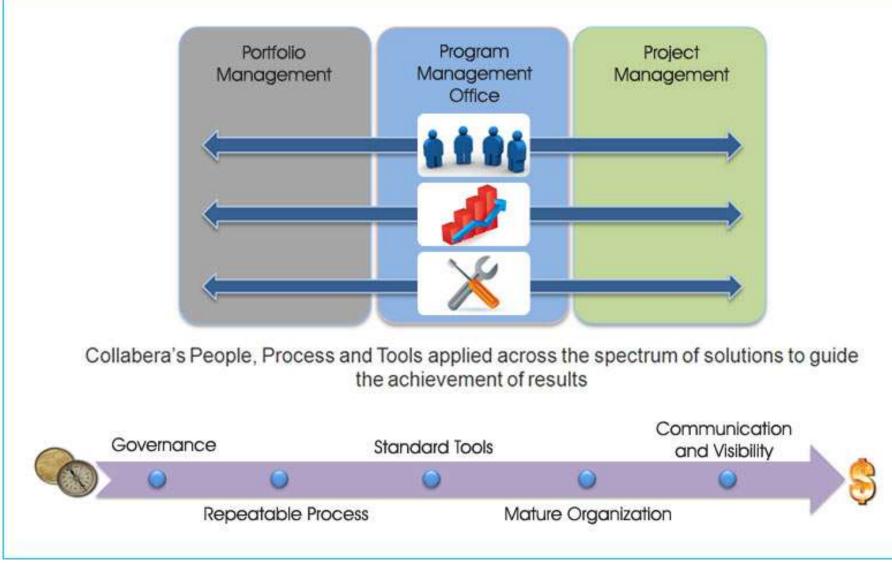
- On several occasions recently I have had to help customers come to terms with their project lifestyle choice and convince them of the values of program management.
- In describing the difference between projects and programs I find it pays to use language the business folks readily understand. My favorite way is to use a metaphor(figure).

- Projects, like aircraft, come in all sizes: big and small.
 Depending on size you may have more (or less) people and technology onboard to help you with the flight. Unfortunately when you crash, the bigger you are the more people can get hurt (including you sometimes).
- Programs are more like airports, with aircraft (projects) taking off and landing all the time. But you have a lot of supporting organization and infrastructure to look after as well.
- I find the metaphor works very well to draw attention to the unifying purpose of programs as well as their open-ended nature.

- In any event it pays to remember this truism from the world of aviation: "When a flight is proceeding incredibly well, something was forgotten." For more wisdom consider these other flying truisms.
- Of course to the purist PM's out there who might be offended by such a simple comparison, here are the formal PMI PMBOK definitions:

- Project. A temporary endeavor undertaken to create a unique product, service or result.
- **Program.** A group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually. Programs may include elements of related work outside of the scope of the discrete projects in the program.
- Think about it when considering all of parallel initiatives you or your customer is trying to manage. Maybe is it is time to consider a program to get to grips with the project lifestyle.

- Projects are usually discrete activities, with defined deliverables and deadlines.
- Programs, on the other hand, are ongoing activities, sometimes with defined deliverables, but also designed for providing services, such as maintenance.
- You can see that the management of projects and programs can differ significantly, requiring different sets of skills.
- While project management sometimes has an advantage because of its defined deliverables and deadlines, project managers often need to use borrowed resources and keep project staff motivated when the final deadlines approach.

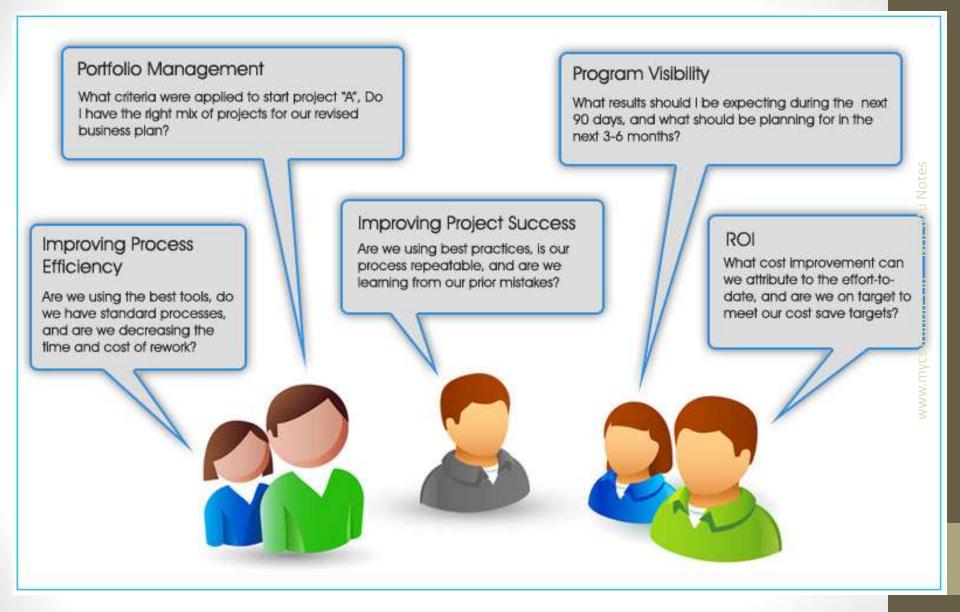


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- Today's economic environment presents challenges for Business and Information Technology leaders, which require the introduction of significant cost saving, process efficiency, and delivery effectiveness, while at the same time managing an increasingly complex portfolio of business projects.
- In an industry where over 70% of projects have consistently failed to meet business objectives, and where it is often difficult to control project budgets and schedules, effective practices in project, program, and portfolio management are more critical than ever before.
- Many of the approaches for mitigating the risk associated with this high level of project failure are not new, but require reintroducing a disciplined and structured operating process.

- Collabera provides a focused set of Project, Program, and Portfolio Management services to address governance, operating and delivery issues, and to help you navigate through these turbulent economic times. Its' consulting solutions helps clients manage costs and increase operating efficiency, without sacrificing project results.
- Corporate leaders are challenged to introduce organizational change, using traditional approaches and solutions as they address key Business and Information Technology issues every day.

- Collabera helps clients address these issues by extending traditional approaches through the application of deep experience with services and solutions, focused in the following key areas:
- Project Management
- Portfolio Management
- Program Management office



Portfolio Management

 Collabera's Project Portfolio Rationalization services help establish the proper mix of projects for initiation and execution, which may include guiding you through the difficult process of strategic project realignment, selecting which projects to accelerate, defer, or eliminate, and how to most effectively realign critical and costly project resources.
 Collabera's PPM vendor strategy and implementation services will help you implement the process and tools to achieve project visibility and to continuously monitor the project portfolio.

Program Management Office (PMO)

- -Collabera's PMO services help ensure that you have the most effective PMO governance model, to drive your project's success and achieve business results.
- Whether you are looking to jumpstart the development of a PMO, optimize an existing PMO, consolidate multiple PMOs resulting from M&A or other organizational changes, or outsource the operation of a PMO, Collabera provides the framework and leadership to help you navigate this complex process.
- *PMO Jumpstart* is just one capability to accelerate activity in this area.

Project Management

- Collabera's Project Management services focus on project effectiveness and efficiency.
- Project management oversight capabilities provide a trusted, independent, and objective advisor to monitor project progress, and recommend best practices and ongoing governance to ensure project success.
- Project Maturity Modeling and Project Failure Point Analysis capability, including Quick Start and Quick Scan, provide a framework to quickly assess and improve project management competency and rapidly realize cost savings and efficiency gains.

Portfolio Management

- In an environment where IT investments are being scrutinized more than ever, Business and IT leader's top priorities are to deliver projects that maximize the business value.
- Aligning corporate strategy, business objectives, and project delivery is a recognized need, but also identified as difficult to achieve over time.
- Portfolio Management is a foundational activity within that effort, and is the continuous process of selecting and managing the optimum set of projects to deliver maximum business value.
- Primary activities include obtaining the information required to rapidly evaluate, prioritize, and approve projects, enabling the selection of the right projects for implementation, and in-flight and post-project reviews to ensure that project objectives are being met and the desired business value continues to be realized over time.

Portfolio Management

- Understand project "needs" separate from available resources, attribute business impacts to projects, and hold projects accountable for business benefit.
- Without the right processes and systems it is difficult to complete the portfolio management process and obtain the expected value.
- Collabera provides organizations with the framework and advisory services to rationalize project costs and objectives, and its Portfolio Management offering, includes two primary areas of focus.

Portfolio Management Technology Strategy and

- Inplementation Identifying the need for Project Portfolio Management (PPM) tools requires an understanding and balance with an organization's existing toolset.
 - Collabera provides a best-practice approach to align vendor capability with PPM tool requirements, and its experience with PPM tools helps organizations quickly compare and determine the applicability of tool features to organization needs.
 - Once a PPM tool is selected, the Collabera approach includes developing an implementation roadmap that introduces the tool into an organization's technology infrastructure, and provides an environment to rapidly introduce it into the project portfolio and delivery environment.

Portfolio Rationalization

- Managing a project portfolio is not much different from managing any other business portfolio whether it is financial, functional, or physical. Portfolio rationalization is a management tool that helps focus attention and action in seven key areas to:
- Balance project demand and project delivery capability
- Align business strategy and project identification
- View project selection from an investment planning perspective
- Identify projects that have the best chance of providing high-impact outcomes
- Identify portfolio gaps over time
- Identify resource redeployment opportunities
- Support actionable "project phasing" decisions

- objectives of a PMO can be to:
- Avoid risks associated with start-up and execution of projects
- Manage the leading practices that characterize successful projects and programs.
- Some of the project challenges, addressed by a PMO include, lack of robust project processes, insufficient definition and validation of requirements, early identification of project issues, dependencies and risks, lack of metrics for identified and measurable results, resource allocation that ignores competing demands of other initiatives, and slowed progress due to cultural resistance to change.

- The key objectives of a PMO are to bring value to the process of managing projects and programs, by being a single-pointof-contact, providing guidance, where necessary challenging plans and results, identifying major issues, interdependencies, and risks, and incorporating leverage points across projects.
- Collabera's holistic approach, encompasses project and business strategy alignment, resource planning, PMO consolidation and transformation, program delivery support, and progress monitoring.

- Launch Where none exists, establishing a PMO from "the ground up" can be a significant and time consuming activity.
- Collabera has the experience to help Jump Start a PMO to ensure early success by providing the end-to-end strategy, roadmap and assets required by a PMO. A sample of PMO Jump Start activities includes charter and stakeholder alignment, communications process, right-size resource allocation, governance, operating process, asset library, and progress metrics. Usually in a matter of weeks Collabera can provide immediate value by assessing the current state, establishing PMO objectives, defining the governance framework, instituting processes, and launching the PMO.

- Optimize -The 2007 Center for Business Practices "State of the PMO' survey reported that "Organizations with more mature PMOs, show significant improvement in measures of performance' including
 - 1) projects aligned to business strategy,
 - 2) project customers satisfied,
 - 3) projects on schedule and budget,
 - 4) resources allocated optimally, and
 - 5) strategies executed to plan.
- As PMOs are optimized, they are substantially better at meeting key success factors including effective sponsorship, accountability, competent staff, quality leadership, and demonstrated value.
- The Collabera PMO optimize model, starts with current PMO people, processes and tools, and leverages these to form an enhanced PMO operating environment.

Consolidate

- For various reasons, over time, many organizations have established multiple PMOs, and are now looking to reduce costs by consolidating the PMO footprint, without impacting the ability to deliver project objectives.
- These PMOs may include multiple PMOs in a functional area, such as IT, a mixture of IT and functional business area PMOs, project, program or enterprise-wide PMOs that are often geographically dispersed, and PMOs that exist in multiple corporate entities such as divisions, subsidiaries, or partner companies.
- Collabera provides the framework and leadership to help senior managers navigate this complex process.

Outsource

- Quite often an organization will have the functional and technical resources necessary to establish and operate a PMO, but not the project management resources required to execute delivery of the PMO function.
- Collabera has the combination of resources, methodology, and assets ready to provide unbiased oversight and project transparency, incorporating a balance of onsite and remote resources.
- In addition to standard PMO activities, the Collabera PMO outsource model incorporates project initiation, planning, design, testing, golive implementation and support, and in-process and post-project reviews as necessary for effective project oversight and organizational transparency.

- According to a recent Gartner research report, the companies responding indicate that in addition to projects not being delivered within budget or schedule, more than 70% of the systems integration projects fail to meet their stated objectives.
- Some of the characteristics of these failed projects include not having process and tools in key areas, including an integrated approach to risk mitigation, a well defined set of roles and responsibilities, a clear set of goals, expectations and requirements, strong project management skills, measurable performance metrics, attention to project tracking and reporting, identification of dependencies, clear foundational agreements among stakeholders, a well-defined communication plan, and making use of a broad array of tools, processes and competencies.
- Collabera's Project Management services focus on enabling project success by helping to introduce improvements with people, process, and technology.

 Collabera's Project Management solutions include specific areas that focus on improving the delivery of project results, extending the capability of project management professionals, providing project oversight for managing delivery and project transparency and, as necessary, augmenting corporate staff with Collabera project management professionals.

Failure Point Analysis - When projects are failing, business and IT leaders need a clear and unbiased strategy for finding causes and solutions. Collabera's Project Failure Point Analysis helps remove the mystique surrounding the failures, and introduces an Assess-Analyze-Roadmap approach. Using a workshop model, this approach incorporates a diagnostic framework for root-cause identification and analysis, and action plan for quickly implementing get-well recommendations. The Failure Point Analysis results in identifying key areas for improvement, and often includes recommending changes in areas such as where to start or re-start, sequencing, and the number of phases, interdependencies, and strategies versus tactics.

- Maturity Assessment The project management maturity model, has a clearly defined value proposition that bases its foundation on the fact that more mature organizations, realize greater business benefit from their projects through increased business value and decreased project risk.
- The Collabera Maturity Assessment approach incorporates a diagnostic framework on which to assess program management capability, and chart a course for program management process improvement.
- An actionable project management capability maturity improvement roadmap is established, on which an organization can improve its project management capability through specific actions that include identifying Key Process Areas for improving competency, preparing a process improvement plan, initiating a formal program for improving project management capability, and monitoring improvement efforts including a re-baseline of capability, at periodic intervals.

 Project Oversight - Successful projects, require more than a good project plan and experienced development staff. The establishment of a structured and disciplined project management control approach is necessary, in order to guide the project process and provide project transparency. Oversight needs to be established by professional project managers that communicate project issues, identify project progress, monitor compliance to development standards and SDLC, understand business regulatory issues, and interact with all project stakeholders. These activities are quite often integrated within a PMO, but can also be introduced, independently, for one or more projects, especially those that have a designated level of complexity or business criticality.

- Project Management Augmentation As an organization that participates as a member of the Board of Directors for the Project Management Institute (PMI) PMO Specific Interest Group, Collabera is well positioned to augment your project management staff with best practices and experienced professionals.
- The services and duration of a project management augmentation engagement, can be designed and customized for a wide range of business and IT scenarios ,to fit your specific needs.