

What is a *Project*?

- **Definition**
 - A complex, nonroutine, one-time effort limited by time, budget, resources, and performance specifications designed to meet customer needs.
- **Major characteristics of a project**
 - Has an established objective.
 - Has a defined life span with a beginning and an end.
 - Typically requires across-the-organizational participation.
 - Involves doing something never been done before.
 - Has specific time, cost, and performance requirements.

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Programs versus projects

- **Definition of a *Program***
 - A series of coordinated, related, multiple projects that continue over an extended time and are intended to achieve a goal.
 - A higher-level group of projects targeted at a common goal.
 - Example:
 - Project: completion of a required course in project management.
 - Program: completion of all courses required for a BSE.

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Routine work vs projects

Routine, Repetitive Work

Taking class notes
 Daily entering sales receipts into the accounting ledger
 Responding to a supply-chain request
 Practicing scales on the piano
 Routine manufacture of an Apple iPod
 Attaching tags on a manufactured product

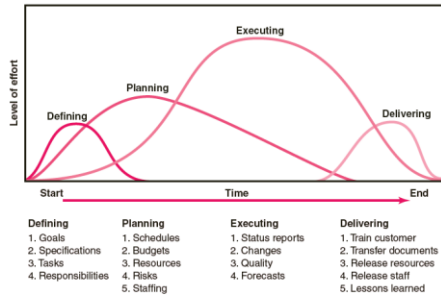
Projects

Writing a term paper
 Setting up a sales kiosk for a professional accounting meeting
 Developing a supply-chain information system
 Writing a new piano piece
 Designing an iPod that is approximately 2 X 4 inches, interfaces with PC, and stores 10,000 songs
 Wire-tag projects for GE and Wal-Mart

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Project life cycle



from: Gray & Larson (2008). *Project management: the managerial process (4th ed.)*
McGraw-Hill Irwin.

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Project definition phase

- Characterize the project in terms of:
 - assumptions about the situation
 - alternative ways of achieving the objectives
 - decision criteria and models for choosing among viable alternatives
 - practical constraints
 - significant potential obstacles
 - resource budgets and schedules needed to implement the viable alternatives.
- Clearly define the *scope* of the project.
- Tentatively select the overall approach that will be used to achieve the objectives.

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Project definition phase (cont.)

- Unambiguous project description including
 - How the work will be done
 - How the project will be organized
 - Who the key personnel are
 - A tentative schedule
 - A tentative budget

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Planning phase

- Detailed plans are prepared by responsible parties
 - Tasks identified
 - Task milestones are determined
 - Detailed budgets are determined
 - Resource requirements are established for each task
- Organization is established (personnel hired or assigned)

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The challenge of project management

- The Project Manager
 - Manages temporary, non-repetitive activities and frequently acts independently of the formal organization.
 - Marshals resources for the project
 - Provides direction, coordination, and integration to the project team
 - Manages a diverse set of project stakeholders
 - Dependent upon others for technical answers
 - Is responsible for performance and success of the project
 - Must induce the right people at the right time to address the right issues and make the right decisions.

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Project Management

What questions might project managers be interested in?

- How long will the project take?
- Can I add manpower or tools to reduce the overall project length?
- To which tasks should I add resources?
- What tasks are on the critical path?
- Is the project on schedule?
- When should materials and personnel be in place to begin a task?
- Am I within budget?
- Should I transfer funds between line items?
- Other?...

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Roles and responsibilities of the PM

- Project management involves a set of duties that must be performed and are no one else's prime responsibility.
 - Ensure Customer Satisfaction
 - Direct and Control All Day-to-day Activities Necessary to Accomplish the Project
 - Take Initiatives as Required in Order to Accomplish the Project
 - Negotiate Commitments with the Customer
 - Ensure Collection of the Fee
 - Inherent Duties

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Ensure customer satisfaction

- Often considered the most important responsibility of the project manager
- Good customer service procedures:
 - Confirm key issues during the course of the project
 - Maintain good informal relationships with the customer
 - Reread project requirements on several occasions
 - Keep the customer informed so that they can help respond to or influence project results and timing (no surprises)
- Not all customers are good customers
 - If all else fails, legally terminate the relationship

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Direct & control day-to-day activities

- Direction and control may vary depending on staff capability and motivation (set goals and deliverables for some and micro-manage others).
- Constantly use foresight to predict if project is staying on time and within budget
- Maintain appropriate back-up plans when necessary.

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Take initiatives as required in order to accomplish the project

- Problems will occur,
 - when they do, the project manager needs to initiate corrective action.
- Do not hesitate to seek advice (from supervisor, peers, employees, consultants, other.)

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Negotiate commitments with the customer

- Ultimate responsibility for commitments to the customer resides with the project manager.
- If assigned to a project after commitments have been made:
 - Evaluate if commitments can actually be achieved.
 - You may have to negotiate new terms if unachievable, or report to management if no resolution possible.
- As project progresses, some give and take may be necessary with customer.

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Ensure collection of fee

- Ensure customer meets their obligation of delivering fees for service (this is often handled by other parts of an organization).
- Ensure all obligations are met by project team so that customer has no reason to withhold payment.

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Inherent duties

- Interpret the statement of work to supporting elements.
- Prepare and be responsible for an implementation plan.
- Define, negotiate and secure resource commitments.
- Manage and coordinate interfaces created by subdividing the project.
- Alert management to difficulties beyond one's control.
- Maintain standards and conform to established policies and practices.
- Monitor and report progress and problems (informal.)
- Organize and present reports and reviews (formal.)
- Develop personnel as needed to accomplish the project.
- Motivate!!

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Real World Examples

- Project: development of the Whirlpool Duet® washer/dryer pair
 - Global project
 - European front-loader platform, North American design group, manufactured and sold in both North America and Europe.
 - Short development time (<3 years, compared to 5+ for major platform development.)
 - Challenges centered around distance between design and development groups, differences in manufacturing processes and materials, etc.
 - Success of the project attributed to strong project management, communication, and cooperation among the team.



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Real World Examples

- Project: design and manufacture of a new private jet for Gulfstream
 - Global project
 - Parts manufactured in 5 different countries around the world.
 - Engine manufacturer a newly merged corporation in Germany.
 - Key to success – mitigation plans ('what happens if something goes wrong?')



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