ERP Project management overview

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ERP Methodology & Project Management

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“The Project”

• In the beginning was The Project, and then arose the Assumptions. And The Project was without form and the Assumptions were void.

• And darkness was upon the face of the Implementers. And they spake unto their manager, saying, “It is a crock of shxx, and it stinketh”.

• And the Manager went to the 2nd level manager, and he spake unto him saying, “It is a crock of excrement and none may abide the odor thereof.”

• And the 2nd Level Manager went to the 3rd Level Manager and he spake unto him saying, “It is a vessel of fertilizer, and it is so strong that none may abide before it.”

• And the 3rd Level Manager went to the Headquarters Director, and he spake unto him saying, “It is a vessel of fertilizer, and none may abide its strength.”

• And the Director went to the Divisional Vice-President, and he spake unto him saying, “It contains that which aids plant growth, and it is very strong.”

• And the Vice-President went to the Division President, and he spake unto him saying, “The powerful new project will promote the growth of the company.”

• And the Executive Board looked upon The Project and saw that it was GOOD...
What is Implementation?

Opportunity:
- Integrate disparate systems
- Provide real time information
- Adopt proven systems
- Enforce standards
- Reengineer business processes
- Restructure organization

Working solution:
Use of enterprise systems for managing information flows

Projects/Project Management

Project
"A series of related jobs usually directed toward some UNIQUE major output and requiring a significant period of time to perform."

"a temporary endeavor undertaken to accomplish a unique product or service"
(PMBOK® Guide 2000, p. 4)

Project Management
"The act of planning, directing, and controlling resources (people, equipment, material) to meet the technical, cost, and time constraints of the project."
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Triad of Project Management

- Scope - What is to be done?
- Schedule - How long will it take?
- Budget - How much will it cost?

Changing any one of the three items will force changes in at least one of the others.

The Triple Constraint

- Every project is constrained in different ways by its
  - Scope goals: What is the project trying to accomplish?
  - Time goals: How long should it take to complete?
  - Cost goals: What should it cost?

- It is the project manager's duty to balance these three often competing goals.
History of Project Management

- Some people argue that building the Egyptian pyramids was a project, as was building the Great Wall of China.

- Most people consider the Manhattan Project to be the first project to use “modern” project management.
  - This three-year, $2 billion (in 1946 dollars) project had a separate project manager and a technical manager.
The WBS is on the left, and each task’s start and finish dates are shown on the right using a calendar timescale. Early Gantt Charts, first used in 1917, were drawn by hand.

Each box is a project task from the WBS. Arrows show dependencies between tasks. The bolded tasks are on the critical path. If any tasks on the critical path take longer than planned, the whole project will slip unless something is done. Network diagrams were first used in 1958 on the Navy Polaris project, before project management software was available.
In recent years, organizations have been taking advantage of software to help manage their projects throughout the enterprise.

Project time management involves the processes required to ensure timely completion of a project. Processes include:

- Activity definition
- Activity sequencing
- Activity duration estimating
- Schedule development
- Schedule control
### Activity Definition

- Project schedules grow out of the basic document that initiate a project
  - Project charter includes start and end dates and budget information
  - Scope statement and WBS help define what will be done
- Activity definition involves developing a more detailed WBS and supporting explanations to understand all the work to be done so you can develop realistic duration estimates.

### Activity Sequencing

- Involves reviewing activities and determining dependencies
  - Mandatory dependencies: inherent in the nature of the work; hard logic
  - Discretionary dependencies: defined by the project team; soft logic
  - External dependencies: involve relationships between project and non-project activities
- You must determine dependencies in order to use critical path analysis.
Sample Activity-on-Arrow (AOA) Network Diagram

Arrow Diagramming Method (ADM)

- Also called activity-on-arrow (AOA) project network diagrams
- Activities are represented by arrows
- Nodes or circles are the starting and ending points of activities
- Can only show finish-to-start dependencies
**Precedence Diagramming Method (PDM)**

- Activities are represented by boxes
- Arrows show relationships between activities
- More popular than ADM method and used by project management software
- Better at showing different types of dependencies

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**Task Dependency Types**

<table>
<thead>
<tr>
<th>Task dependency</th>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finish-to-start (FS)</td>
<td><img src="image1.png" alt="Example" /></td>
<td>Task (B) cannot start until task (A) finishes.</td>
</tr>
<tr>
<td>Start-to-start (SS)</td>
<td><img src="image2.png" alt="Example" /></td>
<td>Task (B) cannot start until task (A) starts.</td>
</tr>
<tr>
<td>Finish-to-finish (FF)</td>
<td><img src="image3.png" alt="Example" /></td>
<td>Task (B) cannot finish until task (A) finishes.</td>
</tr>
<tr>
<td>Start-to-finish (SF)</td>
<td><img src="image4.png" alt="Example" /></td>
<td>Task (B) cannot finish until task (A) starts.</td>
</tr>
</tbody>
</table>
Activity Duration Estimating

- After defining activities and determining their sequence, the next step in time management is duration estimating.
- Duration includes the actual amount of time worked on an activity plus elapsed time.
- Effort is the number of workdays or work hours required to complete a task. Effort does not equal duration.
- People doing the work should help create estimates, and an expert should review them.
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Schedule Development

- Schedule development uses results of the other time management processes to determine the start and end date of the project and its activities.
- Ultimate goal is to create a realistic project schedule that provides a basis for monitoring project progress for the time dimension of the project.
- Important tools and techniques include Gantt charts, PERT analysis, critical path analysis, and critical chain scheduling.

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Gantt Charts

- Gantt charts provide a standard format for displaying project schedule information by listing project activities and their corresponding start and finish dates in a calendar format.
- Symbols include:
  - A black diamond: milestones or significant events on a project with zero duration
  - Thick black bars: summary tasks
  - Lighter horizontal bars: tasks
  - Arrows: dependencies between tasks
Milestones

- Milestones are significant events on a project that normally have zero duration.
- You can follow the SMART criteria in developing milestones that are:
  - Specific
  - Measurable
  - Assignable
  - Realistic
  - Time-framed

![Sample Tracking Gantt Chart](image)

*Figure 6-7. Sample Tracking Gantt Chart*
Critical Path Method (CPM)

- CPM is a project network analysis technique used to predict total project duration.
- A critical path for a project is the series of activities that determines the earliest time by which the project can be completed.
- The critical path is the longest path through the network diagram and has the least amount of slack or float.

Ex: ASAP Implementation Methodology

SAP Proprietary Methodology
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Accelerated SAP (ASAP)

- An approach resulting in a quick, cost effective implementation of R/3
  - Minimizes the length of time between installation and production start up
  - Maximizes the utilization of SAP and customer resources
  - Incorporates a process oriented approach to training
  - Involves the user community
  - Results in a repeatable “model” that can be used with other implementations of R/3

Implementation Deliverables

1. Project Plan
2. Scope
3. Business Process Master List
4. Business Blueprint
5. System Performance

- Enhancements
- Authorizations
- Reports
- Interfaces
- Processes
- Org. structure
- Baseline Scope
- Procedures
- Test Cases
- Reports
- Interfaces
- Conversion
- Test Plan
- Train Mat.
- Go Live Plan
- Train Mat.
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Phase 1: Project Preparation

- Explain roles and procedures
- Prepare the Project Charter
- Define schedule, budget, and resources
- Provide initial training for project team
- Define technical requirements
- Prepare executive kickoff meeting

Phase 2: Business Blueprint

- Assess customer requirements through the interviews, questionnaires, and models of the Business Blueprint
- Provide training for project team
- Install development system
- Review the Business Blueprint
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Phase 3: Realization

- Customizing
  - Customize the “Baseline” system, which covers 100% of the organizational structure and 60% of all daily business operations
  - Check that this Customizing realizes your business processes (first integration test)
- Final Integration Test
  - Check other business processes which may be indirectly affected
  - Design, develop, and test interfaces, reports, and data conversions

Phase 4: Final Preparation

- Planning for the going live date
- Training end users
- Testing: integration, volume, and stress
- Establishing an internal Help Desk
- Cutover to production environment
Phase 5: Go Live and Support

- Start of production operation
- Setting up support
- Verifying the accuracy of the production system
- Measuring business benefits
- Optimizing performance

Example of Project Duration

<table>
<thead>
<tr>
<th>PHASE</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Preparation</td>
<td>12%</td>
</tr>
<tr>
<td>Business Blueprint</td>
<td>15%</td>
</tr>
<tr>
<td>Realization</td>
<td>46%</td>
</tr>
<tr>
<td>Baseline</td>
<td>12%</td>
</tr>
<tr>
<td>Final Configuration</td>
<td>13%</td>
</tr>
<tr>
<td>Integration Test</td>
<td>21%</td>
</tr>
<tr>
<td>Final Preparation</td>
<td>19%</td>
</tr>
<tr>
<td>Go Live &amp; Support</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>
Q: Do project management skills map to ERP implementation?

You tell me