



	Project Selection	Creating Requirements	Creating Project Schedules	Determining Project Costs	Evaluating Performance	Allocating Labor Resources
<b>Current Industry Method</b>	Most major organizations prepare a business case containing the project's estimated cost and ROI. An executive committee meets once or twice a year to decide which projects shall be funded (implemented). The selection of which projects to implement for an organization involves significant executive time and energy.	Many organizations just create requirements for their projects in an outline form. Several tools exist that support requirement creation and maintenance, such as "Requisite Pro" and "DOORS." The tools usually provide linkage between the requirements and the test cases, helping to assure comprehensive testing.	Numerous individuals know how to use project scheduling tools, yet few know how to effectively create and maintain schedules. Because of the inherent acceptance of the inaccuracy of the schedule, far too often the problem is further fueled by project managers failing to maintain the schedule in a timely fashion as the project progresses.	Most industries use an artificial count to estimate project costs (possibly square feet for construction). The majority of the IT industry uses lines of code, function points, nesting levels, or some other barometer, all lacking in their ability to accurately estimate project schedules and budgets.	Project team members often feel there is no correlation between their job performance and rewards. Rather, they often feel that the relationship you have with your supervisor is the most critical factor in deciding how well you are rewarded.	When a new project is launched in most organizations, key executives, the project office, or an executive committee meets with the project manager and project sponsor to allocate the current labor resources.
<b>Current Problems</b>	The choice of which projects to fund often includes the personal relationships of the project's sponsor with the executive committee's members. Sometimes it includes the charisma of the project sponsor as opposed to the merits of the project. Another problem is that changes to projects occur all the time, not just once or twice a year. What was a good project investment last week may be a terrible investment today.	Requirements are still the number one reason why so many projects fail. Little is done by current requirements tools to help assure the quality of the requirements. Too often requirements are interpreted differently by different project team members and stakeholders. Another problem is that requirements are often changed without the notification of the appropriate individuals.	Unfortunately all current scheduling tools are reactive as opposed to being proactive. Schedules are often created without appropriate dependencies, with missing labor resources, with work tasks too long in duration to have a high probability of being completed in the estimated time, etc.	Consistent and accurate project estimates are virtually non-existent throughout the world. Timely cost estimates in most organizations are next to impossible to sustain.	Too often, performance evaluations are not scientific. Most supervisors use their intuition when evaluating their staff. Staff members tend to feel that their relationship with their supervisor is more important than their performance when it comes to financial rewards.	Most organizations are fortunate to obtain 70% of the time an individual spends on the job working to fulfill meaningful organizational work. The reasons are: <ol style="list-style-type: none"> <li>1. Individuals believe productivity is not as important as their relationship with their supervisor.</li> <li>2. Assignments to projects are difficult to change and thus often wait for a task to complete for them to commence work.</li> </ol>
<b>EPPORA Solution</b>	EPPORA changes the method from just two selection criteria (cost and ROI) to multiple criteria, with each criterion containing a weight as to its relative importance. EPPORA supports the fact that some criteria are negative and allows the experts within the organization to evaluate each project relative to each criterion. The evaluations are continuous as changes occur in the outside world that affects the scoring for each criterion, providing a continuous ranking of the projects.	EPPORA provides a requirements analysis tool to insure quality. It works by notifying key project stakeholders when a requirement is ambiguous (contains adjectives or adverbs), is difficult to test (compound requirements), and is difficult to understand (too wordy or difficult words). EPPORA also notifies key project team members and stakeholders when requirements changes occur.	EPPORA scans each schedule task for the above problems and notifies designated individuals (usually managers/executives) of the project and task ID where a "poor" scheduling action has been specified.	EPPORA allows a project manager to link each low-level requirement to one or more project tasks on a percentage basis. This allows EPPORA users to determine a project's or a requirement's cost in a few seconds.	EPPORA staff members have as one of their attributes the labor categories they support. Project managers creating and maintaining schedules use labor categories when assigning resources. When EPPORA assigns an individual to a task, it compares the actual time the task takes to be completed with the estimated time, and then determines the individual's productivity.	EPPORA allocates project team members to a task by assigning the most productive staff member for the needed labor category to the most important task (considering many other factors, such as existing task/project experience). EPPORA performs the allocation during every user-defined allocation period, which is between 2 and 10 weeks.
<b>EPPORA Benefits</b>	EPPORA provides: <ol style="list-style-type: none"> <li>1. A more scientific method of evaluation, without emotion as to which projects should be implemented.</li> <li>2. For continuous ranking of an organization's projects.</li> <li>3. An audit trail of why each project was selected.</li> </ol>	EPPORA improves the quality of a project's requirements by keeping executives and key project team members informed of poorly specified requirements and when changes occur in requirements.	EPPORA keeps management informed when non-industry approved schedule specifications occur and informs key project stakeholders whenever a milestone or deliverable is late, or appears it will be late with greater than a 50% probability. It also informs management when the schedule has not been updated in a timely manner.	As project managers improve their ability to accurately estimate task durations, the EPPORA method of linking each requirement to multiple tasks provides a dramatic improvement in any organization's ability to accurately estimate project costs and the cost of any requirement.	If staff members recognize that their productivity is the key factor in their financial rewards, they will tend to work harder. Management can look at raises and have a barometer to evaluate the results. EPPORA calculates for each staff member their cost effectiveness for each labor category they support.	Changing the amount of hours a staff member works on productive activities from 28 (70% of 40 hours) to over 90% will have a major impact on every organization's bottom line. EPPORA automatic allocation of the resources will also minimize the amount of time executives and management spends allocating resources.



Projects are failing at an alarming rate in the United States and worldwide. By failure, we mean that projects are not completed on time, within budget, nor satisfy each deliverable's requirements. The major progress made in the hardware and software industries during the last fifty years has dramatically improved the productivity of the work-force; yet, the high failure-rate of projects is a major impediment to nearly every organization's prosperity. Projects almost always cost more than their estimates, are completed late, and often do not satisfy their requirements. When we say fail, we're not speaking of minor discrepancies in schedule or cost expectations, but projects that take longer than twice their original schedule and cost two to three times their original estimates.

The project management industry has done little to resolve this problem. What we need is a set of tools that eliminates this dismal, project failure record. Today, there is little more than software applications providing spiffy status reports (dashboards), helping us organize our data and documents (knowledge and document management), supporting requirement traceability, and simplifying/creating schedules on a project-by-project basis to help determine the critical path for each project (most valuable of the three). Although each is valuable, an integrated project management tool is needed to help organizations solve the following six problems:

- Continuously selecting projects that provide the greatest benefit (project portfolio management)
- Specifying requirements for projects in a format that assures a common understanding between all stakeholders and project team members and also supports comprehensive testing
- Assuring that project schedules meet industry standards by detecting and notifying appropriate personnel about potential problems
- Determining how to optimally allocate an organization's labor resources to ongoing projects to provide the greatest benefit (ROI) to their organization
- Assessing how to accurately estimate a project's cost and the impact of requirement changes to the project's cost, schedule, and scope.
- Determining productivity for staff members for each labor category the staff member supports

EPS's proposed EPPORA system provides an integrated set of project management components that resolves the aforementioned issues. The EPPORA system provides the following benefits:

- Continuous selection of an organization's projects based on each organization's criteria
- Optimal labor resource allocation across existing project portfolio ensuring maximum ROI
- Common understanding of requirements between stakeholders, sponsors, executives, project managers, project team members, and end users
- Cost analysis based on requirements so that the impact of changes can be determined instantaneously
- Project schedules that abide by industry standards (minimal fixed dates, measurable tasks, etc.)
- Reports scientifically determining the productivity and cost effectiveness of each staff member for each labor category he or she supports.