

White Paper

How to Prioritize Projects When Every One is Critical



Introduction

Project prioritization is an important component of project portfolio management as it ensures that organization resources are directed towards the highest value project investments. Traditional approaches to project prioritization have used subjective labels or have utilized objective approaches using a single variable such as return on investment.

These approaches have their drawbacks, and it is recommended to prioritize projects using a balanced weighted score that is calculated from multiple objective criteria. Eclipse Project Portfolio Management is able to capture objective project priorities and has a variety of views and reports that can enable executives to visualize this information.

Why is project prioritization important?

A key objective of project portfolio management is to optimize the utilization of limited organizational resources (human, material or financial). Given this objective, it is important to know the relative importance of a set of projects so that resources can be allocated appropriately.

As most organizations have more ongoing project requests than resources to complete them, project priorities also provide one method of deciding which project requests to approve, and which to defer or reject.

Finally, once projects are actively executing, project priorities provide a means to resolve resource contention issues when a project requires additional or replacement resources.

Issues with subjective prioritization

The initial approach taken by most organizations when they start to prioritize their projects is to label projects with subjective priorities such as low, medium, high or critical. These labels are usually assigned by the project requestors who very quickly learn that only high or critical priority projects are approved.

Soon all project requests are labelled as critical. This defeats the value of assigning priorities as it becomes extremely difficult to optimize resource allocation or to resolve resource contention situations in a fashion that is consistent. Instead, resource allocation decisions are made emotionally or through exertion of political influence.

The direct impact of this issue is that the return on an organization's project portfolio is not optimized — the “bang for the buck” value is reduced. Indirect impacts are staff frustration and burn out that result when constantly shifting project priorities require frequent resource re-allocations.

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Single Variable Objective Prioritization

Recognizing the issues with subjective project priorities, organizations started to look at using objective approaches.

The most common approach used is to prioritize project based on a financial value such as return on investment, internal rate of return, or any other metric that considers the cost and benefits of doing a project. While one would assume that value optimization is assured by using such financial methods, this approach is impacted by the following issues:

- **Financial metrics are normally calculated by project requestors or someone working on behalf of the project requestor that may be biased towards the project.** As such, they can tend to be overly optimistic about the benefits of a project. Most organizations do not hold project requestors accountable for the anticipated project benefits, hence there is no incentive to accurately state expected outcomes
- **Project financial benefits can fluctuate drastically over the lifetime of projects due to a variety of external or internal factors.** Product development project are particularly susceptible to this as a competing product could be released into the market that negates the expected value of a product under development.
- **Financial methods would not consider other factors such as risk or resource utilization.** Without having additional information, it is hard to decide whether it is better to do a single project that consumes all of an organization's resources, or multiple projects which in aggregate deliver the same financial benefits as the one big project.

Prioritizing projects based on their alignment to strategic objectives is also commonly done. This approach suffers from the fact that such scoring is usually done subjectively, and it is often difficult to prove whether a given project's deliverables have really addressed a strategic objective.

In knowledge-based organizations, utilization of critical or bottleneck resources can also be used to prioritize projects. Projects that utilize more of a critical resource are given a lower priority. The challenge with this approach is that it is common for very strategic projects to require critical resources, and hence, resource utilization will not be optimized.

Prioritizing projects based on risk is a conservative approach but presents a different set of issues than using financial metrics. Quantitative risk assessment is an immature discipline across all industries and project risk profiles can fluctuate over the course of a project's lifecycle as more is learned about the project. Most important, trying to reduce risk does not consider the need to balance risk against reward and will result in a poorly optimized project portfolio.

Prioritizing projects based either on their "size" (e.g. cost, effort, duration) or on when they were requested (First-in, First-out) are consistent, fair approaches to prioritization, but will also likely not result in optimal resource utilization.

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Use a Balanced Multi-criteria Objective Approach

Organizations that have achieved significant successes from project prioritization maturity have addressed the preceding issues by scoring multiple objective criteria for each project, and combining the scores using either weighted sums or weighted averages. This is analogous to the financial portfolio management best practice of diversification as it ensures that the weakness of no individual objective method will impact the overall approach. Here's an example of this approach:

| Prioritization Criteria | Weighting | Weighted Score (project A) | Weighted Score (project B) |
|---|-----------|----------------------------|----------------------------|
| Financials (0 = ROI < 1, 1 = ROI < 1.5, 2 = ROI > 1.5) 1.5, 2 = ROI | 5 | 5 | 10 |
| Critical resource utilization (0 = uses more than 1 critical resource, 1 = uses only one critical resource, 2 = uses no critical) | 3 | 6 | 0 |
| Strategic alignment (0 = supports no current objectives, 1 = supports one objective, 2 = supports more than one objective) | 3 | 6 | 3 |
| Weighted sum of criteria | | 7 | 13 |

If this balanced numerical approach is used, it is recommended that organizations use more than two but less than ten criteria — the less criteria used, the more likely that the weakness of an individual approach will cause impacts. However, if too many criteria are used, scoring projects will require significant effort and the people doing the scoring may avoid this effort by guessing. It is strongly recommended that such scoring be done by people that do not stand to benefit by a given project receiving a higher or lower priority.

If there is the need to prioritize projects at both a departmental and organization-wide level, a set of criteria should be defined at the departmental level, and additional global criteria should be added to these when prioritization is calculated organization-wide.

In addition to calculating numerical priorities using this balanced method, organizations can also use graphical approaches to evaluate the overall balance of their portfolios. By calculating a value score and a risk score using multiple criteria and plotting these scores on an X-Y bubble diagram, decision makers can see if they have too many high-risk, low-reward projects.

| Criteria | Description | Criteria Type | Scoring Range | Weight | Score | Weighted Score |
|-------------------------------|--|------------------|-----------------|--------|-------|----------------|
| | | | Low Medium High | | | |
| Critical resource utilization | 0 = uses more than 1 critical resource, 1 = uses only one critical resource, 2 = uses no critical resource | Human Resources | 0 1 2 3 | 2 | 6 | 6 |
| Financials | 0 = ROI < 1, 1 = ROI < 1.5, 2 = ROI > 1.5 | Financial | 0 1 2 5 | 1 | 5 | 5 |
| Strategic alignment | 0 = supports no current objectives, 1 = supports one objective, 2 = Supports multiple | General Business | 0 1 2 3 | 2 | 6 | 6 |

Total Weighted Score: 17 Total Weighted Ratio: 77% Business Priority: [lock icon]

Supporting a Balanced Objective Approach

This screenshot illustrates how Eclipse can capture multi-objective criteria scores for a single project.

About Eclipse PPM

Eclipse Project Portfolio Management software delivers a simplified, quick-to-market project and resource-management application that allows organizations to leverage cost saving tools now and deliver instant business value, all while providing a low-risk approach to scale as they grow. Upland's Eclipse PPM focuses on three key areas: Portfolio Management, Project Management, and Resource Management.

Eclipse PPM combines powerful top-level reporting with simple user interfaces. For executives, real-time strategic reports are available with a few clicks. For project managers, keeping projects up-to-date is a quick and efficient process. It's easy to use and easy to implement, so your projects can be handled smoothly and professionally anywhere, anytime.

Easy to implement, use, and support – Eclipse PPM was created with the end user in mind. Executives, Project Managers, and Resources can all access relevant information quickly and easily. Organizations are successful because user adoption is high, making Eclipse PPM a normal part of the working day.

Leading-edge technology – Eclipse PPM is a Rich Internet Application (RIA) that is incredibly easy to use. The RIA interface allows users to customize dashboards with the ease of drag-and-drop technology, and edit project financials, schedule information, and time tracking as if they were working in a spreadsheet. The Eclipse PPM interface also includes convenient tabs that allow users to switch between projects, dashboards, searches, and reports with speed and simplicity.

Low total cost of ownership – Eclipse PPM is hosted in a highly secure data center. This fact, combined with our streamlined implementation process and scalable licensing fees, results in low total cost of ownership for organizations of all types and sizes.

The Upland Product Family



Upland's family of cloud-based Enterprise Work Management software helps every team in your organization do their best work. See what you can do with Upland. Contact us at **855-944-7526** or info@uplandsoftware.com.