

Ten Steps to Comprehensive Project Portfolio Management – Part 5

Tips on Steps 5 to 7

By R. Max Wideman

This series of papers has been developed from our work in upgrading TenStep's PortfolioStep™.

For more information on TenStep's internal consulting methodology, please visit
<http://www.portfoliostep.com/0.0.0PortfolioStepHomepage.htm>

In this Part 5 we will cover:

- **Tips on Step 5** – Prioritize the Work (Prioritization)
- Ranking the portfolio components
- Resolving ranking issues
- **Tips on Step 6** – Balance and Optimize the Portfolio (Balancing)
- Techniques that help
- **Tips on Step 7** – Authorize the Work (Authorization)

Tips on Step 5 – Prioritize the Work (Prioritization)

Key assumption

Portfolio management makes a key assumption that there is more work, more projects, requested than the organization can execute in the prevailing year because of its limited resources. So, during the Selection process, some of the initially proposed work was scaled back or cut altogether. However, often that initial cut is not nearly deep enough to allow for all of the remaining work to fit within the available funding and/or the capacity of the available resources.

The Prioritization step is where you make the decisions that will ultimately help determine what work that gets authorized. Even so, some of the work may still be cut during this process, though that is not the primary purpose. Rather, the primary purpose is to make sure there is enough information available to conduct a prioritization. After all the remaining work is prioritized, and balanced, the Authorization process will allow you to control the work that gets funded based on up-to-date budget and resource considerations.

Theoretically, of course, if there was enough funding and resource capacity available, all of the work that comes into the Prioritization step could be authorized. Nevertheless, progressive authorization would still be necessary to level resource consumption throughout the year. The Prioritization process provides the basis for these decisions. Remember also, that new and urgent initiatives may surface during the year that would preempt some other work lower on the priority list. Consequently some of the lowest priority work will almost certainly not be authorized in the current year.

Ranking the portfolio components

Assuming that there has been a general categorization in Step 1, as described earlier, you can now perform ranking of the categories and components within each category. If the gathering of potential portfolio components has taken place at, say, a departmental level, but portfolio management takes place at the next management level up, say, at the divisional level, then this Step 5 may be conducted twice. That is, assembly and ranking will take place once at each level.

Ranking of portfolio components may be assigned according to some hierarchy such as:

1. **Mandatory.** You do not need to rank this work. It will all be authorized, although you may have some discretion in how much funding you provide and when the work starts.
2. **Business critical.** This category of work must also be performed; however, there is much more discretion in terms of scheduling, funding level and balancing.
3. **High priority.** These projects are ranked in terms of value, urgency and alignment to your goals, objectives and strategy.
4. **Medium priority.** As for high priority but at a lower level.
5. **Low priority.** Everything else goes here. It is likely that anything in this category will not be funded.

Note that in some companies, funding is authorized on a project basis and any project-allocated funding not consumed in one year is carried over to the next. This approach to project financing is much more robust and auditable. From a resource planning perspective, it means that on-going projects have first call on the available resources.

Who does the ranking?

Ostensibly, the ranking is done by the organization's Steering Committee. Remember that this Steering Committee is a group of high-level clients and stakeholders who are responsible for providing portfolio strategic guidance, prioritization and approval of the work for the portfolio and then monitoring the portfolio throughout the year. If new work comes up or if changes occur in the authorized workload, the Steering Committee determines the impact on the portfolio and adjusts accordingly.

In practice, because this work is numbers intensive, it may be assigned to a supporting committee, or it may be done by people in the PMO who will present their recommendations.

Resolving ranking issues

Ranking is fraught with difficulties, not because it is fundamentally difficult, but because of the competing interests. There are a number of ways to resolve project-ranking issues, especially when there are multiple projects on a similar level to consider and it is difficult to keep all in mind at once.

Choosing from a lot of projects

Probably the simplest approach to choosing from among a lot of portfolio components is to establish an agreed hierarchy and mark every component accordingly. You can see this explained here:

<http://www.maxwideman.com/issacons/iac1004e/index.htm>

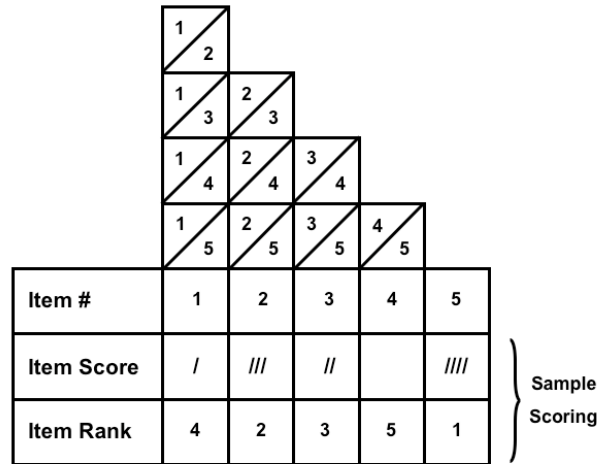
Simple comparative matrix

The next simplest method is to compare pairs of projects in a matrix format. This can be done by an individual, or in a teamwork session. The comparison of any two projects relies on the participants' personal knowledge, objectivity and sound judgment. The result is strictly qualitative, but with the right people involved, this is probably as good as any.

The approach is as follows:

1. Number the components from 1 to n in no particular order
2. Compare the components in pairs using the chart shown in Figure 5

3. The winner of each pair is flagged in the score line
4. The ranking follows from the number of flags in the score line



It is easier to compare two at a time rather than all at once
Figure 5: Comparison Matrix Chart

Multiple Criteria Weighted Ranking

Where you have to take into account multiple rating criteria for project ranking, you can develop a spreadsheet along the lines shown in Figure 6. Even then, you may need to invoke the Simple Comparative Matrix described above to resolve competition between closely ranked projects within a given criterion.

Proj #	Criticality		Project Success				Benefits				Score	Priority
	1-9	Rank	Prob	Cost	PxC	Rank	Prob	Value	PxV	Rank		
A	7	2	80%	\$1M	0.8	4	50%	\$20M	10	5	3.7	4=
B	4	3	65%	\$2.5M	1.6	2	75%	\$40M	30	1	2	1
C	2	4	70%	\$500K	0.35	5	95%	\$20M	19	2	3.7	4=
D	9	1	45%	\$3M	1.35	3	40%	\$30M	12	4	2.7	2
E	1	5	90%	\$7M	6.3	1	25%	\$70M	18	3	3	3

Note: Projects A and C score equally, and since they are low on the list may have to be resolved subjectively.

Figure 6: Ranking projects using multiple criteria

Tips on Step 6 – Balance and Optimize the Portfolio (Balancing)

Balancing your portfolio of components is an essential step in the project portfolio management responsibility. Portfolio Balancing is the process of organizing the prioritized components into a component mix that has the best potential for collectively supporting and achieving your organization's

strategic goals in terms of the benefits to be derived. It means establishing Balance Points that require Executive decisions on the allocation of resources, financial or otherwise, between competing demands within a portfolio, such as between Operations, Projects, Other Work, and so on. It may even mean establishing a balance between competing internal "political" demands. The Balance Points may be set in terms of actual dollar amounts, but more usually are set in terms of percentages. However that may be, when you are first starting portfolio management you may need to keep two particular Balance Points in mind.

Long Term (Desired) Balance

Being able to balance your portfolio requires that you define your balancing categories as well as your optimum Balance Points. The results of this definition process give you a sense for what your future state looks like. This is your desired state and reflects many of your departmental values. For example, if you decide to keep high-risk projects to less than 10% of your portfolio, it would give a sense that your department is risk averse. Keep in mind that this balance represents your desired state. You may have to make compromises in any given year that will keep you from your optimum state (see below). However, you can make these compromises deliberately and with proper forethought as to the consequences, rather than thoughtlessly and by accident.

Short Term Balance

The fact is, you may not be able to achieve your optimum Balance Points in the first year or in any given year. For example, imagine that a company would ideally like to balance 50% of their funding in "Grow the Business" type work. In 1999, however, they found that they needed to spend an unusual percentage of their available budget on the YR2K problem. This work fits in the "Support the Business" category. This should not alter their longer-term plan for 50% in the "Grow the Business" category. However, they did need to make an exception for one year.

Optimizing

At this point, you have your prioritized list of work for the portfolio, as well as guidance on your available funding. If the available funding will cover all of the proposed work, you will be in the enviable position of moving forward without further portfolio adjustment. Unfortunately, this is rarely the case. On the other hand, if you did not need to balance the portfolio, the process would be as simple as cutting back the work based on priorities until the remaining work fits within the available budget.

Optimizing the portfolio means making some final adjustments and/or cuts such that the combination of projects and other work gives rise to the maximum benefits to the organization given the resources and funds available. So, the combination of cutting the proposed work requests and balancing and optimizing the portfolio will take more time. It may also take a few iterations, as cutting back in one area may free up funding that will allow you to re-authorize work that was previously cut elsewhere.

Integrity of data

Overall, this balancing and optimizing is no easy task. It can be very subjective depending on the amount and quality of the data available. Bear in mind that in most cases you are dealing with Value Propositions and Business Cases providing justification and high-level estimates of costs and benefits for purposes of comparing projects and other work. All of these tend to be subjective to a greater or

lesser degree, and perhaps exaggerated either deliberately or subconsciously. After all, who would not want to put the best possible face on their pet project?

Often, it is not so much because of the complexity involved but because of the difficulty in reaching agreement between self-interested parties. Obviously, it is easier to reach agreement if the process is logical and makes sense. However, whether or not it actually makes sense is very dependent upon the integrity of that data. The best way to look at this last part is to stand back and, having arrived at a conclusion, ask the question: "Does what we've ended up with really make sense?"

In the last analysis, it may be up to the Executive to make somewhat arbitrary decisions. Nevertheless, if the process is, for the most part, logical and reasonable, it will be easier to get buy in from the people down the line who will actually do the work.

Techniques that help

Graphical representations of various types are very effective in presenting the results of portfolio analyses making it easier for Executive management to reach decisions. Such charts include X-Y charts, bubble charts, pie charts and histograms for example. If the charts are presented in color, even more data can be indicated as, for instance, the respective shares between competing business units. Microsoft Excel provides an easy way to create dozens of different types of chart display automatically from numerical data.

Bubble charts appear to be particularly popular for presenting portfolio data because it displays a set of numerical values as circles. This is especially useful for data sets with dozens to hundreds of values, or when the values differ by several orders of magnitudes, as is often the case in comparing projects in a portfolio.

Probability analysis similarly includes a variety of approaches such as Decision Trees, Flowcharts, Monte Carlo Simulations and so on. Here, portfolio components are assessed using success and failure probabilities for such variables as estimated cost, projected benefits and so on. Probability analysis is particularly relevant in examining relative project risks and is used extensively in project risk management.

Quantitative analysis typically involves the use of spreadsheets for comparing the factors of interest such as resource requirements, or cash flow, spread over the planning horizon, usually the fiscal year. In Scenario Analysis the idea is to draw up a range of portfolio component collections of different projects and other work, both ongoing and new, for Executive consideration. The intent is to examine the impacts of each and to select that collection that appears to be the most favorable to the organization as a whole.

Tips on Step 7 – Authorize the Work (Authorization)

This particular process needs to be customized for each organization based on how you're funding process works. In some project-oriented organizations involving large projects, approval of the project automatically means approval of the necessary funding. However, in other organizations a tight rein must be maintained over the organization's cash flow and so a process is in place for separate release of funding for projects and other work as the year progresses.

In this case, it is likely that the funding requests need to be included in your overall annual Business Plan. The plan will cover other things such as your goals, objectives, strategy, capabilities, etc., but it is unlikely that you will be required to attach Value Propositions and Business Cases to the plan. The funding requests may just be in terms of the major work categories and perhaps the major projects. Much of this information can be gathered from Step 2 – Identification.

Actual authorization means that work has been approved by the Steering Committee and the managers that submitted the original requests are all notified accordingly. In most cases, work will be authorized pretty much as it was requested. In other cases, work may be released on a reduced basis. Either way, it is essential that the Steering Committee proactively communicate the funding situation so that managers can manage their work accordingly.

Coming next

In Part 6 we will provide tips on Steps 8 & 9.