



Book Manage Your Project Portfolio

Increase Your Capacity and Finish More Projects

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Recommendation

Aiden, a woebegone software developer, sits forlornly at his desk, wondering how to complete three recently assigned, top priority projects. Yesterday morning, the boss told him that the first project was due soon. At noon, the boss popped in to insist that the second one had to be completed immediately. At 5 p.m., the boss announced that Aiden should finish the third piece of work right away. Faced with these mutually exclusive, idiotic demands, Aiden stopped working, updated his résumé, surfed the Internet and played a little solitaire. In the software development world, this sad story is all too typical. The answer, according to software management consultant Johanna Rothman, is project portfolio management. Her book details the numerous benefits of this proven approach to project management. Although Rothman wrote this slightly repetitive guide specifically for the IT world – hence the jargon – anyone who regularly juggles an array of tasks with burning deadlines can pick up some useful fundamentals from her solid report. *BooksInShort* recommends this savvy manual to software development managers, software engineers and related IT professionals, as well as project managers in other fields.

Take-Aways

- Project portfolio management helps you finish your software projects on schedule.
- You must understand your mission to make choices about prioritizing software projects.
- Managers must select which projects to undertake and which to avoid.
- Project portfolio management helps managers pick assignments strategically.
- Create a visual overview of all current and upcoming projects to depict who will work on them and when.
- Software developers should not multitask or work on more than one project at a time.
- Some managers dislike project portfolio management because it prevents them from shifting developers between assignments. This is, in fact, a primary benefit.
- Project portfolio management aligns your team's work objectives with your organization's strategic objectives.
- Tell your developers that anyone wanting special projects must speak to you.
- Project portfolio management's central truth: You can do all your software projects – but you can't do them all at once.

Summary

Juggling Projects

Many software development managers make their team members work on various projects simultaneously. This is a mistake. A manager's job is to prioritize work, starting with avoiding multitasking, which is grossly inefficient and engenders slow progress – or none – on all projects. Having developers work on concurrent assignments is just as inefficient. Your developers should focus on one project, task by task, until they complete it, and then move on to the next one.

“Project portfolio management is a zero-sum game – between you and your competitors, not your organizational peers.”

Senior managers may pressure your software development group to work on and complete too many projects simultaneously. Stand up to them and ask them to make a list of their priorities. If they won't, you must. Working on a project-by-project basis enables you and your developers to meet the company's deadlines in a steady, organized fashion.

The Project Portfolio

Your project portfolio organizes your work units according to “date and value.” It details the tasks your company “commits to or is planning to commit to.” Your project portfolio should come down to a “big visible chart” that shows when to carry out particular operations, from planning to activation; when a development team can take on a new endeavor; when to complete a project; and when to move a project team to different work.

“Great managers lead their organizations by selecting the work to do and not to do.”

The project portfolio functions as a trade-off and prioritization tool that helps you focus on strategically important tasks. It depicts the features your team members must develop. It identifies any unstaffed work and highlights what is happening on all your projects at any point in time. It also demonstrates to senior managers what your team can do currently and what it cannot do.

“Setting priorities and then resetting them as the world changes, without being simply reactive to pressure, has a name. It is management.”

Software development managers must adopt a global view of their entire project portfolio. They need to understand the work currently underway as well as the work that the department needs to complete in the future. Savvy managers should know their available human, financial and technical resources. Armed with this information, as well as a clear grasp of their firm’s mission and their group’s objectives, they can make the necessary prioritizing decisions. They can assign project work, set timelines and establish completion dates. They should periodically review all projects and decide, according to pre-established criteria, when – and whether – work should continue on each one. Their primary consideration is what’s best for the organization.

“Every time you ask people to work on another project, you are replanning.”

Smart software development managers understand that customers want superior products with desirable features. This knowledge shapes all their project portfolio decisions. These managers know that an orderly pipeline of ranked projects works toward one goal: meeting the needs of internal and external customers. The best tactic is a “lean and agile approach.” This strategy gets rid of roadblocks that interfere with throughput, enables quick completion of program features and prevents the buildup of partially completed project work.

“Never say ‘maybe’ to an additional portfolio request...Saying ‘maybe’ leads to disaster. When you say ‘maybe,’ your managers hear ‘yes.’ Your peers and staff hear ‘no.’ You can’t win.”

Put these lean principles to work: “Think in terms of value” to develop worthwhile results. Employ “process flow”; that is, ensure that your team has the resources to accomplish doable, small chunks of work. Address and correct any quality control problems. Employ visual aids so everyone sees exactly how efficiently they are working and where each individual project stands.

Look at Project Portfolios the Right Way

Some software development managers prefer not to commit software staffers wholly to specific projects. They believe that such an organizational scheme restricts their developers’ activities and prevents managers from transferring workers back and forth on various jobs. Yet keeping a developer’s attention on one assignment through to its completion is a benefit. When developers switch between ongoing projects, those projects don’t wrap up on time, and sometimes they never reach completion. To be effective, developers must focus on one software project at a time.

“Multitasking occurs when managers don’t make decisions about which projects to do first, second, third, last and, even more important, never.”

If you manage your software projects without a project portfolio, you risk accumulating substantial “technical, management and capability debt.” Technical debt occurs when your developers take shortcuts because they don’t have the time to do good work. Management debt develops from operating without adequate data. You amass capability debt when your staff lacks the time to develop new skills. In the absence of project portfolio management, everyone operates in emergency mode all the time.

“Don’t think you can accurately predict project cost. You can’t. No one can.”

Utilizing a project portfolio puts you in the best position to make necessary choices. You cut back on excess active projects; you increase throughput; you work with a logical plan, instead of moving helter-skelter from one project to another; you maintain morale; and you finish projects on time. A project portfolio approach means completing more projects and, thus, generating more value for your organization.

Visually Display Your Portfolio

To create your portfolio, collect all the separate work assignments you and your people are responsible for completing. Cover only the work that falls within your sphere of influence. Include all five categories of work:

1. **“Periodic work”** – This involves reports, budgets and other nonproject work.
2. **“Ongoing work”** – These are operational support tasks.
3. **“In-process ad hoc work”** – This also incorporates emergency activities.
4. **“Management work”** – These tasks incorporate coaching, managing meetings and coordinating other people’s activities.
5. **“Project work”** – This includes jobs with discrete goals and preset completion dates.

“If you can’t fully commit the necessary people and money to a project, you are guaranteeing the project will not provide the value you want it to provide.”

Once you collect your work, organize it in segments according to specific timeframes – generally, week by week – and specific employees. List when these work items will be underway and who will handle them. Extend the work schedule for a limited period of time – for example, only four weeks into the future. Display this information as a presentation of your projects, tasks and other jobs. Include when each is due and who’s working on what.

“If you don’t have a corporate strategy, you can’t be successful at managing the portfolio.”

To create a viable, complete display, try color-coded sticky notes on a whiteboard, with one note per work item; carefully organized index cards on a bulletin board; or a big spreadsheet. Avoid Gantt charts, which do not highlight interactions among projects. Include an “unstaffed work” section that lists jobs, tasks and projects that your team cannot complete within a specified time period – say, the next four weeks. If your managers who report to you have their own work groups, have them create similar displays.

“You will probably run out of teams before you run out of projects.”

Start by tracking an activity at the bottom of your sphere of influence and work upward so you do not miss any work activities. At this stage, you have not ranked the work yet, so make educated guesses as to which jobs are the most important. Each project has a unique work team or developer and a unique completion date. You can categorize varied, small work pieces that offer notable value collectively – but not individually – as a program. Diverse projects that together provide notable value in one deliverable can also be programs. And you can classify numerous interrelated projects as a program.

Project Evaluation and Ranking

Formally evaluate your projects. First ask, “Should we do this project at all?” You have three options:

1. **Fully pledge to the project** – Make sure it gets the resources it needs, even if you have to gather them incrementally. Never commit to a software assignment that requires at least half of your workforce or that needs at least three months to complete.
2. **Shut it down** – Don’t stay with a flawed project because of previous funding (also known as “sunk costs”). Shut it down completely. Don’t throw good money after bad.
3. **Change its particulars** – Do you need a new team or manager, or should you change the nature of the work?

Ranking Criteria and Methods

Involve others in your ranking efforts. Collaborate on important decisions by starting as high up in your company as you can. Rank projects using a point system, and work first on those with the most points. Or rate projects in four categories according to risk: “high risk, high return”; “high risk, low return”; “low risk, high return”; and “low risk, low return.”

“Early adopters are valuable customers, but you need to be careful. The more you ask them what they want, the more they think you have promised them something.”

You also could rank projects contextually. For example, does an important client need the project quickly? Do not necessarily grade a project highly just because the CEO wants it, since other projects may be more crucial to the company’s well-being. Other ranking methods include comparing projects in pairs or using “single- or double-elimination tournament decision making,” where you pit one project against another. Do not rank by return on investment, because that requires crystal ball thinking. And don’t bother measuring the productivity of individual developers. Throughput is what matters.

“The more projects your organization can complete, the more value you can realize from the work...and the more value you provide to the larger organization.”

To prioritize projects, consider whether they help your company to make money, expand the business, or develop new sales or opportunities. Evaluate each project at least quarterly. Do not let others in your organization upend your plans by approaching your staff developers to work on their special ventures. Tell your developers that those with special requests must speak to you.

“The most important projects are the ones that provide the most business value.”

Project portfolio management ably lends itself to a lean approach and an agile life cycle. The later in the process you can make decisions about your projects, the leaner your operations will become. Set up a “parking lot” to hold assignments you can’t do currently. Stabilize the ones you can do. Measure the velocity of your team over a specified period of time. Contrast “current velocity and historical velocity.” If you don’t finish set features on time, measure schedule dates and defects. Another valuable measurement, “cumulative flow,” assesses “work in progress over time compared to the total project scope.”

What’s Your Mission?

To intelligently rank, prioritize and organize your projects, you need a clear grasp of your mission, the goal that defines the work you do. Your mission must be actionable and should deliver tangible benefits – for example, “develop and create high-performance computing systems.” Limit your projects to those that directly support the mission. If you don’t have a formal mission statement, draft one. Get everyone’s input. Use powerful verbs and avoid adverbs; for example, say “facilitate” instead of “really help.” When your mission statement is complete, test it. Make sure the scope of your mission is clear and promotes action. Determine whether your group or firm can accomplish the mission.

“Businesses improve (and profit) by finishing projects, not starting them.” (Clarke Ching, theory of constraints consultant)

Project portfolio management works best when your company has a strategic plan. Even if your company does not operate strategically, you can use project portfolio management to direct your team, complete assignments, expand your capacity and update senior management on the status of your operations. Unfortunately, if you are

the only person in your organization who uses the project portfolio management approach, you will be swimming upstream. However, since project portfolio management enables you and your group to complete notable segments of work on a consistently timely basis, you soon will convert others to a project management system.

About the Author

Johanna Rothman is the president of Rothman Consulting Group, a software management consulting firm. She writes and lectures on project management and high-tech product development.
