

# Software Executive Report

Notes from the Executive Council for Software Excellence

April 2008

## Navigating the Planning Cycle

This report focuses on planning issues including budgeting, project-launch planning, and long-term planning.

### Budgeting

#### *Project Budgeting*

The project budgeting practices used by companies seem to be fairly cleanly divided between the practices used by companies that develop software for in-house use and the practices used by companies that develop software as part of a product.

Companies that develop software for in-house use are most commonly on a strongly annual planning cycle. The budget is typically allocated at the department level rather than being assigned to specific projects. A “project wish list” is used to obtain the budget. As the year unfolds the projects that are completed are often not very strongly correlated with the project wish list that was used to obtain the year’s budget. The functional managers end up adjusting priorities with their business partners dynamically throughout the year. As one executive said, “Our budget goes out the window after first quarter.” In other words, **for in-house-software organizations, budget is more of a head count than an allocation to individually identified projects.**

Companies that develop software as part of a product (including shrink wrap, embedded, web, and SaaS) generally allocate their budget on a project-by-project basis, i.e., they allocate their budgets to *products*. In these organizations, if a product goes away, so does the budget.

**Functional Executives in matrix organizations report that budgeting is easiest when it is done hand-in-hand with the business lines.** As one executive said, “Our in-house customers used to say, ‘how is IT going to help us?’ Now we all say, ‘How is our team going to do this?’ This has been a huge change.”

#### *Budgeting—Use it or Lose It?*

Many companies report having a “use it or lose it” budget policy. One executive reported a “use it *early* or lose it” policy that’s designed to prevent 11th hour budget outlays. Another executive reported a practice common in his company of planning for 11 months of budget, intentionally running out of funding by the 12th month. “By then we’re already into the next budgeting cycle,” he said. “And no one’s going to lose their jobs between month 12 of this year and month 1 of next year.”

#### *Budgeting for Quality Improvement Work*

It can be difficult to cost-justify quality improvement work since the work often doesn’t directly produce business value, rather it enables other work that does directly produce business value. In part, it *should* be difficult to justify any kind of work that doesn’t directly produce business value. But some quality improvement work needs to be justified nonetheless.

Companies report various ways of building support for this kind of work:

- ◆ Track “Cost of Poor Quality” (cost of field repairs, post-release defect corrections, etc.).
- ◆ Track Total Cost of Quality. Cost is tracked in the four categories of production, ap-

#### May ECSE Meetings

#### Guru Management

Managing technical staff has been compared to herding cats, wrestling greased pigs, juggling chainsaws, and numerous other activities. What are the unique challenges in managing technical staff, especially top technical staff? Our May meeting will explore this question.

**Bellevue Meeting:** May 12, 5:00-7:00 pm.

**Dial-in Meeting:** May 16, 8:00-9:00 am, PDT.



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praisal, rework, and prevention. Collecting this data can be a challenge, but **getting absolutely accurate numbers is not as important as being able to measure trends and to reinforce a culture of continually moving toward the idea of perfect software implementation** (without the expectation of ever actually reaching it).

- ◆ Total Cost of Ownership is another idea that can be used similarly.

### *Budgeting—Common Frustrations*

Many technical executives report submitting budgets, getting preliminary approval on their budgets, and then having their budgets reduced or changed (e.g., funds moved between opex and capex) in seemingly arbitrary ways immediately before final budget approval. Software executives report being sanguine about this process: “Budgeting in a large organization is as complicated as a large software project, and it isn’t realistic for anyone outside accounting to understand it very well.”

Another frustration is trying to budget before feature set is pinned down, i.e., trying to budget too early in the Cone of Uncertainty.

A common complaint among software executives is funding too many projects and not funding enough of them adequately.

### **Project Planning**

Some companies reported having the Cone of Uncertainty institutionalized within their technical management and general management staffs, and using the Cone as a model for distinguishing between estimates and commitments at the leadership level.

### *Project Commitments*

Other companies reported the all-too-common problem of the Cone not being understood by their business partners, and so being forced to commit to budgets before being able to do the work that would narrow the Cone and support a more achievable budget.

Because of the lack of predictability that ensues, companies end up making external commitments only very late, i.e., after code complete and into final stages of regression testing.

*“Budgeting in a large organization is as complicated as a large software project, and it isn’t realistic for anyone outside accounting to understand it very well.”*

### *Contingency Planning*

Approaches to project contingency budget varied a great deal.

- ◆ Many companies report that no contingency is held at the project level.
- ◆ Several companies hold contingency implicitly. **One company reported that contingency is held at the senior executive level (above the senior management level), but that fact isn’t discussed ever.**
- ◆ Project budgets aren’t approved until all contingency is squeezed out of them; contingency, if any, is held at the highest level in the organization.
- ◆ Buffers ranged from 10-25% for companies that do plan for contingency.
- ◆ One organization reported that its **use of Scrum had reduced the need for contingency planning** because responding to changing circumstances is such a central feature of Scrum.

### **Long Term Planning**

Long-term planning lengths range from 1-10 years, with the longer periods generally being reported by large companies involved in combined hardware/software initiatives. The most common long-term planning approach seems to be a 3-year rolling planning cycle which is revisited annually or semi-annually.

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#### **About the Software Executive Report**

The *Software Executive Report* is published monthly by Construx Software, 10900 NE 8th Street, Suite 1350, Bellevue, WA 98004. To subscribe to the *Software Executive Report* or for copies of past editions, please contact us at [ecse@construx.com](mailto:ecse@construx.com) or by telephone at +1 (866) 296-6300.

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### Long-Term Planning Techniques

Several companies reported success using SWOT analysis (strengths, weaknesses, opportunities, threats).

Long-term planning meetings tend to be short—half day or one day. Most companies report doing this planning on-site; only a few report longer off-site planning sessions.

Risk management is done at the business level, which is then driven down into individual projects.

### Effectiveness of Long-Term Planning

Most software executives report some skepticism about long-term planning, mostly due to a track record of not executing very close to anything described in the long-term plans. This is exacerbated by the commonly reported lack of connection between long-term planning and annual budgeting.

Many companies report that they are decreasing the amount of time they invest in this not-very-useful strategic planning. [Editor's note: The better response to the lack of value provided by strategic planning might be to *increase* the amount of time spent on strategic planning. A 4-hour meeting does not allow enough time for truly strategic collaborative thinking.]

**One company carefully avoids using the word "planning" to describe anything further out than a year. It uses "vision" or "road map" to describe 2+ year direction** and that plan is expressly created without dates or gates. This is done specifically to avoid the problems associated with overly-detailed-but-not-actionable long-term planning activities.

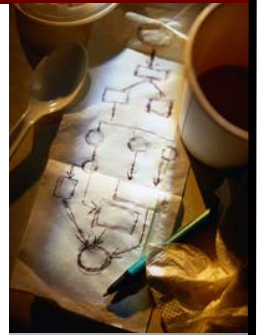
*"Some companies have a procurement mentality where they think that because they can get a price for a box of staples they ought to be able to get a price for a piece of software."*

### Portfolio Management

Most medium-to-large companies do some kind of explicit portfolio balancing—making sure the allocation of staff to projects reflects the business's priorities. The most common approach is to perform a deep portfolio review yearly followed by shallower quarterly updates. A few companies report doing deep quarterly reviews or ongoing reviews.

Companies that allocate staff along business lines (as opposed to having them allocated functionally) report that staffing shared projects is their biggest challenge. I.e., it's hard to sponsor projects that are strategically good for the overall business when the funding and staffing for such projects have to be cobbled together from individual business unit budgets.

Other companies report that individual project managers will share resources under the covers, unofficially, when needed—in essence doing what's best for their companies in spite of their planning processes rather than because of them.



### About Construx

Since 1996, Construx Software has provided industry-leading support for software development best practices. Through our combination of seminars, consulting, and resources & tools, we have helped hundreds of software-intensive companies better achieve their business goals.

For more information about how we can help your company achieve its business goals, please contact us.

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### About the Executive Council for Software Excellence (ECSE)

The ECSE is an executive discussion group hosted by Construx Software. Meeting monthly since 2002, the ECSE's goal is to share, analyze, and evaluate members' experiences facing enterprise-level software development challenges. ECSE members are executives with multi-project, enterprise-level responsibility for software development. The typical member oversees activities of 100 or more software personnel. The ECSE has a few members who oversee smaller staffs.

If you are interested in joining the ECSE or if you know someone who would be interested, please contact the ECSE host, Steve McConnell, at [stevemcc@construx.com](mailto:stevemcc@construx.com) or (866) 296-6300.

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## Editor's Note

Over the years I've found that organizations' budgeting processes have large impacts on their project outcomes for several reasons:

- ◆ The budgeting process determines whether a project makes its commitments at a point in the lifecycle that it can actually meet its commitments or it must make its commitments so early in the lifecycle that chances of meeting commitments made at that early time are very low.
- ◆ The budgeting process supports early exploratory work that can significantly reduce project risk and increase the chances of success, or it throws up roadblocks to that kind of work, forcing projects into a higher risk posture.
- ◆ The budgeting process puts groups that will need to work together to make a project successful at odds with each other, or it aligns them, thus helping to align work on a project
- ◆ An organization uses the budgeting process to define and align priorities in the most tangible way a business can—by the amount of money it allocates to each priority—or it peanut-butter spreads its budget, muddying its priorities.

In a very real sense, an organization's budgeting process plants the seeds of success or failure for its projects.

—Steve McConnell

## ECSE Calendar 2008

<b>May</b>	Special Issues in Managing Technical Personnel (aka "Guru Management")
<b>June</b>	Balancing "Doing" with "Improving": Improvement Strategies
<b>July</b>	Supporting Innovation
<b>August</b>	Summer break
<b>September</b>	Issues in Test Management
<b>October</b>	Compensation Updates
<b>November</b>	Improving Productivity
<b>December</b>	To be announced

*"Our in-house customers used to say, 'how is IT going to help us?' Now we all say, 'How is our team going to do this?' This has been a huge change."*

## Save the Dates!

## 2008 Software Executive Summit

Construx's 5th Annual Software Executive Summit will be held this year from **October 27-29** at the Grand Hyatt in Seattle, Washington. In addition to the small group discussions, this year's Summit features the following presentations:

- ◆ **Ken Schwaber**, co-creator of Scrum, "Scaling Scrum"
- ◆ **Martin Fowler**, author of *Refactoring* and *Patterns of Enterprise Application Architecture*, "Cultivating Great Architects and Designers"
- ◆ **Travis McElfresh**, VP Technology, "Driving Employee Satisfaction, Morale, and Productivity at MSNBC.com"
- ◆ **Matt Peloquin**, CTO, Construx Software, "Technical Lessons from the Software Wild"
- ◆ **Steve McConnell**, author of *Software Estimation* and *Code Complete*, "Secrets of World Class Software Organizations"

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