PREDICTING THE UNPREDICTABLE

Pragmatic Approaches to Estimating Project Schedule or Cost

AUTHOR OF *"MANAGE IT! YOUR GUIDE TO MODERN, PRAGMATIC PROJECT MANAGEMENT"*

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Practical ink

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To everyone who was ever asked,
"How much will this project cost?" or
"How long will this project take?"

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3. Why Do We Estimate Anyway?

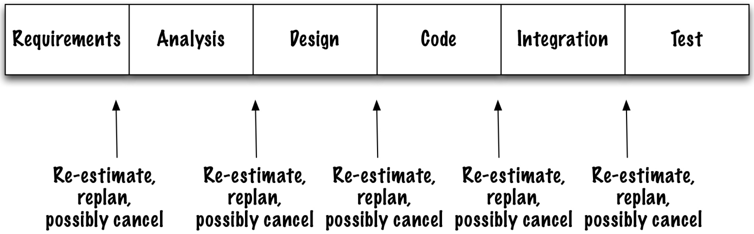
We estimate for these reasons:

- To provide an order-of-magnitude size/cost/date about the project, so we have a rough idea of the size/cost/date for planning purposes. An order-of-magnitude size means we want to invest just enough time in the estimate that we believe in the accuracy of it for planning purposes.
- We want to know when we will be done, because we are close.
- We need to allocate money or teams of people for some amount of time.
- Someone wants to know who to blame.

Creating a gross estimate can be useful. See Estimating the Unknown: Dates or Budgets to learn how. You can iterate on that estimate, especially as you get closer to completion.

A gross estimate with deliverable milestones can help the organization allocate money or teams for a while. The deliverable milestones help you know when you have completed enough value. The value is a compilation of features, something you can demo.

In fact, back when phase-gate (serial) life cycles were developed, estimation was key to a project's success.


Requirements
Analysis
Design
Code
Integration
Test
Re-estimate, replan, possibly cancel
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Role of Estimation in a Serial Life Cycle

After you completed a phase, you were supposed to re-estimate, in order to change what you did with the project.

Now, if you are using an incremental approach or an agile approach, you see completed work. And you don't have to re-estimate. However, you should be aware that many managers may be thinking about a serial life cycle when they ask for estimates.

3.1 Why Do You Estimate?

Why do *you* estimate? If you've estimated because you always have, think about it. If you estimate because your money people want to do once-a-year money allocation, well, you know that's fiction. You can do it without detailed project estimation.

For money allocation, decide how valuable the project is to you. When does the project have to deliver the value? Now, tell the project team when the value has to be delivered. That's all.

Remember, you hired these people because they were smart, responsible human beings. Stop with the phases and all that nonsense. Tell them what you want. Remember, the phases exist because management wanted to be able to cancel the project before it got too far along. You were supposed to show a deliverable and re-estimate at each phase. If you don't cancel or deliver something and re-estimate at each phase, your phases are not working for you.

Buy your team a copy of *Manage It! Your Guide to Modern, Pragmatic Project Management*, (ROTPM), which explains how to manage projects in any life cycle. Give them a ranked backlog. Let them deliver. If they can't deliver in the money or date frame, they will tell you. They are responsible humans.

If you need an order-of-magnitude estimation, fine. That doesn't take days to determine. That takes hours. It will be precise-wrong and order-of-magnitude-right. Timebox your estimation effort. It's an order of magnitude. Don't hold anyone to that estimate. (Remember, estimates are guesses. They are not "The One and Only Truth.")

If you want to know when you'll be done because you think you're close to the end of the project, ask yourself this question: Is it worth the time to estimate versus the time to finish? It might be. But know you are taking time away from finishing.

And if you want to play the blame game, remember that management is the one who needs to shoulder the most blame. Why? Because management set the constraints. Don't believe me? Read Estimating the Unknown: Dates or Budgets now.

I can sympathize with management's need for estimates. I like order-of-magnitude estimates for many things. I even like specific estimates as we get closer. But creating software is not like driving somewhere or like constructing a building. When I drive somewhere, I do want step-by-step instructions. When constructing a building, I do want an estimate. And even then, I am pretty sure the estimate is optimistic.

When creating software, I want to see working software as we create it, because with working software, we learn. The learning is what's most important. Because once we've learned enough, we can stop. That's what's most valuable. Not the estimate.

3.2 Ask This Question Before You Estimate

When people ask you for your estimates, they are trying to determine the value of the project to the organization.

You can ask them to articulate their desires with either of these questions:

- How much do you want to invest before we stop?
- How much value is this project or program worth to you?

Start a conversation with your sponsor, so you can understand what is important to your sponsor. Once you do, you can decide what to do next. You may want a gross estimate, as in Estimating the Unknown: Dates or Budgets. You may want to change your project approach, and do some up-front work to generate a more detailed estimate. You have choices.