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PDSA Special Report

Estimating and Tracking Time

Estimating is a Process

If I asked you to tell me how long it would take to go to New York City, what would you say? 5 hours, two weeks, or two months? All three could be correct, but it depends of course on many factors. Everyone estimates differently: usually based on their knowledge, experience or even how they feel that day. But more importantly it is based on assumptions. The person who said 5 hours assumed he was flying to NY, two weeks by car and two months by bicycle. So they were all correct, based on THEIR assumptions. It is your goal as a project leader to normalize and aggregate all your assumptions. You must create an estimating process and model to eliminate the personal nuances and follow it for all work. You must document your process so it is repeatable, measurable and improvable. So how do you do that?

Building your Estimate

Let's start off easy. Create a spreadsheet of all, (and I do mean ALL), possible tasks to create a new application. Get everyone's ideas of all the potential tasks and assumptions. This will be the beginning of your estimating model. You will need to build several models, one for each major type of work. You may have one for maintenance projects, high level analysis projects, in addition to new development. It is ok if the list gets long. In fact it should be. For each new project (new application, maintenance, high level analysis) choose the estimating model from your file share and begin filling it out. Notice I said file share. The estimating models must be standardized and used from a location for all people to get at. They should also be in a source control library (TFS, SharePoint, or anything else you may have). Maybe it looks something like this:

Task	Estimated Hours	Assumptions/Comments
Gather Client Requirements	24	Visit client location for 2 days and prepare material for 1 day.
Create Data Model	14	Create data model of about 14 tables. 1 hour per table.
Task n	8	More assumptions here…
Task n+1	8	More assumptions here…
Task n+2	8	More assumptions here…
Task n+3	8	More assumptions here…

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Total	nnn	

Create an estimating template containing your list of tasks. Consider this list as the "super set" of all tasks. Now will you build up an estimate from a model, remember that some tasks estimates will be zero since they would not apply in this case. Leave the task description there and its estimate zero. That way you will know it was considered and determined to not apply. If you find that you need to add more tasks, then you must add those back into the template on the file share. The point is to build up the super set or master set of tasks that COULD apply. So when the next assignment comes along you can quickly pull out the spreadsheet fill in the task estimates and assumptions and presto you are done!

Building your Schedule

Estimated hours are the number of hours that the average person on your team would take to do the job. A schedule is elapsed time. So if the project is 244 hours WHEN will it be done? That is the question all management asks: WHEN? You can create a simple schedule calculator to give yourself a reasonable schedule:

Project Schedule Planning

Total Hours for Project	**244**		**3/11/2015**
Hrs/Week	37		
	# of Weeks	**# of Heads**	**Comp Date from Today**
	3.3	2	April 3, 2015
	2.6	2.5	March 29, 2015
	2.2	3	March 26, 2015
	1.9	3.5	March 24, 2015
	1.6	4	March 22, 2015
	1.5	4.5	March 21, 2015

You can create another tab on your estimating spreadsheet to create a simple schedule. You can plug in the number of hours the person will work in a week and in this example it is 37. So based on today's date (3/11/2015) it would take 2 people, 3.3 weeks to complete, working 37 hours per week and they will be done on April 3rd, 2015. Of course this does not include any other workloads that each person may do. That is why we have the Hrs/Week setting. If they can only work part time, say 20 hours per week, then the dates would stretch out. The purpose of this little tool is to allow you to quickly estimate your schedule with reasonable accuracy.

Tracking Your Progress

If you estimate your work, but do not track your progress you are wasting your time! Tracking your work provides immense benefits, such as:

1. Providing feedback to your customer as to where you are on the project without guessing.
2. Have confidence that the work you are doing is on plan, or even more important, not on plan so you can take corrective action.
3. After each project you can perform a lessons learned to see how you did. Do you need to improve your estimating model so your next estimate will be even better?
4. You can use your past data that your tracking database has to quickly forecast an estimate of a new project. If you did 3 projects similar to the new one coming up, you can use that data to provide a rough estimate or range of hours.

So how do we track our time? You can use spreadsheets to get a jump start but they will not provide you with the functionality you really need in the long run. There are many products you can buy and use on the web. PDSA uses the PDSA eTimeTrak (http://www.pdsa.com/timetrak) product to define projects, tasks, and estimates to leverage all the benefits mentioned above. Check out the web (Google the phrase "time tracking") to see what products might work for you. Remember, if you don't track your work, your estimates have no value at all. Happy estimating and tracking!

Summary

Estimating is a disciplined process that requires tools, practice and most importantly historical data. You must build your estimating models, document them, enable everyone

to use them and continually improve them. Lastly, if you don't track your work against your estimates, you are simply wasting your time. Buy or build a tracking tool to help you track and improve your estimates.

There are two areas that PDSA can help you improve your estimating and tracking capabilities:

1. PDSA's Agile ALM which contains all of our lifecycle standards and documentation. See http://www.pdsa.com/agile.
2. PDSA's eTimeTrak Product which is our web-based time tracking product. See http://www.pdsa.com/timetrack.

Contact Information

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