

Re: How much requirement documentation up front?

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Responding to Parker...

>>>> *As far as the evolution of standards is concerned, that is a quite
>>>> different situation because the subject matter itself is being defined.
>>>>
>>>
>>> But that's sometimes a characteristic of business applications as well.
>>
>> Do you have an example? I am really curious
>> because I spent a decade doing core IT systems and I can't think of one.
>>
>
> Most of the financial trading system and risk management projects I've been
> involved with have had a significant business learning component that took
> place over the life of the project. Much of this learning component was
> related to the application of numerical methods to complex valuation and
> simulation problems, where the expertise was distributed between
> quantitative analysts and developers like myself who made this area
> something of a speciality. In general, any project that has some R&D
> component will have this characteristic, to more or lessor extent.*

OK, see what you meant but I think we draw the line in the sand for requirements analysis differently. B-)

When I was doing inventory control we had a similar problem with forecasting algorithms. [It was for a food retailer where if one doesn't have a complete inventory turn in less than 10 days, one goes broke. So it is critical to get the forecasts correct at the store level — essentially JIT at the store with a warehouse buffer to absorb store variance.] A priori one does not know which algorithm will provide a best fit for a particular product. So one has to do some investigation with fits to historical data. But I would consider that part of requirements analysis; one is just using software for the fit analysis prior to implementing the IC system.

The interesting aspect from your perspective is related to new products

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where there is no historical data or products where consumer habits change. The former is usually done by matching to category data and then monitoring until one has enough historical data to determine variance. The latter is done by periodically evaluating the variance to forecast. When one gets to an unacceptable variance, one does the fitting analysis again and selects a new algorithm.

In either case, the monitoring is just using the IC system as a data collection tool for requirements analysis. The need to change the forecasting algorithm was driven by detecting an unacceptable variance.

So one goes through the fit analysis again to identify the new best fit algorithm that fit the new requirements.

Though this is an iterative, ongoing process that involves the software product's results, I don't really see it as an argument for guessing at requirements in the software product itself. You would regard the best category fit for a new product as a guess at the requirements. I don't see that as a guess; one is specifying the algorithm requirement as completely, precisely, and unambiguously as one can at the time and there is no guessing about alternatives.

The fact that the software product itself makes it very convenient to log the necessary historical data for testing variance and requirements analysis doesn't mean that one is guessing at the requirements for the product itself. The analysis of the historical data that determines which algorithm to use is still a separate activity from the business of the IC system that I would regard as requirements analysis. So any change to the product algorithm used by the IC systems is the result of repeating that entire activity with different results (i.e., the requirements _for the software product_ have changed).

[In practice the fitting analysis software is likely to be a module within the IC system. But that module is an analysis tool that is independent of the business of actually managing the inventory on a day-to-day basis. That is, it is a separate R&D tool from the IC system whose requirements are being specified. I have no doubt that today's IC systems (I did mine in the '70s) are self-modifying in that they automate the analysis process and modify the forecasting algorithms over time without developer intervention. But that sort of system is a whole different set of requirements. B-)]

There is nothing wrong with me that could not be cured by a capful of Drano.

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