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VIEWPOINT

Top-Down, Bottom-Up, Inside-Out, and Upside-Down

by Pamela G. McIntyre

Since the first application was written, programmers and systems analysts have attempted to identify and define user requirements. And as hard as they have tried, they have failed miserably. The reason is that requirements are usually a moving target. No sooner has a "comprehensive" list of requirements been put together, when a change, modification, or completely new requirement appears out of the blue.

It can be safely stated that users rarely know exactly what they want. This is due in part to ignorance of technology and what it can and cannot do. It is also due to inefficiency, fear of change, office politics, and sometimes sheer incompetence. This is the ultimate nightmare for the analyst.

So the best he or she can hope to do is proceed in an organized and highly-structured fashion, trying to keep things from slipping through the cracks. But where to begin? There are several popular design models to choose from, and arguments for and against each of them have been made many times over.

If I had to choose, I would choose rapid prototyping because it keeps the user involved in all stages of development. Changes are identified before the design is set in stone (or close to it). It gives the users a chance to see how their requirements have been interpreted and whether or not that interpretation is correct. But don't be fooled. This is only the lesser of several evils.

Murphy's first law of requirements analysis states:

The system design shall be complete before the user requests additional changes that are entirely incompatible with the initial design.

How many times have you started a project only to have it turn out to be something completely different? I have been there many times and all the top-down, bottom-up design in the world won't help you. Up-side-down design comes close but inside-out design seems to work best. **M**

Welcome to Viewpoint. *The opinions expressed in this column are those of the author and do not necessarily reflect the opinions of MTA. Guest writers and responses to columns are welcome and will be printed at the discretion of MTA. Email: MTA@mtechnology.org*

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