Business Process Analysis
Using Detail Process Maps and the Questioning Method[1]
By Ben B Graham

Reengineering, ISO Certification, Business Process Improvement, Six Sigma, Sarbanes-Oxley all specify an organizational focus on business processes, however, none provides a specific method for understanding the processes. This leaves many people attempting to figure it out as they go. Without a solid methodology to support process understanding and improvement, many efforts fail, drag on, or (at best) require more effort than was initially anticipated. Detail process charts provide a level of understanding that is essential for effective analysis. They have been used by world-class organizations to achieve excellent results for over half a century.

Real bottom line value is derived from process maps when they are used to improve the effectiveness and efficiency of the processes. Often the motivation that leads to conducting an improvement project is to correct a problem such as: the process has generated costly errors, the process takes too long, the process has failed an audit, the process is not in compliance with new legislation, the process has broken down, etc.

Unfortunately, the urgency that generates improvement projects encourages shortsighted decisions. Believing that detailed charting will take too long, no map is prepared or if a map is prepared it is at such a high level that it shows only what most people already know. (Actually the time required to prepare detailed process charts is generally misunderstood, usually overestimated. Most processes can be easily mapped in detail in a day or two.) Without the thorough and comprehensive view provided by a detailed process chart, the improvement effort results in changes that correct or lessen the initial problem while often causing undesirable side effects. The more complex the process, the more likely the fix will cause new problems. Where managers are alert to the risk of negative side effects they sometimes opt to leave the current process in place untouched and add a totally separate process to address the current problem, further complicating the processes.

Fortunately, the ease with which well-drawn process maps enable people to see what is causing problems and how to correct them makes it is faster to do it right than to cut corners. Assemble a team of people who are involved in the process. Prepare a map of the process as is it now, an "As-is" map. Walk through the

map with the team. If the project exists to resolve an urgent problem, state the problem in terms of objectives and post the objectives in large print in front of the team as a constant reminder while they work (i.e. to eliminate errors, to reduce cycle time, to fix specific flaws noted in an audit, to comply with new legislation, etc.) Then have the team challenge the process step by step. Sometimes people who are trying to improve get so excited about the first few ideas that surface, they commit to them and close their minds to further opportunities. The following questions provide a pattern that can help a team think through a process thoroughly, spotting far more opportunities and arriving at top quality solutions.

The Questioning Method
"I have six honest serving men (they taught me all I knew); their names are What and Why and When and How and Where and Who." **Rudyard Kipling**

In defining a process, our objective is to capture reality; to paint a realistic picture of what the process does. We ask *what* is happening at every step along the way. We also capture *where* the work is done, *who* does the work and *when* the work is done. We don't ask why, because it doesn't matter…yet.

With a good process story in front of a team of people who represent the process (and really understand their piece of it), it is time to ask why. Now we ask the same questions that we asked to define the process…but, this time we ask why to every answer.

During analysis, every question becomes two questions. At each step, we ask first "What is happening? And to the answer of that question we ask, "Why?" Why are we doing this? Is it necessary? Can it be eliminated? If there isn't a good reason for doing that step, recommend that it be eliminated. This is the question that produces the most cost effective changes and should always be asked first. There is no sense in asking more detailed questions about a work step that should not be done at all. When steps of work are eliminated there is little or no implementation cost and the benefit equals the full cost of the performing that step. Many work steps that once served a valuable purpose (possibly years ago) can be eliminated when that purpose no longer exists.
If there is a good reason for performing the step then ask; "Where is it done and why is it done there?" - "When is it done and why is it done at that time?" – "Who does it and why does that person do it?" These questions lead to changes in location, timing, and the person doing the work without changing the task itself and therefore they are also highly cost effective. Equipment is relocated

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closer to the people who use it. Schedules are revised to fit with previous and following portions of the process to produce smoother flow. Tasks are shifted to people better able to perform them. Tasks are combined, eliminating the transports and delays between them that occurred as the work flowed between locations and/or people.

Only after these questions have been asked and answered should the final question be addressed; "How is it done and why is it done that way?" While this question can lead to excellent benefits, it also incurs the greatest costs because changing how a task is done generally requires introducing new technology with new equipment, programming and significant amounts of training. Of course, new technology is important. It is very important, and it should be pursued. But, if the organization wants to maximize profits, it will hold off on changing how the steps are performed until after the previous questions have been properly dealt with. (Unfortunately, new technology is so enticing that organizations often leap into it before asking the earlier questions. They miss easy to install, high payoff opportunities and sometimes wind up having spent a lot of money to automate activities that shouldn't be done at all.)

Using these questions with a process map provides team members with fresh eyes to see their work from a new vantage point. They are used to doing the work. They are not used to seeing it as symbols and lines, and as a part of a process. From this new perspective, opportunities for improvement become apparent, and since the people doing the study are thoroughly familiar with the work, their improvements are almost always realistic, practical and doable. As team members work their way through the "As-is" map they come up with numerous changes that are easily displayed in a revised map. When they have done this two or three times, they arrive at a map that represents the process as they would like it to be - a "To-be" map. Now they have two maps, the "As-is" and the "To-be", both drawn step-by-step using precisely the same mapping terminology, which paves the way for methodical handling of approval and implementation activities.

Ben B Graham is President of The Ben Graham Corporation and author of the book 'Detail Process Charting: Speaking the Language of Process' published by John Wiley Publishers. His company pioneered the field of business process improvement, and has provided process improvement consulting, coaching and education services to organizations across North America since 1953. Ben has worked with many organizations to build libraries of business process maps and develop effective, process-focused, continuous improvement programs. His organization publishes Graham Process Mapping Software, which is designed solely for preparing detail process maps. More information about the software is available at http://www.processchart.com

1 Excerpted from Ben B Graham, Detail Process Charting: Speaking the Language of Process (John Wiley & Sons, 2004)