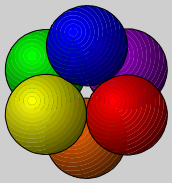

TESSERACT
Management Systems

GUIDELINES

A Basic Guide to Process Mapping

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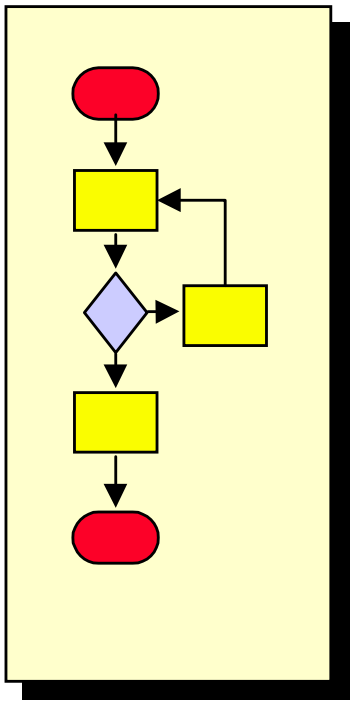
1 INTRODUCTION



Process mapping is a hugely underrated tool in most organisations, perhaps because of the lack of emphasis on the 'design' side of management.

A process map is simply a graphical logical representation of the flow of work, information and resources through the activities of the process.

As with an architect's drawing, a programmer's flowchart, or an engineer's circuit diagram; the manager's process map provides the schematic representation of reality that is so essential to planning change and considering its implications. Even from the outset, the basic activity of developing the diagram provides practical insight as understanding is reconciled, waste identified and obvious improvement opportunities become evident.

Process mapping is very briefly overviewed in the 'Guide to Problem Solving Tools and Techniques'. In this short guide, we intend to build on the guidance given there, and provide some basic insight into basic tools and approaches to start process mapping, but we do not pretend to do anything more than simply to provide a start point.

This guide has been written on the assumption that the reader is leading a team of people in developing the process map. This is by far the best way of process mapping, because it provides a far greater likelihood that the map will reflect reality if those who work at the process in reality are present to share their knowledge and experience.

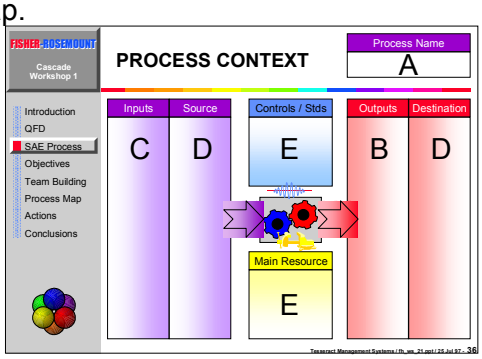
The structure of the guide is as follows:

- Defining the boundaries of the process
- Mapping the process
- Process mapping symbols
- Using the completed process map

2 DEFINING THE BOUNDARIES OF THE PROCESS

Before starting to map your process, it is vitally important to understand its boundaries. The boundaries define what is within the process, and what is not, and they provide an excellent start point for beginning the process map.

Boundaries are often defined by the processes' relationship to other process, and the inputs and outputs it has with those processes. A useful way to identify these is the process context sheet (shown on the right), which can be easily reproduced onto a flipchart.



Developing an understanding of the boundaries on a flipchart will ensure that everyone can see what is going on and will keep the process mapping team focused.

The intention is that all discussions and points are recorded on the flipchart as they happen - this will increase the likelihood that the group remains involved, and that you can control the discussion and keep it moving.

The process context sheet is developed as follows:

- For ease of documenting things afterwards, each team puts their process name in the top right hand corner (A).
- The next step is for the team to list the main outputs of the process under 'Outputs' (B) and the inputs it needs to function under 'Inputs' (C). In each case the associated source or destination process should be identified (D).
- If there is sufficient time the team might also consider the external controls (standards, targets etc) that are applied to the process, and the resources and facilities it requires to process the inputs into outputs.
- On completion the diagram should reflect all of the process's interfaces with the outside world and the rest of the organisation. Asking the team whether this is the case provides a good quality check that the map is largely complete.
- As a guide you should allow no more than 45 minutes to complete the sheet.

Try and be specific about what exactly the inputs and outputs of your process are, and what activities they come from and go to. This will help you to avoid ambiguity and confusion when you agree these interfaces with other process owners. You might further assist this process by making the objective of any such meeting (with other process owners) the definition and agreement of an unambiguous quality specification for each deliverable - not to the n^{th} level of detail, but enough to avoid confusion later on about exactly what was meant.

In thinking through the boundaries of the process you might like to consider the concept of spheres of control and spheres of influence. In many cases, processes only map those activities that reflect spheres of control, i.e. those results which they can directly control and impact. Such as an HR process taking responsibility for making sure the appraisal paperwork is available. However, the real success of the appraisal process is not that the materials are available, or even that they are completed, but that they lead to growth and development. The HR process might rightly feel that they only have control and direct authority over getting the materials out, but if they then set their objectives and map out their process solely to achieve this, they miss out a huge opportunity to influence the quality and timeliness of the appraisal process overall.

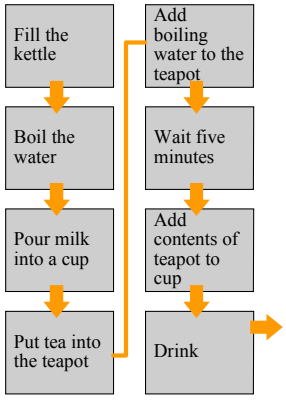
Another big danger in process mapping is confusing process tasks with who does them. I would caution you that when you find this is happening, you make every effort to wipe any thoughts about who would do the task from your mind. The risk you run by not doing so, is to build in assumptions that are not needed, and to swing round to thinking about job boundaries instead of process flows.

The biggest challenge you will face in your thinking about processes is recognising your old paradigms for what they are, and since the old ways of thinking are implicit in current roles this only makes the task of looking at the organisation logically with a new pair of eyes even harder.

3 MAPPING THE PROCESS

A process is a repeatable pattern of activities which when undertaken in sequence achieve a prescribed goal

For example a process to make tea:



- Fill the kettle
- Boil the water
- Pour milk into a cup
- Put tea into the teapot
- Add boiling water to the teapot
- Wait five minutes
- Add contents of teapot to cup
- Drink

Mapping the process, as in the diagram above left, provides the basis for it to be more clearly understood. This allows for it to be improved by considering:

- What are the things that go wrong?
- Which activities are critical to this?
- How can we control the quality of critical activities?
- Is there a more efficient order?

Process mapping is not an exact science, and in many cases you can expect a number of rewrites of your process map before it is completed. Software is obviously very useful for this, but sadly it makes it difficult to do the process mapping as a group, and until wall-sized interactive screens become economic I would recommend that you do all your initial mapping on flipcharts or large paper sheets. These can be subsequently transferred to computer, but to do so from the outset has an adverse effect on the discussion and shared understanding of the process mapping group.

To ease the burden of rewriting however, I would recommend that the process activities are written on sticky-notes, so that they can be moved around easily.

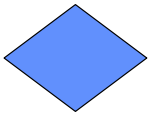
Probably the easiest way to begin the process map is to write up one of the inputs taken from the 'process context sheet' and map out what happens to it. The activities should be drawn out sequentially, pulling in links with other inputs where required, and ultimately terminating with an output from the process. This process can be repeated until all of the inputs and outputs have been linked, and all of the activities of the process have been considered.

4 PROCESS MAPPING SYMBOLS

To avoid some common problems in process mapping we recommend that certain rules are followed in the use of symbols:

- Activities are always written in rectangular boxes and their descriptions must include an active verb and a noun (a 'doing' word and a 'done to' word)

- Arrows only indicate the sequence of activities and nothing more

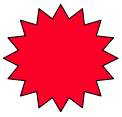


- Decisions (where the process may take one of two or more separate routes depending on a condition), are written in diamond shaped boxes, and their descriptions should indicate the condition, and the options (normally yes or no).

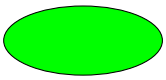
- Points at the process boundary, where the process we are considering starts or stops, should be drawn as roundended boxes.

The above symbols represent the formal elements.
In practice we have found that additionally using the following symbols has helped the exercise:

- Areas where we are unclear on what happens can be drawn as grey clouds



- Areas where concern is expressed over variability and lack of control or other problems can be supplemented with red flashes (red areas)



- Sources of guidance for decisions can be written in green ellipses

- Ideas for improvement can be included as blue clouds
- Sections of the background can be differentially coloured to indicate different areas of responsibility or geography.

As an example of the use of these symbols, a section of a process map is shown on the right:

5 USING THE COMPLETED PROCESS MAP

Having developed a clear (and agreed!) picture of the process the next step is to understand how well it performs in practice, and the factors that contribute to that. This can be addressed through the following questions:

- How do we know what the performance of the process is?
- What actually is the performance?
- How well do these performances fulfil the objective and target expectations for the process?
- What is critical to maintaining the performance?
- How are these critical aspects controlled?
- What data do we have on how well they are being controlled currently

Through answering these questions it is hoped that you will understand the opportunities to improve process performance. If however you have no tangible data on process performance (that is in itself an area for improvement) your next step must be to get some through:

- recording output and quality
- recording time consumed and efficiency
- assessing customer satisfaction.

Having identified, objectively, the scope for process improvement, the map provides an excellent mechanism for:

- thinking out where improvements might be made
- assessing the implications of making those improvements
- documenting and standardising the changes made
- communicating the conclusions.