

# Qualityworld

procedures give way to

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a new form: processes



# slaying the unwieldy paper dragon

Having volumes of narrative procedures and quality manuals is the norm for many organisations. In many cases these are seldom used because they are inaccurate, unwieldy and incomprehensible. Peter Fraser of MandOS believes moving from narrative quality systems to deployment flow charts can make organisations more effective

In traditional style quality systems, responsibilities are often unclear or undefined and individuals do not understand the impact of their activities on other staff. Narrative presentation can suffer from inconsistent and confusing terminology, contradictions and gaps in logical flow, and there is a tendency to add (even) more words if a meaning is unclear. Readers may put their own interpretations to the words. For example:

- what is a 'system'?
- what is the difference between a 'process' and 'procedure'?
- do 'requisition form' and 'purchasing document' refer to the same thing?
- how many words are used within one organisation for the same job function (eg storeman, storekeeper, stores person)?
- how many ways are there to describe even the simplest of tasks?

Because of these pitfalls an increasing number of organisations are now using flow charts to define their business processes.

A common definition of a process is: 'a sequence of related tasks and decisions which act on inputs and add value to create outputs'. Processes can cross functional and departmental boundaries. Processes use resources - they have stakeholders and there are risks attached to them. Their efficiency can be measured and they can be affected by standards and legislation.

A system can be regarded as a collection of processes. Running your business for the next 12 months, that is, moving your business from where it is now to where you want it to be in a year's time, is a process. Defining how you will do it, that is, the management system and operational processes which will help you get there, is itself a process.

A procedure can be the description of what happens within a department; or the narrative description of a process. Unfortunately, the term is also used to mean a couple of paragraphs stating that an organisation meets the requirements of a

particular section of ISO 9001/2 - so it has a contract review 'procedure' and a purchasing 'procedure'. But confirming that it can do the job is only one step within the process of tendering for work, and the purchasing activity is not logically complete until the goods or services have been received and checked, and the receipt process completed.

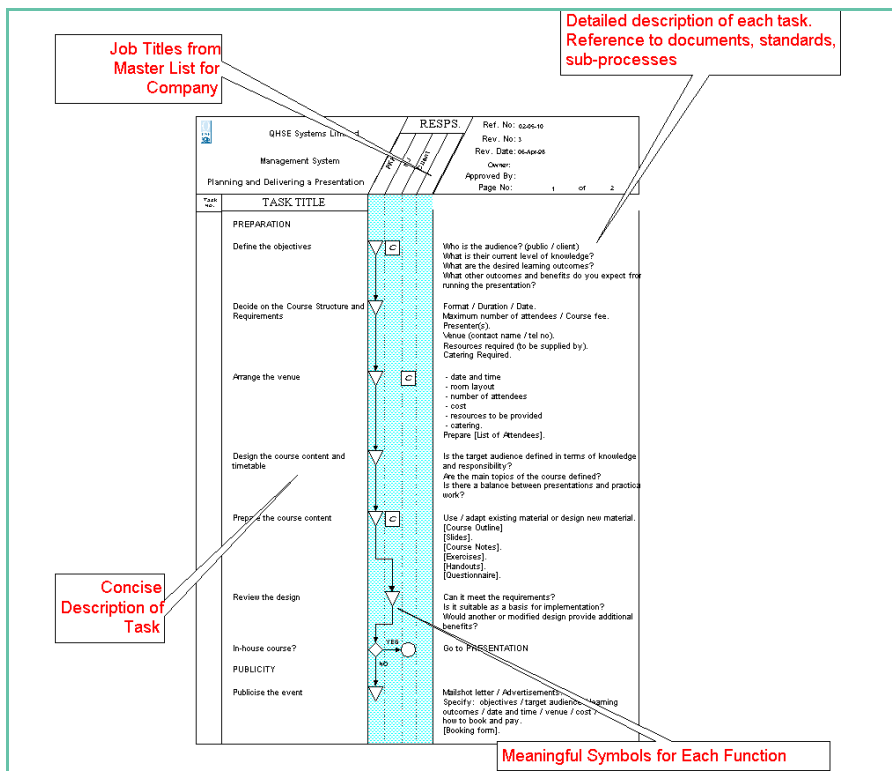
A key distinguishing feature of a process is that it has a purpose (just as a system must have an aim). It highlights where functional boundaries are crossed, which has been an area of weakness in traditional procedures. A key benefit of defining a business process is that it helps to focus on what the business and the process is trying to achieve and how its success can be measured.

## A picture replaces a thousand words

A picture helps understanding, which is the first step to improvement. The best way to achieve this is to abandon narrative



Figure 1. A process flow chart using a matrix format



Using software which provides a management system for such process definitions can provide further benefits. It can allow a user to:

- standardise the presentation format (the range of narrative formats is vast: policies, protocols, guidelines, procedures, checklists, action cards, bulleted lists, notes)
- avoid variation in how job functions are named by setting up a corporate master list of job functions
- list the processes and tasks in which selected roles are involved. This can be particularly useful in assessing the competencies required and to identify any training requirements

Converting the sceptics

Whereas identifying the key processes should be straightforward, the main challenge is often at the individual process level, where one stage in a process may involve a separate group of job functions from the rest of the process. Alternatively, a process may currently be defined as a set of (not obviously related) procedures, and staff do not recognise the process as an entity. Often, if a transaction moves out of a department it is regarded as finished,

procedures written to match the structure of an external standard. The deployment (matrix) flow chart presentation in particular is rapidly emerging as a standard.

A process flow chart shows what needs to be done and a deployment flow chart shows the departments and job titles involved, ie who should do it. It uses a matrix format, with job functions along the x-axis and tasks or activities down the y-axis (see figure 1). A typical management system (see figure 2) includes:

- how the organisation gets work and how it does it (core processes)
- what it needs to manage to ensure that the core processes are efficient (supporting processes)
- how it ensures that it meets and develops its chosen standards and plans (compliance and improvement processes)

It is then easy to select those processes affected by an external standard such as ISO 9000 to ensure that the requirements are addressed at precisely the step in each process where they apply. Other standards can then be incorporated in the same way (the Scottish Trauma Audit Group (STAG) quality system processes are shown in fig-

ure 3 and the case study). The same structure can be used at the business planning stage, so that the management and operational systems flow naturally from the plan itself - what an organisation plans to do and how it plans to do it.

Figure 2. The structure for a 'typical' management system

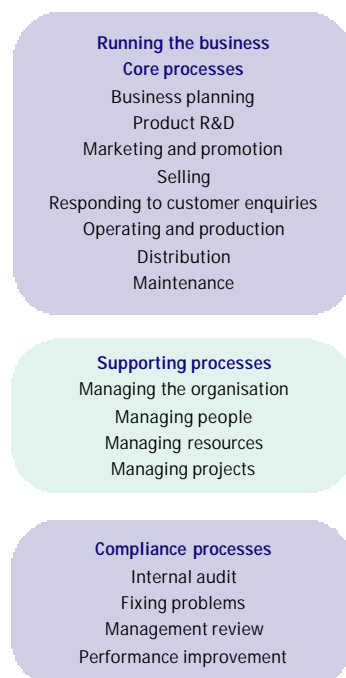
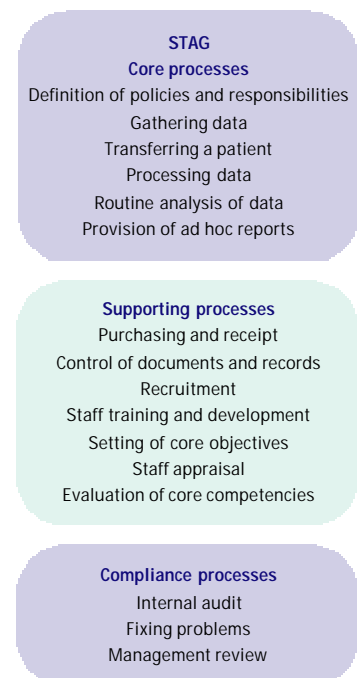


Figure 3. The STAG quality system processes





even though further processing is carried out elsewhere.

In the first case, it is sensible to split a sub-process into separate processes or to define a sub-process. In the second, it is usually better to ignore the existing procedures and draft the flow of the process without feeling obliged to retain the current narrative. One health trust's response to a major civil accident requires action cards to be distributed to key staff. Each consists of a few lines of instruction but there is no indication of what anyone else has to do. These cards were consolidated onto a one-page flow chart, which clearly showed all staff's involvement. Each individual can now be given the complete process but with his or her specific role highlighted.

The same approach can be applied to process definitions and management systems for:

- specific departmental processes
- individual projects
- quality
- environmental
- health and safety management
- event planning
- competence assessment
- audit planning and reporting
- emergency planning
- training provision
- risk assessment
- control of substances hazardous to health (COSHH)

The benefits of this approach are two fold, namely the added insight into an organisation brought about by focusing on its processes and the extra clarity of the deployment flow chart presentation. The result is documentation which is easy to understand, change and use. An organisation can expect to save up to 60 per cent in paper, photocopying and printing costs, even before it looks at the reduction in staff time involved in editing documents on an ongoing basis. The system gives everyone a clear picture of what they have to do and how they interact with others, whether individuals, departments or external organisations. This leads to faster learning for new staff and an increased ability to cope with staff turnover. It helps to generate a shared vision and a better team spirit. The

**Box 1. Key points to remember when defining processes include:**

- the eventual scope of the system
- the boundaries of each process
- what is done
- what decisions are made
- what paths follow from each decision
- who is involved
- keep it simple - give reader an overall view of the entire process
- assume competence - anyone who is to be involved in a process should be competent to carry out their tasks (or should be given the necessary training)
- do not describe a task in too much detail - refer to supporting material if necessary
- use concise wording - in particular use the active tense for verbs for example: call a meeting, raise an order etc. A narrative procedure which vaguely states that 'the nursing officer must be informed' leaves readers to guess who should do the informing
- be a minimalist - how little do you need to define?
- use symbols to define functions and thus reduce words and combine tasks

process of converting to this format helps to identify and simplify complexities and to identify improvement opportunities. Most critically, this approach should be the trigger for an organisation to create a single, coherent and usable management system which still allows external standards such as ISO 9000 to be incorporated easily.

Figure 4. Symbols to define functions

**Selected symbols and their uses**

- Responsible for the task (doing it or ensuring that it is done)
- Responsible for a supporting element of the task (subtask)
- Consulted (provides input to or is involved in the performance of the task)
- Informed (after decision or action taken) - may be told of the outcome or receive a copy of a document or report

RACI = responsible/accountable/consulted/informed was used as the basis for the system but we encountered a degree of confusion in users' minds between responsible and accountable. So 'accountable' has been restricted to the process level - the process owner is accountable for the success (or otherwise) of the process. For any task there should be only one responsible person.

## The Scottish Trauma Audit Group

The Scottish Trauma Audit Group (STAG) was established in 1991 to measure the effectiveness of management of seriously injured patients within the NHS in Scotland. STAG achieved ISO 9001 in 1997, and a year later decided to redefine its traditional style narrative quality system as a set of processes in deployment flow chart format. Based in the Royal Infirmary of Edinburgh, STAG originally collected data in four hospitals in Glasgow, Aberdeen and Edinburgh, and now encompasses 25 hospitals throughout Scotland. Changing its quality system from a procedures-based system to a process format took three months. The general consensus is that the new system is far easier to use and understand than the old narrative procedures.

In the new system several forms were no longer used and two levels of quality documentation (the quality manual and the regional audit instructions) were discarded. Staff now refer to a single process definition rather than three or four procedures to identify their roles, and the local audit instructions are a slim document which is ideal for new staff induction. Internal audits consist of a small number of process audits rather than the tracking of numerous forms. The new system has reduced the volume of paper used by more than 40 per cent.

As a result of the project, Diana Beard, STAG national coordinator, identified a range of other applications within the NHS which would benefit from this approach, such as integrated care pathways, major civil accident planning, and response and departmental management systems. Other NHS Trusts have identified applications ranging from the management of violent situations and accident reporting down to applying dressings.



Peter Fraser has an honours degree in mathematics. After a career in software systems development, he joined Thomson McIntock Associates (later part of KPMG) where he led its Information

Technology Consultancy Group in Scotland. He established his own independent consultancy in 1988 and is now a director of MandOS in Aberdeen. He was also one of the founders of a company set up to develop software for the definition, communication and management of business processes using deployment flowchart presentation. Fraser is a member of the Institute for the Management of Information Systems.

## information

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