Business Process and Work Design

Principles and Practices

Overview

Systems Xpert uses the OpenUP methodology, developed by IBM, as the core framework for developing and designing systems, be they human systems, technology systems or an interface of both. While the methodology was initially designed for software development, its practices are equally applicable to work design. However, some of the terminology must change when discussing business systems rather than software applications.

The core principle of OpenUP is that requirements specified by an organization's managers, workers and business partners are captured in detail and are visible from the high-level view of the business to the detailed-view of how work is performed on a daily basis.

Additionally, we incorporate various aspects of other management tools, including Project Management Institute (PMI) project management principles for tracking progress and communicating with project stakeholders and DuPont analysis for ensuring that operational processes align to management processes and deliver the organization's financial goals.

All these systems are flexible enough to adapt to and work with the preferred approaches of our clients.

OpenUP Project Lifecycle

Website: http://epf.eclipse.org/wikis/openup/

When applied to business process development and work design OpenUP provides methods for rapidly and iteratively getting business processes up and running. Iteratively means that requirements are constantly gathered throughout the process and prototyped, so that any issues and inefficiencies can be identified, mitigated and improved.

Essentially this iterative process works by managing the project with two distinct views of progress. The first view, called "phases" accounts for the traditional view of implementing a project (sometimes called the "waterfall" approach), where requirements are gathered up front (Inception Phase), then the analysis and design is performed (Elaboration Phase), the design is developed into work practices, standard operating procedures and policies (Construction Phase) and the work practices and policies are put into practice (Transition Phase).

However, in OpenUP, not every functional aspect of every phase is performed at once. So, in the Inception phase, while most of the work is requirements gathering, one immediately attempts to break the project up into "bite-size" chunks and work is started on analysing designing, prototyping and implementing these chunks in succession. You'd usually identify and start with the most important business processes and immediately start to analyse and design them, while still gathering requirements for processes that are not as important or not on the critical path of the business process design or re-engineering project.

So, the actual kind of work that is performed in each phase would be broken down into something like the percentages in the following table.

	Inception	Elaboration	Construction	Transition
Requirements Gathering	60%	20%	10%	10%
Analysis & Design	20%	40%	30%	10%
Procedure and Policy Development	20%	20%	40%	20%
Procedure Implementation	0%	20%	20%	60%

Project owners and stakeholders tend to appreciate this approach, because the project team can deliver working processes from early in the project timeline and even if the exact requirements of particular stakeholders aren't addressed until later, there is still progress to report and people in the field using the practices the project team has designed.

OpenUP Deliverables

For each iteration, you'd expect to develop a series of deliverables, each of which is directly drawn from the preceding stage, so that traceability can be established, as summarized in the diagram below.
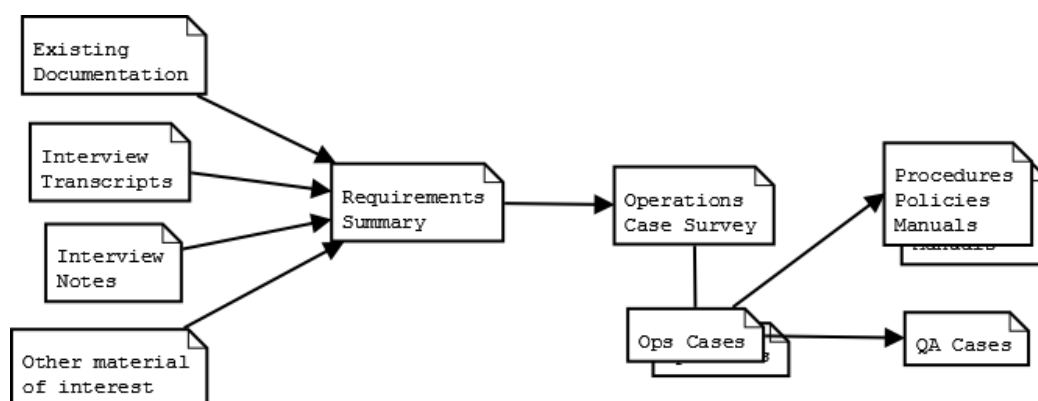
The first stage is to gather requirements from stakeholders. These may be already documented or may be transcripts of interviews recorded or notes from meetings. The primary materials should be aggregated into a single document which contains the complete set of requirements. This document will be enhanced and improved throughout the project as detailed requirements for the iterations are gathered.

The requirements are analysed and categorized into "bite-size" chunks that become the Business Use Cases or Operation Cases – the actual operations and outcomes that contribute to the business goals. The Operations Cases are where workflow and steps for completion are fully mapped out in a mixture of written instructions and diagrams in the Unified Modelling Language (UML), which is easy to use and understand with very little training. These Ops Cases are primarily for the work design project team in any case, so very few people will have to learn UML.

As well as day-to-day operations, Ops Cases may also define management processes and the capture of KPIs and management reporting data. Ops Cases also describe processes that are only executed every so often, such as setting up a new channel partner, as discussed in our meeting today.

From the Ops Cases you then design the standard operating procedures (SOPs), policies, manuals and other documentation necessary to train your staff and familiarize them with the new processes. These can be in any format, but our preferred version is to present them in a wiki.

Finally, we will need to perform quality assurance on the processes when prototyped and implemented, so we need to create QA Cases from the steps outlined in the Ops Cases. These are essentially observation checklists that the project team will fill out when the process is deployed in the field. Any issues and problems from the people actually performing the work will be noted as well, so the process can be immediately improved. This involves updating all of the preceding documents, so the changes can be reflected in the project record.

Systems Xpert recommends that our clients perform process audits using the QA Cases every now and again, to ensure that the processes still meet the needs of staff and stakeholders and can continuously improve as your business grows and its environment changes.

As you develop the series of documents, it is important to compare and check each one against the next, to ensure that requirements are not accidently left out along the way – this is the "traceability" process.