

Mastering the Requirements Process

part II

Take your requirements skills to the next level

Now you can build on your requirements prowess, and make better use of your requirements by:

- Building a requirements knowledge model for communication and traceability
- Using your requirements deliverables as input to project management
- Being agile – choosing the level of requirements you need for fast results
- Assessing off the shelf (OTS) software using requirements techniques
- Exploiting requirements deliverables for risk management and cost estimation
- Integrating creative requirements practices for innovative products
- Maximising the value of your requirements investment
- Taking advantage of requirements practices to enable change
- Matching project success indicators and good requirements practices

It is beyond argument that good requirements are crucial for good systems. This is about better requirements—making yours the best they can be.

Make more from your requirements

We studied practitioners using the Volere requirements practices to assess what they needed to get an even greater advantage from their requirements projects—this workshop is the result. This is an advanced course: it improves the skills of experienced business analysts, and teaches how to use the requirements deliverables for project management.

We show you ways of choosing the best set of requirements to give you a competitive edge and still get your product to market on time. We include techniques for quantifying the business value of your requirements investment. We show you how to anticipate market opportunities by inventing the requirements that your customers are not yet asking for. And we deal with requirements for existing systems, along with techniques for managing meta-projects—large projects made up of a number of technologies and sub-projects. The project sociology section in this seminar helps you to discover the correct stakeholders for your project, to involve them in the appropriate parts of the project, and more importantly, keep them involved.

Is this for me?

This seminar is appropriate for **business analysts, systems managers, project leaders, project managers, consultants, systems analysts and planners**. The material is aimed at people who are experienced requirements engineers and already have practical working knowledge of business events, business use cases, product use cases, context models, stakeholder maps, requirements templates, functional requirements, non-functional requirements and constraints. The sister seminar, **Mastering the Requirements Process (part I)**, covers these foundation concepts.

What will I learn? What will I be better at?

Requirements Knowledge

The key to a successful requirements process is knowing which requirements knowledge you need to discover and how the different types and levels of knowledge relate to each other. Light or agile processes are intended to give you fast results with the minimum of effort expended. However success is dependent on finding a solution to the right problem and that means somehow or other we need to get the right requirements. We are always searching for a balance between the knowledge we need to get and the time available to get it. Here we show you how to understand and quantify the different types of requirements knowledge. Then, taking your own critical success factors into account we look at ways of making your requirements more agile and more effective.

Requirements for Existing Systems

Changes or additions to an existing system have special requirements considerations. Here we look at a 5-step systemic approach for making changes to requirements for existing systems. We examine approaches for analysing new requirements and assessing the impact on other parts of an installed system. We use the requirements knowledge model as a way of guiding impact analysis. We also look at ways of communicating new requirements to the people who might be affected by them.

Inventing Better Products

An effective requirements process must include innovation if you are to produce a better product. Many of your stakeholders are not in a position to know *all* their requirements, nor can they imagine what is possible. We show you how to invent, and how to advance your company's work practices or position in the marketplace. We demonstrate creativity techniques, including the principles of divergence and convergence, to

inspire people to invent and have new ideas. We also discuss how and when to integrate creativity in your own requirements process.

Requirements Value

Value is concerned with the cost and benefits of requirements. Here we quantify requirements so you can measure their cost, and compare to the benefit they deliver. We show you how to use requirements deliverables for early estimates. We give you ways of prioritising and negotiating requirements to best fit your project sociology. We treat requirements as a business investment, and consider the ways to quantify business value. We also explore ways to take advantage of requirements reuse.

Meta-Management and Multi-Technology

Meta-management is managing the connections between the projects, tasks, people and technologies for multi-component projects. Meta-management is also about managing requirements changes in the most efficient way. You can apply meta-management principles to the pieces of one large project for managing a number of inter-dependent projects. Here we identify the components that need meta-management along with approaches for keeping track of the dynamics. We also learn how to modify your requirements knowledge model to cater for multi-product projects.

Requirements Sociology

Requirements come from people. We call these people stakeholders—the people who have an interest in your requirements. We show you how to find the stakeholders and interest them in your project. And how to keep them interested. We show you how to analyse the communication demands that are most vital to your project's success. We draw on knowledge from sociology, philosophy and psychology to explain how to do a project sociology analysis for building communication bridges and maintaining a collaborative project. We discuss the difference between communicable knowledge and documents. You will learn how to build a mapping between requirements knowledge and the requirements deliverables that are relevant to your project.

Requirements Simulations

Requirements analysts use stories to discover requirements by designing prototypes and building different scenarios of a situation. They also use stories to drive requirements workshops and to help create innovative requirements to make our products more competitive. Here you learn how to use simulations and personas to create the most useful scenarios for your project. We also look at business event stories, product use case

stories, version planning stories and story rooms. Then we show how to connect informal stories to the formal requirements knowledge model.

Improving Your Requirements

An effective requirements process is composed of knowledge, activities and roles. We discuss each of these elements and identify for you a minimal framework of requirements deliverables and checkpoints. Then we show you how to modify the framework to fit a variety of projects with different sociologies and different critical success factors. We look at how to avoid potential communication chasms and requirements black holes by designing feedback loops. We show you how to adapt your requirements knowledge model, and your requirements process, for maximum agility.

Extending your requirements capabilities

Mastering the Requirements Process gave you the requirements engineering techniques to discover exactly what your customers need and want for their products and to write measurable requirements. This seminar, **Mastering the Requirements Process part II** builds on your ability by showing you how to use good requirements management practices as a communication and project management tool. The seminar makes it possible for you to realise the benefits of requirements at a higher level – one where you use requirements deliverables to control your project, and produce systems that deliver the maximum possible benefits to your customers.

This seminar assumes that you are fully conversant with all of the skills and techniques taught in the first Mastering the Requirements Process seminar.

Practice the techniques in workshop sessions.

This course includes intensive workshops that give you the opportunity to apply the concepts presented. The case study is a multiple technology project involving a mixture of sub-projects concerned with embedded software, a web site, commercial off the shelf (COTS) software, custom built software, new systems, legacy systems and business processes. Participants work in teams and explore the extended requirements ideas by:

- Building a requirements knowledge model
- Changing the model to suit a variety of projects
- Using the model to assess impact of change
- Inventing creative requirements
- Quantifying the requirements costs, benefits and value
- Using meta-management principles
- Modelling communication demand analysis
- Inventing personas
- Mapping stories to a formal knowledge model

- Analysing requirements for an existing product

Participants also get the chance to interact personally with the instructor, receive advice on their own situations, and discuss how the ideas from this seminar can be implemented in their own work environment.

Learning from Experience

Suzanne Robertson is a leading consultant, teacher and researcher in the world of systems analysis, requirements engineering and management. She has written some of the most successful courses on systems analysis, quality assessment, problem solving, project management and software design for both procedural and object-oriented systems. Apart from her books, Suzanne is author of many papers on systems engineering (many of these papers are on the Atlantic Systems Guild web site). She also speaks at many conferences and universities. She is a member of IEEE and on the committee of the British Computer Society's Requirements Group. She was editor of the first series of Requirements columns in IEEE Software magazine.

Suzanne is co-author of *Requirements-led Project Management: Discovering David's Slingshot*, Addison Wesley, 2005 and *Mastering the Requirements Process*, 2nd Edition, Addison Wesley, 2006. She has also written *Complete Systems Analysis: the Workbook, the Textbook, the Answers* (Dorset House, 1994), a two-volume text and case study that teaches the craft of systems analysis.

Participants receive a free copy of the requirements management book by Suzanne Robertson and James Robertson: *Requirements-led Project Management: Discovering David's Slingshot*

