Mastering the Requirements Process

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This is the Volere flagship course. In three days it delivers a bombproof way of gathering and verifying testable requirements by giving you:

- A process for gathering the correct requirements.
- Methods of eliciting the right requirements from your users.
- Ways of knowing when your solution precisely matches what the user needs.
- The ability to write a complete and unambiguous requirements specification.

Description

Software can solve almost any problem. The problem is that we don’t always understand what the problem is. Understanding the problem—the real problem—is the role of the requirements process.

This workshop presents a complete process for uncovering the real requirements, testing them for correctness, and recording them clearly, comprehensibly and unambiguously. This requirements process starts with the business—for it is only within the business that you can discover the real needs. When you know the real needs, it is possible to determine the system that best serves those needs, and to specify, completely and innovatively, the requirements to get the right system built.

Requirements are the most misunderstood part of systems development, and yet the most crucial. Requirements must be correct if the rest of the development effort is to succeed.

Software development today has more demands on it than ever; and fewer resources to meet those demands. Getting the software right—the first time—is the most effective way to succeed under these circumstances. Today’s requirements process is incremental with quick cycle times. It uses prototypes and scenarios, and it ensures that your developers know precisely what you—and your customer—mean when you write a fit criterion—a concise test case for the requirement.

This workshop shows you how to precisely define the scope of the business problem, to discover and involve the appropriate stakeholders, to use techniques such as apprenticing and use case workshops to learn what the business really needs, to write testable requirements, unambiguously so the right system gets built.

Audience

- Business analysts
- System analysts
- Requirement engineers
- Requirement administrators
- Product managers
- Program managers
- Project managers
- Consultants

Additionally, this course is quite suitable for business users and customers who are normally stakeholders in any requirements project.

Course endorsed by the IIBA

This course is endorsed by the International Institute of Business Analysis (IIBA™). It provides material and skills relevant to the Business Analysis Body of Knowledge (BABOK™) version 2.0.

Schedule and time

The course will occupy 3 days and will be run as per the following timetable:

- Days 1 and 2: 9:00 to 17:00
- Day 3: 9:00 to 16:00

The timetable includes each day a 1-hour break for lunch.
**Workshops**

We want you to use this right away. Each of the teaching chapters is reinforced with a workshop where you apply the concepts presented in the seminar. Participants work in teams to discover, specify and evaluate requirements for a significant system by:

- Defining the project's scope, its goals and the relevant stakeholders
- Identifying business use cases and product use cases
- Prototyping the product to find hidden requirements
- Applying the requirements specification template
- Defining functional and non-functional requirements
- Deriving the fit criterion, or measurement, for the requirements

**Material**

Each student will get a copy of the course manual in English. The course fee includes a copy for each student of the book *Mastering the Requirements Process- Third Edition: Getting Requirements Right.*

Additionally, each student will get a copy of the Volere Requirements Specification Template with advice on how to make this your own template.

**Course teachers**

This course was written by James Robertson and Suzanne Robertson, creators of the Volere requirements techniques.

**Suzanne Robertson** is co-author of *Mastering the Requirements Process, Third Edition: Getting Requirements Right* (Addison-Wesley 2012) a book that provides guidance on finding requirements and writing them so that all the stakeholders can understand them. Her other requirements book, *Requirements-Led Project Management* (Addison-Wesley 2005) addresses how to use requirements as input to planning and management. She is also co-author of the Volere approach to requirements engineering.

She has more than 30 years experience in systems specification and building. Her courses on requirements, systems analysis, design and problem solving are well known for their innovative workshops and practical applicability. Current work includes research and consulting on finding and involving the right stakeholders, the building of requirements knowledge models and running audits for assessing requirements specifications. She is a principal and founder of The Atlantic Systems Guild and is founding editor of the Requirements column in IEEE Software magazine.

**James Robertson** is a consultant, teacher, author, project leader whose area of concern is the requirements for products, and the contribution that good requirements make to successful projects. James is a leading proponent of the principle of introducing creativity into the requirements process. His controversial article “Eureka: Why Analysts Should Invent Requirements” in IEEE Software has provoked heated discussion and has been widely quoted. Before becoming a systems engineer, James trained as an architect and his experience in that profession provides inspiration for his work on innovation and creativity. He is co-author of *Mastering the Requirements Process, Third Edition* (Addison-Wesley 2012), *Requirements-Led Project Management* (Addison-Wesley 2005), the Volere approach to requirements engineering, and *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.
Training on Requirements Definition and Management

Agenda

- **Project Blastoff**
  This builds a foundation for the requirements project by establishing its Scope-Stakeholder-Goals. This gives you the precise scope of the business area to be studied; a testable goal for the project; and using stakeholder maps, you can identify all the sources of requirements. Additionally, the blastoff ensures the project is viable and worthwhile.

- **Trawling for Requirements**
  At the core of any requirements process is the ability to get people to tell you what they really need, rather than their perceived solution, or what they think you might be able to deliver. We show you how to use apprenticing, use case workshops, interviewing, brainstorming, and other techniques to discover exactly what the customers need—and want.

  This section introduces the brown cow model that gives the business analyst different ways of thinking about the problem, and allows the real problem to be solved to emerge. We also look at innovation—fresh thinking about the problem—and how it is a necessary component of any requirements process.

- **Functional Requirements**
  Functional requirements are those things the product must do. You discover them by understanding the real work of the organisation, and determining what part of that work the automated product can best do. The automated product is specified using well-formed requirements. We also show you how to use agile story cards as a way to capture the needed functionality.

- **Non-functional Requirements**
  Non-functional requirements are properties the product must have, such as the desired look and feel, usability, performance, cultural aspects and so on. This section demonstrates the importance of correct non-functional requirements, and discusses the various types. It shows you how to use the template, and other methods, to find the all-important qualitative requirements for your product.

- **Prototypes and Deviations**
  Prototyping is a way of discovering requirements by testing mock-up products for the user’s work. Here we look at the merits of both low and high-fidelity prototypes, and how they and scenarios are used to discover previously-hidden requirements. We also look at the wanted alternatives, unwanted exceptions and potential misuses of the product.

- **Writing Requirements**
  This section addresses the need to communicate requirements—how to formulate them and how to include an unambiguous fit criterion. This makes the requirement testable, as well as ensuring the implemented solution precisely matches the client’s expectations.

- **The Quality Gateway**
  Testing is most effective when it is done early in the development cycle. Here we demonstrate how to test requirements before they become part of the requirements specification. The Quality Gateway rejects out-of-scope, gold-plated, non-viable, incorrect and incomplete requirements.

- **Managing Your Requirements**
  Managing requirements varies with the kind of development method you plan to use. We look at strategies for your requirements project from the waterfall process through to agile techniques. The use of the requirements knowledge model is discussed, along with how to prioritise requirements, and how to resolve conflicting requirements. We take a quick look at tools to help manage requirements.

- **Your Requirements Process**
  You discuss and determine how to make your own requirements process as effective and efficient as possible. This involves incorporating your own organisational processes into the requirements activity. You build a model of how you will use what you have learned when your return to your own workplace.