

## Specification writing

### Overview

High quality specifications are of paramount importance in achieving the right technical performance and value for money. This long-established training programme has been developed to help those involved in producing specifications to create high quality documents in an organised and effective way. The programme emphasises the need for a clear definition of requirements combined with the ability to communicate those requirements effectively to third parties. A structured method of preparing specifications is provided, and a range of practical techniques is presented, to enable participants to put the principles into practice. The commercial and contractual role of specifications is also addressed.

### Training objectives

The objectives of the workshop are to:

- Provide a clear understanding of the role and purpose of specifications
- Present a framework for organising and producing specifications
- Define the key steps involved in creating effective specifications
- Demonstrate methods for assisting in defining requirements
- Provide tools and techniques for scoping and structuring specifications
- Show how specification 'model forms' can be developed
- Present methods to assist the writing and editing of specifications
- Review how specifications should be issued and controlled

### Audience

The workshop is designed for approximately 12 - 15 participants who are, or will be, involved in writing or contributing to the preparation and management of specifications.

### Format

A thoroughly practical two-day course involving exercises, three case studies, formal tutorials and trainer-facilitated discussions. The tutorials cover the key principles and practical methods for writing specifications while the case study sessions illustrate how the principles can be applied. The programme is highly participative and sessions may be adapted accordingly.

### Special features

To facilitate the knowledge transfer and performance improvement process, we recommend that the programme sponsor both introduce the course and be present for the final session.

### The expert trainer

John is a highly qualified (BSc, MSc, CEng, MIMechE, MAPM, AMInstP) trainer and independent consultant, specialising in project management and management team development. He has extensive experience of designing and running training programmes and project workshops, facilitating business improvement initiatives and providing consultancy support to help clients improve their project management capability. His clients include leading organisations in engineering, manufacturing, constructions, retailing, consulting and education. John is also a Seminar Director for Hawksmere and a visiting lecturer at UMIST.

Before setting up his consulting practice in 1990, John gained a broad range of industrial management experience with Ilford Limited, a leading manufacturer of photographic products. Joining the company in 1974 he progressed through technical and team leadership roles to become Manager of Engineering Development in 1980. From 1980 to 1990 his role broadened from managing a

portfolio of smaller multi-disciplinary projects to include management of a number of significant business improvement projects.

John's project management experience includes the design and installation of new manufacturing equipment, the development of new products, the improvement of manufacturing procedures, the relocation of offices and staff and organisation restructuring. John has also co-ordinated international project teams and carried out assignments in support of strategic business development programmes.

Prior to joining Ilford Limited, John trained in the automotive industry and gained an honours degree in Applied Physics. He subsequently carried out post-graduate research at Oxford University where he was awarded a Masters degree in Engineering Science.

A highly experienced, popular and professional trainer, John's courses are always much appreciated by the participants, as the following comments show:

'I really liked the practical exercises'

'There was certainly a lot to think about'

'John's experience was excellent'

'The group was encouraged to interact very well'

'A very useful course'

'A very worthwhile, productive and enjoyable two days'

## Course outline

### DAY ONE

#### 1 Introduction (Course sponsor)

- Why this programme has been developed
- Review of participants' needs and objectives

#### 2 Creating effective specifications

- Role of specifications in communicating requirements
- Costs, benefits and qualities of effective specifications
- Processes and challenges involved
- Key stages in compiling an effective specification
- *Exercise: qualities of an effective specification*

#### 3 Organising the task

- Designing the specifications required; applying BS 7373
- Defining the purpose, readership and title of each document
- Creating effective procedures for writing, issuing and controlling specifications
- Roles and responsibilities of the key players

#### 4 Specifications and contracts

- Contractual role of the specification
- Integrating the technical and commercial requirements
- Writing specifications to achieve the appropriate contract risk strategy
- Deciding how to specify: functional v design requirements

#### 5 Case study 1

- *Teams review a typical project scenario and identify the implications for the specification*

- *Feedback and discussion*

## **6 Scoping and defining requirements**

- Importance of the functional requirement / user specification
- Deciding what issues the specification should cover
- Scoping techniques: scope maps, check lists, structured brainstorming
- Clarifying priorities; separating needs and desires
- Dealing with requirements that are difficult to quantify
- Useful techniques: cost benefit analysis, QFD, Pareto analysis

## **7 Case study 2**

- *Teams apply the scoping techniques to develop the outline contents for a specification*

## DAY TWO

## **8 Structuring the specification**

- Typical contents and layout for a specification
- Three main segments: introductory, key and supporting
- Creating and using model forms: the sections and sub-sections
- Detailed contents of each sub- section
- Tools and techniques for structuring specifications

## **9 Case study 3**

- *Teams develop the detailed specification contents using a model form*
- *Feedback and discussion*

## **10 Writing the specification**

- Challenges of written communication
- Identifying and understanding the reader's needs
- Choosing and using the right words; dealing with jargon
- Problem words; will, shall, must, etc; building a glossary
- *Exercises and examples*
- Using sentence structure and punctuation to best effect
- Understanding the impact of style, format and appearance
- Avoiding common causes of ambiguity
- Being concise and ensuring clarity
- *Exercises and examples*

## **11 Editing, issuing and controlling the specification**

- Why editing is difficult; developing a personal editing strategy
- Editing tools and techniques
- Key requirements for document issue and control
- Managing revisions and changes

## **12 Course review and action planning** (Course sponsor present)

- What actions should be implemented to improve specifications?
- Conclusion

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