

Electronic Publications and ASD S1000D - Overview

Overview

This course introduces the concept of electronic documentation. The first part of the course explains what the benefits are in having both operational and maintenance information in an electronic format. The benefits that accrue through using electronic documentation are addressed, for example, improvements in training effectiveness, reduced maintenance times etc. as are those benefits that accrue through improved documentation management, i.e. the reductions in the cost of; creating, disseminating, maintaining, configuration controlling and storing of documentation.

The concept of "Mark-up Languages" that is central to the achievement of effective electronic documentation, is introduced and the methods, HTML, SGML and XML, are covered. The Delegates conduct a range of practical exercises, experimenting with HTML and XML files and Style Sheets, this approach ensures that the delegates have a clear understanding of the underlying principles.

Technical Documentation is then addressed from a programme viewpoint, in terms of the development process, the programme deliverables, the relationship to the Supportability Engineering programme, and the relationship to the acquisition life cycle.

Following this basic introduction, ASD S1000D and its relationship to the UK Defence Standard 00-60 for ILS is addressed briefly. The concepts of Data Modules and the Common Source Data Base are introduced and the relationship to the Mark-up languages addressed. The major technical elements and the associated terminology are defined in a "popular science" manner that is designed to "de-mystify" what can be an inaccessible topic.

Target Audience

The course is aimed at two types of delegate. The course will act as an executive overview for the first category and an introduction to the second.

The first category will typically be an Engineer or a Manager who requires a basic understanding of electronic documentation and the "language" associated with the topic.

The second type of delegate will be an Engineer or a Manager who will use the course as an introduction to the topic of electronic documentation before going on to further more in-depth studies.

Objectives and Utility

The achievement of a genuinely integrated programme, and hence the implementation of Supportability Engineering and Systems Engineering, requires effective communication. This communication must exist; between the specialist disciplines that form the engineering / design team, between the members of the management team and between the management team and the engineers.

This course gives the delegate a basic understanding of the topic of electronic publications by explaining the reasons for them, i.e. the benefits that accrue, by de-mystifying the terminology and by relating the engineering aspects to the programme management aspects.

The individual will gain an understanding of Electronic Documentation, the associated terminology and a basic familiarity with the appropriate standards. This will enable the student to appreciate how any specialism relates to and interfaces with the Electronics Documentation programme.

The Training Process

The course begins by defining the "Why" of Electronic Documentation, the benefits are explored in terms of technical documentation management efficiency and in terms of the benefits accruing to the user of the documentation.

This is consolidated by a series of demonstrations of types of publication. Once the products of an Electronic Documentation programme have been defined and justified the technologies that enable it are introduced, Mark-up languages are addressed at this point.

Because the course addresses programme management as well as technical issues the technical approaches are now related to the other Supportability Engineering programme elements and to the typical acquisition cycle.

Once this basic framework has been established the ASD S1000D specification and its relationship to Def. Stan. 00-60 is addressed briefly. First, the contents of both standards are introduced.

Finally the key elements of electronics publications as defined by S1000D are defined and explained in an accessible manner, for example Document Type Definition, Data Modules and the Common Source Data Base.

The knowledge is consolidated through the performance of a series of pragmatic computer based exercises.

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Course Programme

Day 01 - AM

041-P An Introduction to Electronic Technical Data

The reasons for pursuing the Electronic Documentation approach will be discussed, simultaneously the delegate will be introduced to the range of methods of presenting Technical Data, from hard copy through to advanced electronic publications. The benefits and drawbacks of each approach will be addressed.

The focus will be on modern electronic methods. The classifications of IETPs will be introduced.

The concept of Mark-up Languages will be introduced, PDF, HTML, SGML and XML will be addressed at this stage, at high level, the aim is to de-mystify these terms and to present these languages and formats in an accessible manner.

Examples of PDF, HTML, XML documents will be available for review and the delegates will be given the opportunity to perform "what if" edits on these documents.

ASD S1000D is addressed in the context of Supportability Engineering; the aim is to give the delegate an understanding the relationship of a Technical Documentation programme to the wider Supportability Engineering programme. Defence Standard 00-60 for ILS is introduced and its relationship to ASD S1000D explained.

The module finishes with an overview of a typical Technical Data Programme, the processes and products are defined : related to the acquisition cycle and to the other Supportability Engineering programme elements.

Day 01 - PM

082-P Supportability Engineering and ASD S1000D

This module complements module 041 - An Introduction to Electronic Technical Data.

ASD S1000D and Def Stan 00-60 are introduced to a level sufficient to give the delegate a clear concept of the aims, the scope and the roles and relationship of these two documents.

The structure of ASD S1000D is introduced briefly, the module focusses however on the fundamental elements of electronic documentation as they are defined in the standard. Data Module Codes [DMC's], Document Type Definitions [DTD's], the Standard Numbering System [SNS], Style Sheets, etc are all addressed. These are related to the Mark-up languages, and the principles of Style Sheets, that are introduced in Module 041. The delegate perform a series of simple exercises, to consolidate the information presented, for example interpreting a Data Module Code and determining whether a document is "well formed" and "valid".