

Contextualised operational documentation in aviation

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Abstract

This paper discusses the development of a new generation of operational documentation in the aviation domain. This documentation, to be used in a new type of aircraft, is electronic and is providing the user with contextual information that is valid in a specific situation and for a specific task. In order to develop such manuals, the information should be contained in small documentary units, tagged with meta-data describing the context. The context for the pilots' manuals is defined by a set of descriptor categories specifying System, Interface, External Condition, Internal Condition, Phases of Flight and Operation. Furthermore, the information in these documentary units is described on three levels of detail, addressing the questions What/How to do, Why to do it and How the system works.

Contextualised documentation becomes a support facility, addressing the actual or the expected situation of the user, both in operation and in training.

Introduction

In complex domains such as aviation, operators are provided with large and detailed operational manuals. Traditionally these manuals are paper documents, often in several volumes. Paper manuals are still widespread but in recent years these have become more and more available in electronic form, mounted on laptops, display units or hand-held devices.

The major motivation to provide manuals in electronic format is the ease with which they can be updated and customised for particular clients and configurations. Besides industrial management, electronic documentation offers also more flexibility for the user in terms of search methods or layout options.

As operational documentation is becoming electronic, more things change than just the format. In the first generation of electronic documentation only the medium changed. Documentation is created in formats such as pdf, SGML or HTML, but basically it is the structure of the images of the original paper version. The