

ISO Standards for Software Documentation

by Richard Hodgkinson

In the area of international standardization, Joint Technical Committee 1 of the International Organisation for Standardisation and the International Electro-technical Commission (ISO/IEC JTC 1) is responsible for the majority of information technology standards published. Under JTC 1, Working Group 2 of Sub-Committee 7 (Software and Systems Engineering) is responsible for developing standards for software documentation. In this article, I will explain why and how this work is done, who is involved and what standards have been produced.

For more information on JTC 1 and SC 7 start from: <http://www.jtc1.org/>

Why?

International standards are produced by a consensus of manufacturers, suppliers, governmental and standards organizations to establish common sets of requirements that will ensure interoperability, consistency, usability and safety of IT products. Typically, conformance to these standards is required by purchasing organizations and, occasionally, by national legislation.

How?

The process for developing standards is defined by ISO and the IEC. During this process the draft standard will go through several ballot cycles and levels of completeness. This process can take several years and, whilst standards avoid placing constraints upon emerging technology, care is also taken to ensure that they are both timely and relevant.

The process begins with the identification of an area considered suitable for standardization and a New Project proposal is drafted, describing its objectives and scope. This proposal then undergoes international ballot which requires that a minimum of countries approve and will commit experts to participate. In addition, the process enables established national or industry standards to be adapted as international standards.

To develop the project a Working Group (WG) is formed, who then develops a Working Draft, followed by Committee Drafts, a Final Committee Draft and a Final Draft International Standard, before publication as an International Standard. International ballots take place between all these levels and which require majority percentages of approval votes. During the development of the standard, the WG meets at regular intervals to process the comments received, prepare new drafts and responses to the comments. If the project is not progressed in a timely manner it can be cancelled.

Who?

A WG is made up from experts, representing their countries and provided freely by manufacturers, research companies and academia. They will often be responsible for developing several standards at one time.

At international meetings I represent the UK British Standards Institution as a PUK (Principal UK Expert!).

ISO/IEC JTC 1/SC 7/WG 2 – System Software Documentation

This Working Group was established in the 1970s and has produced or is developing:

- ISO/IEC 9127:1988 (under revision), User documentation and cover information for consumer software packages.
- ISO/IEC TR 9294:1990 (under revision), Guidelines for the management of software documentation.
- ISO/IEC WD 15289, Guide to the application of ISO/IEC 12207 to the documentation process.
- ISO/IEC 15910:1999, Software User Documentation Process.
- ISO/IEC FCD 18019, Guidelines for the design and presentation of user documentation for application software.

The convenor of WG 2 is Ken Johnson of PERA International in the UK, and other recent participating experts have come from the US IEEE, Hard Copy Interactive (Australia), Swedish National Standards, UNISYS, Toshiba and Keio University (Japan) and myself, from IBM United Kingdom.

WG 2 meets twice a year, the meetings being synchronised with ballot cycles. Work continues between meetings using electronic media.

In the UK, we have established a “mirror” group IST/15/-/2 under the BSi, with active participation from Oracle, Bull Information Systems, the National Computing Centre, IBM, several smaller companies and the Institute of Scientific and Technical Communicators (ISTC).

ISO/IEC FCD 18019, Guidelines for the design and presentation of user documentation for application software

This standard is based upon two British Standards (BS 7649:1993 and BS 7830:1996) which provide guidelines for preparing printed and online software documentation.

ISO/IEC 18019 provides guidance on all aspects of software documentation, from the phases addressing:

- setting the objectives,
- analysis and design,
- planning,
- development and review,
- design guidelines,

to specific considerations concerning:

- audience and task analysis,
- translation and localization,
- accessibility,
- types of information,
- usability,
- packaging,
- maintenance and updating.

Additional annexes provide:

- process and design checklists,
- advice on evaluation,
- writing style and techniques,
- guidance on printed information, and
- writing style guides.

ISO/IEC 18019 passed its 1st Committee Draft ballot in April 2001 (with 490+ comments) and is now undergoing Final Committee Draft ballot and comments are invited from interested companies or individuals (closing date is 1st March 2002). If you're interested in participating in the review of this standard and receiving a copy of the draft (140 pages in Microsoft Word), and optionally joining the UK mirror group under the BSi (IST/15/-/2) please contact me at richard_hodgkinso@uk.ibm.com.

Richard Hodgkinson, is a visual designer working in User Technologies at the IBM software laboratory at Hursley Park in Hampshire. For over ten years he has been involved in the development of ISO standards for software in several ISO and ISO/IEC working groups developing IT standards that address icons, symbols, pen gestures, software ergonomics and documentation. He is the editor of several ISO standards and currently the secretary of IST/15/-/2.



The photograph was taken at the October 2001 meeting of WG 2 at Hard Copy Interactive, in Sydney, Australia. Left to right: Richard Hodgkinson (UK), Tom Kurihara (USA), Ken Johnson (UK & WG 2 Convenor), Phil Cohen (Australia) and Professor Yoshikazu Yamamoto (Japan).