

# How ISO Makes Standards

## *Overview of Development Process for ISO/IEC Standards for SAM - Draft 3*

### Overview of the ISO/IEC Standards-Making Process

This article provides an overview of how the ISO/IEC standards-making process works, in particular for Software Asset Management ('SAM') standards, for the benefit of individuals who may wish to become more involved. If you are a passionate professional with a strong sense of social responsibility, then you can find fulfillment in the world of standards. Furthermore, you have much to gain in the process. There is a productive exchange between people with varied skills, knowledge and experience, and valuable learning is on offer for all involved.

### How the International Standards World is Organized

There are many standards organizations in the world, often with a particular focus based on subject or geographical area. Some of those which may be best known to those in the IT industry include the World Wide Web Consortium (W3C), the Internet Engineering Task Force (IETF), the Distributed Management Task Force (DMTF), and the Institute of Electrical and Electronics Engineers (IEEE). There are dozens more, including for specialist areas like USB connectors and PC Cards. Even the United Nations gets

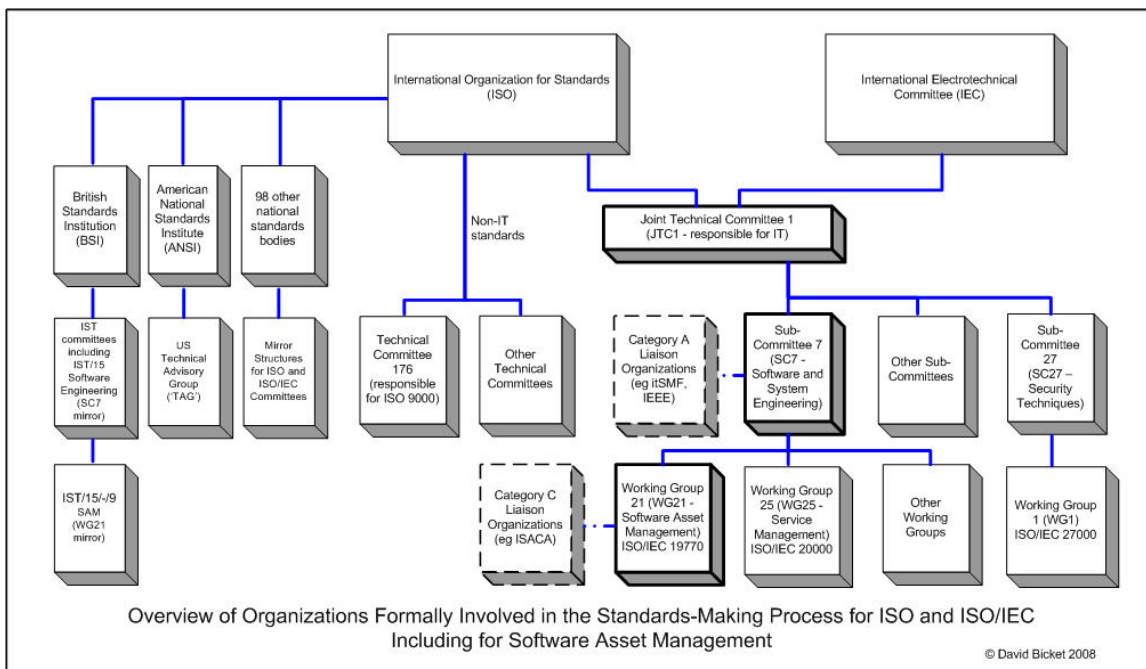
involved, e.g. with product classification codes.

However, the organization with probably the greatest name recognition for standards is the International Organization for Standardization ('ISO') which deals with general international standards, of which the best known is probably ISO 9000 for Quality Management Systems. For international standards relating to computing, ISO has joined with the International Electrotechnical Commission (IEC) and these are all therefore called ISO/IEC standards, although they are still often commonly referred to as ISO standards. The best-known ISO/IEC standard at present is probably ISO/IEC 27000 on Information Security Management Systems. Two other examples are ISO/IEC 20000 on Service Management, and ISO/IEC 19770-1 on Software Asset Management Processes.

There is considerable cooperation between the different standards bodies, and standards developed by one are often then adopted by others.

The remainder of this explanation is focused just on ISO/IEC, because that is the home of WG21, and that is where there are opportunities for further involvement by interested organizations and individuals. For more definitive information, please see [www.jtc1.org](http://www.jtc1.org) and [www.jtc1-sc7.org](http://www.jtc1-sc7.org).

The following diagram shows how ISO/IEC is organized, including interrelationships with national standards bodies and liaison organizations:



This diagram provides a good framework to explain many of the issues important to the development of international standards for SAM and ITAM:

- **National Bodies.** ISO (and IEC, and JTC1) are effectively owned by their member National Bodies. These are further categorized as participating ('P-members') and observing ('O-members'), with only P-members having votes for accepting or rejecting proposed standards. All can also make comments which must be addressed by the Working Group developing a standard. In order to provide their views, National Bodies typically have mirror committee structures to the international sub-committees and sometimes even mirror working groups. National Bodies can also appoint individuals to the working groups directly.
- **Sub-Committees.** The scope of JTC1 is split up into different sub-committees. The one over WG21 is called Sub-Committee 7, or SC7, and its title is 'Software and System Engineering'. Although historically it has had an almost exclusive focus on 'engineering', this changed significantly with the creation of WG21 for Software Asset Management, because of SAM's broad operational scope. It changed yet more dramatically when JTC1 put ISO/IEC 20000 (Service Management) into SC7, because Service Management covers much more than the traditional view of Systems and Software Engineering. Furthermore, ISO/IEC 20000 is now the largest-selling standard for SC7, and WG25 (responsible for ISO/IEC 20000) is now the largest WG in SC7. Study Groups have now been set up to determine how everything should be integrated going forward. This is also relevant for WG21, because ISO/IEC 19770-1 is specifically intended to be aligned with ISO/IEC 20000.
- **Working Groups.** The Working Groups are supposed to be composed of individuals who are subject-matter experts. A National Body in principle may mandate the individuals they have appointed to take a particular position, but this is unusual. Rather, the individuals on the Working Group are expected to work together on the basis of their professional knowledge to advance the area which is the responsibility of the Working Group.
- **Liaison Organizations.** Liaison organizations may also appoint members to Working Groups, who can contribute in exactly the same way as members appointed by National Bodies, with the only difference being that the liaison organizations themselves do not have votes. The itSMF International is a Category A liaison to SC7, which means it can participate in the activities of all Working Groups within SC7. It has appointed two members to WG21 who are the conveners of the sub-committees developing ISO/IEC 19770-2 and -3. Category C liaisons are affiliated directly with specific Working Groups. WG21 already has a Category C liaison with ISACA, and applications are currently

being processed for the International Association of IT Asset Managers (IAITAM) and the Business Software Alliance (BSA).

- **Sub-Committees.** WG21 can create sub-committees, which are called 'Other Working Groups' (or OWGs), and has so far created two of these, one for developing ISO/IEC 19770-2, and one for developing ISO/IEC 19770-3. JTC1 rules require that the conveners of these OWGs must be full members of WG21. However, the OWGs have been set up so that experts from industry in general, who are not appointed by National Bodies or liaison organizations, can participate.

## Overview of Basic Procedures for Developing ISO/IEC Standards

This overview covers only basic concepts and procedures. Detailed procedures can be found through the 'Procedures and Forms' page of [www.jtc1-sc7.org](http://www.jtc1-sc7.org), and particular reference is made to the JTC1 Directives Edition 5 Version 3.

The primary role of JTC1 is to produce International Standards ('IS'). It is also possible to publish Technical Reports ('TR') which do not qualify for issuance as standards, but these are considered exceptions.

There are several possible tracks for standards development. For standards which are developed within JTC1, there can be a standard timeframe, an accelerated timeframe ('fast-track') and an extended timeframe. ISO/IEC 19770-1 was developed under the fast-track approach, and both ISO/IEC 19770-2 and -3 are being developed under this same fast-track approach. It is also possible for standards which have been developed outside of JTC1 to be fast-tracked to International Standard status, e.g. for BS 15000 from the BSI which became ISO/IEC 20000, and standards from the IEEE.

There are two key ways in which formal decisions are taken within the standards-making process – at least within SC7. The first of these is the annual plenary session of SC7, normally held in May, in conjunction with meetings of all of the Working Groups in SC7. In principle, nothing can go forward without the authorization of this plenary session. This session does not actually approve or disapprove standards. Rather, it authorizes the different stages of votes of National Bodies. It is the gatekeeper to the real voting process. What happens in practice is that there is usually extensive discussion between national delegation heads (who hold the votes) and Working Group members, to ensure that there is reasonable agreement about the appropriateness of proceeding to the formal vote of National Bodies. The second stage of this approval process is then the formal vote by National Bodies. Between two and four months are typically given for each vote, to allow the National Bodies time to complete a detailed review of the proposed item.

There is a standard sequence of stages through which a standard must progress. Each vote between stages must be authorized by the plenary session, which happens only in May of each year for SC7, and consequently it takes at least 2.5



years for a new proposal to make it to an International Standard, even in the best possible scenario. The relevant stages, and the voting time for each for fast-tracking, are as follows:

- **New Work Item Proposal ('NP')**. 3 months is allowed for National Bodies to vote on whether a proposed new work item is to be approved for development. (Each part of ISO/IEC 19770 requires a New Work Item approval.)
- **Working Draft ('WD')**. A Working Group may revise a Working Draft as often and as much as it wishes. Some Working Drafts will typically be distributed to organizations within the standards-making process, and may also be distributed to individuals outside of it. There is no national vote on a WD, but the plenary session will not allow progression to the next stage to take place if attendees do not see a credible WD in place.
- **Committee Draft ('CD') and Final Committee Draft ('FCD')**. The fast-track approach goes directly from WD to FCD for voting by National Bodies. The voting period for an FCD is 4 months, and the document goes into copyright lockdown at this point. Comments may also be submitted, and revisions subsequently may be made to the draft, but only on the basis of comments received, not just because the Working Group thinks they are a good idea. (If the Working Group wants to make any changes itself, then it must ensure that corresponding comments are submitted through the formal channels.)
- **Draft International Standard ('DIS') and Final Draft**

**International Standard ('FDIS')**. The fast-track approach goes directly from approved FCD, and agreed disposition of any comments previously raised, to FDIS. The voting period for an FDIS is two months, and can be only 'yes' or 'no', with no substantive comments accepted.

- **International Standard ('IS')**. Assuming that the FDIS vote is successful, ISO then does a final revision of the standard for purely editorial/technical issues, and issues it as an International Standard. This typically takes several months after the end of voting.

### Short History of WG21

After initial discussions in 2000 in Madrid, WG21 was formed in 2001, and its initial Convener was Lennart Piper. Roger Wittlock, a member from the beginning, became Convener in 2004 and stepped down in mid-2007 but remains a member. Roger Wittlock, David Déry, and Björn Westerlund were instrumental in guiding ISO/IEC 19770-1 to publication in 2006.

WG21 was originally based in Sweden, with support provided by the Swedish Standards Institute ('SIS'). Support is now provided by the British Standards Institution ('BSI'). Current officers are David Bicket, Convener, and David Déry, Secretary.

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David Bicket

Convener, ISO/IEC JTC1/SC7 WG21

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