Know Your Standards

More (and more!) standards-making bodies

There is another way of classifying standards-making bodies, which does not fit too well with the natural progression International - Regional - National, so is best treated separately. This classification distinguishes between those bodies which may roughly be described as 'public institutions' (into which fall ITU, IEC, ISO, CENELEC, CEN and most National Committees) and those that are substantially privately-constituted bodies, which have a fee-paying membership. We dealt with the former type last time, but mentioned only learned societies in the context of membership bodies. There are three main types of such bodies.

Membership bodies

There is a Regional body in Europe which is a standards-maker recognized by the European Union along with CENELEC and CEN, but is a membership body. This is the European Telecommunications Standards Institute (ETSI). 'European' is a misnomer - the membership comprises some 700 organizations world-wide. Its library includes some 23000 standards already. The only restriction on membership appears to be the annual fee, with a minimum of € 2000 at present. However, one welcome distinguishing feature (now shared with some ITU publications) is that its standards are FREE to all.

Other membership bodies that are also standards-makers include IEEE and the Audio Engineering Society, as mentioned last time. There are numerous such bodies, not only learned societies but also trade association and other industry groups, active at the national level, and in some cases their deliverables are adopted as official National standards - this option is available in USA through ANSI, for example. One of the most prominent of these bodies is Ecma International (formerly the European Computer Manufacturers Association, ECMA). Ecma mostly works in co-operation with ISO/IEC JTC1 - the international forum for the IT standards movement. It produces standards and technical reports, which are respected by most of the major IT manufacturers but not all, which is liable to create compatibility problems. Ecma publications are available FREE to all.

A third category of standards body is set up to develop, promote and control a particular technology, and usually includes intellectual property rights (IPR) licensing as part of its activity. There may be only one 'standard' - setting the requirements for interchangeability between products using the technology. One well-known example is the DVD Forum, and others are the USB Implementers Forum and the MIDI Manufacturers Association. There is a huge number of such bodies, some more prominent and successful than others.

Producing new standards

Many people think we have far too many standards already, and that is probably true, but finding out which ones we don't need is difficult. Meanwhile, we should only make a new standard if it is justified, and most standard-makers have a procedure for seeking justification; some work better than others. In IEC, at least five (normally) National committees have to vote to accept a New Work proposal AND nominate experts to do the work. In a recent case, there was ample support for the proposal but NO nominations for experts!

These days, technology moves so fast that a standard could easily be out-of-date before it passes final voting. The minimum practical period for producing a new standard is three years, allowing for one comment stage and two voting stages, as in IEC and ISO. But this works only if the subject is non-controversial and technically rather simple. In other cases, more than one comment stage and more than two voting stages may be required.

Making standards intelligible, unambiguous and accessible

IEC and ISO have quite strict editorial rules, compiled from many years experience, but these can only really impose a uniform structure and, to some extent, control the use of verb forms so as to distinguish between compulsion (shall), recommendation (should), permission (may) and possibility (can). However, the English language being what it is (almost all international standards are drafted in English), it's awfully easy to slip in a 'have to' or 'is to' instead of 'shall'. 'Must' and 'must not' are reserved for compulsion not under the control of the standards-writers, such as the need not to violate the laws of physics. This may all seem very pedantic, but maybe not when you realise that the German '*muss*' means 'must', but '*muss nicht* ' means 'need not'. And that isn't the same meaning as the 'need not' in the sentence about physics!

Above all, it is necessary to keep the language as simple as possible. To simplify the wording of this article, I'm now going to assume that you have become a new standards writer. 'Simple' means simple sentence construction, not necessarily avoiding long words, as long as they are technical; 'permeability' is OK, but not 'quintessence'! It's awfully easy to use stylistic 'tricks', such as inverted word order or 'tech-speak' - 'speaker' instead of 'loudspeaker' (they are quite different words in other languages), which are blindingly obvious to a native English speaker but very confusing to someone, let's say Mr Sum Yung Gai, who learned three other languages before English. And when you need to write the same thing several times, such as in a test procedure, *use the same words every time*. You are not writing a homework essay for Mr Beelzebub, the English teacher, to whom repetition is anathema, you are striving not to confuse Mr Sum, who sees different words and wonders what the difference in procedure actually is.

Keeping standards up-to-date

Even if a standard is still up-to-date when it is published, it will not stay that way for long. (Incidentally, the use of 'that way' is an example of what is likely to confuse a standards reader. Write '…it will not stay up-to-date for long.').

IEC and ISO have a formal 'maintenance procedure', which was written up very confusingly in the past but is now explained

more lucidly in the latest ISO/IEC Directives. These are the rules of the whole ISO/IEC standards 'game', and to do well you need to know the rules. Luckily, they are free downloads from http://www.iec.ch/members_experts/refdocs/. **All three parts, Part 1, Part 2 and the IEC Supplement, are very recently revised, with quite a number of changes, so even if you already have them you probably need to download the new ones.**

When a standard is published, it comes with a 'stability date', of 3 to 12 years (in a special case 15 years), when the next version is expected to be **published**, **not when work is to start on the new version.** So, if the stability date is only 3 years ahead, maintenance work has to start immediately the standard is published (or even, informally, before then). To start the formal process, a 'Document for Comment' is sent to National Committees, recommending re-confirmation, withdrawal or revision. If revision is recommended, an outline of what revision is proposed may be attached. National committees are asked to comment on the recommendation and, in the case of revision, to review their representation on the responsible committee or to nominate members to a new Maintenance Team. When the responses are collated, a Review Report is circulated to National Committees, explaining what is planned to be done.

Retiring standards

Some standards deal with technology that is no longer in use - TV picture tubes for example. The associated standards may be withdrawn, and in the past, In ISO and IEC, it was very difficult to obtain a copy of a withdrawn standard even if it was really needed. However, withdrawn IEC standards are now available (but not free).

In other cases, a technology may no longer be in wide use but IS still in use for special applications or for historical and archival purposes.

Note - Some people are very fearful about the future loss of access to stored digital information of high importance, and indeed it has happened - the BBC Domesday project used an adapted form of the Philips Laserdisc technology, but access was very nearly lost through negligence - read the whole sorry story at: http://en.wikipedia.org/wiki/BBC_Domesday_Project

For the relevant standards of this type of technology, IEC and AES have adopted the term 'stabilized standards', which are preserved as current but are not expected to change for at least 15 years. Examples are standards dealing with vinyl disc playback.

J. M. Woodgate B.Sc.(Eng.), C.Eng. MIET MIEEE FAES FInstSCE
Email:desk@nutwooduk.co.uk
Web: www.jmwa.demon.co.uk
© J.M.Woodgate 2011