From: Todd Carpenter
ISO/TC46/SC9 Secretary

Title: Revised Report for SC9/WG7 Digital object identifier project for the TC46/SC9 plenary meeting in Jeju Korea on May 13, 2010

Source: Norman Paskin, WG7 Convenor

Project(s): ISO 26324, Digital object identifier system

Status: This report supersedes document N560.

Additional information: This revision: 1) corrects the date of the April meeting, and 2) corrects the referencing of the User Manual to be a bibliographic reference, not a normative one.

REQUESTED ACTION
Circulated to P- and O-members, and to technical committees and organizations in liaison for:

☒ information
☐ discussion at
  [venue/date of meeting]
☐ comments by
  [date]
☐ voting (P-members only by:
  [date]

P-members of the technical committee or subcommittee concerned have an obligation to vote.
SC9 meeting Jeju 2010-05-13

Agenda document N544, item 7, Status of items in the programme of work:
7.2: 26324, Information and Documentation – Digital object identifier system

Report from Convenor WG7, Norman Paskin

Background

The DOI system was initiated by the International DOI Foundation in 1998, and initially developed with the collaboration of some participants in ISO TC46/SC9. Due to its application in the fields of information and documentation and previous collaboration with some SC9 participants, it was introduced to SC9 as a possible work item at the SC9 meeting in October 2004, and passed as a New Work Item (SC9 N450) in July 2006 and Committee Draft (SC9 N489) in April 2008. It was issued for DIS ballot in October 2009 (closed 2010-03-05).

Current Status - summary

An appeal by AFNOR against the DIS ballot on ISO DIS 26324 proceeding was not passed. The DIS ballot closed on 5 March 2010, and the standard met the ISO requirements for approval. 16 votes were received in favour out of 20 (= 80 %). The 4 no votes were France, Croatia, Australia and Sweden. Comments were also received from several other member countries. The majority of comments were from the ISO technical editor. The WG has been able to accept almost all the suggested changes and provide responses to all; it feels that all the issues raised have been dealt with satisfactorily. A draft FDIS is now in preparation and close to ready to be passed to the secretariat with the completed Responses document, so that the FDIS version of the standard can be produced for ballot.

Working Group activities

The SC9 secretariat compiled a combined document of all the DIS comments sorted by clause order, and the working group is finalizing responses to these comments in that document. The DOI e-mailer has been used to exchange views and a meeting was held on April 12 to review all issues. Significantly, (1) at the conclusion of the April 16 WG meeting, all present agreed that all their concerns had been fully addressed in the meeting; (2) the representative of AFNOR, FX Nuttall who chairs the AFNOR SC9 mirror committee, stated he would recommend to AFNOR that they change their DIS vote from No to Yes at FDIS if the changes agreed at the meeting were made. Those attendees at the April 16 meeting who are also present at the Jeju meeting are available as an ad hoc group to informally discuss any issues.

A Draft of the responses document and resulting FDIS draft was circulated to the WG list; a few comments have been made, and these are being dealt with. I expect to provide the FDIS and Responses document to the Secretariat by the deadline of 2010-06-05.

The FDIS ballot is 2 months; however, ISO is allowed up to 3 months to process the WG’s FDIS submittal prior to issuing the ballot. Part of that time is spent on getting the required French translation (the translator (AFNOR) is allowed 2 months to produce a translation). So it could take as much as 5 months from the time we submit the FDIS to when the ballot actually ends.

Scope and relation to other identifiers.

This was a major item of discussion at the previous TC46 meeting. I am pleased to report that the WG agrees that this issue has been resolved satisfactorily as noted above.

1. There is a rewording of the text:
   o in the body of the standard (5.1, and repeated in Annex A), from "A DOI name is not intended as an alternative for [another SC9 identifier]" to "A DOI name
shall not be used as a replacement for...”. [this follows the suggestion of the FR comment]

- The same wording cannot be used in the Scope, since ISO Directives require that “The Scope shall not contain requirements. These belong in the body of the standard.”. The wording in the Scope is therefore revised to “The DOI name does not replace, nor is an alternative for, an identifier used in another scheme, such as the schemes defined by ISO/TC 46/SC 9”. [this follows the suggestion of the US comment, and is preferable to removing the wording from the Scope altogether]
- Together, these changes of wording (a) are mutually compatible; (b) satisfy all the comments received (c) follow ISO “shall” terminology in placing a requirement in the body of the standard; (d) are illustrated in the expanded examples in Annex A, see below; and (e) conform to ISO Directives. The ISO Technical Editor has confirmed that this wording is satisfactory.

2. In Annex A, the examples have been expanded to give an example of this “non-replacement” in action:

   "Example 3:
   - The identifier string 10.97812345/99990 is a DOI name; it cannot be validly submitted to an ISBN point-of-sale ordering system, or converted to a GS1 bar code for use as an ISBN bar code; it does not conform to the ISBN syntax.
   - The identifier string 978-12345-99990 is an ISBN. It cannot be validly submitted to a DOI resolution service; it does not conform to the DOI syntax.
   - However both strings have the same referent.”

3. Text about the mechanisms of RAs collaborating has been moved to the User Manual. The DOI Handbook is to be revised (prior to publication of ISO 23624) to take account of revised wording in the FDIS and is to become the ISO 23624 User Manual. It is therefore cited as a bibliographic reference (response to US comment and ISO Technical Editor).

4. Our intentions re scope and relation to other identifiers remain unchanged (as articulated in the agreement reached on this at CD stage in June 2008, N489), but these FDIS changes should provide the necessary clarity of expression and examples that some comments have requested.

5. A note has been added in the Introduction about the origins of the DOI system. The Technical Editor pointed out that the Introduction should be used not only to give specific information or commentary about the technical content of the document, but also about the reasons prompting its preparation. We had not previously included any mention in the Introduction of “the reasons prompting its preparation”, and following this suggestion by ISO have now done so as it seems helpful and sheds light on the origin of the DOI system, and why the DOI system is related to, but does not replace, other SC9 schemes.

RA Responsibilities etc.

We are slightly handicapped in the Standard by ISO’s requirement that we cannot mention what IDF has as delegated “registration agencies” (as opposed to the IDF, which is the ISO Registration Authority): so all obligations are rolled up into one under the RA (registration authority). This sometimes obfuscates distinctions and explanations that in current DOI implementations are clear. However the DOI Handbook will be the normative User Manual (as proposed from the outset of the ISO process, see October 2004 initial presentation) and will carry all this in more detail. International DOI Foundation (IDF) is the nominated RA for the Standard and will undertake to revise the current DOI Handbook prior to publication of the final Standard. This was discussed with the Technical Editor in 2008 and 2009.

Separately, IDF await ISO’s pronouncements on a draft Registration Authority agreement (that is, an ISO-IDF agreement); this is subject to the current general review of all ISO RA agreements.

1 N489: WG7 Convenor’s Report on the Disposition of Comments (DoC) on the CD: see section “G3. DOI system in relation to other identifiers for content entities” (080627_DoC_WG_CD26324_DOI);
Further information

Minutes of the April 16 WG meeting, the current working draft of the FDIS, and the current working draft of Responses document are all circulated on the WG mailing list. Please consult a WG member or the WG convenor if you need to know more.

Appendix: illustration of the way the DOI system interacts with other SC9 identifiers

Note that “The scope of the DOI system is not defined by reference to the type of content (format, etc) of the referent, but by reference to the functionalities it provides and the context of use”. (ISO 26324 FDIS, Introduction)

To illustrate this, consider the most widely used DOI service, CrossRef: "CrossRef's specific mandate is to be the citation linking backbone for all scholarly information in electronic form. CrossRef is a collaborative reference linking service that functions as a sort of digital switchboard." (www.crossref.org)

CrossRef assigns DOI names to “scholarly information”. “Scholarly information” is not one homogenous type of information entity: in the digital world, people can and will cite anything. The main items cited are articles, but scholarly information can include other things besides articles. Consider an example of a music journal citing a sound recording as a reference: CrossRef cannot use the existing ISO sound recording scheme (ISRC) alone, so CrossRef assigns a DOI name to the sound recording [an ISRC is not resolvable to the CrossRef database; a DOI name does not resolve to the ISRC database. “The DOI name does not replace, nor is an alternative for, an identifier used in another scheme”: ISO 26324 FDIS, Scope]. If an ISRC for the item does not exist, the new DOI name for that recording has no relation to the ISRC system. If an ISRC for the item exists, CrossRef records the ISRC as part of the DOI metadata. Optionally, if this is likely to occur often, IDF agrees a consistent way of including ISRC syntax in DOI names. Also optionally, CrossRef establishes a business relationship to facilitate this.

The same is true for other information objects, and in other DOI applications. It is also true between DOI applications – there may be “overlap” (and yet no interference with proprietary applications, without agreement): e.g. CrossRef assign DOI to cited items, while DataCite (www.datacite.org) assign DOIs to datasets, which might be cited items. Interoperability between DOI registration agencies on the basis of the DOI infrastructure assures that these applications are compatible, but cannot access full data from other applications unless so agreed.

Other (non-DOI) schemes exist which can be used to build persistent identifiers (e.g. URN; URI; ARK; PURL; XRI, etc.). Only the DOI System mandates that other standard identifier schemes must be explicitly recognised and noted as part of metadata and or syntax. Hence only the DOI System explicitly promotes the use of identifiers from other schemes.

DOI is designed to assist identifier interoperability, and has a mechanism to facilitate that; see several factsheets on this issue at http://www.doi.org/factsheets.html - "Identifier Interoperability"; “DOI System and Standard Identifier Schemes”; “The ISBN System in Relation to the DOI System”; “DOI System and Internet Identifier Specifications”. IDF circulated the factsheet on "DOI System and Standard Identifier Schemes" to the other SC9 registration agencies in 2009 and asked for feedback, and have now (April 2010) updated this to include the relevant wording in the FDIS (and the illustration above): please see this for further information. These factsheets will be annexed in the User Manual.