

ISO Structure and procedures

In view of the current submission of the CRM to ISO TC46 I thought it might be useful to explain ISO work procedures in some detail and underline the benefits of making this submission.

ISO Structure

ISO has a central secretariat in Geneva. It is structured into a number of 'Technical committees' (TCs) each of which is administered by its own secretariat. TCs are generally composed of a number of "Sub committees" (SCs) which are responsible for one or more work items. Individual work items may be assigned to a Work Group (WG) or to an ad hoc group (AHG). The ISO AHG or WG must also incorporate at least five 'P' members from SC4. (Several countries have already expressed an interest in participating in work on the CRM). Responsibility for the progress of a WG or AHG is assigned to a "project leader".

The CRM has been submitted to TC 46, "Information and Documentation", SC 4 "Computer Applications in Information and Documentation". The scope of SC 4 is described as

Standardization of the methods and procedures for use of computers in information and documentation such as:

- communication, including application protocols and formats
- data element directories, including application protocols and formats
- computer aspects of electronic manuscripts and publications
- data base management standards for information and documentation, including common command language,
- character sets
- codes for computer usage.

SC 4 is responsible, notably, for ISO 23950, aka Z39.50

Membership

Sub committees and their working groups are composed of 'P', 'O' and 'L' status members: Participant, Observer and Liaison. P members have an obligation to vote in ballots. Generally speaking, P members are representatives of national standards bodies. O members tend to be independent experts. Although P members are the only ones to vote, O and L members are expected to participate actively in ISO work and their point of view is taken into consideration. CIDOC has Category 'A' liaison status with TC46 through Nick Crofts, CIDOC's named representative.

For more details about rules concerning membership see ISO/IEC Directives, Part 1.

ISO Work procedures

ISO TC46 working procedures are formalised in "ISO Procedures for the Work" reference ISO/TC 46 N 1465. Generally speaking ISO standards are developed 'in house', and go through seven stages of development, number (0 – 7):

- 0 Preliminary
- 1 Proposal
- 2 Preparatory
- 3 Committee
- 4 Enquiry
- 5 Approval
- 6 Publication

Because the CRM, has been developed externally, it is a candidate for submission under the 'fast track procedure', which is simpler and more flexible. ('Simplified procedure' might actually be a better name since fast track submissions generally take at least two years to complete. The full procedure is normally expected to be completed within three years)

Under fast track procedure, a potential standard is submitted for acceptance either at stage three, Committee, or at stage four, Enquiry. Stages 0 – 2 are omitted and I shall not describe them here. The CRM is currently under ballot for acceptance as a new work item under fast track procedure at either stage 3 or 4. Having examined the

current version of the CRM, the TC46 SC4 secretariat has recommended that the CRM should be accepted as a new item at Enquiry stage. The decision to accept the CRM depends on the votes of the 'P' members of TC46 SC4. The full list of members is available on the NISO web site.

Stage 3 – Committee Stage

Begins when a document is registered as a 'Committee Draft' (CD) and finishes when the document is released for ballot to become a 'Draft International Standard' (DIS).

At this stage, a potential standard can undergo major revisions.

Documents can be released for DIS ballot only when *consensus* has been achieved: all comments are resolved, there is no sustained opposition on substantial issues, and a 2/3 majority of 'P' members approve.

Stage 4 – Enquiry Stage

Begins when a document is registered as a 'Draft International Standard' (DIS) and finishes when it is released for ballot to become a 'Final Draft International Standard (FDIS).

At this stage, a potential standard can still undergo revisions although these are not expected to be such that they affect the "basic substance or technical provisions" of a standard. The experience of the CRM work group with mapping the CRM to existing standards and using it in implementations confirms that the CRM has indeed reached this level of maturity.

The FDIS ballot lasts five months. To be approved, 2/3 of the votes cast must be in favour and fewer than 1/4 of the votes be negative.

Stage 5 – Approval Stage

Begins when a document is registered as a 'Final Draft International Standard' (FDIS) and finished when it is released for ballot for publication.

The publication ballot lasts two months.

Any modifications at this stage are primarily editorial, though technical amendments are still possible.

When following 'fast track' procedure, stage 5 is not mandatory. However, it is not uncommon. Z39.50, for example, which was submitted along fast track procedure, also went through stage 5. As project leader, I intend to take advantage of this stage.

Stage 6 – Publication Stage

Begins when a document is accepted by ISO/CS (central secretariat in Geneva) and ends with publication.

ISO/CS may request proof checking by the secretariat of the TC/SC. Neither editorial nor technical amendments are allowed at this stage.

It is important to note that amendments to a potential standard may take place during stages three, four and even stage five. Substantial modifications which enhance the scope and depth of a document are common in stage four. When a document has reached stage four, changes should not, however, be such that they affect the "basic substance or technical provisions" of a standard.

After publication, a standard "...may be changed or corrected via revision and republication... Technical Corrigendum, ... or Amendment." Review of a standard may take place at any time but must occur at least every 5 years. The standard is balloted for Confirmation, Withdrawal or Review. Revision is referred to the appropriate SC.

A standard may also be accompanied by "Annexes" which provide complementary information. This mechanism seems particularly appropriate for the integrating extensions relating to specific domains into the structural "core" of the CRM.

A Maintenance Agency is applicable only if a standard “requires continuous updating”. This is not the case for the CRM.

In my opinion, the ISO process provides ample opportunity for extension and enhancement of the current version of the CRM, will enable us to ensure that it represents the needs of the cultural heritage community and achieves a broad level of acceptance. The ISO review process offers the assurance that the CRM will be maintained and revised on a regular basis.

Maturity of the CRM

The CIDOC board and the Documentation Standards WG voted for submission to ISO at the London conference in 1999.

Recent work on mapping the CRM to a number of major data formats and guidelines has confirmed the methodology adopted by the working group and the fundamental structures of the model. This indicates that the CRM has reached a level of maturity sufficient for submission to ISO as a DIS rather than a CD.

- We are now able to propose complete mappings for the DC metadata element set, and all current qualifiers, CIMI Access Points and z39.50. Coverage of mda Spectrum is close to 90%.
- The CRM is naturally consistent with the CIDOC Guidelines and the original CIDOC relational data model on which it is based.
- RLG and mda are already using the CRM in their work.
- Individual museums, including the Benaki, the German Historical Museum, the Geneva City museums have used the CRM as a basis for implementations.
- Many other institutions and projects have used the CRM as a reference.

Benefits of Submission to ISO

ISO provides an open, balanced and structured procedure for developing, publishing and maintaining standards. It provides mechanisms whereby relevant international experts can participate in the elaboration of standards and ensures that their views are taken into consideration. (In the case of the CRM, this effectively means that the CRM development process will be opened up to a broad range of cultural heritage professionals, notably the library community.)

ISO ensures that published standards maintain a high degree of consistency and that they are coherent with other relevant standards. Acceptance of the CRM by ISO is effectively a mark of quality.

ISO helps to ensure that changes and modifications take place in a stable and orderly fashion, and that standards, once published, remain relevant and up to date. Users of the CRM can be confident that the document will be properly maintained.

ISO standards are available internationally in both English and French. (Translations are usually undertaken by AFNOR, the French standards authority.)

Acceptance as an ISO standard considerably enhances the “authority” of a document and its chances of being adopted.

Naturally, acceptance by ISO also enhances the reputation of the organisation responsible for producing the original document, in this case CIDOC.

CIDOC will be able to maintain a close link with the CRM through participation in the ISO process. The SC4 secretariat has requested that I serve as the CRM “Project leader” and actually requires participation in the ISO WG or AHG of members of the original CIDOC working group.

Decisions from the CIDOC board

Although ISO offers a structured framework for the further development of the CRM, it is not in a position to carry out this work without the continuing contribution stakeholders from the cultural heritage community and

CIDOC in particular. CIDOC needs to provide a mechanism which ensures that its contribution to the CRM can be sustained throughout the standardisation process and beyond.

Furthermore, the CRM represent a considerable investment of time and energy on the part of many CIDOC members – both those who have contributed directly to the CRM and others who responsible for the documents on which it is based. It is important that CIDOC should maintain its position and influence as originator of the CRM.

The CRM also needs to be promoted, explained and supported in order to ensure its acceptance. This work can be accomplished most naturally within the context of CIDOC.

In order to meet these requirements, Pat Young has suggested creating a new CIDOC ‘CRM Project Group’, distinct from the current Documentation Standards Group, with special responsibility for the CRM.

The role of the CRM project group will, in effect, be similar to that of the ZIG (Z39.50 implementers group) with respect to Z39.50. It will provide a forum for discussion, help to channel creative effort and provide an outlet for promotion and support.

This group needs a clear mandate to

- pursue the ISO submission : participate in and support the ISO standardisation process
- continue development of the CRM
- ensure effective liaison with relevant ‘neighbouring’ organisations, and related modelling projects
- ensure that the views of relevant stakeholders are taken into consideration
- organise an effective work programme
- seek funding to ensure regular meetings and attendance
- take measures to promote and advocate the CRM.

The members of the CRM project group will provide the expert contribution needed by the ISO WG or AHG. ICS-FORTH has initiated preparation of a funding request from the European Commission under the IST programme “Continuous Submission Scheme for Support Measures”. If successful, this funding would be used to cover the travel and administrative costs of CRM project group meetings and participation in the ISO AHG.

I would like the board to accept the creation of this new group and to confirm its mandate.

As I have already indicated in a previous message, I wish to concentrate my energy on the ISO WG or AHG. I am therefore not personally in a position to assume the responsibility for a new project group. However, several stakeholders in the CRM have indicated their willingness to so.

I would also like the board to confirm my rôle as project leader for the CRM within ISO.

Nick Crofts
Geneva 10 August 2000