

Technical Implementation Committee Report 2011/12

Submitted by Wendy Thomas, Chair, Technical Implementation Committee

2.5 update

DDI Version 2.5 was published with complete documentation.

3.2 update

All bugs filed for 3.2 have been disposed of and the relevant changes posted on the subversion development site in branches/proposed3.2. Of the original 168 bugs 24 have been tabled for future versions as they deal with major structural issues. While a number of specific bugs were address the remaining bugs clustered in the following areas:

- Citation – changes to provide qualified Dublin Core options as well as the ability to type specific citation elements using external controlled vocabularies and the ability to reference organization or individual descriptions where appropriate
- Consistency – non-duplication of element names between namespaces; consistent role of common attributes such as “type”, review of cardinality regarding required elements, and naming consistency for references, etc.
- Coverage – structure revision to support the ability to constrain coverage at a lower level such as the coverage of a specific physical instance
- Controlled Vocabularies – providing the option for a controlled vocabulary where appropriate, developing rules for internal vs. external vocabularies, and externalizing controlled vocabularies where appropriate
- Data Format – a consistent representation of data formats throughout the logical and physical descriptions
- Geography – revising Geographic Structure and Geographic Location to facilitate reuse and simplify entry
- Input/Output Parameters – introduce a structure for input and output parameters in questions, control constructs, variables, and command codes to clarify information required for use in a process and the outputs of the object
- Identification – addressed the conceptual and practical aspects of identification and reference within DDI to support the broad demands of the structure
- Language – revised international and structured strings to package various language versions of a single object together and enforced a consistent means of identifying language throughout the DDI
- Missing Values – introduced a means of identifying missing value representations in a comprehensive way and allowed for identifying default missing values for a logical record and physical store

- Organization – restructured to remove iterative nesting creating a cleaner description of an organization, an individual, and relationships between any two entities. The attachment of a role within a specific study or group to an organization or individual is done from the perspective of the study of group through the ability to reference an organization or individual from a specific role or activity.
- Questions – introduction of a question grid, question block, and question group. These replace Multiple Question Item which was insufficient to meet the needs of a wide group of users.
- Record Relationship – corrected an error in the original structure that prevented it from performing its function
- Response Domain/Representation – introduced a number of new response domain and representation types to deal with scales, labeling in numeric ranges, direct use of geographic locations or structures, ranking, physical location on/in an object, distributions, and nominal responses within grids.
- Statistics – revised to allow for multiple category statistics within a variable without repeating the structure. Variable Statistics are now versionable to track changes resulting from corrections to the data file and to allow selection and transfer of selected variable statistics in response to submission requests.
- Structure – imposed a more consistent structure for the location of other materials and notes, group contents, substitution groups, and introduced a delivery wrapper.

TIC is on schedule to produce a version of 3.2 for public review following the completion of the technical review.

Process changes

Additional efforts were made to distribute recommended solutions in detail via the bug tracking system by posting bug with new information on the TIC listserv. Currently, over 80% of the members of this listserv are not on TIC but are interested in TIC activities. Individuals who expressed interest in specific areas were also informed of proposed changes so they could comment.

In early 2012 the development subversion site was opened for read only access to any interested party. A new branch has been added for proposed changes so that developers could review suggested code prior to resolution of a bug or bug cluster by TIC. This means TIC receives feedback prior to a final decision. The intent is to obtain a level of technical review prior to full publication including detailed documentation and finalized structure.

Plans for the results of SDI group

Past work of the SDI group has been held for inclusion in a post 3.2 version of DDI. Much of this rested on the structural changes that need to occur to adequately incorporate a process model that will allow representation of the survey development recommendations as well as the sample design content. Some changes have been made in 3.2 in anticipation of this expansion to include a process model, for example packaging processing events and coding instructions within schemes.

Identification

Identification issues were discussed in light of the needs of various stakeholders, persistent identification needs, and support for legacy systems as well as DDI-C interchange. An approach which includes identifying those objects within an instance that cause versioning (Payload objects) and those which simply provide local administrative information but do not change the information related to the data itself (Administrative objects). Efforts were made to address sometimes conflicting needs in a structure that supports both legacy systems and new systems under development. A separate documentation will be issued on this topic.

TIC moving forward

Given that work in TIC can be demanding in terms of time and expertise, discussions regarding the division of work as we move forward and means of pulling in expertise for development and review of proposed bug solutions took place over the past year. We have been encouraged by the response of DDI users to our efforts to push more of the development work and discussion into the public arena in order to obtain early feedback. The intent is to continue this in the coming year by integrating the bug tracking, subversion site, and feedback mechanism for TIC activities.