



Digital Data Exchange (DDEX) Standard

Data Dictionary Standard Governance

Document Name:	DDEX-DICT-10-2006 Governance
Date of Publication:	17 th October 2006

1 Introduction

The DDEX data dictionary provides syntax and semantics to all the terms and “composites” used in the DDEX message suite standards. Indeed the message suite standards appear in their entirety within the data dictionary. As such it is central to the operation and development of DDEX messages and subsequently their exchange. As an integral component of the DDEX message suite standards the manner by which terms and composites are changed in the data dictionary requires a set of rules which ensure that the changes are made in a consistent manner. Likewise, the way in which the terms and composites within the data dictionary are structured influences the way in which the DDEX message suites are created and developed. Consequently there is a requirement for a set of rules by which the structure of the data dictionary terms and composites is consistently applied throughout the DDEX message suites.

2 Governance Structure

The Registration Authority (RA) for the DDEX data dictionary is DDEX. DDEX is governed by a Board of Directors which consists of representatives nominated by Charter Members of DDEX. The Board of DDEX will, as the RA, therefore be responsible for the management of the DDEX data dictionary. However, given that the Board only meets four times a year, in its capacity as an RA it will have to delegate the operational activity required to maintain and manage the data dictionary.

The RA delegates data dictionary change management responsibility and hosting oversight to the Data Dictionary Working Group (DDWG). To guarantee consistency between the Data Dictionary and the DDEX messages, the DDEX Standards Organisation has created the Quality Assurance Working Group (QAWG). The QAWG is responsible for validating the changes proposed by the DDWG.

To assist the DDWG with operational development and hosting of the data dictionary, the DDWG will use external vendors that (a) provide technical expertise and support (Technical Support Vendor – TSV) and (b) host the data dictionary on a website prescribed by the data dictionary RA. The principle responsibility of the hosting vendor is to ensure that the data dictionary and its accompanying XML Schemas are available for use by organisations deploying DDEX message suite standards.

The DDWG receives proposals for the creation or maintenance of message suites contained within the data dictionary from the Message Suite Working Groups (MSWGs) within the DDEX Standards Organisation. Once the DDWG has reviewed the proposals and accepted the changes into the data dictionary, it submits them to the QAWG which validates the changes and makes alternative suggestions as necessary. Once validation has taken place the DDWG instructs the TSV to make changes to the data dictionary and create a new version for hosting on the prescribed website¹. If however the QAWG makes alternative suggestions these are referred to the DDWG which may need to liaise with one or more of the MSWGs in providing an alternative proposal to the QAWG. As this explanation suggests the process is iterative and may involve several rounds of discussion, include suggestions from the TSV, before conclusions are arrived at. The process is explained in more detail in Section 3 and the governance structure is set out in the following diagram.

¹ The TSV and the organisation hosting the Data Dictionary on the prescribed website is not necessarily the same vendor.

message development and maintenance requirements from MSWGs which it reviews before seeking validation from the QAWG. All Working Groups are assisted by the TSV.

3.1 MAINTENANCE OF THE DDEX DATA DICTIONARY AND XML SCHEMA

There are a number of responsibilities that attach to the DDWG which ensure the maintenance of the data dictionary and its associated tools.

3.1.1 Message suite standards

DDEX, as a standards-setting organisation, has within its Operating Agreement a Procedure for the Development and Maintenance of DDEX Standards. This document sets out the process whereby work on new DDEX messages or requests for amendments to existing messages are commenced and undertaken. At the discretion of the DDEX Board this will usually involve the creation or re-calling of an MSWG. The DDWG acts as a standing committee overseeing the development of the data dictionary.

Once a MSWG has deliberated in accordance with the mandate set out by the DDEX Board, it will provide a new message or create a series of change requests that are needed to an existing messages (and hence the data dictionary). The MSWG will instruct the TSV to add the new message or make the necessary changes to the relevant message suite and create an interim revision of the data dictionary. This enables review by the DDWG. In parallel with this activity there may be periodic change requests which have some bearing on the construction and integrity of the data dictionary. This may take many forms and is explained in more detail in Section 3.1.2.

The activities of the DDWG and the MSWGs are extremely iterative. A number of interim revisions of the data dictionary may be created at any time by the TSV at the instruction of these working groups in order to review additions of new messages or possible solutions to change requests relating to the messages or the data dictionary. None of these versions are published on the relevant DDEX website. However, at some point, usually stipulated by the DDEX Board, the working groups reach consensus as to the solutions relating to a change request or new message development. At this point the changes are proposed to the QAWG for validation.

Once the QAWG has carried out its validation and a final solution arrived at, this is recommended to the RA (the DDEX Board) for final approval. The QAWG then instructs the TSV to create a final revised version of the data dictionary for publication on the relevant DDEX website.

These iterative processes are set out in the Procedure for the Development and Maintenance of DDEX Standards document. It is the responsibility of the DDEX Board to set out the timetable by which these iterative processes reach conclusion sufficient for Committee Draft Standards to be declared for review by all DDEX members. Thereafter the timetable is specifically set out in the Procedure for the Development and Maintenance of DDEX Standards document.

3.1.2 Data dictionary

Users of the data dictionary may require changes to the data dictionary itself. For example it may be the introduction of a new composite; it may be a proposal from one MSWG to amend an existing composite which is used elsewhere which would require consultation by the DDWG with other MSWGs. Such a change would also require robust justifications. This example shows how the DDWG is maintaining consistency as far as possible across all the DDEX message suites and across the data dictionary. Another example may be the introduction of a number of new entities the definitions of which are in conflict with existing and established definitions. Again a series of consultations by the DDWG with other MSWGs may be necessary. The DDWG shall then review the proposed changes in accordance with the Procedure for the Development and Maintenance of DDEX Standards and if necessary involve one or more MSWGs. When consensus is reached the change to the data dictionary will be proposed to the QAWG for validation and recommended to the RA for approval.

A representative of the DDWG will be required to explain the overall direction of change to attendees at a Plenary Meeting once every six months. More importantly, such a session will be an opportunity for

the DDWG to receive and discuss within the Plenary Meeting any change requests relating to the data dictionary. All such proposed changes and their eventual outcomes will be validated as usual by the QAWG, though final approval will rest with the Board.

3.1.3 Change Requests

Any user of DDEX Standards is entitled to recommend change requests, whether to the message suites or the data dictionary. Users of DDEX Standards are organisations (or occasionally individuals) that have accepted a DDEX Implementation Licence. Such licensees may not be members of DDEX. Therefore before submitting any change requests licensees are asked to join DDEX. However, if change requests are submitted to DDEX from non-member licensees then that licensee will grant a perpetual royalty free licence to DDEX and all DDEX's licensees. This issue is dealt with in the Implementation Licence as a mechanism to seek to meet this goal.

3.1.4 User Defined Terms

The standard DDEX message suites permit the concept of the addition to the formats of User Defined Values. User Defined Value (UDV) means a value for a term in a DDEX message standard which is defined by a DDEX licensee and its business partner(s) and not through the standards development process within DDEX. DDEX licensees that create such UDVs for use in the transmission of information between two or more users of the DDEX standards may keep such UDVs confidential amongst themselves (ordinarily where a UDV provides some competitive advantage). The addition of UDVs makes use of the message standard outside the compass of DDEX.

All DDEX licensees are strongly encouraged at some point after the creation of a UDV to submit it to the relevant MSWG as a change request. This will ensure the integrity and on-going interoperability of the DDEX message suite standards and, more importantly, enable the standards to continue to be relevant to licensees by meeting up to date business requirements. These issues are dealt with in the Implementation Licence as a mechanism to seek to meet these goals.

The procedure for reviewing any such UDVs submitted as change requests will follow those set out in the DDEX Procedure for the Development and Maintenance of DDEX Standards contained in the Operating Agreement and as explained in Sections 3.1.1 and 3.1.2 above.

3.1.5 Externally managed message suites

The above examples relate to the development of new messages and changes to existing messages which are managed within the DDEX domain. The DDEX data dictionary may contain entities which relate to a message suite which is not developed, maintained and managed by DDEX but by a Liaison Organisation (Externally Managed Message Suites). This allows consistency to be maintained between DDEX message suites and the Externally Managed Message Suites.

Where the Board of DDEX approves such an arrangement, these terms and messages shall be operated and maintained such that those parts of the data dictionary which relate to the Externally Managed Message Suite shall be operated and managed as if that term or message suite is within DDEX but in collaboration with the Liaison Organisation rather than an MSWG. The DDWG would however be consulted in the normal way with oversight being carried out by the QAWG.

3.1.6 Versions

As a consequence of the above procedures the data dictionary will be constantly changing and developing. It is the responsibility of the TVS, each time final changes have been agreed, to create the new version of the data dictionary and the baseline schema. These have to be made accessible to users of the DDEX message suites. This is done by uploading the data dictionary and the XML schemas to a URL specified by the RA. The data dictionary will be published on the public DDEX website. The baseline schemas will be available on a site without password protection. However, the location will only be distributed to organisations that have taken out a DDEX Implementation Licence to implement the DDEX standards.

Although changes will be made to the DDEX message suite standards not all implementers of the

standards will migrate their systems to new versions at the same time. It is quite possible therefore for several different versions of the same message suite standard to be in active use at the same time. Therefore the DDWG is responsible for liaising with the host of the relevant DDEX website to ensure that organisations that have deployed the DDEX standards have access to older versions of the data dictionary and XML schemas and for these different versions to be clearly distinguished from one another. These older versions will also be made available at a URL specified by the RA. Older versions of the data dictionary may not necessarily be published on the public DDEX website to avoid confusion. The baseline schemas will be on an open site. Only organisations that have a DDEX licence to implement the standards will be actively notified of the URL address of old versions of the data dictionary and baseline schemas. The DDWG will also ensure that documentation is provided that tracks the changes made between one version of the data dictionary and another. The RA at its discretion may determine that some versions of the data dictionary will no longer be made available and instruct the hosting vendor to remove them from the DDEX website. However, the RA is required to canvas users of the DDEX standards to determine the level of use of different versions of the baseline schemas before making such a decision.

3.1.7 General maintenance

Subject to cost and time limitations to prevent unnecessary spending, the TVS may, at its own discretion and without consulting the RA or any Working Group, change dictionary entities when (and only when) such changes do not have any semantic or ontological consequences and which do not result in any changes to the schemas. Typical examples are grammatical or orthographic changes to harmonise the language used across the DDEX data dictionary. Such changes are permitted only to entity descriptions and EntityNames, the latter only when the entity is not used in any DDEX message standard that has reached at least Committee Draft stage. Such changes shall in any case be notified to the DDWG in the form of a change log.

3.2 REPORTING

The RA will require the DDWG to report on any aspect of the management of the data dictionary and its associated governance processes. Such a report shall for the first year of operation be created once a quarter (to coincide with DDEX Board meetings). Thereafter the reports will be annual or at such time as is determined by the RA. The content of the reports is determined by the RA but will ordinarily include information about the level of changes to the data dictionary over the period, highlighting any fundamental changes arising; explaining any issues relating to consistency of application of entities and composites in the DDEX message suites; providing performance data relating to the availability of the data dictionary and the XML schemas through the relevant DDEX website(s). The report should also identify any strategic issues relating to the data dictionary that the RA needs to consider in order to provide the necessary direction to the QAWG and the MSWGs. An example of such an issue might be the separate development of a standard in the area of metadata structure or management that it would be advisable for DDEX to adopt.

Such reports will remain confidential to the RA unless the RA takes the decision to publish them. The DDWG may delegate the drafting of any report to the TVS but the DDWG has ultimate responsibility for its content.

4 Quality Assurance Working Group

The QAWG plays an integral role in the governance of the DDEX data dictionary. Although the DDWG and the MSWGs may carry out development of the DDEX message suites and the data dictionary, any such developments are only proposals to the QAWG. The QAWG validates any proposed changes or new messages before making a recommendation to the RA. This process is to ensure that no inconsistencies are introduced to the data dictionary (and consequently the standard message suites). Given that the QAWG has this responsibility within the management and operation of DDEX it has a set of governance and membership rules to ensure continuity of knowledge and understanding of the DDEX standards.

The mechanism by which the membership of the QAWG is determined is set out below.

The QAWG shall consist of the following personnel:

- The chair of all DDEX technical working groups;
- One other member of each technical working group agreed by the Board upon the recommendation of the technical working group chairs to serve on the QAWG for a period of one year. Such a person must represent an organisation that is from a different sector of the DDEX membership from the sector that the chair's organisation belongs to. There shall be no limit to the number of years such a person may serve on the QAWG provided the person remains an active member of the message suite standard working group;
- At least one (preferably two) members of the DDEX Board with a technical background. A Board member shall be the chair of the QAWG.
- The chair of the QAWG may, at his/her discretion, invite other members of message suite standard working groups or experts from Liaison Organisations to participate in the QAWG when specialist knowledge is required to agree issue(s) being discussed by the working group.