XBRL US Domain Steering Committee

Taxonomy Approval Metrics and Process

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Purpose

The Taxonomy Approval Metrics (TAM) document establishes standards for XBRL taxonomy development from the perspective of systems development. For the purposes of this document, the term "Taxonomy" will refer to not only the XBRL taxonomy but also the supporting materials. "Developer" refers to the author(s) of the Taxonomy.

XBRL US/DSC Goals

- To enable a meaningful exchange of information between two different business systems.
- To avoid confusion and difficulties in initial setup of systems for the preparation and consumption of XBRL-based information.
- To provide Developers with a clear understanding of the expectations of the requirements of the Domain Steering Committee (DSC) Taxonomy Approval Process.

Process

As new taxonomies are developed, either by XBRL US or other entities, the DSC can be employed to review proposed taxonomies and be a platform to increase quality and uniformity. The following puts forward an overview of the approval process:

- A taxonomy is proposed and one or more working groups are established for purpose of exploring taxonomy development.
- If XBRL US is involved in the development, the DSC will be notified of the undertaking. Third parties are welcomed to notify the DSC.
- XBRL US/DSC will provide supporting specifications and information as requested including the TAM.
- Developers can use those documents to aid in creating the taxonomy and supporting materials.
- As drafts are available, Developers can provide those documents to the DSC.
- The DSC will perform a review and return comments when requested throughout the process or at the end of the review.
- After any deficiencies have been resolved, the DSC will vote on the approval document, and if desired, the approval document will be published.

TAM Approval Document

Each taxonomy shall be reviewed according to the specified metrics. Within the approval document, each metric should be listed along with conformance notes that shall contain the following:

- One or more references to a specific document or sections within the support documentation that satisfies the requirement.
- Exception and rational if a requirement has not been met or is met in an unconventional manner.
- Conclusion as "Satisfies Requirement" or "Deficient" with an explanation.

For example:

3.1.1 The Taxonomy shall conform to existing XBRL Specifications published by XBRL International and XBRL US.

WIP-PG, Section 1, *Goals* (Based on XBRL US GAAP Taxonomies v1.0 Preparer's Guide), page 1. Observed the taxonomy opens with no errors in Altova and Arelle.

Conclusion: Satisfies requirement.

As necessary, the document should contain reference documents and software test results.

Taxonomy Metrics

1. The Taxonomy Must Describe the Disclosed Data

Architecture/Semantics

- 1.1. Requirements Addressed
 - 1.1.1. Business requirements are adequately and clearly described.
 - 1.1.2. Existing system(s), if any, are described adequately and the differences between the proposed Taxonomy and existing system(s) enumerated.
 - 1.1.3. All stakeholders are properly identified and aligned.
 - 1.1.4. Key stakeholder groups are identified as participants in development.
 - 1.1.5. Developer enumerates methods in which the Taxonomy exchanges information more efficiently than existing or alternative approaches.
 - 1.1.6. Developer summarizes 'Actors and Processes' of the above requirements.
- 1.2. Shared Data Elements
 - 1.2.1. The Taxonomy shall define a domain or business Semantic Data Model for the exchange of information including inputs, outputs and data views.
 - 1.2.2. Importable taxonomies and shared data elements are identified.
 - 1.2.3. The characteristics of each data element are defined.
 - 1.2.4. Private/Confidential aspects of the data model are addressed.
- 1.3. Interfacing
 - 1.3.1. Developer defines the typical source data elements and locations and addresses options for data extraction.
 - 1.3.2. Developer defines one or more rudimentary methods of viewing or presenting information in a meaningful way for preparers and consumers.
 - 1.3.3. Developer addresses the level of burden to preparers and consumers on an initial and ongoing basis.
- 1.4. Open or Closed Architecture
 - 1.4.1. The Taxonomy is described as either "open" or "closed".

- 1.4.2. If open, Developer describes the extent and manner preparers can extend the taxonomy, including details of the types of extensions (concepts, dimensions, units, etc.).
- 1.4.3. If open, Developer defines what steps, if any, are required to normalize data.
- 1.4.4. If closed, Developer describes the methods allowed by the Taxonomy to footnote or provide additional information.
- 1.4.5. Developer defines whether XBRL footnotes may be employed and in what manner.
- 1.5. Instance Only
 - 1.5.1. Developer defines whether data within the Taxonomy can be consumed using only an instance document.

2. Support Requirements

- 2.1. Published Documentation
 - 2.1.1. The Taxonomy shall include an Overview Document describing the overall application, justification and approach to the development of the Taxonomy, definitions of concepts within the Taxonomy and required and optional Taxonomy data. The document should also outline revision mechanics and governing bodies.
 - 2.1.2. The Taxonomy shall include a Preparer's Guide to aid in the proper assembly and structure of XBRL instance data and associated linkbases.
 - 2.1.3. The Taxonomy shall include an Implementation Guide to aid system developers in the exportation and importation of instance data components and linkbases.
- 2.2. Implementation Procedures
 - 2.2.1. Developer shall provide internal documentation for the management of the implementation of the Taxonomy.
 - 2.2.2. Developer shall discuss the method of implementation, impediments to implementation and major implementation milestones.
 - 2.2.3. Developer shall include a plan for the operation of governing bodies.
 - 2.2.4. Developer shall define related third parties that may be required or relied upon for implementation.

- 2.3. Revision Procedures
 - 2.3.1. Developer shall provide internal documentation for the methods and procedures pertaining to revising the Taxonomy and its supporting documentation.
 - 2.3.2. Developer shall create public revision procedures that must include review and comment periods.
- 2.4. Tools
 - 2.4.1. Developer shall discuss tools for preparers, such as for validation and accuracy.
 - 2.4.2. Developer shall discuss whether tools shall be provided for consumers.
 - 2.4.3. Developer shall provide at least two sample instance documents.

3. General XBRL Requirements

- 3.1. XBRL Specifications
 - 3.1.1. The Taxonomy shall conform to existing XBRL Specifications published by <u>XBRL International</u> and <u>XBRL US</u>.
 - 3.1.2. Developer shall specify any other standards or groups relied upon to create and maintain the Taxonomy.
- 3.2. Data Architecture
 - 3.2.1. Developer shall describe the overall data architecture, including graphics, as required, to illustrate hierarchical and domain relationships.
 - 3.2.2. Developer shall describe any required parent-child relationships.
 - 3.2.3. For repetitive submissions, Developer shall describe whether various data elements will be reiterated for previous filings and, if so, why. If reiteration is allowed, Developer shall describe a policy for differences from submission to submission.
- 3.3. Data Types and Units
 - 3.3.1. The Taxonomy should employ the most restrictive data types for common values. For example, if a concept can only have non-negative values (regardless of dimensionality), a non-negative data type should be employed.

- 3.3.2. If custom data types or unit types are required for the Taxonomy, the unit type(s) to be used should be specified and a request should be made to add the custom type(s) to the appropriate XBRL registry.
- 3.3.3. The Taxonomy shall express which units are allowed or declare an appropriate Unit Type Registry (UTR), such as <u>XBRL International's UTR</u>, and whether extension units can be used by preparers. Any identified extension units should be added to XBRL International's UTR.
- 3.3.4. The Taxonomy shall express how scaled units should be used, if at all.
- 3.4. Concepts/Elements
 - 3.4.1. The naming of elements shall conform to XBRL requirements.
 - 3.4.2. The naming of elements shall be consistent and clear to avoid overlapping names, excessively terse or verbose names, or ambiguous names and comply with <u>XBRL US Style Guide</u>.
 - 3.4.3. Elements shall be specified for context and dimensional requirements restrictions.
 - 3.4.4. The Taxonomy shall define: (i) required and optional concepts; (ii) mutually dependent concepts; and, (iii) mutually exclusive concepts.
 - 3.4.5. If Taxonomy extensions are allowed, Developer shall specify guidelines, rules and the scope for creating extensions.
 - 3.4.6. Each concept's properties shall be defined to include: (i) the period/context type (relationship in time); and, (ii) any extra information such as balance types, if applicable. These should be in conformance with the Balance Type and Period Type Guide.
- 3.5. Data (Facts)
 - 3.5.1. Each concept shall use a defined data type included in the Taxonomy.
 - 3.5.2. Each numeric concept/fact should use a standard Unit Type from the XBRL International UTR. If a non-standard unit is necessary, the Taxonomy should clearly express the reasoning for the use of such a unit.
 - 3.5.3. Each concept should exist within the presentation or mathematical relationships of the Taxonomy.
- 3.6. Labels and Label Roles
 - 3.6.1. The Taxonomy should only use XBRL International approved label roles.

- 3.6.2. The Taxonomy shall provide for each concept an associated label for each applicable label role.
- 3.6.3. The Taxonomy shall express whether extension concepts require documentation and what that documentation should express.
- 3.6.4. The Taxonomy shall express whether each label role must be unique within an instance and the reasoning behind that choice.
- 3.7. Presentations
 - 3.7.1. The Taxonomy shall define proper abstract usage and comply with the XBRL US Style Guide.
 - 3.7.2. All elements included in the Taxonomy should be represented in a presentation linkbase.
 - 3.7.3. Abstract items should be used to group elements together in logical groupings or headings.
 - 3.7.4. Developer shall define the purpose and scope of default presentations and ad hoc presentations.
 - 3.7.5. Developer shall define whether the concepts specified for use on a default presentation can also be used on other presentations for which the concept is not specified for use.
 - 3.7.6. The Taxonomy shall define mandatory and optional presentations.
 - 3.7.7. The Taxonomy shall define proper abstract usage.
 - 3.7.8. If extensions are allowed, the Taxonomy shall require presentations to define relationships with other elements.
 - 3.7.9. The content generated from XBRL should match the existing system in structure and/or human readability.
- 3.8. Mathematical Relationships
 - 3.8.1. The Taxonomy shall express relationships between concepts as calculations or formulae as applicable.
- 3.9. Normalization
 - 3.9.1. Developer shall define whether normalization of data is required for consumption and, if so, to the extent practicable, the method of normalization.
 - 3.9.2. If normalization is required, Developer shall address any potential issues.

4. XBRL Conformance Requirements

- 4.1. Taxonomy Architecture
 - 4.1.1. The Taxonomy should comply with <u>FRTA 1.0 guidance</u> as published by XBRL International.
- 4.2. Valid Instances
 - 4.2.1. Valid instance documents should be provided with the Taxonomy that demonstrate the use of all fields in the Taxonomy.
- 4.3. XBRL US Conformance Tests
 - 4.3.1. The Taxonomy MUST comply with the XBRL US conformance tests [add links final].
- 4.4. XBRL US Style Guide
 - 4.4.1. The Taxonomy MUST comply with the XBRL US Style Guide.