

XBRL US Domain Steering Committee Taxonomy Review

for

XBRL US Work In Process Taxonomy 2016

As Approved by the DSC on September 8, 2016

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Part A — WIP Taxonomy Review

Purpose and Scope

This document records the findings of the XBRL US Domain Steering Committee (DSC) from the review of the XBRL Work in Process Taxonomy (WIP Taxonomy) version 1.

The DSC's primary purpose is to promote the use of XBRL throughout the United States by developing and supporting documentation, tools and procedures to facilitate the optimal use of XBRL as a platform to exchange business information. As part of its activities, the DSC will review and approve taxonomies based on a set of existing standards and a set of published metrics. The goal is to not only aid in the development of well formed taxonomies, but to also provide support to the team developing and implementing the taxonomy in order to improve the overall quality of the end system.

The review process is conducted by a member or members of the DSC who review the taxonomy along with any supporting documents, e.g., the Taxonomy Guide, the business case, sample instance documents, etc. This review was conducted by Scott Theis, Chair of the DSC.

Description of Work in Process (WIP) Taxonomy 2016

From the WIP Preparer's Guide:

“The purpose of the XBRL US Work In Process Taxonomy is to capture financial information related to work-in-process on construction projects. This information is defined in the financial statements of construction companies and used by insurance companies and banks to provide surety bonding or financing for construction projects.”

The business case proposes that WIP Taxonomy instance documents be submitted by contractors to sureties as a replacement for or supplement to the spreadsheets and/or PDF files that are sent today.

Methodology

The DSC set out to review the WIP Taxonomy via a combination of methods: (i) observing Surety WIP Pilot Working Group (Pilot Group) meetings; (ii) reviewing the actual taxonomy definition with tools and from a human business perspective; (iii) reviewing documents published by the Pilot Group; and (iv) combining interview and working sessions with the document and taxonomy authors. This work was performed between May 2016 and September 2016.

Analysis was performed using two yard sticks: The XBRL US Domain Steering Committee Taxonomy Metrics (working document) and XBRL conformance tests using Fujitsu XWand and XBRL Cloud..

Conceptually, a “red team” approach is taken to review a taxonomy and supporting materials with the principal goal of determining whether the business objectives have been both identified and satisfied.

Findings

The threshold for approval: passes the XBRL US conformance test, meets XBRL specifications and satisfies the DSC Metrics.

The actual WIP Taxonomy has been run through accepted conformance test tools (see section 4) and has been found to pass. The supporting documentation has been reviewed and has been found to meet the requirements of the metrics as specified within this document.

After review, the DSC finds that the WIP Taxonomy and support materials meet the above standards.

Source Materials

The following documents were relied upon and are referenced throughout this document:

- *Data Standards in Surety Underwriting*, a White Paper dated May 2, 2016 (WIP-WP)
- *XBRL US Work In Process Taxonomy 2016 Guide*, dated April 25, (revised) (WIP-PG)
- *2016 Surety Work in Process Taxonomy PR Version* dated January 31, 2016 (located on GitHub, <https://github.com/xbrlus/wip-2016-01-31/tree/v1.0>)
- Sample Instance Documents (Github) (two documents with different entry points)
- *XBRL US GAAP Taxonomies v1.0 Preparers Guide* (UGT-PG)

Part B — Review Against DSC Taxonomy Metrics

Introduction

A series of metrics have been established by the DSC in order to measure the quality of a proposed taxonomy. This chapter reviews each section with the responses marked in blue.

1. The Taxonomy Must Describe the Disclosed Data Architecture/Semantics

1.1 Addressed Requirements

- 1.1.1 Business requirements are adequately and clearly described.

WIP-WP, Problems with the Current Process, page 5.

Reviewed the white paper to determine business requirements are defined.

Conclusion: Determined that business requirements are clearly described.

- 1.1.2 Existing system(s), if any, is described adequately and the differences between the proposed Taxonomy and existing system(s) enumerated.

WIP-WP, Contractor and Surety Process, pages 3-4.

Reviewed the White Paper to determine existing systems and proposed taxonomy were defined.

Conclusion: Confirmed that existing systems and proposed taxonomy were documented in the White Paper.

- 1.1.3 All stakeholders are properly identified and aligned.

WIP-WP, Current Situation, page 3, describes stakeholders as “contractors,” “sureties,” “bonding agents,” and “accountants.”

Observed that all participants agreed with the conclusions in the White Paper.

Conclusion: All stakeholders were identified and aligned.

- 1.1.4 Key stakeholder groups are identified as participants in development.

WIP-WP, List of Working Members, page 14.

Observed that list included representatives for Insurance companies, bonding agents, accounting firms and contractors.

Conclusion: A representative group of stakeholders participated in the development of the taxonomy.

- 1.1.5 Developer enumerates methods in which the Taxonomy exchanges information more efficiently than existing or alternative approaches.

WIP-WP, Alternative Methods to Improve WIP Data Collection, pages 3-7.

Conclusion: Determined that the discussion of alternatives meets requirements.

- 1.1.6 Developer summarizes ‘Actors and Processes’ of the above requirements.

WIP-WP, Executive Summary, page 2.

Conclusion: Satisfies requirement.

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.

WIP-PG, *Work in Process Table*, page 3, covers all elements that are sent by the contractor to the surety.

Through review of working group meeting minutes and recording of working group calls, determined that working group discussed all elements and facilitated discussion with all members to determine that the data they used was included as part of the business process and was incorporated in the taxonomy (logical Model). Further, the public review period gave ample opportunity for feedback from both committee and non-committee members.

Conclusion: Determined that required WIP data points shared by contractor to a surety are included in the taxonomy as described in the WIP-PG, page 4.

1.2.2 Importable taxonomies and shared data elements are identified.

WIP-PG, Section 2.

Reviewed the taxonomy to determine that US GAAP elements were incorporated in the WIP taxonomy. Reviewed US GAAP construction elements to determine that duplicates were not created.

Conclusion: Appropriate taxonomies are used and appropriate elements are identified.

1.2.3 The characteristics of each data element are defined.

WIP-PG, pages 4-10.

Reviewed taxonomy elements to determine that all elements have a definition and a FASB reference where relevant. In addition, determined that elements have balance types where appropriate.

Conclusion: The characteristics of each data element are defined appropriately.

1.2.4 Private/Confidential aspects of the data model are addressed.

Data is confidential between contractors and sureties. A need for confidentiality on specific data items is not addressed or required.

1.3 Interfacing

1.3.1 Developer defines the typical source data elements and locations and addresses options for data extraction.

WIP-WP, *How the XBRL Data Standard Could Support Surety Underwriting*, page 9.

WIP-PG, *What Tools Do I Need*, page 22.

XBRL US Web Site (<http://xbrl.us/surety>) contains demos of two creation tools.

1.3.2 Developer defines one or more rudimentary methods of viewing or presenting information in a meaningful way for preparers and consumers.

Conclusion: Instance data can be viewed in using third party tools such as Arelle, Fujitsu XWAND and Spider Monkey.

1.3.3 Developer addresses the level of burden to preparers and consumers on an initial and ongoing basis.

Determined that taxonomy developers created taxonomy instances to assess the time taken to create and process the document. In addition, the working group made software available which was used by working group participants to tag documents and assess the time taken to create documents. Working group participants deemed this to be reasonable.

Conclusion: The Developer has addressed 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”.
WIP-PG, Section 2, Limit the need for Extensions, page 1.
Conclusion: While it is not clearly spelled out, the intent is that the taxonomy extensions be limited. This is likely to be at the discretion of contractors and sureties.
- 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.).
WIP-PG Section 2 - Discusses this is the intent that a specific surety may require extensions or that contractors would add them ad hoc.
Conclusion: See 1.4.1.
- 1.4.3 If open, Developer defines what steps, if any, are required to normalize data.
Conclusion: Not specifically addressed. Should preparers comply with the taxonomy structure, there should not be a requirement to normalize.
- 1.4.4 If closed, Developer describes the methods allowed by the Taxonomy to footnote or provide additional information.
Not applicable.
- 1.4.5 Developer defines whether XBRL footnotes may be employed and in what manner.
Not defined in the report. Specified that “footnotes” can be specified in a traditional WIP report but are replaced by a number of taxonomy flags.

1.5 Instance Only

- 1.5.1 Developer defines whether data within the Taxonomy can be consumed using only an instance document.
Conclusion: Not specially addressed. WIP-PG, Section 5, Work In Process Taxonomy Physical Structure, pages 16-21, covers the entry points and structure.

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.
WIP-WP and WIP-PG.
Conclusion: Documents provided meet the overview requirements.
- 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.
WIP-PG, Section 7.
Conclusion: Information provided aids preparers in assembling the instance document.
- 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.
Conclusion: Provided as WIP-PG.

2.2 Implementation Procedures

- 2.2.1 Developer shall provide internal documentation for the management of the implementation of the Taxonomy.

The WIP-WP provides information on the working group assembled on pages 2 and 14; and on how the implementation of XBRL for WIP reporting would be managed on page 9.

Conclusion: Information provided explains how implementation would be managed.

- 2.2.2 Developer shall discuss the method of implementation and potential impediments to implementation.

WIP-WP, page 9 (implementation) and page 11 (risks and mitigation).

Conclusion: Information provided adequately reviews implementation challenges.

- 2.2.3 Developer shall include a plan for the operation of governing bodies.

WIP-WP, page 2 (structure of the Working Group) and page 14 (organizations involved).

Conclusion: Information on the operation of governing bodies is provided.

- 2.2.4 Developer shall define related third parties that may be required or relied upon for implementation.

WIP-PG, page 22.

WIP-WIP, page 14.

Documentation addresses software tools that may be required for implementation and provides a list of software providers.

Conclusion: The role of related third parties is addressed.

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.

WIP-PG, *Maintaining and Updating*, page 2.

Conclusion: Satisfies requirement.

- 2.3.2 Developer shall create public revision procedures that must include review and comment periods.

WIP-PG, *Maintaining and Updating*, page 2.

Conclusion: Satisfies requirement.

2.4 Tools

- 2.4.1 Developer shall discuss tools for preparers, such as for validation and accuracy.

WIP-PG Section 6, *What Tools Do I Need*, page 22, references XBRL US.

Conclusion: Relying on third party tools.

- 2.4.2 Developer shall discuss whether tools shall be provided for consumers.

WIP-PG Section 6, *What Tools Do I Need*, references XBRL US.

Conclusion: Satisfies requirement.

- 2.4.3 Developer shall provide at least two sample instance documents.

Conclusion: Samples are located on the XBRL US website.

3. General XBRL Requirements

3.1 XBRL Specifications

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.](#)

3.1.2 Developer shall specify any other standards or groups relied upon to create and maintain the Taxonomy.

[WIP-PG, Section 2, Integration with FASB and SEC Taxonomies.](#)

[Conclusion: Satisfies requirement.](#)

3.2 Data Architecture

3.2.1 Developer shall describe the overall data architecture, including graphics, as required, to illustrate hierarchical and domain relationships.

[WIP-PG, Sections 3-5.](#)

[Conclusion: Satisfies requirement.](#)

3.2.2 Developer shall describe any required parent-child relationships.

[WIP-PG, Sections 3-5.](#)

[Conclusion: Satisfies requirement.](#)

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.

[WIP-PG, Tagging the Instance, page 26.](#)

[Conclusion: Satisfies requirement.](#)

3.3 Data Types and Units

3.3.1 If custom data types or unit types are required for the Taxonomy, unit type to be used should be specified and a request should be made to add the custom types to the appropriate XBRL registry.

[WIP-PG, Units of Measure, page 23.](#)

[Conclusion: There are no custom data types or unit types in the Taxonomy.](#)

3.3.2 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.

[Conclusion: The Taxonomy sufficiently defines data types.](#)

3.3.3 The Taxonomy shall express how scaled units should be used, if at all.

[WIP-PG, Defining Decimals, page 23.](#)

[Conclusion: Satisfies requirement.](#)

3.4 Concepts/Elements

3.4.1 The naming of elements shall conform to XBRL requirements.

Conclusion: Satisfies requirement; concept names conform to camelcase formatting.

- 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 XBRL US Style Guide.

Conclusion: Satisfies requirement; concept names are determined to be clear, consistent and understandable.

- 3.4.3 Elements shall be specified for context and dimensional requirements restrictions.

WIP-PG, Section 3, *Typed Dimensions*, page 10.

Conclusion: Satisfies requirement.

- 3.4.4 The Taxonomy (and preparer rules) shall define: (i) required and optional concepts; (ii) mutually dependent concepts; and, (iii) mutually exclusive concepts.

WIP-PG, *Formula*, page 11.

Conclusion: Satisfies requirement.

- 3.4.5 If taxonomy extensions are allowed, Developer shall specify guidelines, rules and the scope for creating extensions.

WIP-PG, *Limit the Need for Extensions*, page 1.

Conclusion: Satisfies requirement; use of extensions is described.

- 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.

Reviewed taxonomy to determine that balance type attributes and period type attributes were consistent with the FASB Guides.

Conclusion: Satisfies requirement.

3.5 Data (Facts)

- 3.5.1 Each concept should exist within the presentation or mathematical relationships of the Taxonomy.

WIP-PG, *Formula*, page 11.

Conclusion: Satisfies requirement.

3.6 Labels and Label Roles

- 3.6.1 The Taxonomy should only use XBRL International approved label roles.

Reviewed the taxonomy to determine that all label roles used were XBRL International approved label roles.

Conclusion: Satisfies requirement.

- 3.6.2 The Taxonomy shall provide for each concept an associated label for each applicable label role.

Reviewed the taxonomy to ensure that every element has a standard label and a documentation label.

Conclusion: Satisfies requirement.

3.7 Presentations

- 3.7.1 The Taxonomy shall define proper abstract usage and comply with the XBRL US Style Guide.

Conclusion: Satisfies requirement; complies with XBRL US Style Guide.

3.7.2 All elements included in the taxonomy should be represented in a presentation linkbase.

[Conclusion: Satisfies requirement.](#)

3.7.3 Abstract items should be used to group elements together in logical groupings or headings.

[Conclusion: Satisfies requirement.](#)

3.8 *Mathematical Relationships*

3.8.1 The Taxonomy shall express relationships between concepts as calculations or formulae, as applicable.

[WIP-PG, Section 3, *Calculations and Formula*, page 11.](#)

4. **XBRL Conformance Requirements**

4.1 *Taxonomy Architecture*

4.1.1 The taxonomy should comply with FRTA 1.0 guidance as published by XBRL international.

[Conclusion: Satisfies requirement. WIP Taxonomy has been tested for FRTA conformance using Fujitsu XWand and tested against Financial Taxonomy Architecture Tests.](#)

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.

[Conclusion: Determined that valid instances could be created using the taxonomy and that the instance document passed associated XBRL formula and that exceptions were determined to be correctly identified.](#)

[One concept was identified that did not have a value in the instance documents provided for gain loss fade.](#)

4.3 *XBRL US Conformance Tests*

4.3.1 The taxonomy MUST comply with the XBRL US conformance tests.

[Conclusion: Ran the XBRL US conformance tests over the Surety taxonomy. The results are detailed in Part C.](#)

4.4 *XBRL US Style Guide*

4.4.1 The taxonomy MUST comply with the XBRL US style guide.

[Conclusion: Determined that the labels in the Surety taxonomy complied with the XBRL US Style Guide.](#)

Part C — XBRL US Conformance Tests

Ran the XBRL US Dashboard to determine that the PR version of the surety taxonomy passed the XBRL US dashboard on January 31, 2016.

#	Conformance Test	Status
1	Abstract concepts periodType MUST be duration	Pass
2	Abstract concepts data type MUST be a string	Pass
3	Monetary concepts SHOULD have a balance attribute	Pass
4	Concepts that are strings MUST have a duration period type	Pass
5	Label that ends with ", Total" MUST have a corresponding parent with a similar name (current parent base-name is {parent-base-name})	Pass
6	Dashes SHOULD NOT be used in labels	Pass
7	A concept SHOULD not have the same label as another concept	Pass
8	All concepts MUST have a definition	Pass
9	All concepts MUST have a standard label	Pass
10	The standard label of a concept should not contain the word 'Period' unless it is a period increase (decrease) of a roll forward	Pass
11	All reference parts MUST be consistent across the entire taxonomy framework	Pass
12	Abstract concepts MUST have children	Pass
13	Concepts defined in calculation relations, must exist in presentation relations	Pass
14	The calculation Total label MUST be the standard label followed by ", Total"	Pass
15	Calculation Total preferredLabel role MUST be 'http://www.xbrl.org/2003/role/totalLabel' or 'http://xbrl.us/role/negatedTotal'	Pass
16	Calculation Arc MUST NOT participate in a cycle	Pass
17	Concepts must have the same periodType as the corresponding ', Total'	Pass
18	A rollforward SHOULD be labeled '[Roll Forward]'	N/A
19	The first child of a [Roll Forward] MUST be numeric	N/A
20	The label of the first child of a [Roll Forward] MUST end with ", Beginning Balance"	N/A

21	All concepts (anywhere) except the first child of a [Roll Forward] SHOULD NOT have a preferred label role of "startPeriod"	N/A
22	The labels for all concepts (anywhere) except the first child of a [Roll Forward] SHOULD NOT end with ", Beginning Balance"	N/A
23	The last child of a [Roll Forward] must be numeric	N/A
24	The label of the last child of a [Roll Forward] MUST end with ", Ending Balance"	N/A
25	All concepts (anywhere) except the last child of a [Roll Forward] SHOULD NOT have a preferred label role of "endPeriod"	N/A
26	The labels for all concepts (anywhere) except the last child of a [Roll Forward] MUST NOT end with ", Ending Balance"	N/A
27	The [Table] concept MUST be abstract	Pass
28	The [Table] concept MUST have at least one [Axis] child	Pass
29	The [Table] concept MUST have exactly one [Line Items]	Pass
30	The [Table] concept MUST NOT have children other than [Axis] or [Line Items]	Pass
31	An [Axis] concept MUST only appear as a child of a [Table] concept	Pass
32	All descendants of an [Axis] MUST have a datatype of 'us-types:domainItemType'	Pass
33	[Axis] children MUST be a [Domain]	Pass
34	The [Domain] concept MUST have only [Member] children	Pass
35	The [Member] concept MUST have only [Member] children	Pass
36	The [Line Items] concept MUST be the last item in a [Table]	Pass
37	The [Line Items]concept MUST have at least one child	Pass
38	[Line Items] MUST NOT have [Table], [Axis], [Line Items], [Domain], or [Member] as a descendant	Pass
39	The [Axis] concept MUST be abstract	Pass
40	The [Line Items] concept MUST be abstract	Pass
41	A calculation parent MUST have the same period type.	Pass
42	Deprecated elements must have a deprecated label	N/A
43	Deprecated elements may not participate in other presentation or calculation relationships	N/A

44	Deprecated elements should have definition relationships to map to the correct concept.	N/A
45	Deprecated elements must have a deprecated date	N/A
46	Only non deprecated elements can be on the "From" side of a deprecated definition relationship.	N/A
47	Only deprecated elements can be on the "to" side of a deprecated definition relationship.	N/A