STAFF PAPER

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ITCG Meeting

Introduction

1.   The first version of the IFRS Taxonomy was released back in 2002. Since then, the IFRS Taxonomy has been through a number of iterations in order to reflect new and amended IFRS Standards and to update the XBRL architecture.

2.   The objectives of this paper are:

   (a)   to update members of the ITCG on the current processes used to control and identify the version of the IFRS Taxonomy; and

   (b)   to start to discuss other potential version control options that might benefit users of the IFRS Taxonomy.

3.   The version control of the IFRS Taxonomy and the items within the taxonomy is potentially a complicated and interlinked discussion. For the purposes of this paper, we have divided the topic into four main areas:

   (a)   the scope of the IFRS Taxonomy versioning;

   (b)   the version control identifier;

   (c)   tracking and communicating changes to the IFRS Taxonomy; and

   (d)   dealing with old or outdated elements.

4.   It is worth bearing in mind that changes in one of these areas might well affect, or require changes in, another area in order to make best use of the version control.

5.   For each area, we will briefly introduce the current approach used and touch on some known alternatives and some of the potential benefits and problems.

6.   The details of version control information used internally by the IFRS Taxonomy team and the information communicated for use by users do not need to be the same. For example, the IFRS Taxonomy team may wish to have a detailed record of historical changes for every item in the taxonomy, communicate a summary or subset of this information to users and only use version identifiers in the taxonomy files at a higher (modular or taxonomy package) level.

Scope of the IFRS Taxonomy version control

Introduction

7.   Version control and tracking can be applied at different levels of detail or with different scopes across a taxonomy. For example, changes could be tracked and identified to a whole taxonomy at a time, to files or small groups of items or to individual taxonomy items.

8.   For this discussion, we will consider the following three general options, but there are other ways in which a taxonomy could be divided for version control purposes:

     (a)   version control of the whole taxonomy package;

     (b)   version control of specific 'taxonomy modules'; or

     (c)   version control at 'individual taxonomy elements level'.

Current practice—version control by taxonomy package

9.   The IFRS Taxonomy versions are currently tracked and identified with a version for each whole taxonomy release or package. All elements and extended link roles ('ELRs'), including those that have not changed, are published with new namespaces and under new filenames. This does, however, mean that any change to the IFRS Taxonomy results in a new version of the whole taxonomy.

10.   The advantages and disadvantages for our current approach include:

Advantages	Disadvantages
The version changes are easy to follow—any change or update results in a new taxonomy package with a new version identifier. Communication of the version of taxonomy in use is also relatively simple.	Depending on the version identifier for the package, all taxonomy files may need updating for even small changes—this is the case for the existing IFRS Taxonomy. There is no identification or documentation within the taxonomy indicating where within the package changes have been made.

Version control by taxonomy module

11.   The IFRS Taxonomy would be divided into modules and then change-tracked and identified at the level of each of these modules. The modules need not be the same as those currently used for the IFRS Taxonomy file structure, but it is most likely that the file structure would follow the same organisation.

12.   An example of a type of modular version control was used in the IFRS Taxonomies released before 2013. Taxonomy updates to the annual IFRS Taxonomy had version identification applied via each ELR as well as other more detailed version identification. Under this approach, each interim release contained additional entry points that imported only the ELRs that had been amended. Other examples could include modules based on type of disclosure (for example, common practice) or area of the financial statement.

13.   Advantages and disadvantages of modular version control might include:

Advantages	Disadvantages
The ability to update the taxonomy package both as a whole and by module. A better idea of which areas of the taxonomy have been changed.	Identification of the version of the taxonomy or modules in use could be more complicated. Changes affecting multiple modules might be harder to track for some users.

Version control of individual taxonomy elements

14. In this approach changes are tracked for each of the individual elements of a taxonomy schema. Exactly which changes are tracked for individual elements and the storage and communication of these changes is something that would need further investigation and specification.

15. The advantages and disadvantages include:

Advantages	Disadvantages
A very detailed knowledge of where changes have been made and how often individual elements have been updated.	There are a number of associated resources for an item in the IFRS Taxonomy. It may not always be clear which changes have contributed or should contribute to the change in an element version.
	The level of change detail may be confusing or excessive for some users.

Question 1

Do you consider the current scope of the IFRS Taxonomy versioning to be appropriate? If not, which other option should we consider and why?

Selection of the version identifier

Introduction

16. A version control identifier is used to indicate to which version taxonomy items (eg elements, schemas and ELRS) belong to, or to indicate that there has been a change.

17.   There are a number of options that can be considered when selecting a versioning control identifier. These include:

(a)   XML namespace with date stamp or other version indicator;

(b)   filenames with date stamp or other version indicator;

(c)   a dedicated version identification attribute in files or on items; and

(d)   version identification documentation provided using either an XML-based mechanism or one of the XBRL mechanisms for labelling and documenting.

Current practice—date identifiers in namespace and filename

18.   The IFRS Taxonomy versioning identifiers are dates found in both the namespaces and the filenames. The namespace consists of a date stamp and additional strings of characters to indicate the specific IFRS Taxonomy module. The filenames are constructed to include the type of file, information contained within that file and a version date. For example:

Namespace	http://xbrl.ifrs.org/taxonomy/**2015-03-11**/ifrs-full
Filename	full_ifrs_entry_point_**2015-03-11**.xsd

19.   Other schemes for version identifiers such as version numbers or names could also be used in place of the dates.

20.   Some advantages and disadvantages include:

Advantages

The version of the IFRS Taxonomy in use is always clear in instances and extension taxonomies—the namespace is always referred to.

Because the version is contained in the namespace, which is attached to every

Disadvantages

The version of an element always changes with each release, which means that item mappings and comparisons will need to take this into account.

Without additional documentation, it is not clear which items within the taxonomy have

element, elements from one taxonomy release cannot be confused with elements from a different release.

changed.

Changing the version in the filename may also affect systems that are loading and mapping to a new version of the IFRS Taxonomy.

Dedicated version attributes

21. Because XBRL is based on XML, additional attributes can be added to some elements in files to provide version information. These attributes can then include version information at different levels within taxonomy files, using whatever scheme is appropriate, for example major and minor version number or date of release.

22. For example:

   (a) including the version date (as in current practice) in a taxonomy version attribute at the top level of each file; or

   (b) including an attribute containing a file version in each taxonomy file.

23. The advantages and disadvantages of such an approach would partly depend on the scope of the version control that had been applied and communicated to the users of the IFRS Taxonomy. An identification of the version for users would be needed for any scope of version control.

Version identification documentation

24. An alternative mechanism for indicating the version of a taxonomy or file would be to add documentation including any version identifiers and also any additional documentation required to understand that version. Additional documentation might include change descriptions, change reasons etc. This additional documentation could also be used to aid users by contributing both to internal change management and to the communication of changes.

25. Mechanisms for embedding additional version documentation within the IFRS Taxonomy include:

(a)   making use of XML documentation mechanisms such as comments and annotation and appinfo (these would most likely not be supported by XBRL software and would therefore be used more as internal documentation or documentation for software developers);

(b)   using XBRL labels with custom label roles to ensure that their purpose is clearly identified; and

(c)   XBRL Formula—this could easily be an overcomplicated solution, however.

26.   Examples of change documentation used within a taxonomy can be seen in the US GAAP Taxonomy, which makes use of XBRL labels to provide change information within the taxonomy distributed to users.

27.   Advantages and disadvantages for the use of additional documentation include:

Advantages	**Disadvantages**
Inline change information is always distributed with, and associated with the taxonomy.	Additional documentation may require more resources from the IFRS Taxonomy team (depending on the change tracking mechanisms and level of manual addition).
Inline version or change information can be associated directly with the specific areas or items that have changed—especially if making use of XBRL linking mechanisms.	It may not be easy to see or analyse what has changed if this is the only documentation available or if a user does not have XML or XBRL tools. Retaining the versioned ITI (see *Additional options for tracking and communicating changes*) could mitigate this however.
More information on the version and change may be available to users than at present (depending on the scope of version control and tracking).	

28.   Additional documentation could be stored in a taxonomy development tool and be output as a document distributed with, but not as a part of, the IFRS Taxonomy. This would have the advantage that users would receive additional information about the version of sections or items within the taxonomy, but it would not add additional complexity to the taxonomy itself. It would however not have the advantages that

inline documentation has, as detailed in the table above.

Question 2

In your view, is the current approach of date identifiers in namespace and filenames used for the IFRS Taxonomy the most appropriate? Are you aware of any other alternative we should consider?

Tracking and communicating changes to the IFRS Taxonomy

Introduction

The communication of changes made to the IFRS Taxonomy requires us to have internal mechanisms to either track the changes we have made or identify those changes once made, or both.

Current practice

29.   We currently track all changes that are made to the content of the IFRS Taxonomy. These are:

(a)   addition and deletion of new elements;

(b)   changes in labels and element references; and

(c)   editorial corrections.

30.   These changes are tracked as part of the development process for the IFRS Taxonomy. The overall process has two steps:

(a)   specifying the operations to be performed on the Taxonomy; and

applying those operations on the existing IFRS Taxonomy.

31.   The specification is a machine-readable list of operations, which are then uploaded in sequence. The outcome of this process is a new version of the taxonomy. The tracking information that we currently store is the sequential list of operations applied on the taxonomy. We track only change information that directly results in changes to

the IFRS Taxonomy content and this tracked change information is available only for internal use.

32. The changes related to the technology of the IFRS Taxonomy are performed manually and are not formally tracked, other than by description in a *Taxonomy Update* document.

33. The following materials are used to communicate content changes:

(a) currently tracked information:

list of changes applied on the XBRL IFRS Taxonomy content for each IFRS *Taxonomy Update*;

(b) Communicating change information using:

(i) the versioned IFRS Taxonomy Illustrated 'ITI' (human- readable HTML content);

(ii) XML report (machine-readable XBRL content); and

(iii) The *IFRS Taxonomy Update* documents.

34. The versioned ITI and XML reports are both produced by analysing the changes made to the IFRS Taxonomy once those changes have been applied.

35. Changes that are made to the technology of the IFRS Taxonomy are communicated through the *IFRS Taxonomy Update* documents and the (technical) *IFRS Taxonomy Guide*. Currently, changes to the technology and the content of the IFRS Taxonomy are not conveyed within the IFRS Taxonomy files.

Additional options for tracking and communicating changes

36. Additional or alternative mechanisms for tracking change information include:

(a) software designed to assist with tracking versions across multiple files and users such as Concurrent Versions System (CVS) and Subversion (SVN);[1]

(b) a bespoke taxonomy development system with similar version control capabilities; and

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[1] CVS is a software revision system that tracks of all work and all changes in a set of files. It is mostly used in software development field, because it allows many developers to collaborate.

(c)   include change information within the taxonomy using a change label or custom reference. This could then additionally be used as part of change communication.

37.   Additional change communication material could include:

(a)   change information within the published taxonomy (as above in Version identification documentation);

(b)   historical change information for items, modules etc; and

(c)   explanations for or other details about changes as additional documentation—within the taxonomy or separately (see the section on Version identification documentation).

38.   The impact of the changes above would depend in part on how well the methods used internally to track changes to the taxonomy supported the production of change documentation for communication purposes. If the change documentation is supported directly by the change tracking system, then this may improve the efficiency of the taxonomy development process. The scope (or detail) of version control may have an impact on the maintenance of change documentation—especially if there are aspects requiring manual production or management.

Question 3

Do you think that the current level of tracking and communicating changes is satisfactory? If not, what other mechanisms should we consider?

Dealing with old or outdated elements

Introduction

39.   This section will only focus on broader aspect of dealing with old or outdated elements. More specific matters regarding the current approach that require immediate actions have been excluded from the following section. They are covered in Agenda Paper 6A (Slides 3-10).

40. The IFRS Taxonomy evolves along with the Standards and is also subject to periodic correction and change. Some of these updates result in elements that are considered to be redundant and that should not be applied when making use of the taxonomy.

41. Changes that may result in an item needing to be retired in some fashion include:

    (a) a correction to an existing IFRS Taxonomy element that substantially changes the meaning. In this case a new element is usually created to avoid any confusion or lack of comparability with systems and filings making use of the replaced item;

    (b) an amendment in a Standard that results in a substantially changed meaning, or form, for the disclosures an element represents; and

    (c) a new Standard adding disclosures that entirely replace those represented by the existing IFRS taxonomy items.

42. Items replaced by amended or new Standards usually have specific expiry dates (and the replacement items will usually have equivalent effective dates). The option given to preparers to adopt a new Standard before the effective date means that both the old and replacement item may be active in the IFRS Taxonomy at the same time.

43. At the moment, these items are moved from the core schemas into a deprecated schema (see below). There are a number of changes we could make to this mechanism: some add to the current or any alternative mechanism (additional documentation and other information), while others would involve a complete change in the way these items are handled (items remaining in place within the presentation, deprecated item sections within the presentation linkbase). Because the location where a deprecated items is presented does not depend on which file it is stored in, all of these alternatives could continue to function with a separate deprecated items schema *or* with the items remaining in the core schemas.

Current practice—the deprecated schema

44. In the IFRS Taxonomy 2015 deprecated schema there are 297 elements (about 5 per cent of the total number of elements in the IFRS Taxonomy). Items replaced or

expired are moved from one of the core schemas to the deprecated schema during the IFRS Taxonomy annual release or an IFRS *Taxonomy Update*.

45.   All deprecated elements are placed in single schema and a single namespace. As a result, all the deprecated elements also have the same prefix. The date is set (when the item is deprecated) to be equal to the previous year's namespace for the annual IFRS Taxonomy (for example, for the IFRS Taxonomy 2015 deprecated schema the namespace is http://xbrl.ifrs.org/taxonomy/2014-03-05/ifrs).[2] The deprecated schema namespace replaces the one used in the version of the IFRS Taxonomy from which the element was originally deprecated.

46.   For each element there are two labels supplied: the reason for deprecation and the date when the element was deprecated. The original labels assigned to the element before deprecation are removed. During the life cycle of an element, the labels could change, so sometimes the deprecated element's name does not reflect the meaning of the label that was assigned prior to the element's deletion from the core schema and this might be confusing.

47.   The deprecated schema also removes the elements from all the entry points for usable taxonomy elements and they are no longer found in any of the presentation views. This means that for the most implementations of the IFRS Taxonomy, deprecated elements become unavailable for use in filing.

48.   The IFRS Taxonomy deprecated schema could remain, but the current namespace scheme and version identification could be changed and there other improvements we could consider if this mechanism is retained (see Agenda Slide 6A).

Advantages	Disadvantages
It is clear which items have expired or been removed for other reasons. They are not visible to preparers under most normal circumstances and if they are opened they	The deprecated items can no longer be seen in their original contexts or with their original labels. Because an item is moved into the deprecated

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[2] A diagram describing the IFRS Taxonomy file structure, including where the deprecated schema sits, can be found in the architecture guide—http://www.ifrs.org/XBRL/Resources/Pages/IFRS-Taxonomy-Architecture.aspx

have clear labels indicating that they are deprecated.

schema as soon as it expires, that item is no longer available in that version of the taxonomy for filing. If a jurisdiction has alternative effective and expiry dates, they will no longer be able to access these taxonomy items.

Additional information with deprecated items

49.   At the moment the main documentation and context provided with deprecated items is a deprecated label and a deprecated date. We could consider both retaining more of the resources and information that an item had in the taxonomy before being deprecated and also the addition of further or more formalised documentation about the reasons for the deprecation.

50.   Information from the taxonomy that could be retained might include:

(a)   Labels—some or all of the labels could be retained to help identify the deprecated item more clearly.

(b)   References—while the description of the reason for deprecation will indicate why the item was deprecated, the references to the Standard could help users to understand the impact of the changes.

51.   Additional information could include further change documentation as discussed in the section on *Version identification documentation*.

52.   Adding additional items to deprecated items could help inform users and allow a better understanding of the changes made.

Deprecated items within the presentation

53.   Retaining relationships such as presentation and calculation would effectively leave an item visible in the IFRS Taxonomy alongside the new items and items that have not been deprecated. Similarly, deprecated items could be moved into specific presentation sections (or Extended Link Roles) in order to retain the context of the

item within the taxonomy. A deprecated schema could still be used in either of these cases or the items could remain within the IFRS Taxonomy core schemas.

54. It is most likely that this approach would be used alongside clear documentation indicating that an item has been deprecated, which might include the existing deprecated label and date and possibly a replacement default label. Other additional documentation is discussed above and in the section on *Version identification documentation*. It would also be important to allow regulators flexibility in the handling of these items and their use within jurisdictions.

55. Advantages and disadvantages to this approach include:

Advantages	**Disadvantages**
Deprecated items retain at least some taxonomy context depending on the approach, making it easier to see where the items came from and why they might be deprecated.	The deprecated items could be mistakenly applied in place of more appropriate newer items, if they are taken out of context or if their documentation is not clearly visible in tagging software.
Deprecated items remain visible within the taxonomy and are therefore potentially available to preparers and other users (depending on regulatory requirements).	The taxonomy presentation would be larger, potentially making navigation of the taxonomy more confusing.

Question 4

When we remove elements from the IFRS Taxonomy are we doing that in the most useful way? If not, what other options should we consider?

Question 5

Should we provide more information about retired/deprecated items (such as original labels, references or other)?