XBRL
eXtensible Business Reporting Language

And Now For Something Completely Different: XBRL GL, Taxonomy Design and Extensibility Issues

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Background

- XBRL's Global Ledger Framework is all XBRL - but made especially for an XML Schema world. Because XBRL GL, which uniquely and holistically bridges transactions to end reporting, cuts data from a different cloth than traditional XBRL end reporting - but using the same technical specification - certain design decisions were made, philosophical, technical and practical. In this session, we discuss some of the thought that went into the taxonomy design of the XBRL Global Ledger Framework.

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Agenda

- In this session you will learn about taxonomy decisions and design philosophy related to:
  - Reaching the tuple tipping point - issues related to heavy tuple usage (because of record-oriented business reporting data)
  - Dealing with the Es with ease - Extensibility in a tuple world, especially enumerations
  - And other considerations!

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Philosophy and XBRL GL

1. Represent what is found in the databases of accounting and operational systems. Stay away from calculated fields.
2. Represent both the exact content (audit) of those databases while allowing for normalization of key fields (data transfer).
3. Allow both modular and monolithic approaches to data representation
4. Use a generic and reusable approach where appropriate
5. Specialize only where absolutely needed
6. The originating document is key to the audit
7. The primary amount is key to the audit
8. XBRL GL should not be used for "transactions"
9. XBRL GL should leverage the power of XBRL but be familiar to non-XBRL experts

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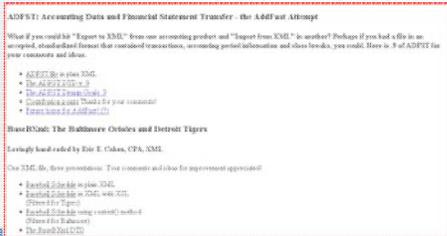

XBRL GL History

- XBRL GL begins as DTD-based AddFast!
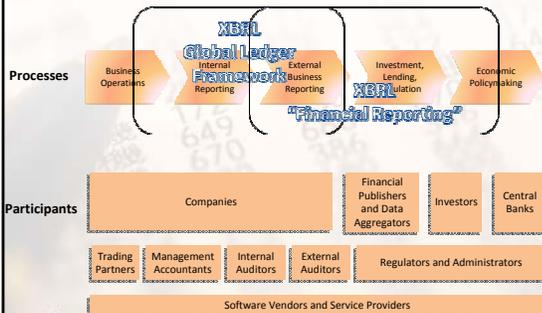 - Accounting Data and Financial Statement Transfer

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Business Reporting Supply Chain

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So XBRL

- Was to be designed to support
  - Reporting
  - The information that flows to reporting
  - The information that accompanies reporting for audit and other purposes
- And that's why XBRL GL is XBRL
- Even though the Specification isn't always very XBRL GL friendly …
- Exhibit A: the ever changing world of *tuples*

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What's a Tuple?

A record holder
Rows of a database
"A term meaning a group of items which must be kept together to be understood. The XBRL tuple element is a container used to hold items together. "

Tipples

http://www.bctruffles.org/

Tuppence

Tuplets

http://www.tupperware.com Draft - 2007-11-18

Ledger Data: Highly Record-Oriented

- XBRL GL's taxonomy is about the database columns of an ERP-type system (data fields from a database)
- XBRL GL's instances are about the database rows
- Therefore
  - XBRL GL is tuples within tuples within tuples

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Along Come XBRL 1.0, 2.0, 2.0a …

- Yes, there were *tuples* in the XBRL Specification dated 2001-07-31 **(1.0)**. There were also *groups*. There was a rollup, but no fruit. Groups could be used for tuple instances. XBRL community holds off on XBRL GL, so XBRL GL in 1.0 is found only in the lab
- XBRL 2.0/a brings the adoption of XML Schema. Inherited attributes give way to *contexts*, complicating GL's instance. Rollups give way to presentation, calculation and definition links. There is no use of the XML Schema document content model. Groups hang around for another iteration. XBRL GL 1.0 is published.

And Then Came 2.1

- Tuples are now represented using complexType (elements with content other than simple data) – the traditional XML document content model
- SchemaLocation gives way to SchemaRef …
  - Good news related to XML validation
  - Bad news related to XML validation

And FRTA

- Financial Reporting Taxonomies Architecture
  - Do duplicate records make sense?
  - Or require some fact to differentiate them so the consumer knows information hasn't been duplicated.

And Then There's Dimensions

- Extensible enumerations for segment and scenario
- But …

Opportunities

- XBRL GL is highly modular
- Presentation/definition linkbases in 2.0a gives way
- Extensibility in a complexType world
  - Extensibility of structures
    - XML Schema's redefine
    - XBRL's definition links: similar-tuple
  - Extensibility of enumerations
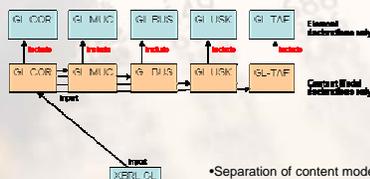 - Should extensibility rely on similar-tuples?

GLTFTA

- The GL version of FRTA
- What you need to know to extend XBRL GL
  - (But we sorta hope you don't!)

- Separation of content model from element declaration
- Change structures without touching elements
- Modify enumerations as necessary

GLTFTA

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Issues

- Tuple issues
  - Introduction of Abstracts for classification (and issues with abstracts and tuples)
    - Presentation usage ONLY
  - Changing expectations of tuples
    - Once for repeated items only (see documentInfo)
    - Now controllable with minOccurs, maxOccurs
- Context issues
  - Segment and scenario
  - Dimensions
- Extensibility issues
  - Keeping the framework's integrity while allowing customization

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Issues

- Need for Profiles
  - Can I have my GL designed specifically for a specific document, purpose or file representation?
  - Can I add additional rules?

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