Tagging Notes Disclosures -
Experiences and Lessons Learned

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DISCLAIMER

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Experiences & Lessons Learned Agenda

- Know your business requirements & users
- Data Aggregator Expectations
- Robust Data Model
- Dimensions
- Extensions
- Calculation Relationships
- General

Know your business requirements & users

- Simple to complex
- All taxonomies are not created equal
- Model according to the objective of the standard/rule

Considerations include … Simple compared to complex

- Closed
- Form based
- Defined data set
- Restricted modeling
- No extension taxonomy
- Restricted use of ELRs
- Small ecosystem
  - Few creators
  - Few vendors
  - Few users
- Controlled ecosystem
- Low interoperability expectation

- Open
- Flexible reporting
- Complex data set
- Flexible modeling
- Extension taxonomy required
- Create own ELRs
- Large ecosystem
  - Many creators
  - Many vendors
  - Many users
- Market driven ecosystem
- High interoperability expectation

Know your business requirements & users

- Focus on data aggregator and user requirements particularly for version control. Important to understand their needs and what works for them
- Analysts require more than the financial statements cover including earnings release and MD&A.

Data Aggregator Expectations

- Extensions are a concern but manageable
- Greater coverage of the 10K and 10Q
- Tagged earnings release
- Relationships matter
- Much analysis is performed based on topic
- How to identify changes from filing to filing and taxonomy to taxonomy
- Prefer tabular information over narrative
- Expressed concern that service providers are providing conflicting guidance

Know your business requirements & users

- There are multiple ways to find the data. Don't presume there is one right way
  - Hypercube elements are 'fancy abstracts' for tables. If they were used consistently, they could be helpful to users.
- Important to understand the intent of the standard or rule that you are modeling. There are often multiple ways to model the same things but the objective of the subject matter author should drive the decision.

Robust Data Model

- Validate all tagging schemes with a comprehensive data model
- Important to understand the different types of relationships that are being used – presentation, calculations, dimensions, other…
- Important to think of disclosures as a disaggregation of primary financial statement line items
- A well-formed data model is critical when using dimension

Data model

From Wikipedia, the free encyclopedia

A high-level **data model** in business or for any functional area is an abstract model that documents and organizes the business data for communication between functional and technical people. It is used to show the data needed and created by business processes.

A **data model** in software engineering is an abstract model that documents and organizes the business data for communication between team members and is used as a plan for developing applications, specifically how data are stored and accessed.

According to Hoberman (2009), "A data model is a wayfinding tool for both business and IT professionals, which uses a set of symbols and text to precisely explain a subset of real information to improve communication within the organization and thereby lead to a more flexible and stable application environment."[2]

A data model explicitly determines the structure of data or *structured data*. Typical applications of data models include database models, design of information systems, and enabling exchange of data. Usually data models are specified in a data modeling language.[3]

Communication and precision are the two key benefits that make a data model important to applications that use and exchange data. A data model is the medium which project team members from different backgrounds and with different levels of experience can communicate with one another. Precision means that the terms and rules on a data model can be interpreted only one way and are not ambiguous.[2]

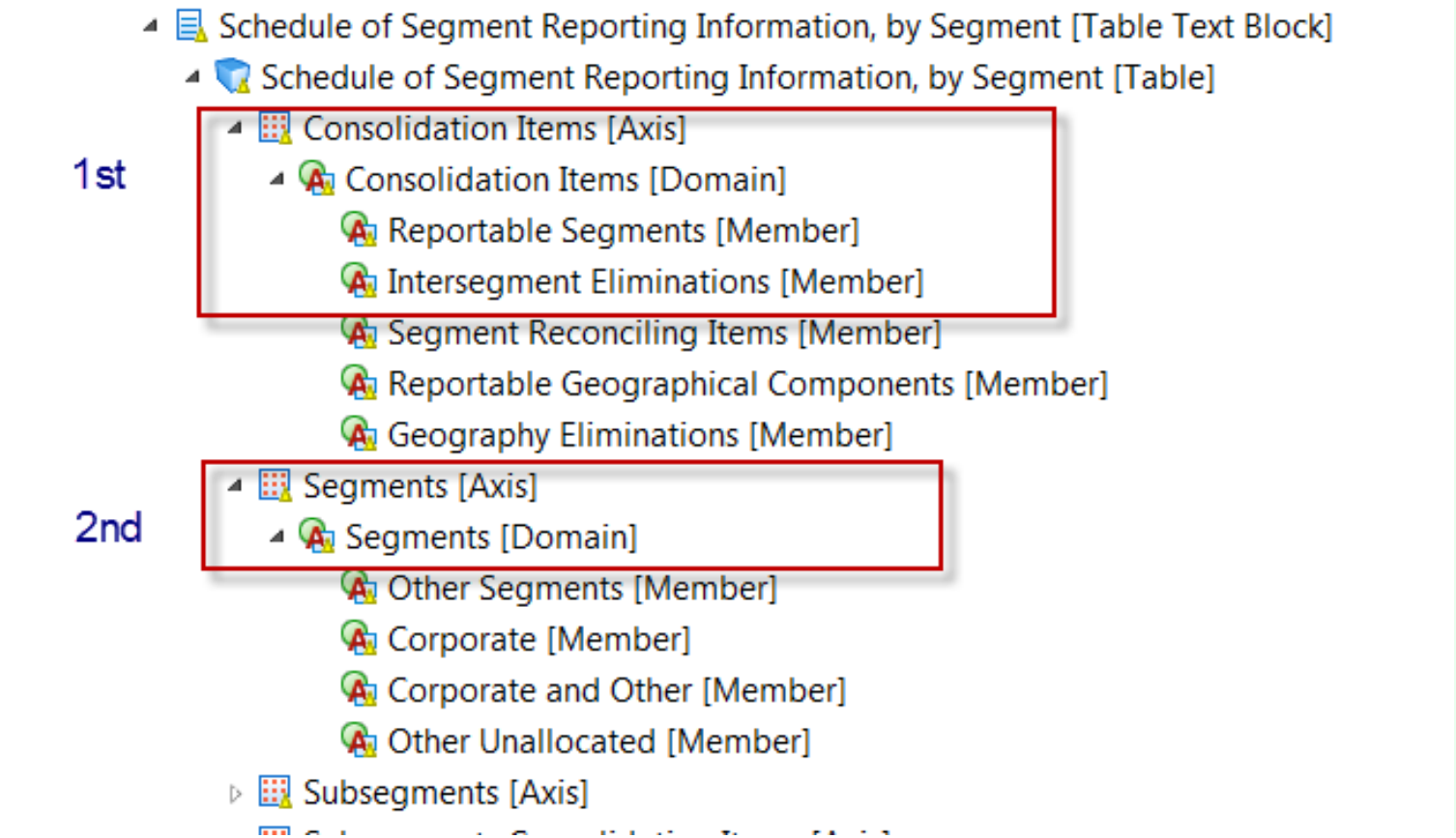
A data model can be sometimes referred to as a data structure, especially in the context of programming languages. Data models are often complemented by function models, especially in the context of enterprise models.

Data Modeling Example

Segments

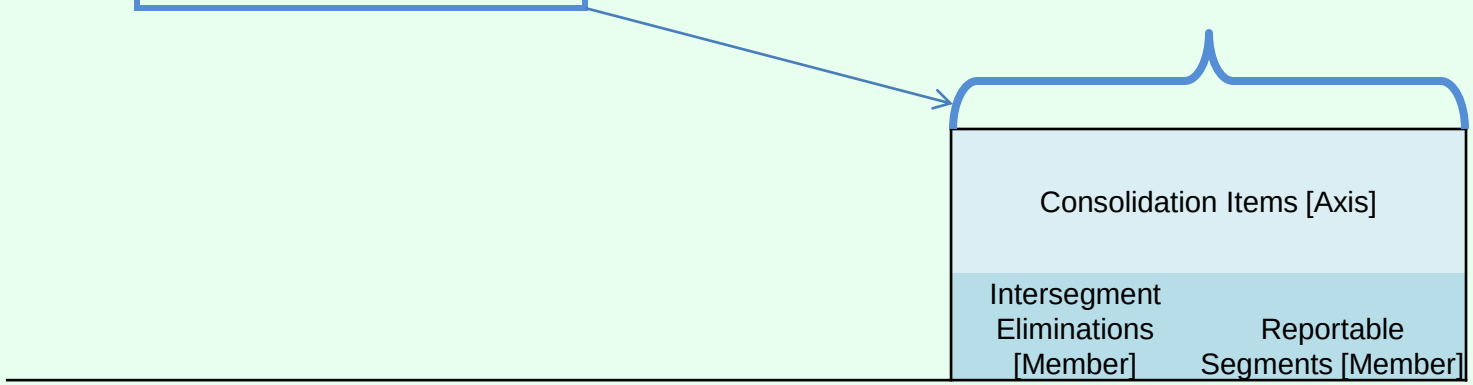
- Deprecated elimination line item elements specific to segments
- New dimensions were created to properly report disaggregation
  - Consolidation Items [Axis]
  - Subsegments [Axis]
  - Subsegments Consolidation Items [Axis]
- Elimination elements relocated to Consolidation Items [Axis]
- New members created for inter-segment, inter-subsegment, inter-geography and inter-company eliminations

Segments


Schedule of Segment Reporting Information, by Segment [Table Text Block]
Schedule of Segment Reporting Information, by Segment [Table]
1st
Consolidation Items [Axis]
Consolidation Items [Domain]
Reportable Segments [Member]
Intersegment Eliminations [Member]
Segment Reconciling Items [Member]
Reportable Geographical Components [Member]
Geography Eliminations [Member]
2nd
Segments [Axis]
Segments [Domain]
Other Segments [Member]
Corporate [Member]
Corporate and Other [Member]
Other Unallocated [Member]
Subsegments [Axis]

Segments

(In millions)	External sales and revenues	Inter-segment sales & revenues	Total sales and revenues
Segment Q	$ 19,667	$ 575	$ 20,242
Segment R	15,629	1,162	16,791
Segment T	20,114	2,339	22,453
Total	$ 55,410	$ 4,076	$ 59,486



Revenues	55410000000	4076000000	59486000000

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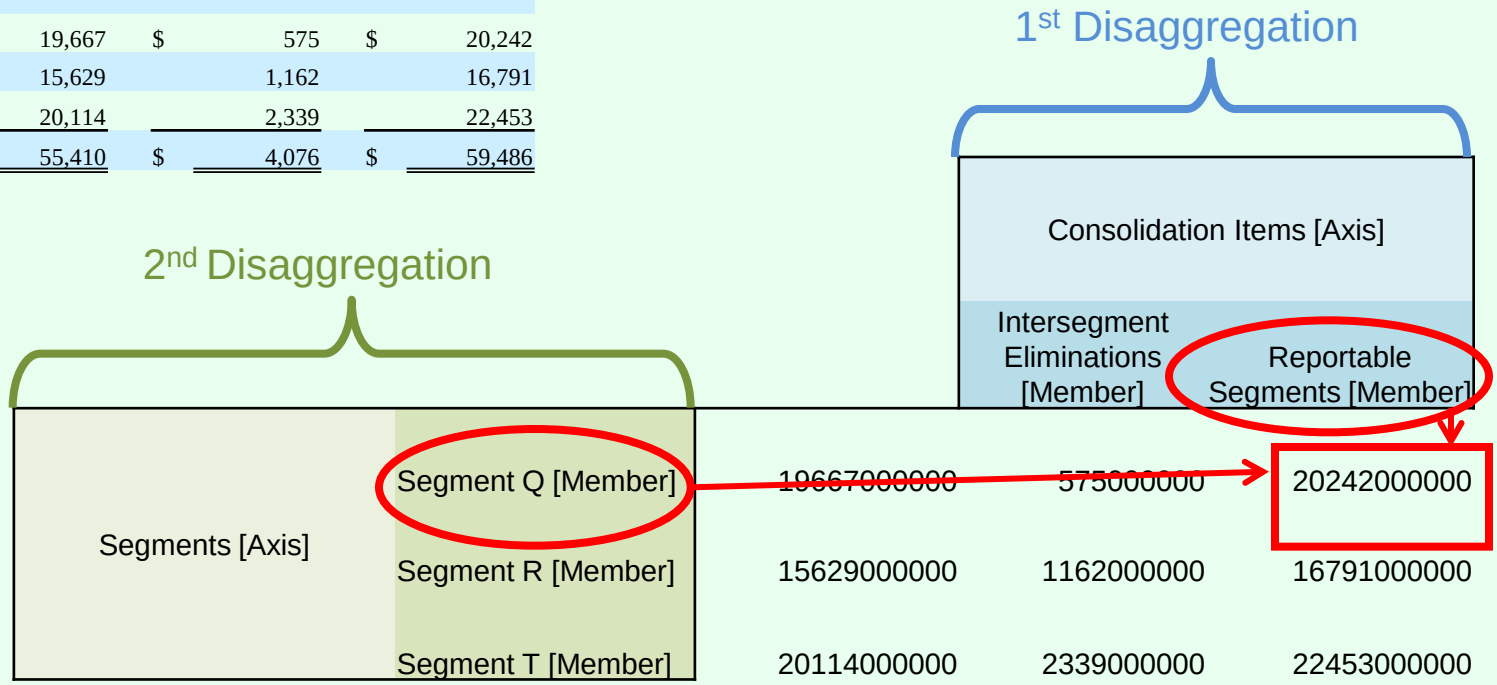

Segments

59,486 is not reported but is implied aggregate of reportable segments

(In millions)	
Segment A	$ 20,242
Segment B	16,791
Segment C	22,453
Intersegment Sales & Revenues	(4,076)
Revenue	$ 55,410

1st Disaggregation

2nd Disaggregation

Revenues	Consolidation Items [Axis]	Reportable Segments [Member]	Segments [Axis]	Segment A [Member]	20242000000
Revenues				Segment B [Member]	16791000000
Revenues				Segment C [Member]	22453000000
Revenues		Intersegment Eliminations [Member]			4076000000
Revenues					55410000000

Segments – Key Points

- Various presentations are reported with a common data model
- Segment disclosures are commonly multistep disaggregations
- Eliminations are not a segment and should not be included on the segment axis or as line items
- Segment values need to be differentiated from entity-wide values

Dimensions

- Dimensions are not as complicated as they at first seem and provide the best mechanism for consistency and comparability although it does bring with it a higher chance for misapplication
  - Implementation guidance is important

Dimensions

- A primary use for Dimensions is to meet syntactical requirements, i.e., the same primary line item cannot have two facts in the same context. We are using Dimensions beyond this basic requirement to convey important semantic meaning, e.g., Subsequent Event Dimension is to identify an attribute.

Dimensions

- Concepts that are understood to be primary line items on the Primary Financial Statements should not be modeled as members
- Generally, dimensions should only be specific to a hypercube when limiting its use
- Hypercube elements [Table] could be useful if they are used consistently

Dimensions

- Use dimensions on the primary financial statements from the start – focus on the data, not the rendering
- Data point model is likely the way forward but requires a robust understanding and respect for data modeling and may not be necessary for simpler requirements

Extensions

- Proper extensions are not ‘evil’. They help identify company specific differences
- Dimension extensions are ‘evil.’ They make every data point in the dimension an unknown – lock these down if you can
- Line item extensions are not desirable but manageable through relationships

Extensions

- Extensions without meaningful presentation, calculation, or dimension relationships are ‘lost’. Best to require all extensions to have at least one of these relationships to a related base taxonomy element.
- More concerned about inappropriately used elements. Hard to identify

Calculation Relationships

- Calculations are useful – not so much to validate mathematical accuracy but to express summation relationships, but …
- Calculations are a poor substitute for expressing secondary relationships – use Dimensions instead

General

- Avoid providing two different ways to tag the same fact
  - Results when using dimensions in a fragmented manner and separates statements from disclosures.
- Text blocks have turned out to be very useful
  - Need a mechanism to link detail tagged values into ‘text blocks’. Maybe inline XBRL is the solution but shouldn’t be required.
- All monetary items should have a balance attribute. Helps control incorrect polarity value.

General

- Element definitions are important because they help the preparer better differentiate similar concepts. Lack of definitions will result in preparer generated ‘normalized’ data. This is not the intent of XBRL.
- Choosing instant or duration period type for an element depends more on its syntax than its semantics

General

- The US GAAP taxonomy as used by the SEC provides an amazing amount of flexibility. Just consider that the preparer is required to create their own:
  - Presentation, calculation, and dimension relationships
  - Relationship groups (ELRs)
- This was necessary to accommodate US GAAP Reporting. Your mileage may vary depending on your requirements.

General

- Get preparer industry groups established to help build the industry ‘template’ – extent depends on degree of open/closed. More open, more involved.
- Inline XBRL has no direct impact on taxonomy modeling BUT it can free the modeler of artificial rendering constraints.
- XBRL data as provided to the SEC is generally not being used in its native form

Most important

- Understand and respect your data model. Critical for clean and consistent modeling that can be applied and consumed consistently and with comparability
- Accounting standard setters should take control of this model

Questions and answers