XBRLS Patterns Guide

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Abstract

The purpose of this document is to show the meta patterns and use cases commonly found in financial reporting and how those use cases can be expressed using the XBRLS dialect of XBRL. This information is helpful to taxonomy creators who wish to create internally consistent taxonomies or to show them how to articulate in XBRL specific use cases required within their taxonomies. The document is both somewhat of a cookbook and a best practices guide to creating high quality taxonomies and instance documents. Additionally, this document is useful to software vendors creating software as it helps them understand the use case their users will likely require. Readers of this document are assumed to have experience in creating taxonomies and instance documents. This document is not intended for the casual business user.

Status

Circulation of this Draft is restricted to the authors. Recipients of this draft are invited to submit comments to the editors.

Acknowledgements

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1 Introduction

The purpose of this document is to show the meta patterns and use cases commonly found in financial reporting and how those use cases can be expressed using the XBRLS dialect of XBRL. This information is helpful to taxonomy creators who wish to create internally consistent taxonomies or to show them how to articulate in XBRL specific use cases required within their taxonomies. The document is both somewhat of a cookbook and a best practices guide to creating high quality taxonomies and instance documents. Additionally, this document is useful to software vendors creating software as it helps them understand the use case their users will likely require. Readers of this document are assumed to have experience in creating taxonomies and instance documents. This document is not intended for the casual business user.

1.1 Evolution of this Information

The information in this document has evolved over many years. There has always been one goal in mind which is to make XBRL work better for business users.

1.2 What is XBRLS?

XBRLS is a dialect of XBRL. XBRLS is constructed to minimize the cost to businesses of implementing XBRL and maximizing functionality realized. For more information on XBRLS see the XBRLS architecture document.

A lot has been learned over the past several years about constructing taxonomies. XBRLS really does not invent anything new. What it does do is take the best of the best ideas and uses them to create a highly flexible, highly functional, maximally explicit, taxonomy. Ideas are taken from the COREP, FINREP, IFRS-GP, US GAAP, Netherlands, and other taxonomies and combined to form XBRLS.

This document summarizes information relating to XBRLS within this document. Information in this document is not normative in this regard. Please see the XBRLS Architecture document for the definitive technical rules relating to XBRLS. Information in this document are intended to be easier to read versions of the official technical rules.

1.3 Scope

This document was created with financial reporting specifically in mind, but anyone doing business reporting will likely benefit from the information in this document.

1.4 Organization of this document

This document is organized to be used as a reference.

1.5 Terminology

The following is terminology which is helpful to understanding this document.

Term	Meaning
Discoverable Taxonomy Set (DTS)	A DTS contains taxonomy schemas, taxonomy linkbases, and instance documents.

Term	Meaning
Financial report	A document containing quantitative and textual information that is either: meant to satisfy authoritative financial reporting standards and generally accepted accounting principles/practices (or GAAP), or a regulatory report whose subject matter is primarily financial position and performance and related explanatory disclosures, or a data set used in the collection of financial statistics. This excludes transaction, or journal-level, reporting, and primarily narrative or non-financial quantitative reports.
XBRL	Extensible Business Reporting Language (XBRL) 2.1 Recommendation [XBRL].
XBRLS	The XBRLS Architecture. A dialect of XBRL which is 100% XBRL compliant.
FRTA	Financial Reporting Taxonomy Architecture.
FRIS	Financial Reporting Instance Standards.
Abstract	"Abstract" concepts are used to help organize a taxonomy. Technically, abstract" is an XML Schema attribute that may be placed on an element or concept. The attribute "abstract" may have a value of TRUE or FALSE. If the value is TRUE, the element (or concept) is said to be "Abstract". That means that the concept may NEVER appear within an instance document.
Concept	A concept within a taxonomy. Concepts are expressed as XML Schema elements. The term concept is preferred to element, but they mean the same thing.
Fact Value	A "Fact Value" is the value of a concept within an instance document. For example, the concept "Cash" would have a value, or fact value, of "1000".
Hierarchy, Tree, Graph	Most users are familiar with a "tree view" within an application, such as to organize mail in Microsoft Outlook. A hierarchy is commonly associated with a tree view where terms such as "parent", "child", "sibling" are used. Fewer are familiar with the concept of a "graph". XBRL presentation, calculation, and definition relations are graphs, but it is useful to think of them as trees if you don't understand graphs. The basic difference between a graph and a tree is that graphs allow cycles (which XBRL relations allow sometimes) and trees do not allow cycles.
Network	XBRL has the notion of a network. A network is a set of XLink extended links which have the same XBRL extended link role. A network is a set of XBRL relations which are intended to be processed together and not collide with other networks of relations.
Neutral Format Table	A neutral format table is a graphical representation of the instance document of a taxonomy.

Term	Meaning
Meta pattern	A meta pattern is a group of XBRL concepts which work together to communicate data. Meta patterns are collections of common characteristics of a type of data set.
Use case (was pattern)	A use case (was called pattern before) is an instantiation of a meta pattern on a data set. Use cases are common forms which data take. For example, a balance sheet, an income statement, accounting policies are use cases.
Shape	Data has a certain shape. For example, a balance sheet commonly has two periods (current and prior) whereas accounting policies show data for only one period which is the current period. Data of the same shape is easier to render than data of multiple shapes mashed together.

1.6   Document conventions

The following formatting is used for examples in this document:

Editorial comments are denoted as follows and removed from final recommendations:

2   Understanding XBRLS Building Blocks, Meta Patterns, and Business Use Cases

There are many important decisions that need to be made when building an XBRL taxonomy. Users should not be bothered by unimportant decisions that a software application could make if the software application had enough information.

This is what XBRLS meta patterns are all about: giving software enough information in order to take over the mindless work that can be easily performed by a computer. This frees the business user to do the things that a computer cannot perform, no matter how much software which might exist, and allow him to focus on the value added work.

The XBRLS meta patterns that have been created in order to provide a maximum of information to a software application. This will allow that application to verify that the taxonomy has been (or is being) created correctly. Either during the creation process or after the taxonomy has been created (for users who do not have XBRLS type functionality built into their XBRL taxonomy creation software), software applications can check the internal consistency of a taxonomy, the logic of the taxonomy, etc. This makes creating taxonomies much easier.

[CSH: Think of Legos. Imagine that you had to create each of the Lego blocks yourself. Think of sub components or subassemblies. Part, subassembly, product.]

2.1 Summary of Rules for All Meta Patterns (From XBRLS)

The following is a summary of rules which apply to the entire taxonomy.   These rules are a Presentation, Calculation, Definition MUST be in sync.   The structures within a network summary of what is contained within the XBRLS architecture.

1. MUST be consistent across all parts for the network. There is assumed to be a connection between each aspect (presentation, calculation, definition) of a network.

2. All non-abstract concepts MUST be contained within a [Hypercube] ([Schedule]). Meaning, the taxonomy cannot contain concepts which do not participate within an XBRL Dimension All contextual information MUST be explicit, rather than leaving it up for the consuming application to determine.

3. All XBRL Dimensions [Axis] and [Domain]/[Member] information MUST be placed within the element of a context. The <scenario> concept is never used. XBRL Dimensions allows either; however, there is no benefit to using one over the other. Eliminating one option eliminates a choice a business user needs to make. There are no negative ramifications of eliminating one of the context elements.

4. All relations MUST be provided for. All computations that exist within an instance must be provided for within the taxonomy. No computations/calculations are left to chance. The reasoning for this is to automate validation of all computations, rather than rely on manual validation/verification.

5. The Hypercube modeling does not make use of the {notAll} arcRole. This implies that there is no validation of providing information where it is not possible from a semantic point of view. It means there are no "holes" in the hypercube dimensional space like in the COREP taxonomy

[CSH: Should the {notAll} arcRole be supported? RAVE: this makes the modeling **vastly simpler** but places some of the burden of correct data collection and reporting on the reporting application. Personally I don't think this is an issue at all – SYSTEMS would hardly ever report too much information]

2.2 Understanding Building Blocks

Building blocks are XBRL modeling components that have specific characteristics. Building blocks are 100% XBRL compliant, adding no additional attributes or other characteristics that make them noncompliant with the XBRL Specification. Building blocks are used to build meta patterns. A building block is something that is a little bigger than an XBRL concept, but smaller than a meta pattern.

All building blocks are 100% XBRL compliant, but what they do is make it so a business user does not need to decide what to do. All building blocks are indicated using "[]", for example "[Hypercube]".

2.3 Understanding Meta Patterns

Meta patterns are templates from which all business use cases are built. Meta patterns organize building blocks and XBRL concepts into specific structures that are testable using automated testing. Using meta patterns ensures consistency of modeling within a taxonomy, consistency of extension taxonomies and consistency across XBRL solutions.

2.4 Understanding Business Rules

Business rules is the term to denote all the rules that apply to the concepts within a taxonomy from a business user perspective. Some business rules are expressed in the form of XBRL calculations, some are expressed using XBRL formulas, and some are expressed using whatever proprietary methods are available by a user's application (and therefore ONLY usable by that user).

Every business rule is intended to be articulated within a taxonomy in order to maximize the validation which can be achieved via automated means, and therefore minimizing the validation which must be achieved manually. [RAVE: see point 5 above on the {notAll} arcRole – the question is how far to go with business rule markup in XBRL. The NTP Taxoffice is a point in case where rules modeling has gone way overboard…]

2.5 Understanding XBRLS Extension Points and Extensibility Rules

Extension points are logical points – and the only points – where a taxonomy can be extended. They exist within a meta pattern.

Extensibility rules are rules, which take advantage of a meta-pattern's extension points in order to extend a taxonomy. A taxonomy creator may, or may not, choose to allow the extension of a taxonomy, using extensibility rules, at a logical extension point.

In addition to taxonomy extension points, the instance has extension points. For example, periods can be added as can units.

All extension points are articulated for each meta pattern and each use case MUST comply with these extension points. Taxonomy authors MAY provide extensibility rules which control or eliminate the use of extension points. Without information to the contrary in terms of extension rules, all extension points are deemed useable within a taxonomy.

2.6 Understanding XBRLS Syntax Rules

Syntax rules are rules which have more to do with structuring the business data than to do with the business concepts themselves. Syntax rules articulated here can be enforced:

- Within a software application that supports XBRLS, by supporting verification of the structure and syntax of the taxonomy during creation. For example, when a structure is added in a taxonomy creation tool, the application ONLY lets the user do the right thing, not the wrong thing.

- After a taxonomy is created. If a software application does not support XBRLS, but it does support XBRL; then the taxonomy creator or instance creator can verify that the XBRL documents comply with XBRLS by running a validator which does support XBRLS.

- The final option is that a user can write their own syntax checker to verify the rules articulated by XBRLS.

- A non-practical option is to manually review a taxonomy to ensure compliance to the rules documented, but the probability that this can be done correctly is remote. It is listed here merely to complete the spectrum of options.

3 XBRLS Building Blocks

The following is a summary of building blocks used by XBRLS and by the meta patterns and business use cases modeled in this document.

Marker (optional)	Substitution Group or Type	Meaning
[Abstract]	xbrls:abstractGroup	Used only above tables to organize tables within an extended link (network). Never used within another meta pattern. PeriodType MUST = "Duration". Type MUST = "String". MAY have "[Abstract]" marker in label.
[Schedule]	xbrldi:hypercubeItem	Provided by XBRL Dimensions specification.

Marker (optional)	Substitution Group or Type	Meaning
[Axis]	xbrldi:dimensionItem	Provided by XBRL Dimensions specification.
[Line Items]	xbrls:lineItemsGroup	Indicates the concepts which are the [Line Items] part of a [Schedule]. MUST have all the characteristics of [Abstract].
[Hierarchy]	xbrls:hierarchyGroup	Indicates the concepts which are the root of a [Hierarchy] meta pattern. MUST have all the characteristics of [Abstract].
[Calculation]	xbrls:calculationGroup	Indicates the concepts which are the root of a [Calculation] meta pattern. MUST have all the characteristics of [Abstract].
[Movement]	xbrls:movementGroup	Indicates the concepts that are the root of a [Movement] meta pattern. MUST have all the characteristics of [Abstract].
[Text Block]	xbrls:textBlockItemType	Indicates the concepts which are [Text Block]s. These concepts allow white space characters such as page breaks and line feeds.
[Text]	xbrli:tokenItemType	Indicates the concepts which are intended to have values which are strings. Normal strings allow things such as to spaces in a row, line feeds, page breaks, and a space as the first or last character. This type eliminates that possibility, providing a more appropriate data type for certain types of concepts.
[Record]	xbrls:recordGroup	Similar to a [Hierarchy] however intended to articulate information which would have been included within an XBRL tuple. [CSH: Not sure this is needed, may remove]

[RAVE:There is still the issue of the complex types (formerly known as tuples ☺) This is a pattern that needs to be described too in terms of the Dimensions way of representing them.]

[CSH: To do. We still need to address the issue of being unable to organize the individual extended links.]

4 XBRLS Meta Patterns

Life is full of patterns. As we said before, "Analyzing things in the form of patterns helps one understand them". When we understand a pattern and recognize one in real life we benefit because a pattern comes with a lot of implied knowledge about the situation. For example, if I see a list or facts together with a fact named 'total' I can:

- assume that all the facts MUST add up to the total

- the facts are can actually be added

- the facts probably have some relation to each other in some interpretation context

- etc.

Meta patterns are templates from which all business use cases are built. They make these types of relations explicit, rather than implicit. Meta patterns organize building blocks and XBRL concepts into specific structures. Because of all the implied knowledge about situation when a pattern is used to describe it we can use the explicit and implicit knowledge to test the structure of the provided information and the values of the provided information. The patterns can be tested using automated testing procedures. If we only use patterns to describe taxonomy structure and information this will ensure consistency within a taxonomy, in the manner in which extension taxonomies are created and interoperability between XBRL solution.

The key point is therefore to analyze real world business reporting use cases and abstract the business reporting meta patterns and the implied knowledge that comes with them. In the next chapters, we describe the business reporting meta patterns we have abstracted from our analysis of financial statements and other reporting domains so far.

Note that physical implementations of these meta patterns can be found in the meta pattern file referred to above. The directory structure of the ZIP file is below:

- 01-Schedule
- 02-Hierarchy
- 03-Calculation
- 04-Movement
- 05-Record
- 99-Combined
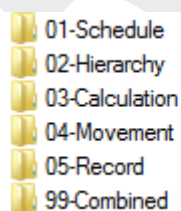
Each meta pattern is provided within the subdirectory with the meta pattern's name. Provided for each meta pattern are:

- A taxonomy

- An instance document.

- A neutral format template.

- XSLT which creates a PDF of from the values within the instance document.

- Validation reports generated.

The last subdirectory "99-Combined" has all meta patterns combined into one physical taxonomy and instance document.

4.1 Schedule

The "Schedule" meta pattern is a container which is used by all other meta patterns. The table holds all other portions of the pattern. A Schedule may contain a Hierarchy pattern, a Calculation pattern or a Movement pattern.

4.1.1 Example of the meta pattern

Sample Company
For Period Ending December 31,
(thousands of dollars)

	2007	2006	2005
Sales, all Segments, all Regions	32,038	35,805	32,465
Breakdown by Segment:			
Pharmaceuticals	20,181	18,150	15,275
Generics	2,433	1,973	1,823
Consumer Health	6,675	6,514	5,752
Other Segments	2,749	9,168	9,615
Breakdown by Region:			
US and Canada	10,214	12,649	10,137
Europe	11,901	10,374	10,396
Asia	5,639	4,371	3,210
Other regions	4,284	8,411	8,722

4.1.2 Characteristics of the meta pattern

The following is a summary of the characteristics of this meta pattern:

- The Schedule meta pattern is only used to enable the assignment of dimensions to concepts.
- All other meta patterns MUST be contained within a Schedule meta pattern. This ensures that every concept reported as a fact value within an instance document will participate within a hypercube and therefore will contain explicit dimensional information within contexts.

4.1.3 Rules of the meta pattern

The following is a summary of the rules that apply to this meta pattern:

1. A [Schedule] MUST have one [Line Items]. The [Line Items] MUST be the last child of the [Schedule] concept.
2. A [Schedule] MUST have one or more [Axis] as children.
3. A [Schedule] MUST have no children which are not [Axis] or [Line Items].
4. A [Line Items] MUST have at least one child.
5. A [Line Items] MUST NOT have decedents which are [Axis], [Domain], [Member], or [Schedule].
6. A [Line Items] MUST be an abstract concept
7. A [Hierarchy], [Calculation], or [Movement] block may appear within a [Schedule].

4.1.4   Taxonomy of meta pattern

The following is taxonomy information for this pattern:

Presentation:

Line	Balance Type	Period Type	Data Type	Label
1				Extended Link (10000 – Sales Analysis)
2		Duration	(Hypercube)	Sales Analysis [Schedule]
3		Duration	(Dimension)	Entity [Axis]
4		Duration	(Dimension)	Sample Company [Member]
5		Duration	(String)	Business Segment [Axis]
6		Duration	Monetary	Business Segments, All [Domain]
7		Duration	Monetary	Pharmaceuticals Segment [Member]
8		Duration	Monetary	Consumer Heath Segment [Member]
9		Duration	Monetary	Generics Segment [Member]
10		Duration	Monetary	Other Segments [Member]
11		Duration	(String)	Region [Axis]
12		Duration	Monetary	Regions, All [Domain]
13		Duration	Monetary	US and Canada Region [Member]
14		Duration	Monetary	Europe Region [Member]
15		Duration	Monetary	Asia Region [Member]
16		Duration	Monetary	Other Regions [Member]
17		Duration	[Line Items]	Sales Analysis [Line Items]
18		Duration	[Hierarchy]	Sales Analysis [Hierarchy]
18	Credit	Duration	Monetary	Sales

Calculation:

Line	Weight	Arcrole	Label
1			Extended Link (10000 – Sales Analysis)
2			(=) Business Segments, All [Domain]
3	1	Aggregator-Contributor	(+) Pharmaceuticals Segment [Member]
4	1	Aggregator-Contributor	(+) Consumer Heath Segment [Member]
5	1	Aggregator-Contributor	(+) Generics Segment [Member]
6	1	Aggregator-Contributor	(+) Other Segments [Member]
7			(=) Regions, All [Domain]
8	1	Aggregator-Contributor	(+) US and Canada Region [Member]
9	1	Aggregator-Contributor	(+) Europe Region [Member]
10	1	Aggregator-Contributor	(+) Asia Region [Member]
11	1	Aggregator-Contributor	(+) Other Regions [Member]

Note that relations exist between the [Domain] and the [Member]s. These computations are expressed using the "aggregator-contributor" approach. [CSH: This is temporary until the XBRL Formulas specification is released and software exists to perform this validation.]

Definition:

Line	Data Type	Arcrole	Label
1			Sales Analysis [Line Items]
2		Domain-Member	Sales Analysis [Hierarchy]

Line	Data Type	Arcrole	Label
3		Domain-Member	Sales
4		Has-Dimension (All)	Sales Analysis [Schedule]
5		Dimension-Domain	Entity [Axis]
6		Dimension-Domain	Sample Company [Member]
7		Domain-Member	Business Segment [Axis]
8		Domain-Member	Business Segments, All [Domain]
9		Domain-Member	Pharmaceuticals Segment [Member]
10		Domain-Member	Consumer Heath Segment [Member]
11		Dimension-Domain	Generics Segment [Member]
12		Dimension-Domain	Other Segments [Member]
13		Domain-Member	Region [Axis]
14		Domain-Member	Regions, All [Domain]
15		Domain-Member	US and Canada Region [Member]
16		Domain-Member	Europe Region [Member]
17		Domain-Member	Asia Region [Member]

- Note that there is only one real concept in this taxonomy that would be used as a fact value within the instance document and that is "Sales". The other information is used to articulate information about regions and segments. XBRL Dimensions provides this functionality.

4.1.5 Instance of meta pattern

The following is a table that shows information related to the instance document that expresses information relating to this modeling pattern. The data ties to the screen shot of the pattern:

Line	Concept	Context Ref	Unit Ref	Decimals	Value
1	Sales	D-2007-All	U-Monetary	INF	32038000
2	Sales	D-2006-All	U-Monetary	INF	35805000
3	Sales	D-2005-All	U-Monetary	INF	32465000
4	Sales	D-2007-Pharm	U-Monetary	INF	20181000
5	Sales	D-2006-Pharm	U-Monetary	INF	18150000
6	Sales	D-2005-Pharm	U-Monetary	INF	15275000
7	Sales	D-2007-Gen	U-Monetary	INF	2433000
8	Sales	D-2006-Gen	U-Monetary	INF	1973000
9	Sales	D-2005-Gen	U-Monetary	INF	1823000
10	Sales	D-2007-ConHealth	U-Monetary	INF	6675000
11	Sales	D-2006-ConHealth	U-Monetary	INF	6514000
12	Sales	D-2005-ConHealth	U-Monetary	INF	5752000
13	Sales	D-2007-OtherSeg	U-Monetary	INF	2749000
14	Sales	D-2006-OtherSeg	U-Monetary	INF	9168000
15	Sales	D-2005-OtherSeg	U-Monetary	INF	9615000
16	Sales	D-2007-US	U-Monetary	INF	10214000
17	Sales	D-2006- US	U-Monetary	INF	12649000
18	Sales	D-2005- US	U-Monetary	INF	10137000
19	Sales	D-2007-Europe	U-Monetary	INF	11901000
20	Sales	D-2006-Europe	U-Monetary	INF	10374000
21	Sales	D-2005-Europe	U-Monetary	INF	10396000
22	Sales	D-2007-Asia	U-Monetary	INF	5639000
23	Sales	D-2006-Asia	U-Monetary	INF	4371000

Line	Concept	Context Ref	Unit Ref	Decimals	Value
24	Sales	D-2005-Asia	U-Monetary	INF	3210000
25	Sales	D-2007-OtherRegions	U-Monetary	INF	4284000
26	Sales	D-2006-OtherRegions	U-Monetary	INF	8411000
27	Sales	D-2005-OtherRegions	U-Monetary	INF	8722000

The following is a calculation validation report:

Line	Label	W	B	D-P	Value	Source	Message
1	Dimensions period from 2005-01-01 to 2005-12-31 for SAMP Scenario-1						
2	U-Monetary						
3	pattern:Entity [Axis]//pattern:Sample Company [Member], pattern:Business Segment [Axis]//pattern:Business Segments, All [Domain]						
4	pattern:Sales[..., pattern:Region [Axis]//pattern:Regions, All [Domain]]		C	INF	32,465,000	both	OK
5	pattern:Sales[..., pattern:Region [Axis]//pattern:US and Canada Region [Member]]	1	C	INF	10,137,000	inst	
6	pattern:Sales[..., pattern:Region [Axis]//pattern:Europe Region [Member]]	1	C	INF	10,396,000	inst	
7	pattern:Sales[..., pattern:Region [Axis]//pattern:Asia Region [Member]]	1	C	INF	3,210,000	inst	
8	pattern:Sales[..., pattern:Region [Axis]//pattern:Other Regions [Member]]	1	C	INF	8,722,000	inst	
9	pattern:Entity [Axis]//pattern:Sample Company [Member], pattern:Region [Axis]//pattern:Regions, All [Domain]						
10	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Business Segments, All [Domain]]		C	INF	32,465,000	both	OK
11	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Pharmaceuticals Segment [Member]]	1	C	INF	15,275,000	inst	
12	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Consumer Health Segment [Member]]	1	C	INF	5,752,000	inst	
13	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Generics Segment [Member]]	1	C	INF	1,823,000	inst	
14	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Other Segments [Member]]	1	C	INF	9,615,000	inst	
15	Dimensions period from 2006-01-01 to 2006-12-31 for SAMP Scenario-1						
16	U-Monetary						
17	pattern:Entity [Axis]//pattern:Sample Company [Member], pattern:Business Segment [Axis]//pattern:Business Segments, All [Domain]						
18	pattern:Sales[..., pattern:Region [Axis]//pattern:Regions, All [Domain]]		C	INF	35,805,000	both	OK
19	pattern:Sales[..., pattern:Region [Axis]//pattern:US and Canada Region [Member]]	1	C	INF	12,649,000	inst	
20	pattern:Sales[..., pattern:Region [Axis]//pattern:Europe Region [Member]]	1	C	INF	10,374,000	inst	
21	pattern:Sales[..., pattern:Region [Axis]//pattern:Asia Region [Member]]	1	C	INF	4,371,000	inst	
22	pattern:Sales[..., pattern:Region [Axis]//pattern:Other Regions [Member]]	1	C	INF	8,411,000	inst	
23	pattern:Entity [Axis]//pattern:Sample Company [Member], pattern:Region [Axis]//pattern:Regions, All [Domain]						
24	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Business Segments, All [Domain]]		C	INF	35,805,000	both	OK
25	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Pharmaceuticals Segment [Member]]	1	C	INF	18,150,000	inst	
26	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Consumer Health Segment [Member]]	1	C	INF	6,514,000	inst	
27	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Generics Segment [Member]]	1	C	INF	1,973,000	inst	
28	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Other Segments [Member]]	1	C	INF	9,168,000	inst	
29	Dimensions period from 2007-01-01 to 2007-12-31 for SAMP Scenario-1						
30	U-Monetary						
31	pattern:Entity [Axis]//pattern:Sample Company [Member], pattern:Business Segment [Axis]//pattern:Business Segments, All [Domain]						
32	pattern:Sales[..., pattern:Region [Axis]//pattern:Regions, All [Domain]]		C	INF	32,038,000	both	OK
33	pattern:Sales[..., pattern:Region [Axis]//pattern:US and Canada Region [Member]]	1	C	INF	10,214,000	inst	
34	pattern:Sales[..., pattern:Region [Axis]//pattern:Europe Region [Member]]	1	C	INF	11,901,000	inst	
35	pattern:Sales[..., pattern:Region [Axis]//pattern:Asia Region [Member]]	1	C	INF	5,639,000	inst	
36	pattern:Sales[..., pattern:Region [Axis]//pattern:Other Regions [Member]]	1	C	INF	4,284,000	inst	
37	pattern:Entity [Axis]//pattern:Sample Company [Member], pattern:Region [Axis]//pattern:Regions, All [Domain]						
38	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Business Segments, All [Domain]]		C	INF	32,038,000	both	OK
39	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Pharmaceuticals Segment [Member]]	1	C	INF	20,181,000	inst	
40	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Consumer Health Segment [Member]]	1	C	INF	6,675,000	inst	
41	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Generics Segment [Member]]	1	C	INF	2,433,000	inst	
42	pattern:Sales[..., pattern:Business Segment [Axis]//pattern:Other Segments [Member]]	1	C	INF	2,749,000	inst	

- Note that the computations above are cross context (cross dimensions) and therefore cannot be enforced using XBRL Calculations. As such, "aggregator-contributor" type calculations are used to enforce this rule currently. Eventually when XBRL Formulas is available within software, using formulas will be the approach to achieve this type of validation.

4.1.6   Neutral format table of meta pattern

Static Fields:

Static Fields (Applies to all Fact Values)		
Perspective [Axis]:	Presentation Linkbase	
Entity [Axis]:	company: Sample Company [Member]	(+) Entity
Units [Axis]:	iso4217:USD	(+) Unit
Scale [Factor]:	1000	

Possible Axis, Domains, Members:

Possible [Axis]s, [Domain]s, [Member]s
gaap: Business Segment [Axis]
gaap: Business Segments, All [Domain]
company: Pharmaceuticals Segment [Member]
company: Consumer Health Segment [Member]
company: Generics Segment [Member]
company: Other Segments [Member]
(+) company: Member

gaap: Regions [Axis]
gaap: Regions, All [Domain]
company: US and Canada Region [Member]
company: Europe Region [Member]
company: Asia Region [Member]
company: Other Regions [Member]
(+) company: Member

Line Items:

*	A	B	C	D	E	F	G
1	Sales Analysis	gaap: Business Segment [Axis]	gaap: Region [Axis]	Period [Axis]			
2	Period [Axis]			[For period:] 2007-01-01 to 2007-12-31	[For period:] 2006-01-01 to 2006-12-31	[For period:] 2005-01-01 to 2005-12-31	(+) Period
3	Sales Analysis [Line Items]						
4	Sales Analysis [Hierarchy]						
5	Sales	gaap: Business Segments, All [Domain]	gaap: Regions, All [Domain]	32,038	35,805	32,465	
6							
7	Sales Analysis [Line Items]						
8	Sales Analysis [Hierarchy]						
9	Sales	company: Pharmaceuticals [Member]	gaap: Regions, All [Domain]	20,181	18,150	15,275	
10	Sales	company: Consumer Health Segment [Member]	gaap: Regions, All [Domain]	2,433	1,973	1,823	
11	Sales	company: Generics Segment [Member]	gaap: Regions, All [Domain]	6,675	6,514	5,752	
12	Sales	company: Other Segments [Member]	gaap: Regions, All [Domain]	2,749	9,168	9,615	
13							
14	Sales Analysis [Line Items]						
15	Sales Analysis [Hierarchy]						
16	Sales	gaap: Business Segments, All [Domain]	company: US and Canada [Member]	10,214	12,649	10,137	
17	Sales	gaap: Business Segments, All [Domain]	company: Europe [Member]	11,901	10,374	10,396	
18	Sales	gaap: Business Segments, All [Domain]	company: Asia [Member]	5,639	4,371	3,210	
19	Sales	gaap: Business Segments, All [Domain]	company: Other Regions [Member]	4,284	8,411	8,722	
20	(+) Concept	(+) Business Segment [Member]	(+) Region [Member]				

Extension Points:

Again, the pattern is only a container for other information. In this meta pattern the extension points for the meta data in the [Schedule] block are the [Member] values for the Business Segments [Axis] and the Regions [Axis] as indicated in cells [B20] and [C20].

The meta pattern can also be extended for the period axis that relates to the set of instance contexts that can be extended with additional periods, as indicated in cell [G2].

4.2 Hierarchy

The Hierarchy meta pattern is used to articulate information where there is no calculation type relation, or movement type computation. Hierarchies are used to organize a taxonomy.

4.2.1 Example of meta pattern

Sample Company
December 31,

Accounting Policies

The financial statements have been prepared on the historical cost basis, except for the revaluation of land and buildings and certain financial instruments. The principal accounting policies adopted are set out below.

Inventories
Inventories are stated at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average method. Net realisable value represents the estimated selling price less all estimated costs to completion and costs to be incurred in marketing, selling and distribution. Inventories are comprised of raw materials and work in progress.

Financial Instruments
Financial assets and liabilities are recognised on the Group's balance sheet when the Group has become a party to the contractual provisions of the investment.

    Trade receivables
Trade receivables are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts.

    Investments in securities
Investments in securities are recognised on a trade-date basis and are initially measured at cost.

    Bank borrowings
Interest-bearing bank loans and overdrafts are recorded at the proceeds received, net of direct issue costs. Finance charges, including premiums payable on settlement or redemption, are accounted for on an accrual basis and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

Provisions
Provisions are recognised when the Group has a present obligation as a result of a past event which it is probable will result in an outflow of economic benefits that can be reasonably estimated.

Notice the indentations that make the information easier to comprehend. Hierarchies support the organization of information And can be used to represent a flat list or an indented list. Especially when dealing with long lists where information is inherently categorized grouing information is a good manner to represent the information.

4.2.2 Characteristics of the meta pattern

The following is a summary of the characteristics of this meta pattern:

- Categorizations can be created at multiple levels in order to provide for different common groupings of concepts.

4.2.3 Rules of the meta pattern

The following is a summary of the rules that apply to this meta pattern within the presentation linkbase of a taxonomy:

1. A [Hierarchy] MUST be contained with the [Line Items] of a [Schedule]

2. A [Hierarchy] MUST start with the [Hierarchy] building block (the marker [Hierarchy], MUST have the substitutionGroup xbrls:hierarchyGroup.)

3. A [Hierarchy] MUST NOT contain any other meta pattern. [RAVE: ok ? need to think this through a bit to see if I can come up with a counter argument ☺). See comment later in doc at end of chapter)

4. A [Hierarchy] MAY contain other [Hierarchy]s.

4.2.4   Taxonomy of the meta pattern

The following is taxonomy information for this pattern:

Presentation:

Line	Balance Type	Period Type	Data Type	Label
1				Extended Link (20000 – Accounting Policies)
			(Hypercube)	Accounting Policies [Schedule]
2		Duration	(Dimension)	Entity [Axis]
3		Duration	String	Entities, All [Domain]
4		Duration	String	Sample Company [Member]
5		Duration	(Dimension)	Business Segment [Axis]
6		Duration	String	Consolidated Group [Domain]
7		Duration	[Line Items]	Accounting Policies [Line Items]
8		Duration	[Hierarchy]	Accounting Policies [Hierarchy]
9		Duration	[Text Block]	Basis of Presentation [Text Block]
10		Duration	String	Basis of Presentation
11		Duration	[Text Block]	Inventory Policy [Text Block]
12		Duration	String	Inventory Valuation Method
13		Duration	String	Description of Inventory Components
14		Duration	String	Inventory Cost Method
15		Duration	String	Description of Calculation of Net Realizable Value
16		Duration	[Text Block]	Financial Instruments Policy [Text Block]
17		Duration	String	Trade Receivables Policy
18		Duration	String	Investments in Securities Policy
19		Duration	String	Bank Borrowings Policy
20		Duration	[Text Block]	Provisions Policy [Text Block]

Calculation:

There are no calculations for this meta pattern.

Definition:

Line	Data Type	Arcrole	Label
1			Extended Link (20000 – Accounting Policies)
2			Accounting Policies [Line Items]
3		Domain-Member	Accounting Policies [Hierarchy]
4		Domain-Member	Basis of Presentation [Text Block]
5		Domain-Member	Basis of Presentation
6		Domain-Member	Inventory Policy [Text Block]
7		Domain-Member	Inventory Valuation Method
8		Domain-Member	Description of Inventory Components
9		Domain-Member	Inventory Cost Method
10		Domain-Member	Description of Calculation of Net Realizable Value
11		Domain-Member	Financial Instruments Policy [Text Block]

Line	Data Type	Arcrole	Label
12		Domain-Member	Trade Receivables Policy
13		Domain-Member	Investments in Securities Policy
14		Domain-Member	Bank Borrowings Policy
15		Domain-Member	Provisions Policy [Text Block]
16		Has-Dimension (All)	Accounting Policies [Schedule]
17		Hypercube-Dimension	Entity [Axis]
18		Dimension-Domain	Entities, All [Domain]
19		Domain-Member	Sample Company [Member]
20		Hypercube-Dimension	Business Segment [Axis]
21		Dimension-Domain	Consolidated Group [Domain]

- The hierarchy is used to "categorize" concepts. While it is not necessary to provide this hierarchy (parent/child relations), it helps the reader of the taxonomy. Imagine reading this small taxonomy as a "flat list" of concepts. Imagine a much larger taxonomy with larger sections with no categorization.

4.2.5   Instance of the meta pattern

The following is a table that shows information related to the instance document that expresses information relating to this modeling pattern. The data ties to the screen shot of the pattern:

Line	Concept	Context Ref	Fact Value
1	Basis of Presentation [Text Block]	D-2007	The financial statements have been prepared on the historical cost basis, except for the revaluation of land and buildings and certain financial instruments. The principal accounting policies adopted are set out below.
2	Basis of Presentation	D-2007	Historical Cost
3	Inventory Policy [Text Block]	D-2007	Inventories are stated at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average method. Net realisable value represents the estimated selling price less all estimated costs to completion and costs to be incurred in marketing, selling and distribution. Inventories are comprised of raw materials and work in progress.
4	Inventory Valuation Method	D-2007	Cost
5	Description of Inventory Components	D-2007	weighted average method
6	Financial Instruments Policy	D-2007	Financial assets and liabilities are recognized on the Group's balance sheet when the Group has become a party to the contractual provisions of the investment.
7	Trade Receivables Policy	D-2007	Trade receivables are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts.
8	Investments in Securities Policy	D-2007	Investments in securities are recognized on a trade-date basis and are initially measured at cost.
9	Bank Borrowing Policy	D-2007	Interest-bearing bank loans and overdrafts are recorded at the proceeds received, net of direct issue costs. Finance charges, including premiums payable on settlement or redemption, are accounted for on an accrual basis and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

Line	Concept	Context Ref	Fact Value
10	Provisions Policy	D-2007	Provisions are recognized when the Group has a present obligation as a result of a past event which it is probable will result in an outflow of economic benefits that can be reasonably estimated.

- All values provided are string (text) rather than numeric as we have seen in previous patterns. As string/text, the fact values have no "Unit Ref" or "Decimals" values.

The following is a screen shot of the validation report:

Line	Label	W	B	D-P	Value	Source	Message	Formula Trace
1	No calculations or formulas for instance items and contexts.							

There no computations expressed in Hierarchy meta patterns and therefore the validation application does not validate relations. As such, even though there is a relation between the different segments for which information is being reported, there is no computational validation.

4.2.6   Neutral format table of the meta pattern

Static Fields:

Static Fields (Applies to all Fact Values)		
Perspective:	Presentation	
Entity [Axis]:	company: Sample Company [Member]	(+) Entity
Business Segment [Axis]:	gaap: Consolidated Group [Domain]	(+) Business Segment
Scale [Factor]:	1000	
Units [Axis]	NOT APPLICABLE	

Possible Axis, Domains, Members:

Possible [Axis]s, [Domain]s, [Member]s
gaap: Business Segment [Axis]
gaap: Consolidated Group [Domain]
(+) company: Member

Line Items:

*	A	B	C
1	*Accounting Policies*	*Period [Axis]*	
2	Period [Axis]	[For period:] 2007-01-01 to 2007-12-31	*(+) Period*
3	**Accounting Policies [Line Items]**		
4	Basis of Presentation [Text Block]	The financial statements have been prepared on the historical cost basis, except for the revaluation of land and buildings and certain financial instruments. The principal accounting policies adopted are set out below.	
5	Basis of Presentation	Historical Cost	
6	Inventory Policy [Text Block]	Inventories are stated at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average method. Net realisable value represents the estimated selling price less all estimated costs to completion and costs to be incurred in marketing, selling and distribution. Inventories are comprised of raw materials and work in progress.	
7	Inventory Valuation Method	Cost	
8	Description of Inventory Components	weighted average method	
9	Financial Instruments Policy [Text Block]	Financial assets and liabilities are recognised on the Group's balance sheet when the Group has become a party to the contractual provisions of the investment.	
10	Trade Receivables Policy	Trade receivables are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts.	
11	Investments in Securities Policy	Investments in securities are recognised on a trade-date basis and are initially measured at cost.	
12	Bank Borrowings Policy	Interest-bearing bank loans and overdrafts are recorded at the proceeds received, net of direct issue costs. Finance charges, including premiums payable on settlement or redemption, are accounted for on an accrual basis and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.	
13	Provisions Policy	Provisions are recognised when the Group has a present	
14	*(+) Concept*		

Extension Points:

A [Hierarchy] block has one extension point. It may be only extended by adding new concepts (as indicated in cell [A14])

The pattern can also be extended by adding new periods (as indicated by cell [C2]).

[CSH: It would be logical to allow for [Calculation]s, [Movement]s, and other [Hierarchy]s within a hierarchy. However, you will run into "shape" mismatch issues. Should this be allowed, or show we stick to our guns and try and keep things within the same shape?]

[RAVE: That's what my previous remark was about ☺. I think for now we should keep it simple until we find hard evidence we need to open this model up. I think we can live with the simpler situation.]

4.3   Calculation

The calculation meta pattern articulates a calculation and how it would appear in a taxonomy.

4.3.1 Example of meta pattern

Sample Company
December 31,
(thousands of dollars)

	2007	2006
ASSETS		
Property, Plant, and Equipment, Net		
Land	5,347	1,147
Buildings, Net	244,508	366,375
Furniture and Fixtures, Net	34,457	34,457
Computer Equipment, Net	4,169	5,313
Other Property, Plant, and Equipment, Net	6,702	6,149
Property, Plant and Equipment, Net, Total	295,183	413,441

The information above shows detail of property, plant, and equipment for two periods, similar to what a balance sheet might look like, although this is simplified to focus on the meta-pattern rather than the accounting aspect.

4.3.2 Characteristics of the meta pattern

The following is a summary of the characteristics of this pattern:

- Shows a series of numeric concepts that sums up to the value of another numeric concept.

4.3.3 Rules of the meta pattern

The following is a summary of the rules that apply to this meta pattern within the presentation linkbase of a taxonomy:

1. A [Calculation] MUST be contained with the [Line Items] of a [Schedule].

2. The root of the [Calculation] is the [Calculation] marker and the xbrls:calculationMarker substitutionGroup.

3. A [Calculation]'s last child is the concept being calculated. For example, above the last child would be "Property, Plant and Equipment, Net, Total".

4. All concepts which participate in a [Calculation] MUST be of the same data type and MUST be numeric.

5. A [Calculation] MAY be nested within another [Calculation].

4.3.4 Taxonomy of the meta pattern

The following is taxonomy information for this pattern:

Presentation:

Line	Balance Type	Period Type	Data Type	Label
1				Extended Link (30000 – Property, Plant and Equipment, by Component)
			(Hypercube)	Property, Plant and Equipment, by Component [Schedule]

Line	Balance Type	Period Type	Data Type	Label
2		Duration	(Dimension)	Entity [Axis]
3		Duration	String	Entities, All [Domain]
4		Duration	String	Sample Company [Member]
5		Duration	(Dimension)	Business Segment [Axis]
6		Duration	String	Consolidated Group [Domain]
7		Duration	[Line Items]	Property, Plant and Equipment, by Component [Line Items]
8		Duration	[Hierarchy]	Property, Plant and Equipment, Net [Calculation]
2	Debit	Instant	Monetary	Land
3	Debit	Instant	Monetary	Buildings, Net
4	Debit	Instant	Monetary	Furniture and Fixtures, Net
5	Debit	Instant	Monetary	Computer Equipment, Net
6	Debit	Instant	Monetary	Other Property, Plant, and Equipment, Net
7	Debit	Instant	Monetary	Property, Plant, and Equipment, Net, Total

Calculation:

Line	Balance Type	Period Type	Data Type	Element Label
				Extended Link (30000 – Property, Plant and Equipment, by Component)
1	Debit	Instant	Monetary	(=) Property, Plant, and Equipment, Net
2	Debit	Instant	Monetary	(+) Land
3	Debit	Instant	Monetary	(+) Buildings, Net
4	Debit	Instant	Monetary	(+) Furniture and Fixtures, Net
5	Debit	Instant	Monetary	(+) Computer Equipment, Net
6	Debit	Instant	Monetary	(+) Other Property, Plant, and Equipment, Net

Definition:

Line	Data Type	Arcrole	Label
1			Extended Link (30000 – Property, Plant and Equipment, by Component)
2			Property, Plant and Equipment, by Component [Line Items]
3		Domain-Member	Property, Plant and Equipment, Net [Calculation]
4		Domain-Member	Land
5		Domain-Member	Buildings, Net
6		Domain-Member	Furniture and Fixtures, Net
7		Domain-Member	Computer Equipment, Net
8		Domain-Member	Other Property, Plant, and Equipment, Net
9		Domain-Member	Property, Plant, and Equipment, Net
16		Has-Dimension (All)	Property, Plant and Equipment, by Component [Schedule]
17		Hypercube-Dimension	Entity [Axis]
18		Dimension-Domain	Entities, All [Domain]
19		Domain-Member	Sample Company [Member]
20		Hypercube-Dimension	Business Segment [Axis]
21		Dimension-Domain	Consolidated Group [Domain]

4.3.5 Instance of the meta pattern

The table below shows information related to the instance document that expresses information relating to this meta pattern. The data ties to the screen shot of the pattern:

Line	Concept	Context Ref	Unit Ref	Decimals	Value
1	Land	I-2007	U-Monetary	INF	5347000
2	Land	I-2006	U-Monetary	INF	1147000
3	Buildings, Net	I-2007	U-Monetary	INF	244508000
4	Buildings, Net	I-2006	U-Monetary	INF	366375000
5	Furniture and Fixtures, Net	I-2007	U-Monetary	INF	34457000
6	Furniture and Fixtures, Net	I-2006	U-Monetary	INF	34457000
7	Computer Equipment, Net	I-2007	U-Monetary	INF	4169000
8	Computer Equipment, Net	I-2006	U-Monetary	INF	5313000
9	Other Property, Plant, and Equipment, Net	I-2007	U-Monetary	INF	6702000
10	Other Property, Plant, and Equipment, Net	I-2006	U-Monetary	INF	6149000
9	Property, Plant, and Equipment, Net	I-2007	U-Monetary	INF	295183000
10	Property, Plant, and Equipment, Net	I-2006	U-Monetary	INF	413441000

The following is a validation report that shows how the information is used to validate information with the calculations defined in the taxonomy.

Line	Label	W	B	D-P	Value	Source	Message
1	*30000 - Property, Plant, and Equipment, by Component* [http://www.xbrls.org/xbrls/PropertyPlantAndEquipmentByComponent]						
2	Context *I-2006*[at 2006-12-31 for SAMP Scenario-1]						
3	U-Monetary						
4	pattern:Property, Plant and Equipment, Net		D	INF	413,441,000	both	OK
5	pattern:Land	1	D	INF	1,147,000	inst	
6	pattern:Buildings, Net	1	D	INF	366,375,000	inst	
7	pattern:Furniture and Fixtures, Net	1	D	INF	34,457,000	inst	
8	pattern:Computer Equipment, Net	1	D	INF	5,313,000	inst	
9	pattern:Other Property, Plant and Equipment, Net	1	D	INF	6,149,000	inst	
10	Context *I-2007*[at 2007-12-31 for SAMP Scenario-1]						
11	U-Monetary						
12	pattern:Property, Plant and Equipment, Net		D	INF	295,183,000	both	OK
13	pattern:Land	1	D	INF	5,347,000	inst	
14	pattern:Buildings, Net	1	D	INF	244,508,000	inst	
15	pattern:Furniture and Fixtures, Net	1	D	INF	34,457,000	inst	
16	pattern:Computer Equipment, Net	1	D	INF	4,169,000	inst	
17	pattern:Other Property, Plant and Equipment, Net	1	D	INF	6,702,000	inst	

4.3.6 Neutral format table of meta pattern

Static Fields:

Static Fields (Applies to all Fact Values)		
Perspective:	Presentation	
Entity [Axis]:	company: Sample Company [Member]	(+) Entity
Business Segment [Axis]:	gaap: Consolidated Group [Domain]	(+) Business Segment
Units [Axis]:	iso4217:USD	(+) Unit
Scale [Factor]:	1000	

Possible Axis, Domains, Members:

Possible [Axis]s, [Domain]s, [Member]s
gaap: Business Segment [Axis]
gaap: Consolidated Group [Domain]
company: Company Business Segment A [Member]
company: Company Business Segment B [Member]
(+) company: Member

Line Items:

*	A	B	C	D
1	*Property, Plant and Equipment, by Component*		*Period [Axis]*	
2	Period [Axis]	[As of] 2007-12-31	[As of] 2006-12-31	*(+) Period*
3	**Propety, Plant and Equipment, by Component [Line Items]**			
4	**Propety, Plant and Equipment, Net [Calculation]**			
5	Land	5,347	1,147	
6	Buildings, Net	244,508	366,375	
10	Furniture and Fixtures, Net	34,457	34,457	
11	Computer Equipment, Net	4,169	5,313	
12	Other Property, Plant and Equipment, Net	6,702	6,149	
13	*(+) company: Concept; industry: Concept*			
14	**Property, Plant and Equipment, Net, Total**	**295,183**	**413,441**	

Extension Points:

The [Calculation] block only has one logical extension point and that is just above the last child of the calculation. This means we can only add new items to the list that is summed up into the total concept.

[CSH: What about adding details to the concept "Land" as an example, providing details such as "Land, in Washington" and "Land, Outside Washington" or by Business Segment?]

[RAVE: This would need a nested [calculation] block with additional dimension-members. It is similar to the situation I showed last time. The dimension will be an additional regions dimension where the [block] above only reports on the dimension-aggregate. I'll work this out in an example.

In a way the reported values in the block are aggregation results over n-different dimensions

*	A	B	C	D	E
1	*Property, Plant and Equipment, by Component*	Business Segment Axis]		*Period [Axis]*	
2	Period [Axis]				*(+) Period*
			[As of] 2007-12-31	[As of] 2006-12-31	
3	**Propety, Plant and Equipment, by Component [Line Items]**				
4	**Propety, Plant and Equipment, Net [Total]**				
5	Land	Consolidated	5,347	1,147	
		Segment A	1,000	1,001	
		Segment B	4,347	146	
6	Buildings, Net	Consolidated	244,508	366,375	
		Segment A	1,000	1,001	
		Segment B	243,508	365,374	
7	**Furniture and Fixtures, Net [Total]**				
	Furniture, Net	Consolidated	34,000	34,000	
8	Fixtures, Net	Consolidated	457	457	
9	Furniture and Fixtures, Net	Consolidated	34,457	34,457	
10	Computer Equipment, Net	Consolidated	4,169	5,313	
11	Other Property, Plant and Equipment, Net	Consolidated	6,702	6,149	
12	*(+) company: Concept; industry: Concept*				
13	**Property, Plant and Equipment, Net, Total**		**295,183**	**413,441**	
14					

It becomes like a kind of pivot table view when multiple dimensions come into play.

4.4 Movement

The Movement (or Roll Forward) meta pattern is a specific type of computation. A Movement is basically a reconciliation between two periods of time for the same concept. The reconciling items are finite.

[CSH: But I guess a movement could also be a reconciliation between two scenarios for the same concept, for example when something is restated. Need to look at this.]

4.4.1   Example of meta pattern

Sample Company
December 31,
(thousands of dollars)

	2007	2006
Movement in Land		
Land, Beginning Balance	1,147	1,147
Additions	1,992	400
Disposals	-193	-200
Translation difference	2,401	-200
Land, Ending Balance	5,347	1,147

We see the beginning and ending balances of land with reconciling items for two years.

4.4.2   Characteristics of the meta pattern

The following is a summary of the characteristics of this pattern:

- A movement is a specific type of computation. A movement computation involves some concept balance as of one point in time, that same concept as of another point in time, and a total of the changes between the two periods of time. There is typically more than one thing that changes, therefore a calculation of all the things that change is provided.

- Examples of a movement are a cash flow statement, the statement of changes in equity, and a roll forward of property, plant, and equipment.

- A movement may, or may not, choose to have an "Other Changes" concept.

4.4.3   Rules of the meta pattern

The following is a summary of the rules that apply to this meta pattern within the presentation linkbase of a taxonomy:

1. A [Movement] MUST be contained with the [Line Items] of a [Schedule].

2. A [Movement] MUST consist of a concept which is presented as a beginning balance and an ending balance (one concept, two different periods, the concept is an instant) and a total of the concepts which change between the two periods and that has the period type "duration".

3. The instant concept with a start period label role is the first child of the [Movement]

4. The instant concept with an end period label role is the last child of the [Movement] concept.

5. A [Calculation] is the second child of the [Movement] concept. All the rules of a normal [Calculation] apply to the [Calculation](s) used with the [Movement].

6. The data type of all concepts which participate within a [Movement] MUST be of the same type and numeric.

7. Neither a [Hierarchy], [Schedule] or another [Movement] may exist within a [Movement].

4.4.4   Taxonomy of the meta pattern

The following is taxonomy information for this pattern:

Presentation:

Line	Balance Type	Period Type	Data Type	Label
1				Extended Link (40000 - Movement in Land)
2			(Hypercube)	Land [Schedule]
3		Duration	(Dimension)	Entity [Axis]
4		Duration	String	Entities, All [Domain]
5		Duration	String	Sample Company [Member]
6		Duration	(Dimension)	Business Segment [Axis]
7		Duration	String	Consolidated Group [Domain]
8		Duration	[Line Items]	Land [Line Items]
9		Duration	[Hierarchy]	Movement in Land [Movement]
10	Debit	Instant	Monetary	Land, Beginning Balance
11	Debit	Instant	Monetary	Land, Period Increase (Decrease) [Calculation]
12	Debit	Instant	Monetary	Land, Additions
13	Debit	Instant	Monetary	Land, Disposals
14	Debit	Instant	Monetary	Land, Translation Difference
15	Debit	Instant	Monetary	Land, Period Increase (Decrease)
16	Debit	Instant	Monetary	Land, Ending Balance

Calculation:

Line	Balance Type	Period Type	Data Type	Label
1				Extended Link (40000 - Movement in Land)
2	Debit	Duration	Monetary	(=) Land, Period Increase (Decrease)
3	Debit	Duration	Monetary	(+) Land, Additions
4	Credit	Duration	Monetary	(-) Land, Disposals
5	Debit	Duration	Monetary	(+) Land, Translation Difference

Definition:

Line	Data Type	Arcrole	Label
1			Extended Link (40000 - Movement in Land)
2			Land [Line Items]
3		Domain-Member	Movement in Land [Movement]
4		Domain-Member	Land
5		Domain-Member	Land, Period Increase (Decrease) [Calculation]
6		Domain-Member	Land, Additions
7		Domain-Member	Land, Disposals
8		Domain-Member	Land, Translation Difference

Line	Data Type	Arcrole	Label
9		Domain-Member	Land, Period Increase (Decrease)
16		Has-Dimension (All)	Land [Schedule]
17		Hypercube-Dimension	Entity [Axis]
18		Dimension-Domain	Entities, All [Domain]
19		Domain-Member	Sample Company [Member]
20		Hypercube-Dimension	Business Segment [Axis]
21		Dimension-Domain	Consolidated Group [Domain]

Formulas:

This meta pattern has a computation which cannot be validated using XBRL calculations as the fact values are not within the same context. As such, a business rule is provided to express this computation, which is:

Ending Balance = Beginning Balance + Total Changes

4.4.5   Instance of the meta pattern

The following is a table that shows information related to the instance document that expresses information relating to this modeling pattern. The data ties to the screen shot of the pattern:

Line	Concept	Context Ref	Unit Ref	Decimals	Value
1	Land	I-2005	U-Monetary	INF	1147000
2	Land, Additions	D-2006	U-Monetary	INF	400000
3	Land, Disposals	D-2006	U-Monetary	INF	200000
4	Land, Translation Difference	D-2006	U-Monetary	INF	-200000
5	Land, Period Increase (Decrease)	D-2006	U-Monetary	INF	0
6	Land	I-2006	U-Monetary	INF	1147000
7	Land, Additions	D-2007	U-Monetary	INF	1992000
8	Land, Disposals	D-2007	U-Monetary	INF	193000
9	Land, Translation Difference	D-2007	U-Monetary	INF	2401000
10	Land, Period Increase (Decrease)	D-2006	U-Monetary	INF	0
11	Land	I-2007	U-Monetary	INF	4200000

This is the calculations validation report:

Line	Label	W	B	D-P	Value	Source	Message
1	*40000 - Movements in Land* [http://www.xbrls.org/xbrls/MovementsInLand]						
2	Context *D-2006*[from 2006-01-01 to 2006-12-31 for SAMP Scenario-1]						
3	**U-Monetary**						
4	**pattern:Land, Period Increase (Decrease)**		D	INF	0	both	OK
5	pattern:Land, Additions	1	D	INF	400,000	inst	
6	pattern:Land, Disposals	-1	C	INF	200,000	inst	
7	pattern:Land, Translation Difference	1	D	INF	(200,000)	inst	
8	**Context *D-2007*[from 2007-01-01 to 2007-12-31 for SAMP Scenario-1]**						
9	**U-Monetary**						
10	**pattern:Land, Period Increase (Decrease)**		D	INF	4,200,000	both	OK
11	pattern:Land, Additions	1	D	INF	1,992,000	inst	
12	pattern:Land, Disposals	-1	C	INF	193,000	inst	
13	pattern:Land, Translation Difference	1	D	INF	2,401,000	inst	
14	*Root*						
15	**Context *I-2006*[at 2006-12-31 for SAMP Scenario-1]**						
16	**(no unit)**						
17	pattern:Land, Reconciles (pattern:Land[-P1Y] + pattern:LandPeriodIncreaseDecrease = pattern:Land)				true	formula	
18	**Context *I-2007*[at 2007-12-31 for SAMP Scenario-1]**						
19	**(no unit)**						
20	pattern:Land, Reconciles (pattern:Land[-P1Y] + pattern:LandPeriodIncreaseDecrease = pattern:Land)				true	formula	

4.4.6 Neutral format table of meta pattern

Static Fields:

Static Fields (Applies to all Fact Values)		
Perspective:	Presentation	
Entity [Axis]:	company: Sample Company [Member]	(+) Entity
Business Segment [Axis]:	gaap: Consolidated Group [Domain]	(+) Business Segment
Units [Axis]	iso4217:USD	(+) Unit
Scale [Factor]:	1000	

Possible Axis, Domains, Members

Possible [Axis]s, [Domain]s, [Member]s
gaap: Business Segment [Axis]
gaap: Consolidated Group [Domain]
company: Company Business Segment A [Member]
company: Company Business Segment B [Member]
(+) Member

Line Items:

*	A	B	C	gaap: Business Segment [Axis]/gaap: Consolidated Group [Domain]
1	Movement in Land	Period [Axis]	Scale [Factor]	
2	Land [Line Items]			
3	Movement in Land [Movement]			
4	Land, Beginning Balance	[As of] 2005-12-31	1000	244,508
5	Land, Additions [Calculation]			
6	Land, Additions, from Purchase	[For Period] 2006-01-01 to 2006-12-31	1000	100
7	Land, Additions, from Acquisition	[For Period] 2006-01-01 to 2006-12-31	1000	300
8	Land, Additions, Total	[For Period] 2006-01-01 to 2006-12-31	1000	400
9	Land, Disposals	[For Period] 2006-01-01 to 2006-12-31	-1000	-200
10	Land, Translation Difference	[For Period] 2006-01-01 to 2006-12-31	1000	-200
11	(+) Concept			
12	Land, Period Increase (Decrease), Total	[For Period] 2006-01-01 to 2006-12-31	1000	400
13	Land, Ending Balance	[As of] 2006-12-31	1000	244,908
14				
15	Land [Line Items]			
16	Movement in Land [Movement]			
17	Land, Beginning Balance	[As of] 2006-12-31	1000	244,508
18	Land, Additions [Calculation]			
19	Land, Additions, from Purchase	[For Period] 2007-01-01 to 2007-12-31	1000	100,000
20	Land, Additions, from Acquisition	[For Period] 2007-01-01 to 2007-12-31	1000	9,659
21	Land, Additions, Total	[For Period] 2007-01-01 to 2007-12-31	1000	109,659
22	Land, Disposals	[For Period] 2007-01-01 to 2007-12-31	-1000	-193
23	Land, Translation Difference	[For Period] 2007-01-01 to 2007-12-31	1000	12,401
24	(+) Concept			
25	Land, Period Increase (Decrease), Total	[For Period] 2007-01-01 to 2007-12-31	1000	231,526
26	Land, Ending Balance	[As of] 2007-12-31	1000	476,034

Extension Points:

A [Movement] is logically extended by adding a new concept to the list of existing concepts which change. In the example above, a concept in the [Calculation] of "Land, Period Increase (Decrease), Total" is the only logical extension point.

[CSH: Same issue with other calculations. Could (should), for example, "Land, Disposals" be extended?]

[RAVE: It probably should be extensible, which means in certain cases the set of dimensions should be extensible?!??! Dangerous but probably required from a practical point of view. I suggest we ask this in the "accounting profession consulting group ☺]

4.5   Record

The Record meta pattern is used to articulate information which is complex in nature, expressed in XBRL many times using a tuple. An example of this is, say, director compensation disclosure where a salary, bonuses, director fees, and options granted a director all relate to a specific director. The information is deemed complex as it must be bound together in some manner.

Note that a tuple is an inferior approach to articulating this information because the method used by XBRL to articulate a tuple is XML Schema as a complex type as such, a tuple cannot be changed once it is instantiated within a taxonomy due to the way XML Schema works. Tuples also don't provide an ability to provide unique key values and they have other negative characteristics. As such, the approach here is used to articulate this type of information within an XBRLS type taxonomy.

[CSH: Note that it is unclear whether this meta pattern is necessary. This is here as a placeholder for now until it is determined if this is, or is not, necessary. The best information that we have not is that this is not necessary.]

4.5.1 Example of the meta pattern

Director	Salary	Bonus	Director Fee	Options Granted, at Fair Value
pattern:JohnDoeMember	1,000	1,000	1,000	1,000
pattern:JaneDoeMember	1,000	1,000	1,000	1,000
pattern:DirectorsAllDomain	2,000	2,000	2,000	2,000

4.5.2 Characteristics of the meta pattern

4.5.3 Rules of the meta pattern

4.5.4 Taxonomy of the meta pattern

4.5.5 Instance of the meta pattern

4.5.6 Neutral format table of meta pattern

*	A	B	C	D	
1	Director Compensation [Schedule]	Director [Axis]			
2	Director [Axis]	John Doe [Member]	Jane Doe [Member]	(+) Director	Directors, All [Domain]
3	Director Compensation [Line Items]				
4	Director [Record]				
5	Director, Salary	1,000	1,000		2,000
6	Director, Bonuses	1,000	1,000		2,000
10	Director, Fees	1,000	1,000		2,000
11	Director, Options Granted, at Fair Value	1,000	1,000		2,000

5 Summary of Business Use Cases

Taxonomies model information that will eventually be contained in XBRL-based financial reports, called XBRL instance documents. It is important that similar structures within a taxonomy be created in a consistent manner. Inconsistencies make taxonomies harder to understand and use. This document decomposes these patterns and, presents information helpful for taxonomy creators and for instance creators.

The overall goals of this document are to:

1. Communicate to taxonomy creators the specific way components of a specific nature should be modeled within a taxonomy in order to minimize variations. Conscious, desirable variations may still be appropriate, but these variations should be justifiable.

2. Help train those creating instance documents as to the characteristics within an instance document that are important and should be communicated and considered. For example, helping differentiate concepts, contexts, dimensions, and so forth.

3. Document understanding of this information and serve as a reference.

This document takes common components found in financial reporting and breaks them down to their fundamental essence. Each pattern builds on the last pattern shown, so the order in which this document is read is important.

This document takes common components found in financial reporting, boils them down to their fundamental essence. Each pattern builds on the last pattern shown, so the order that this document is read is important.

5.1 Summary Information for Business Use Cases

The following is a list of business use cases in the order in which they appear in this document.

#	Business Use Case Example	Use Case Name
1	Financial Highlights	Simple Hierarchy
2	Accounting Policies	Hierarchy
3	Property, Plant and Equipment, by Component	Simple Calculation
4	Balance Sheet	Nested Calculation
5	Income Statement	Inverted Calculation
6	Receivables Breakdown	Multiple Calculations
7	Land Movement	Simple Movement
8	Statement of Changes in Equity	Complex Movement
9	Director Compensation Disclosure	Simple Compound Concept
10	Subsequent Events Disclosure	Repeating Concept
11	Leaseholds Disclosure	Compound Concept, Multiple Periods
12	Share Options Disclosure	Compound Concept with Movement
13	Related Party Disclosure	Nested Compound Concept
14	Reconciliation of Cash	Reconciliation of Balance
15	Director Compensation Disclosure	Text Block
16	Restatement of Earnings	Restatement
17	Reissuance of Financial Statement	Reissue of Report
18	Reclassification Disclosure	Reclassification of Item
19	Management Discussion and Analysis	Prose
20	Footnote Comment on Balance Sheet	Comment

5.2 Information Provided for Each Business Use Case

For each business use case, the following is shown:

- **Example of use case** – This shows a human readable example of the data from a business report with which a domain user would be familiar. This communicates the pattern visually to provide a sense for what is being discussed.

- **Characteristics of the use case** – This is a description of the characteristics of the pattern.

- **Taxonomy modeling information for use case (Presentation, Calculation, Definition)** – This is a table that contains information that is helpful in understanding the modeling pattern. This is as human readable as possible. This is not intended to

be a 100% full description, which can be obtained by opening the actual taxonomy provided in a taxonomy editing or viewing application. See the sample files provided for a full understanding of this information.

- **Instance document information for use case** – In this section the instance document is modeled in a human readable format. Seeing how the elements and the financial data are expressed in the instance document can help with understanding NTS modeling techniques. Additionally, calculation and formula validation reports are shown to help understand what calculations will be possible. This section tests the sample taxonomy to see if the desired results are achieved, proving that the achieved result is the desired result.

- **Neutral format table for use case** – A neutral format table is provided for each use case.

This document starts simple and builds incrementally, adding one or two new ideas that help the reader understand how taxonomies and instance documents work. In the beginning of this document the patterns are rather simple. Increasing complexity is added incrementally in order to focus on one issue at a time. Distracting "noise" is removed from the patterns so that the essence of what is trying to be communicated is the focus, distracting presentation information, complexity, and so forth. are removed from the information in order to focus on specific points. Once each of these patterns is understood, techniques for identifying the patterns and turning the patterns into a taxonomy component will be more and more possible for complex financial reporting information.

Any financial reporting information can be expressed with these patterns. If this is not the case, then an additional pattern or patterns will be added to this document to make this the case. Every situation should be covered by this document.

5.3   Use Case Files

In addition to this document, a set of files have been created to go with this document. These files will help the user of this document understand the details of each modeling pattern and instance document. The files contain the following for each modeling pattern:

- A taxonomy created for each use case

- Taxonomy printouts for presentation, calculation, and definition links

- An instance document for each use case

- A human readable input form (Excel spreadsheet) for each use case

- Style sheets that show rendering the XBRL instance information into HTML, XSL-FO for rendering into PDF, and Excel

- Calculation and formula validation that show the validity of calculations expressed in the taxonomy

- Validation reports

- Renderings of the instance information for the use case in HTML, PDF, and Excel generated by the style sheets provided

5.4   Rules Followed by all Use Cases

The following are additional rules followed by the patterns which have been modeled. This guidance is used to create the actual taxonomies and instance documents provided.

5.4.1   A Style Guide is followed.

For all concept labels, a style guide is provided which facilitates the creation of consistent labels. Compliance with the style guide is achieved using automated validation against style guide rules.

5.4.2   The FRTA is followed.

FRTA rules should be followed. However, certain FRTA rules will likely be dropped when FRTA 1.1 is developed. The following is a list of FRTA rules that the USFRTF has consciously chosen not to follow:

Table 1. FRTA rules not followed

FRTA Section	Explanation and Reasoning for Deviation

5.4.3   Make all models with the current period nearest to the left, prior period to it's right, and any other prior periods moving right on the page.

Basically, models should flow left to right; not right to left. This is a restriction only on these models, not a restriction on preparers in general.

5.4.4   FRIS (latest public working draft) is followed for all instance documents.

Each of the instance documents provided follow guidance provided by FRIS (Financial Reporting Instance Standards) which is a public working draft at this time. FRIS provides guidance useful in creating high-quality instance documents. However, certain FRIS rules will likely be dropped when FRIS 1.1 is developed. The following is a list of FRIS rules that the USFRTF has consciously chosen not to follow:

Table 2. FRIS rules not followed

FRIS Section	Explanation and Reasoning for Deviation
	NO EXEPTIONS ARE ALLOWED AT THIS TIME.

5.5 *Guidance Not Provided by this Document*

This document is not intended to be a guide to the following aspects of creating a taxonomy or instance document.

- Taxonomy file modularity. Taxonomies are created are generally less modular than one would create a production taxonomy.

- The use of references within a taxonomy. No references are provided.

- Documentation is not provided, but fake documentation is created within the taxonomy to pass FRTA validation.

- Style sheets which are provided are built to be easy to reverse engineer, rather than the most efficient or effective methods of creating style sheets.

6   Business Use Cases

This section provides a subsection for each modeling pattern. These modeling patterns are intended to be read in the order that they appear in this document as one modeling pattern builds on the next.

For each modeling pattern a table of information for the presentation and calculation information is provided. This information is intended to be as humanly readable and helpful as possible in understanding the key aspects of the modeling pattern. Full information should be gleaned from the sample taxonomy and its related instance document.   To achieve this

objective and to squeeze as much information into a small space, but still keep it readable, several short cuts are used. These short cuts are used consistently by each modeling pattern. These short cuts are described here to help the reader understand and read these tables:

- **Line** – Each entry in the table has a "Line" that is basically a line number for the line in the table. This line number is used to reference items in the table. Line is not a part of XBRL, only helpful in referring to information in the table of information.

- **Balance Type** – Balance type is optional and for balance types allowed, "Debit" refers to DEBIT, "Credit" for CREDIT.If there is no balance type, the cell is blank.

- **Period Type** – Period type is required and the values used are "Instant" and "Duration", which matches allowed values.

- **Data Type** – In XBRL data types (actually the "type" attribute) are shown as "xbrli:monetaryItemType". Rather than this, we will use "Monetary" to represent that value. Where the value is unclear, an explanation will be provided beneath the table. Abstract concepts will be shown in parenthesis, for example "(String)" means the concept is abstract. Generally, all abstract concepts will be strings. Also, per the USFRTF Style Guide, "[Abstract]" must be appended to the label of all abstract concepts.

- **Label** – We will work with unique labels and not show concept names. Where the labels are unclear, additional explanation will be provided beneath the table. The following additional information is important to understanding labels:

  o Weights will be shown in front of concepts where "(+)" indicates a weight of 1 and (-) indicates a weight of -1. Weights are only used in calculation relations. The root of calculations are shown with "(=)".

  o Extended links are identified by "Extended Link" in the beginning of the label with the description (which is required by FRTA), rather than the extended link URI itself that tends to be less readable by humans.

  o Indentation of the labels denotes hierarchy (parent-child relation) within the taxonomy.

  o For tuples, minOccurs and maxOccurs is not used, but rather [KEY] to denote a key, [OPT] for optional, [REQ] for required.

Certain information is important to understand the content instance documents. This will be explained for each modeling pattern. Here is a summary of instance document information for fact values expressed which relates to all modeling patterns:

- **Line** – Same as for the taxonomy; just for referencing purposes

- **Concept** – The concept from the taxonomy, again, using the label rather than the concept name.

- **Context Ref** – The context for the fact value. Unless otherwise stated, all information relates to the entity "USFRTF Sample Company" for the balance sheet date of December 31, 2003 (context ref of I-2003), and income statement period from January 1, 2003 to December 31, 2003 (D-2003). The prior period is context I-2002 and D-2002, etc. Additional segment and scenario information is explained below the table of instance information.

- **Units Ref** – All units, unless otherwise specified, are US Dollars (U-Monetary). Shares use U-Shares, pure numbers use U-Pure, other units used will be described below the table.

- **Decimals** – All decimals will be INF (what you see is what you get).

- **Value** – This is the value of the fact value. Note that no formatting is used, only numbers.

Information provided about instances documents will be used to highlight specific information and point out differences between the modeling patterns. All patterns have sample instances. However, the sample instances provided may not contain all data points shown in the pattern in order to save space in the document. The sample instance documents in the files provided do contain all instance data.

6.1 Simple Hierarchy (Financial Highlights)

This is a Hierarchy.

6.1.1 Example of the use case

ABC Company, Inc.
Financial Highlights
(in US Dollars)

	2007	2006	2005	2004	2003
Revenues, Net	4,000	0	0	0	0
Income (Loss) from Continuing Operations	500	-4,000	-4,000	0	0
Net Income (Loss)	500	-4,000	-4,000	0	0
Cash Flow Provided by (used in) Operating Activities, Net	-1,000	4,000	0	0	0
Capital Additions	1,000	650	550	450	350
Average Number of Employees	300	250	250	240	220

6.2 Hierarchy (Accounting Policies)

This is a Hierarchy.

6.2.1 Example of the use case

2. SIGNIFICANT ACCOUNTING POLICIES

The following is a summary of the more significant accounting policies of ABC Company, Inc.

Cash and Cash Equivalents Policies
These are the cash and cash equivalents policies. Blah blah blah blah.

Receivables Policies
Trade receivables are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts.

Inventories Policies
Inventories are stated at the lower of cost and net realizable value. Cost comprises direct materials and, where applicable, direct labor costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average method.

Prepaid Expenses Policies
These are the prepaid expenses policies. Blah blah blah blah.

Property, Plant and Equipment Policies
These are the property, plant and equipment policies. Blah blah blah blah.

<u>Measurement Basis</u>
This is information about the measurement basis. Blah blah blah blah.

<u>Depreciation Method</u>
This is information relating to depreciation method. Blah blah blah blah.

<u>Estimated Useful Life</u>
This is information relating to the estimated useful life. Blah blah blah blah.

Other Assets Policies
These are the other assets policies. Blah blah blah blah.

Payables and Accruals Policies
These are the payables and accrual policies. Blah blah blah blah.

Debt Policies
These are the debt policies. Blah blah blah blah

<u>Long-Term Debt</u>
These are the long term debt policies. Blah blah blah blah

Other Liabilities Policies
These are the other liabilities policies. Blah blah blah blah.

The accompanying notes are an integral part of these financial statements.

6.3   Simple Calculation (Components of PPE)

This is a Calculation.

6.3.1   Example of the use case

Sample Company
December 31,
(thousands of dollars)

	2007	2006
ASSETS		
Property, Plant, and Equipment, Net		
Land	5,347	1,147
Buildings, Net	244,508	366,375
Furniture and Fixtures, Net	34,457	34,457
Computer Equipment, Net	4,169	5,313
Other Property, Plant, and Equipment, Net	6,702	6,149
Property, Plant and Equipment, Net, Total	295,183	413,441

This is a calculation with a negative weight.

Sample Company
December 31,
(thousands of dollars)

	2008	2007
Trade Receivables		
Trade Receivables, Gross	18,280	13,472
Allowance for Doubtful Accounts	-5,687	-4,682
Trade Receivables, Net	12,593	8,790

6.4 Nested Calculation (Balance Sheet)

This is a Calculation.

6.4.1 Example of the use case

	2007	2006
ASSETS		
Current Assets		
Cash and Cash Equivalents	1,000	1,000
Receivables, Net of allowance of 1,000 and 1,000 in 2004 and 2003, respectively	1,000	1,000
Inventory	1,000	1,000
Prepaid Expenses	1,000	1,000
Other Assets, Current	1,000	1,000
Assets, Current	5,000	5,000
Noncurrent Assets		
Land	1,000	1,000
Buildings, Net	1,000	1,000
Furniture and Fixtures, Net	1,000	1,000
Other Property, Plant, and Equipment, Net	1,000	1,000
Investment in Affiliates	0	0
Other Assets, Noncurrent	3,000	1,000
Assets, Noncurrent	7,000	5,000
Assets	12,000	10,000

This is a Calculation.

Sample Company
December 31,

	2008	2007
INCOME TAX EXPENSE		
Current income tax expense		
Foreign Income Tax Expense, Current	5,408	1,994
Domestic Income Tax Expense, Current	7,972	1,426
Total current income tax expense	13,380	3,420
Deferred income tax expense		
Foreign Income Tax Expense, Deferred	6,046	838
Domestic Income Tax Expense, Deferred	-90	0
Total deferred income tax expense	5,956	838
Total income tax expense	19,336	4,258

6.5 Inverted Calculation (Income Statement)

This is a Calculation.

6.5.1 Example of the use case

ABC Company, Inc.
Consolidated Income Statements (Commercial and Industrial, Multi-Step Income Statement)
(in US Dollars)

	For Year Ended December 31,	
	2007	2006
Revenues, Net	4,000	0
Cost of Sales	-1,000	-1,000
Gross Profit (Loss)	3,000	-1,000
Operating Expenses	-1,000	-1,000
Operating Income	1,000	1,000
Operating Income (Loss)	3,000	-1,000
Interest Expense (Income)	1,000	1,000
Other Nonoperating Expenses (Income)	1,000	1,000
Income (Loss) from Continuing Operations Before Income Taxes	1,000	-3,000
Income Tax Expense (Benefit)	500	1,000
Income (Loss) from Continuing Operations	500	-4,000
Income (Loss) from Discontinued Operations, Net	0	0
Net Income (Loss)	500	-4,000

6.6 Multiple Calculations (Receivables Breakdown)

This is a Calculation.

6.6.1 Example of the use case

Sample Company
December 31,

	2008	2007
TRADE AND OTHER RECEIVABLES		
Trade and other receivables by component		
Trade Receivables, Net	8,790	6,431
Finance Lease Receivable, Net	2,498	1,263
Other Receivables, Net	1,305	1,096
Trade and Other Receivables, Net, Total	12,593	8,790
Net/Gross portions		
Trade Receivables, Net	18,280	13,472
Allowance for Doubtful Accounts	-5,687	-4,682
Trade and Other Receivables, Net, Total	12,593	8,790
Current/Non Current portions		
Trade and Other Receivables, Net, Current	6,340	5,701
Trade and Other Receivables, Net, Non Current	6,253	3,089
Trade and Other Receivables, Net, Total	12,593	8,790

6.7 Simple Movement (Land Movement)

This is a Movement.

6.7.1 Example of the use case

Sample Company
December 31,
(thousands of dollars)

	2007	2006
Movement in Land		
Land, Beginning Balance	1,147	1,147
Additions	1,992	400
Disposals	-193	-200
Translation difference	2,401	-200
Land, Ending Balance	5,347	1,147

6.8 Complex Movement (Statement of Changes in Equity)

This is a series of Movements.

6.8.1 Example of the use case

ABC Company, Inc.
Consolidated Statement of Changes in Equity
(in US Dollars)

	Preferred Stock (Shares)	Common Stock (Shares)	Preferred Stock	Common Stock	Additional Paid In Capital	Retained Earnings (Accumulated Losses)	Equity
Balance at December 31, 2005	6,000	6,000	0	1,000	0	0	1,000
Net Income (Loss)						-4,000	-4,000
Dividends Paid						-1,000	-1,000
Preferred Stock Issued	7,000		1,000				1,000
Common Stock Issued		5,000		1,000	1,000		2,000
Stock Options Exercised		6,000		1,000			1,000
Preferred Stock Buybacks	-6,000		-1,000		-1,000		-2,000
Other Increase (Decrease)	-1,000	-11,000	1,000	-2,000	1,000	6,000	6,000
Balance at December 31, 2006	6,000	6,000	1,000	1,000	1,000	1,000	4,000
Net Income (Loss)						500	500
Dividends paid						-1,000	-1,000
Preferred Stock Issued	7,000		1,000				1,000
Common Stock Issued		5,000		1,000	1,000		2,000
Stock Options Exercised		6,000		1,000			1,000
Preferred Stock Buybacks	-6,000		-1,000		-1,000		-2,000
Other Increase (Decrease)	-1,000	-11,000	1,000	-2,000	1,000	500	500
Balance at December 31, 2007	6,000	6,000	2,000	1,000	2,000	1,000	6,000

6.9 Simple Compound Concept (Director Compensation Disclosure)

This is a Hierarchy (or a Record).

6.9.1 Example of the use case

Director	Salary	Bonus	Director Fee	Options Granted, at Fair Value
pattern:JohnDoeMember	1,000	1,000	1,000	1,000
pattern:JaneDoeMember	1,000	1,000	1,000	1,000
pattern:DirectorsAllDomain	2,000	2,000	2,000	2,000

6.10 Repeating Concept (Subsequent Events Disclosure)

This is a Hierarchy (or a Record).

6.10.1 Example of the use case

9. SUBSEQUENT EVENTS

The following is a summary of subsequent events for the company:

Description of subsequent event number 1 which relates to the loss of an uncollectable receivable. The event occurred on 2008-01-15.

Description of subsequent event number 2 which relates to the purchase of a business. The event occurred on 2008-01-20.

6.11 Compound Concept, Multiple Periods (Leaseholds Disclosure)

This is a Hierarchy (or a Record).

6.11.1 Example of the use case

The following is a summary of leasehold land and buildings as of December 31, 2007 and 2006:

Leasehold	Location	Description	Tenure	Tenure Start Date	Land Area	Value (at Cost)
gaap:LeaseholdAMember	Tacoma, Washington	Warehouse	Fifteen year lease	2000-01-01	1,000	5,000
gaap:LeaseholdBMember	Seattle, Washington	Warehouse	Twenty year lease	2000-01-01	100,000	50,000
				Total	101,000	55,000

6.12 Compound Concept with Movement (Share Options Disclosure)

This is a Movement.

[CSH: This could be an issue. This has two "shapes". Need to discuss.]

6.12.1 Example of the use case

8. SHARE OWNERSHIP PLANS

gaap:ShareOwnershipPlan1Member

These are the description, general conditions, and terms of share ownership plan 1

Awards:

Type	Outstanding 2006	Granted	Forfeited	Exercised	Expired	Outstanding 2007
gaap:ShareOwnershipPlan1Member	0	4,000	-1,000	-1,000	-1,000	1,000

6.13 Nested Compound Concept (Related Party Disclosure)

This is two different Hierarchy's (or Records).

6.13.1 Example of the use case

10. RELATED PARTY TRANSACTIONS

The following is a summary of related party of the company and transactions with those related parties:

Related Parties:

Name of Related Party	Type of Relationship	Nature of Relationship
gaap:RelatedParty1Member	Parent	This is other descriptive information about the relationship.
gaap:RelatedParty2Member	JointVenture	This is other descriptive information about the relationship.

Transactions with Related Parties:

Party	Transaction Description	Pricing Policy	Amount
gaap:RelatedParty1Member	Transaction 1 description	Cost	1000
gaap:RelatedParty1Member	Transaction 2 description	Cost	1000
gaap:RelatedParty2Member	Transaction 1 description	Cost	1000
gaap:RelatedParty2Member	Transaction 2 description	Cost	1000

6.14 Reconciliation of Balance (Cash Reconciliation)

This is a nested Calculation. Note that everything is an instant.

6.14.1 Example of the use case

Reconciliation of Cash

The following is a reconciliation of cash and cash equivalents reported on the balance sheet to cash and cash equivalents reported on the cash flow statement:

	2007	2006
Cash and Cash Equivalents, per Cash Flow Statement	1,000	-3,000
Reconciling Item A	500	500
Reconciling Item B	-500	500
Cash and Cash Equivalents, per Balance Sheet	1,000	1,000

6.15 Text Block (Director Compensation Disclosure)

This is a Hierarchy.

6.15.1 Example of the use case

Director	Salary	Bonus	Director Fee	Options Granted, at Fair Value
pattern:JohnDoeMember	1,000	1,000	1,000	1,000
pattern:JaneDoeMember	1,000	1,000	1,000	1,000
pattern:DirectorsAllDomain	2,000	2,000	2,000	2,000

6.16 Restatement (Restatement of Earnings)

[CSH: Need to discuss.]

6.16.1   Example of the use case

Statement of Equity (Fragment)

Retained earnings, Beginning balance, Origionally Stated	12,000	
Prior Period Earnings	NaN	
Changes In Accounting Policies	NaN	
Prior Period Adjustments	NaN	
Retained earnings, Beginning balance, Restated	10,700	12,000
Dividends Paid	-500	-500
Net Income	650	-800
December 31, 2003	10,850	12,000

6.17 Reissue of Report (Reissuance of Financial Statement)

[CSH: Need to discuss.]

6.17.1   Example of the use case

6.18 Reclassification of Item (Reclassification Disclosure)

[CSH: Need to discuss.]

6.18.1   Example of the use case

6.19 Prose (Management Discussion and Analysis)

[CSH: Need to discuss.]

6.19.1   Example of the use case

MANAGEMENT DISCUSSION AND ANALYSIS

The following is an example/sample of the target use case for narratives. The information was taken from various existing samples and put together to minimize the effort required to put this example together. It may seem nonsensical, but it definitely shows the Actual use case. The Actual use case has the following characteristics:

1) It contains a mixture of paragraphs of text and tables of information,
2) The information MUST be viewed in a particular order to make sense,
3) There is typically a large volume of information, such as the "Management Discussion and Analysis",
4) The information can be unique to a company, no standard taxonomy concepts exist.
5) The information contains a mixture of "data" and "labels".

This example is intended to mimic the characteristics of the use case described above. It would likely be quite easy to find an example from a financial report which shows this use case in a form which is more comfortable to domain users (i.e., accountants). If the domain users would like this example updated to be more understandable to an accountant, we can put that together for them. But, this example is to show the characteristics of the use case with minimum effort, not to be 100% correct from a financial reporting perspective.

RECEIVABLES

Trade receivables are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts.

Trade receivables include receivables from major customers.

Trade receivables include related party receivables.

DIRECTOR COMPENSATION

The following is a listing of director compensation:

Name of director	Salary	Bonus	Director fees	Fair Value of Options Granted
John James	0	0	60,000	0
Buck Rogers	879,619	1,213,486	0	569,000
Clark Kent	0	0	24,200	0
Lois Lane	0	0	57,000	0

ACCOUNTING POLICIES

The financial statements have been prepared on the historical cost basis, except for the revaluation of land and buildings and certain financial instruments. The principal accounting policies adopted are set out below.

Inventories

Inventories are stated at the lower of cost and net realizable value. Cost comprises direct materials and, where applicable, direct labor costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average method.

Net realizable value represents the estimated selling price less all estimated costs to completion and costs to be incurred in marketing, selling and distribution.

Inventories are stated at the lower of cost and net realizable value. Included in inventory are: (a) raw materials, (b) supplies, (c) finished goods.

LONG TERM DEBT

The following is a summary of Long-term Debt outstanding as of December 31, 2004 and 2003:

	2004	2003
Note payable to a bank, principal payments of $11,300 due September 15 and October 15, 2004, 2005, and 2006 with an additional principal payment of $880 paid when the note is due on October 15, 2006, interest at prime plus 2% is payable monthly, secured by equipment	$ 21,480	$ 46,080
Note payable to a bank, principal payments of $2,400 due monthly from August through January, interest at prime plus 2% payable monthly, due October 5, 2009, secured by a vehicle	85,000	0
Note payable to a related party, payable in semi-annual principal installments of $10,000 plus interest at 10%, unsecured	0	45,000
Capital lease payable in monthly installments of $1,200 including interest at 13.2%, due February 2007, secured by a vehicle	11,301	43,782
Long Term Debt, Total	141,781	134,862
Current Portion of Long Term-Debt	23,000	22,000
Non Current Portion of Long Term Debt	$ 118,781	$ 112,862

FINANCIAL INSTRUMENTS

Financial assets and financial liabilities are recognized on the Group's balance sheet when the Group has become a party to the contractual provisions of the instrument.

6.20 Comment (Footnote Comment on Balance Sheet)

This is the use of an XBRL footnote.

6.20.1   Example of the use case

	2003	2004
ASSETS		
Property, Plant, and Equipment, Net		
Land(1)	5,347	1,147
Building, Net	244,508	366,375
Furniture and Fixtures, Net	34,457	34,457
Computer Equipment, Net	4,169	5,313
Other Property, Plant, and Equipment, Net	6,702	6,149
Total	295,183	413,441

(1)This is some sort of comment.
(2)Comment

A References (non-normative)

[XBRL]   Phillip Engel, Walter Hamscher, Geoff Shuetrim, David vun Kannon, Hugh Wallis.

Extensible Business Reporting Language (XBRL) 2.1 Recommendation with corrected errata to 2005-11-07

http://www.xbrl.org/SpecRecommendations/

[FRTA]   Walter Hamscher (editor).

Financial Reporting Taxonomies Architecture 1.0 Recommendation with errata corrections dated 2006-03-20.

http://www.xbrl.org/TechnicalGuidance/

[FRIS]

B Document History

Date	Editor	Summary
2008-01-27	Hoffman	First draft of document.
2008-01-30	Egmond	General review and edits
2008-02-05	Hoffman	Added examples of business use cases.
2009-02-09	Hoffman	Synced with current version of meta patterns