The Intelligent Business Document:

Thoughts on Leveraging the Business Reporting Logical Model in Exchanging Business Information

Information from this document summarizes detailed information provided by a straw man implementation of the Business Reporting Logical Model which was created by the XBRL International Taxonomy Architecture Working Group. For more information see:

http://xbrl.squarespace.com/journal/2010/6/13/straw-man-implementation-of-business-reporting-and-financial.html

Semantic Inconsistencies, Semantic Ambiguity

Software applications have struggled with things such as rendering XBRL since XBRL was first created. The reason rendering XBRL is challenging to render seems to be that the facts in an XBRL instance are "flat". However, this is not really the real reason XBRL is challenging to render. XBRL taxonomies have all the information necessary to turn flat XBRL into the content models desired by those familiar with XML and XSLT.

The real reason XBRL is challenging to render, and why other things can be challenging, are the semantic inconsistencies within and between XBRL taxonomies used in creating XBRL instances. Each implementation of XBRL makes different assumptions regarding the semantics (business meaning) of the information within an XBRL taxonomy. That means each application reading XBRL instances from that taxonomy is unique to that XBRL taxonomy at the semantic level, the level that is important to business users. At the syntactic level (i.e. the XBRL syntax, the hard technical stuff business users should not have to deal with), XBRL is very interoperable. But the creators of XBRL taxonomies project different business semantics into their XBRL taxonomies or never think about business semantics at all which makes the matter even worse.

Why is each XBRL taxonomy so different in terms of business semantics?

The reason each XBRL taxonomy has different business semantics is that there are no common business semantics which can be leveraged across different XBRL taxonomies. XBRL is only a global standard syntax, not global standard business semantics. There is a big difference.

If you are not sure what is meant by business semantics, take a look at the components of the Business Reporting Logical Model:

http://www.xbrlsite.com/Demos/FRTA/2010-06-15/_LogicalModels.pdf

Contrast the terminology that you see in the Business Reporting Logical Model to this model of the syntax of XBRL (note that this is only a partial model, it does not include all the details):

http://www.xbrlsite.com/Demos/FRTA/Overview/XBRL-Physical-Model.pdf

Which set of terms would you prefer to deal with? Logical models make things easier to understand. We are all familiar with the logical model of an electronic spreadsheet. Workbooks have spreadsheets. Spreadsheets have rows, columns, and cells. That is a logical model.

Not only does a logical model help business users have a set of familiar terminology to use, it also helps get ambiguities which computers cannot deal with exposed and resolved.

This document tries to explain both the problem and the solution to that problem. In summary,

- There needs to be a common Business Reporting Logical Model, business semantics which can be shared between implementations of XBRL.
- XBRL is a standard. But to exchange information effectively takes a protocol.
- If no common Business Reporting Logical Model exists, there can be no mass adoption of XBRL. This is because the global standard XBRL syntax is too hard for business users to make use of.
- Software applications can hide the XBRL syntax from business users by leveraging the Business Reporting Logical Model to create taxonomies, creates XBRL based business reports, and extract information from XBRL-based business reports.

You can see more details here, should you desire more details:

http://xbrl.squarespace.com/journal/2010/6/20/business-reporting-logical-model-enhances-comparability-and.html

http://xbrl.squarespace.com/journal/2010/6/10/looking-into-possible-future-scenarios-of-xbrl-adoption.html

Exchanging Business Information

Think about the following questions any business user might logically ponder:

- How can one business user exchange business information with another business user, the promise of XBRL, if business users cannot create their own XBRL taxonomies? Will business users need to rely on the IT department for creation of XBRL?
- Why is it that XBRL can be a global standard, but the FDIC and the SEC implementations of XBRL are not compatible?
- Why is it so hard to get started with XBRL? What can I pick up and use other than the XBRL Specification in order to get started?
- When I create my SEC XBRL filing, why do I have to deal with terms such as extended link role, definition linkbase, taxonomy schema, etc?

These are reasonable questions.

Will Business Users Ever Be Able to Use XBRL?

The short answer to this question is "yes", but that is really not the real question. Those building software for business users will have to come up with ways to make XBRL easier (possible) for business users to use. That will happen. It is happening now, slowly. The real question is will business users be able to exchange business information with another business user without the involvement of the IT department. Is there a standard way to use XBRL so you can exchange information with other business users who have a different software application.

Intelligent Business Document

Imagine an "***intelligent business document***" which has the following characteristics. (I used to use the term "interactive information hypercube", but intelligent business document is now the best term I have heard to describe this idea.

1. The intelligent business document works like an Excel pivot table. It is based on the multidimensional model, leveraging its flexibility. You can also use the OLAP model, but you are not required to.

2. The intelligent business document supports not only numbers, but also text. (Note that today, the Excel pivot table does not deal with text appropriately.)

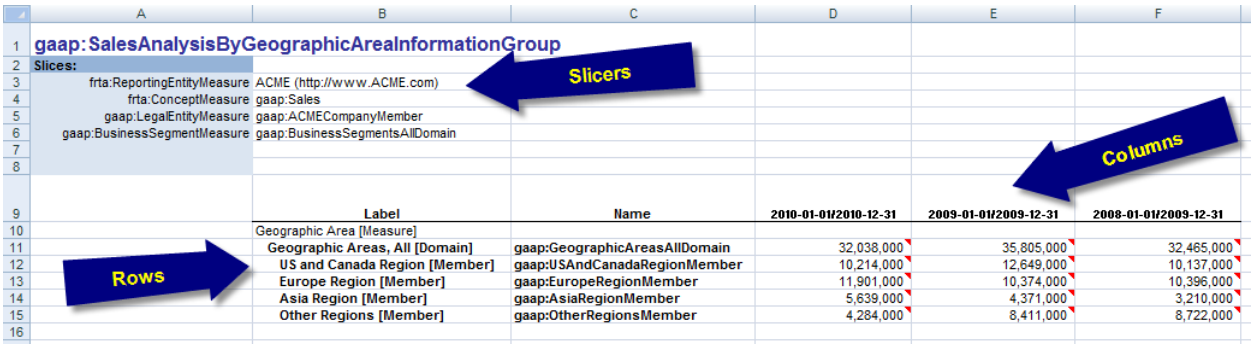
3. The intelligent business document is organized into the following areas:

    a. **Slicers**: dimensions which are applicable to all cells. (Slicers make it so "n" dimensional information (any number of dimensions) can be presented in a 2 dimensional medium such as a table).

    b. **Rows**: one dimension.

    c. **Columns**: another dimension

    d. **Cells**: intersections of dimensions which contain a value.



	A	B	C	D	E	F
1	gaap:SalesAnalysisByGeographicAreaInformationGroup					
2	Slices:					
3	frta:ReportingEntityMeasure	ACME (http://www.ACME.com)				
4	frta:ConceptMeasure	gaap:Sales				
5	gaap:LegalEntityMeasure	gaap:ACMECompanyMember				
6	gaap:BusinessSegmentMeasure	gaap:BusinessSegmentsAllDomain				
7						
8						
9		Label	Name	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2009-12-31
10		Geographic Area [Measure]				
11		Geographic Areas, All [Domain]	gaap:GeographicAreasAllDomain	32,038,000	35,805,000	32,465,000
12		US and Canada Region [Member]	gaap:USAndCanadaRegionMember	10,214,000	12,649,000	10,137,000
13		Europe Region [Member]	gaap:EuropeRegionMember	11,901,000	10,374,000	10,396,000
14		Asia Region [Member]	gaap:AsiaRegionMember	5,639,000	4,371,000	3,210,000
15		Other Regions [Member]	gaap:OtherRegionsMember	4,284,000	8,411,000	8,722,000
16						

4. This model (slicers, rows, columns, cells) can be used for both consuming business information or creating business information which is XBRL-based. You "edit the XBRL taxonomy" by adding a row, column, slicer, or cell to the intelligent business report.

5. The intelligent business document has business rules which support both creating and consuming the report. These business rules make sure every computation adds up, all the required pieces of the report are there.

6. The intelligent business report can change languages with the click of a button because the meta data of the report (i.e. that XBRL syntax stuff) is in a computer readable form, expressed in a global standard way.

7. Imagine that EVERY business system in the world understood these intelligent business reports. Every business system can generate them, every business system can consume them.

These intelligent business documents sound like a form. Well forms can be expressed using these ideas, but an intelligent business document is dynamic, it is a form that you can change to suite your needs. If it were only a form it would be useful, there is no standard "form" which business users can use to exchange business information. But having a dynamic form, the users can change the form to suit their needs, opens up additional use cases such as external financial reporting. Financial statements are not forms. There are some things which are "standard" (i.e. generally accepted accounting standards), but those creating financial reports can "change the form". In XBRL terms, that means extending the XBRL taxonomy.

Extension Points (Changing the Form)

When someone "changes the form" (i.e. extends the XBRL taxonomy), these changes are not random. The changes need to make sense, give the taxonomy which is being extended. In order to do that, the taxonomy you are extending needs to be understood, it needs to follow some pattern or model.

XBRL taxonomies can be edited within an XBRL taxonomy tool interface. Those general XBRL tool interfaces interact with XBRL at the XBRL syntax level. But, those interfaces have proven too complex for business users to use because the XBRL syntax is complex, too complex for the typical business user. But do these interfaces have to be that complex? No they do not. Software vendors can hide XBRL behind a logical model, making it so business users interact at the logical model level and the logical model handles generating the legal XBRL syntax, meeting the XBRL Specification. The Business Reporting (and Financial Reporting) logical models make this possible.

Leveraging the Business Reporting Logical Model

There are two ways the Business Reporting Logical Model can be leveraged by software:

A. Burry the Business Reporting Logical Model deeply within the application, literally hiding the XBRL syntax from the business user. This will take writing new software applications.

B. Use the existing software applications (for now), but then use the Business Reporting Logical Model to verify post creation that the XBRL syntax you are creating complies with that model. Basically, continue using the tools but have post creation validation verify that you are following the model.

Clearly option "A" is the best long term, but option "B" can be used today.

The Business Reporting Logical Model can make an XBRL syntax interface usable by a business person it the following two ways today, given these existing XBRL tools which work at the XBRL syntax level:

1. Validate the XBRL syntax post creation. This is done by taking existing XBRL software, creating what you desire to create, and then checking what you created using automated validation processes which check adherence to the Business Reporting Logical Model post creation.

2. Auto-generate XBRL components such as the calculation linkbase information and definition linkbase information by leveraging the consistency of Business Reporting Logical Model.

Here is how the Business Reporting Logical Model can make the XBRL syntax totally disappear into the background altogether. Imagine that an XBRL taxonomy editor and XBRL instance creator (i.e. business report creation tool) interface looked more like a spreadsheet or even better a spreadsheet pivot table:

Network:	10002 - Sales Analysis, by Business Segment (http://xasb.org/gaap/SalesAnalysisByBusinessSegment)
Fact Table:	gaap:SalesAnalysisByBusinessSegmentInformationGroup

Slice (Applies to all Fact Values)	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:GeographicAreaMeasure	frta:GeographicAreasAllDomain
brm:ConceptMeasure	gaap:Sales
brm:Units:	iso4217:USD
app:Scale:	1000

*	A	B	C	D
1	frta: Business Segment [Measure]	brm: Calendar Time [Measure] 2010-01-01/2010-12-31	brm: Calendar Time [Measure] 2009-01-01/2009-12-31	brm: Calendar Time [Measure] 2008-01-01/2008-12-31
2	**gaap:BusinessSegmentsAllDomain**	**32,038**	**35,805**	**32,465**
3	company: PharmaceuticalsSegmentMember	20,181	18,150	15,275
4	company: ConsumerHealthSegmentMember	2,433	1,973	1,823
5	company: GenericsSegmentMember	6,675	6,514	5,752
6	company: OtherSegmentsMember	2,749	9,168	9,615

Why is this better? Why is this possible?

- To edit the XBRL taxonomy or XBRL instance you are simply adding rows, columns, or cells to a "table".

- Not every XBRL piece is legal or even logical anywhere in an XBRL taxonomy. Why does an XBRL taxonomy tool let you do illegal things? This interface will not even allow you to do illegal things. Members don't go where only Concepts are allowed and Concepts don't belong where

only a Member can be used. (Go back and look at the Business Reporting Logical Model PDF, that shows you where things are and are NOT allowed).

- When you build the business report using the rows, columns, and cells; the application will generate the XBRL and you never have to validate it against the XBRL syntax because the application will ONLY output legal XBRL syntax, per the Business Reporting Logical Model (i.e. go back and look at the semantics to syntax mapping and the processing model documents).

- Business users no longer need to deal with terms such as presentation link, calculation link, definition link, extended link role, arcrole, etc. They can deal with terms such as table, reporting entity, business segment, etc. All these terms have explicitly identified and have explicit legal relationships and all of these syntax rules are enforced behind the scenes by software applications. Business users can focus on expressing things, not trying to figure out how to express things.

How does the Business Reporting Logical Model Do This?

XBRL is a general purpose tool. The Business Reporting Logical Model provides one path through the XBRL quagmire. You don't have to use the Business Reporting Logical Model; but if you want to or need to, you can. Without it, business people must rely on the IT department because the XBRL syntax is too complex for them to make sense of.

Examples

Consider these examples which prototype the ideas expressed above and leverage the Business Reporting Logical Model. These come from the straw man implementation of the Business Reporting Logical Model mentioned at the beginning of this document.

Don't think that these simple examples mean that the Business Reporting Logical Model is simplistic. The model is not simplistic. The entire US GAAP Taxonomy can be constructed (is constructed for the most part but there is some inconsistency) using this approach. SEC XBRL filings can be constructed using this approach.

The Business Reporting Logical Model is simple, it is not simplistic. The simplicity of the model is a good clue that the model is a good model.

Sales Analysis

Traditional rendering:

	Calendar Time [Measure]: 2010	Calendar Time [Measure]: 2009	Calendar Time [Measure]: 2008
Sales, all Business Segments [Domain], all Geographic Areas [Domain]	32,038	35,805	32,465
Breakdown by Business Segment [Measure]:			
Pharmaceuticals [Member]	20,181	18,150	15,275
Generics [Member]	2,433	1,973	1,823
Consumer Health [Member]	6,675	6,514	5,752
Other Segments [Member]	2,749	9,168	9,615
Breakdown by Geographic Area [Measure]:			
US and Canada [Member]	10,214	12,649	10,137
Europe [Member]	11,901	10,374	10,396
Asia [Member]	5,639	4,371	3,210
Other regions [Member]	4,284	8,411	8,722

Rendered using Business Reporting Logical Model:

Sales Analysis, Summary

Network:	10001 - Sales Analysis, Summary (http://xasb.org/gaap/SalesAnalysisSummary)
Fact Table:	gaap:SalesAnalysisSummaryInformationGroup

Slice (Applies to all Fact Values)	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:BusinessSegmentsAllDomain
frta:GeographicAreaMeasure	frta:GeographicAreasAllDomain
brm:Units:	iso4217:USD
app:Scale:	1000

*	A	D	E	F
1	brm: Concept [Measure]	brm: Calendar Time [Measure] 2010-01-01/2010-12-31	brm: Calendar Time [Measure] 2009-01-01/2009-12-31	brm: Calendar Time [Measure] 2008-01-01/2008-12-31
2	**gaap: Sales Analysis [Measure Concepts]**			
3	**gaap: Sales Analysis [Hierarchy]**			
4	gaap:Sales	32,038	35,805	32,465

Sales Analysis – by Business Segment

Network:	10002 - Sales Analysis, by Business Segment (http://xasb.org/gaap/SalesAnalysisByBusinessSegment)
Fact Table:	gaap:SalesAnalysisByBusinessSegmentInformationGroup

Slice (Applies to all Fact Values)	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:GeographicAreaMeasure	frta:GeographicAreasAllDomain
brm:ConceptMeasure	gaap:Sales
brm:Units:	iso4217:USD
app:Scale:	1000

*	A	B	C	D
1	frta: Business Segment [Measure]	brm: Calendar Time [Measure] 2010-01-01/2010-12-31	brm: Calendar Time [Measure] 2009-01-01/2009-12-31	brm: Calendar Time [Measure] 2008-01-01/2008-12-31
2	**gaap:BusinessSegmentsAllDomain**	**32,038**	**35,805**	**32,465**
3	company: PharmaceuticalsSegmentMember	20,181	18,150	15,275
4	company: ConsumerHealthSegmentMember	2,433	1,973	1,823
5	company: GenericsSegmentMember	6,675	6,514	5,752
6	company: OtherSegmentsMember	2,749	9,168	9,615

Sales Analysis – by Geographic Area

Network:	10003 - Sales Analysis, by Geographic Area (http://xasb.org/gaap/SalesAnalysisByGeographicArea)
Fact Table:	gaap:SalesAnalysisByBusinessSegmentInformationGroup

Slice (Applies to all Fact Values)	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:BusinessSegmentsAllDomain
frta:ConceptMeasure	gaap:Sales
brm:Units:	iso4217:USD
app:Scale:	1000

*	A	B	C	D
1	frta: Geographic Area [Measure]	brm: Calendar Time [Measure] 2010-01-01/2010-12-31	brm: Calendar Time [Measure] 2009-01-01/2009-12-31	brm: Calendar Time [Measure] 2008-01-01/2008-12-31
2	**frta: GeographicAreasAllDomain**	**32,038**	**35,805**	**32,465**
3	frta: USAndCanadaRegionMember	10,214	12,649	10,137
4	frta: EuropeRegionMember	11,901	10,374	10,396
5	frta: AsiaRegionMember	5,639	4,371	3,210
6	frta: OtherRegionsMember	4,284	8,411	8,722

Accounting Policies

Traditional rendering:

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.

Rendered using Business Reporting Logical Model:

Network:	20000 - Accounting Policies (http://xasb.org/gaap/AccountingPolicies)
Fact Table:	gaap:AccountingPoliciesInformationGroup

Slice (Applies to all Fact Values)	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:ConsolidatedGroup
brm: Calendar Time [Measure]	2010-01-01/2010-12-31

*	A	B
1	brm: Concept [Measure]	brm: Fact Value
2	**gaap: Accounting Policies [Measure Concepts]**	
3	**gaap: Accounting Policies [Hierarchy]**	
4	gaap: 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	gaap: Basis of Presentation	Historical Cost
6	gaap: 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	gaap: Inventory Valuation Method	Cost
8	gaap: Inventory Cost Method	weighted average method
9	gaap: Description of Inventory Components	Raw materials and work in progress
10	Description of Net Realizable Value	This is a description of the net realizable value.
11	gaap: 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
12	gaap: Trade Receivables Policy	Trade receivables are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts.
13	gaap: Investments in Securities Policy	Investments in securities are recognised on a trade-date basis and are initially measured at cost.
14	gaap: Bank Borrowings Policy	Interest-bearing bank loans and overdrafts are recorded at the
15	gaap: Provisions Policy	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.

Property, Plant and Equipment; by Component

Traditional rendering:

	Calendar Time [Measure]: 2010	Calendar Time [Measure]: 2009
ASSETS		
Property, Plant, and Equipment, Net		
Land	5,347	1,147
Buildings, Net	244,508	366,375
Furniture and Fixtures, Net:		
Furniture, Net	34,000	34,000
Fixtures, Net	457	457
Furniture and Fixtures, Net, Total	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

Rendered using Business Reporting Logical Model:

Network:	30000 - Property, Plant, and Equipment, Roll Up by Component (http://xasb.org/gaap/PropertyPlantAndEquipmentByComponent)
Fact Table:	gaap:SalesAnalysisByBusinessSegmentInformationGroup

Slice (Applies to all Fact Values)	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:ConsolidatedGroup
brm:Units:	iso4217:USD
app:Scale:	1000

*	A	B	C
1	brm: Concept [Measure]	brm: Calendar Time [Measure]: 2010-12-31	brm: Calendar Time [Measure]: 2009-12-31
2	**gaap: Property, Plant and Equipment, by Component, [Measure Concepts]**		
3	**gaap: Property, Plant and Equipment, Net [Roll Up]**		
4	gaap: Land	5,347	1,147
5	gaap: Buildings, Net	244,508	366,375
6	**gaap: Furniture and Fixtures, Net [Roll Up]**		
7	gaap: Furniture, Net	34,000	34,000
8	gaap: Fixtures, Net	457	457
9	**Furniture and Fixtures, Net**	**34,457**	**34,457**
10	gaap: Computer Equipment, Net	4,169	5,313
11	gaap: Other Property, Plant and Equipment, Net	6,702	6,149
12	**gaap: Property, Plant and Equipment, Net, Total**	**295,183**	**413,441**

Roll Forward of Land

Traditional rendering:

	Calendar Time [Measure]: 2010	Calendar Time [Measure]: 2009
Movement in Land		
Land, Beginning Balance	1,147	1,147
Additions:		
Additions, from Purchase	1,000	100
Additions, from Acquisition	992	300
Additions, Total	1,992	400
Disposals	-193	-200
Translation difference	2,401	-200
Land, Ending Balance	5,347	1,147

Rendered using Business Reporting Logical Model:

Network:	40000 - Roll Forward of Land (http://xasb.org/gaap/RollForwardOfLand)
Fact Table:	gaap:LandChangesInformationGroup

Slice (Applies to all Fact Values)	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:ConsolidatedGroup
brm:Units:	iso4217:USD

*	A	B	C	D
1	brm: Concept [Measure]	brm: Calendar Time [Measure]	app: Scale	brm: Fact Value
2	**gaap: Land Changes [Measure Concepts]**			
3	**gaap: Movement in Land [Roll Forward]**			
4	gaap: Land, Beginning Balance	2008-12-31	1000	1,147
5	**gaap: Land, Additions [Roll Up]**			
6	gaap: Land, Additions, from Purchase	2010-01-01/2010-12-31	1000	100
7	gaap: Land, Additions, from Acquisition	2010-01-01/2010-12-31	1000	300
8	gaap: Land, Additions, Total	2010-01-01/2010-12-31	1000	400
9	gaap: Land, Disposals	2010-01-01/2010-12-31	-1000	-200
10	gaap: Land, Translation Difference	2010-01-01/2010-12-31	1000	-200
11	gaap: Land, Period Increase (Decrease), Total	2010-01-01/2010-12-31	1000	0
12	gaap: Land, Ending Balance	2009-12-31	1000	1,147
13				
14	**gaap: Land Changes [Measure Concepts]**			
15	**gaap: Movement in Land [Roll Forward]**			
16	gaap: Land, Beginning Balance	2009-12-31	1000	1,147
17	**gaap: Land, Additions [Roll Up]**			
18	gaap: Land, Additions, from Purchase	2009-01-01/2009-12-31	1000	1,000
19	gaap: Land, Additions, from Acquisition	2009-01-01/2009-12-31	1000	992
20	gaap: Land, Additions, Total	2009-01-01/2009-12-31	1000	1,992
21	gaap: Land, Disposals	2009-01-01/2009-12-31	-1000	-193
22	gaap: Land, Translation Difference	2009-01-01/2009-12-31	1000	2,401
23	gaap: Land, Period Increase (Decrease), Total	2009-01-01/2009-12-31	1000	4,200
24	gaap: Land, Ending Balance	2010-12-31	1000	5,347

Director Compensation

Traditional rendering:

Director [Measure]	Salary [Concept]	Bonus [Concept]	Director Fee [Concept]	Options Granted, at Fair Value [Concept]
company: John Doe	1,000	1,000	1,000	1,000
company: Jane Doe	1,000	1,000	1,000	1,000
frta: All Directors Total	2,000	2,000	2,000	2,000

Rendered using Business Reporting Logical Model:

Network:	50000 - Director Compensation (http://xasb.org/gaap/DirectorCompensation)
Fact Table:	gaap:DirectorCompensationInformationGroup

Slice (Applies to all Fact Values)	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta: ReportingScenarioMeasure	frta:ActualMember
frta:ThirdPartyVerificationMeasure	frta:AuditedMember
frta:CalendarTimeMeasure	2010-01-01/2010-12-31
brm:Units:	iso4217:USD
app:Scale:	1000

*	A	B	C	
1	brm: Concept [Measure]	**frta:DirectorsAllDomain**	company:JohnDoeMember	company:JaneDoeMember
2	**gaap: Director Compensation [Measure Concepts]**			
3	**gaap:DirectorHierarchy**			
4	gaap:DirectorSalary	**1,000**	1,000	2,000
5	gaap:DirectorBonuses	**1,000**	1,000	2,000
6	gaap:DirectorFees	**1,000**	1,000	2,000
7	gaap:DirectorOptionsGrantedAtFairValue	**1,000**	1,000	2,000

Extraction of XBRL Information

XBRL-based information need not only be rendered when it is created, but also when it is consumed. This prototype application leverages the same ideas used to create XBRL, this time to extract information from an XBRL instance.

http://www.xbrlsite.com/Demos/FRTA/2010-06-15/HypercubeViewer.zip

Note that this prototype application also allows you to pivot the information by changing where Measures are shown: on the slicer, on the column, or in the rows. The pivoting is limited in this prototype, but it shows the general idea.

Sales Analysis Summary

Fact Group: gaap:SalesAnalysisSummaryFactGroup

Slices:	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:BusinessSegmentsAllDomain
frta:GeographicAreaMeasure	frta:GeographicAreasAllDomain

Label	Name	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2008-12-31
Sales Analysis [Measure Concepts]				
Sales Analysis [Hierarchy]	**gaap:SalesAnalysisHierarchy**			
Sales	**gaap:Sales**	32,038,000	35,805,000	32,465,000

Sales Analysis – by Business Segment

Fact Group: gaap:SalesAnalysisByBusinessSegmentFactGroup

Slices:	
brm:ConceptMeasure	gaap:Sales
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:GeographicAreaMeasure	frta:GeographicAreasAllDomain

Label	Name	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2008-12-31
Business Segment [Measure]				
Business Segments, All [Domain]	**frta:BusinessSegmentsAllDomain**	32,038,000	35,805,000	32,465,000
Pharmaceuticals Segment [Member]	**company:PharmaceuticalsSegmentMember**	20,181,000	18,150,000	15,275,000
Consumer Health Segment [Member]	**company:ConsumerHealthSegmentMember**	6,675,000	6,514,000	5,752,000
Generics Segment [Member]	**company:GenericsSegmentMember**	2,433,000	1,973,000	1,823,000
Other Segments [Member]	**company:OtherSegmentsMember**	2,749,000	9,168,000	9,615,000

Sales Analysis – by Geographic Area

Fact Group: gaap:SalesAnalysisByGeographicAreaFactGroup

Slices:	
brm:ConceptMeasure	gaap:Sales
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:BusinessSegmentsAllDomain

Label	Name	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2008-12-31
Geographic Area [Measure]				
Geographic Areas, All [Domain]	**frta:GeographicAreasAllDomain**	32,038,000	35,805,000	32,465,000
US and Canada Region [Member]	**frta:USAndCanadaRegionMember**	10,214,000	12,649,000	10,137,000
Europe Region [Member]	**frta:EuropeRegionMember**	11,901,000	10,374,000	10,396,000
Asia Region [Member]	**frta:AsiaRegionMember**	5,639,000	4,371,000	3,210,000
Other Regions [Member]	**frta:OtherRegionsMember**	4,284,000	8,411,000	8,722,000

Accounting Policies

Fact Group: gaap:AccountingPoliciesFactGroup

Slices:	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:BusinessSegmentsAllDomain

Label	Name	2010-01-01/2010-12-31
Accounting Policies [Measure Concepts]		
Accounting Policies [Hierarchy]	gaap:AccountingPoliciesHierarchy	
Basis of Presentation [Text Block]	gaap:BasisOfPresentationTextBlock	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.
Basis of Presentation	gaap:BasisOfPresentation	Historical Cost
Inventory Policy [Text Block]	gaap:InventoryPolicyTextBlock	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.
Inventory Valuation Method	gaap:InventoryValuationMethod	Cost
Description of Inventory Components	gaap:DescriptionOfInventoryComponents	weighted average method
Inventory Cost Method	gaap:InventoryCostMethod	FIFO
Description of Net Realizable Value	gaap:DescriptionNetRealizableValue	This is a description of the net realizable value.
Financial Instruments Policy [Text Block]	gaap:FinancialInstrumentsPolicyTextBlock	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 Policy	gaap:TradeReceivablesPolicy	Trade receivables are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts.
Investments in Securities Policy	gaap:InvestmentsInSecuritiesPolicy	Investments in securities are recognised on a trade-date basis and are initially measured at cost.
Bank Borrowings Policy	gaap:BankBorrowingsPolicy	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 Policy	gaap:ProvisionsPolicy	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.

Property, Plant and Equipment; by Component

Fact Group: gaap:PropertyPlantEquipmentByComponentFactGroup

Slices:	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:BusinessSegmentsAllDomain

Label	Name	2010-12-31	2009-12-31	2008-12-31
Property, Plant and Equipment, by Component, [Measure Concepts]				
Property, Plant and Equipment, Net [Roll Up]	gaap:PropertyPlantEquipmentNetRollUp			
Land	gaap:Land	5,347,000	1,147,000	1,147,000
Buildings, Net	gaap:BuildingsNet	244,508,000	366,375,000	
Furniture and Fixtures, Net [Roll Up]	gaap:FurnitureFixturesNetRollUp			
Furniture, Net	gaap:FurnitureNet	34,000,000	34,000,000	
Fixtures, Net	gaap:FixturesNet	457,000	457,000	
Furniture and Fixtures, Net	gaap:FurnitureAndFixturesNet	34,457,000	34,457,000	
Computer Equipment, Net	gaap:ComputerEquipmentNet	4,169,000	5,313,000	
Other Property, Plant and Equipment, Net	gaap:OtherPropertyPlantAndEquipmentNet	6,702,000	6,149,000	
Property, Plant and Equipment, Net, Total	gaap:PropertyPlantAndEquipmentNet	295,183,000	413,441,000	

Roll Forward of Land

Fact Group: gaap:LandChangesFactGroup

Slices:	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:BusinessSegmentMeasure	frta:BusinessSegmentsAllDomain

Label	Name	2009-01-01/2009-12-31	2010-01-01/2010-12-31	2010-12-31	2009-12-31	2008-12-31
Land Changes [Measure Concepts]						
Movement in Land [Roll Forward]	gaap:MovementInLandRollForward					
Land, Beginning Balance	gaap:Land			5,347,000	1,147,000	1,147,000
Land, Period Increase (Decrease), Total [Roll Up]	gaap:LandPeriodIncreaseDecreaseTotalRollUp					
Land, Additions [Roll Up]	gaap:LandAdditionsRollUp					
Land, Additions, from Purchase	gaap:LandAdditionsFromPurchase	100,000	1,000,000			
Land, Additions, from Acquisition	gaap:LandAdditionsFromAcquisition	300,000	992,000			
Land, Additions	gaap:LandAdditions	400,000	1,992,000			
Land, Disposals	gaap:LandDisposals	200,000	193,000			
Land, Translation Difference	gaap:LandTranslationDifference	(200,000)	2,401,000			
Land, Period Increase (Decrease), Total	gaap:LandPeriodIncreaseDecrease	0	4,200,000			
Land, Ending Balance	gaap:Land			5,347,000	1,147,000	1,147,000

* Note that this rendering is not quite what is desired. Putting the beginning and ending balances in the same column is desired, similar to the Interactive Information Hypercubes above.

Director Compensation

Fact Group: gaap:DirectorCompensationFactGroup

Slices:	
brm:ReportingEntityMeasure	ACME (http://www.ACME.com)
brm:CalendarTimeMeasure	2010-01-01/2010-12-31
frta:LegalEntityMeasure	company:ACMECompanyMember
frta:ReportingScenarioMeasure	frta:ActualMember
frta:ThirdPartyVerificationMeasure	frta:AuditedMember

Label	Name	gaap:DirectorSalary	gaap:DirectorBonuses	gaap:DirectorFees	gaap:DirectorOptionsGrantedAtFairValue
Director [Measure]					
Directors, All [Domain]	**frta:DirectorsAllDomain**	2,000	2,000	2,000	2,000
Jane Doe [Member]	**company:JaneDoeMember**	1,000	1,000	1,000	1,000
John Doe [Member]	**company:JohnDoeMember**	1,000	1,000	1,000	1,000

Extraction across XBRL Taxonomies (i.e. Taxonomy Interoperability)

Another problem of XBRL is extracting and using business information across XBRL implementations. For example, ever try and us an application built for the FDIC (Federal Deposit Insurance Corporation) implementation of XBRL on an SEC (Securities and Exchange Commission) XBRL filing? That won't work. Why is this, XBRL is supposed to be a global standard.

Well, it actually can work. The issue is that different implementations of XBRL are projecting different business semantics (meaning) via the XBRL taxonomy in different ways.

The Business Reporting Logical Model fixes this problem, specifying one logical model. Every implementation of XBRL, if the Business Reporting Logical Model semantics are used, will be interoperable. This prototype shows this:

http://www.xbrlsite.com/Demos/FRTA/2010-06-15/HypercubeViewerWithStateFactbook.zip

This prototype is the same prototype above, but this time adds two separated prototype XBRL implementations, each using the Business Reporting Logical Model.

You can read more about the ramifications of this here:

http://xbrl.squarespace.com/journal/2010/6/10/looking-into-possible-future-scenarios-of-xbrl-adoption.html