

## Reconciliation of Financial Report Semantics and Dynamics Theory Semantic Object to US GAAP/SEC Model Semantic Objects and XBRL Technical Syntax Terminology

### From Perspective of Financial Report Semantics and Dynamics Theory

<b>Financial Report Semantics and Dynamics Theory Object</b>	<b>Example</b>	<b>US GAAP/SEC Model Object(s)</b>	<b>XBRL Technical Syntax Term/Object</b>
<b>Financial report</b> – A financial statement plus supplementary financial information. Financial report can be broken down into components.	<i>Financial statement portion of a 10-Q or 10-K; financial statement issued by a private entity</i>	SEC XBRL financial filing; XBRL instance + XBRL taxonomy;  (Note that instance document and XBRL instance are inappropriate terms as they do not include the XBRL taxonomy)	XBRL instance + XBRL taxonomy  (Note that XBRL taxonomy includes the taxonomy schema and all linkbases)
<b>Financial report rudiments</b> – One of the primitive building blocks or objects of a financial report: financial report, component, characteristic, fact, parenthetical explanation, relation	<i>See the examples from each rudimentary or primitive piece above</i>	Report element: Network, [Table], [Axis], [Member], [Line Items], Concept, Abstract concept, Fact, Footnote  (Note that “tag” is an inappropriate term which could refer to any number of different types of report elements which have different properties)	Uses various technical syntax terms from XML, XML Schema, XLink, XBRL, XBRL Dimensions, XBRL Formula  (Note that these are implemented as XML elements or attributes)
<b>Component</b> – A portion of a financial report. Made up of facts which go together for some specific purpose and the relations between facts and relations between characteristics.	<i>Balance sheet, significant accounting policies, maturities of long-term debt</i>	Network + [Table] or Network alone if the network has no table; Fact Table	Network + Hypercube or Network
<b>Characteristic</b> – Describes a fact. Made up of a characteristic and the value of that characteristic.	<i>Reporting entity with CIK number 1234567890; Legal entity of “consolidated entity”; Period of “2011-21-31”; Property, plant and equipment class of “Land”</i>	[Axis] + [Member] or [Line Items] (the concept is just another characteristic);  (Note that the reporting entity and period are an [Axis] + [Member] even though they have a different technical syntax implementation)	Dimension + Member is one approach used; Primary Items (defined as XML schema element with the substitutionGroup value of “xbrli:item”, a specific type, a specific period, and a specific balance; must NOT be abstract) is another approach; entity identifier portion of an XBRL instance context is how reporting entity is implemented; period portion of XBRL instance context is how period is implemented.
<b>Relation</b> – The relation from one object of a financial report to another object or objects.	<i>Assets = Liabilities + Equity; Beginning cash + net cash flows = ending cash</i>	Business rules, Domain partition aggregation model, Information model, flow model	Presentation relations, calculation relations, definition relations, XBRL Formula
<b>Fact</b> – A single, observable, reported piece of information. Intersection of characteristics, a value, traits of the value if numeric, and parenthetical information	<i>Value of 1000 for the concept “Cash and cash equivalents” for the legal entity “consolidated entity” for the period ended “December 31, 2010” expressed in US Dollars rounded to millions</i>	Fact: A single, observable, reported piece of information.	Simple fact  (Compound facts, or tuples, are not allowed by US GAAP Taxonomy Architecture.)
<b>Parenthetical explanation</b> – provide additional descriptive information about a fact.	<i>Parenthetical explanation on the bottom of a page, a footnote to a financial fact</i>	Footnote: provides additional information about a fact.	XBRL Footnote
Relation between concepts within the concept characteristic	<i>Roll up, roll forward, hierarchy</i>	Information model: Roll up, roll forward, hierarchy, etc.	--Does not have this level--
Relations between values of a characteristic	<i>North America, United States, Canada</i>	Domain partition aggregation model: Partial set, complete set, etc.	--Does not have this level--

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<b>Financial Report Semantics and Dynamics Theory Object</b>	<b>Example</b>	<b>US GAAP/SEC Model Object(s)</b>	<b>XBRL Technical Syntax Term/Object</b>
Relationship between components or the order or sequence of components	<i>Balance sheet, then income statement, then statement of changes in equity, ...</i>	Flow, uses Network {SortCode} - {Type} - {Title}	--Does not have this level--
<b>Property</b> - Property or trait of an object.	<i>Units, rounding, balance type, period type</i>	Property	Generally an XBRL, XML schema, or XLink element or attribute

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## Reconciliation of Financial Report Semantics and Dynamics Theory Semantic Object to US GAAP/SEC Model Semantic Objects and XBRL Technical Syntax Terminology

### From Perspective of US GAAP/SEC Model:

<b>Financial Report Semantics and Dynamics Theory Object</b>	<b>Example</b>	<b>US GAAP/SEC Model Object</b>	<b>XBRL Technical Syntax Term/Object</b>
<b>Financial report</b> – A financial statement plus supplementary financial information. Financial report can be broken down into components.	<i>Financial statement portion of a 10-Q or 10-K; financial statement issued by a private entity</i>	<b>SEC XBRL financial filing</b> ; XBRL instance + XBRL taxonomy;  (Note that instance document and XBRL instance are inappropriate terms as they do not include the XBRL taxonomy)	XBRL instance + XBRL taxonomy  (Note that XBRL taxonomy includes the taxonomy schema and all linkbases)
<b>Financial report rudiments</b> – One of the primitive building blocks or objects of a financial report: financial report, component, characteristic, fact, parenthetical explanation, relation	<i>See the examples from each rudimentary or primitive piece above</i>	<b>Report element</b> : Network, [Table], [Axis], [Member], [Line Items], Concept, Abstract concept, Fact, Footnote  (Note that “tag” is an inappropriate term which could refer to any number of different types of report elements which have different properties)	Uses various technical syntax terms from XML, XML Schema, XLink, XBRL, XBRL Dimensions, XBRL Formula  (Note that these are implemented as XML elements or attributes)
This is <i>part of a component</i> , but because different taxonomies use network, hypercube, or combinations of network/hypercube; this cannot be mapped to one physical technical syntax	<i>Balance sheet, significant accounting policies, maturities of long-term debt</i>	<b>Network</b> : (must have a unique URI, must have a number, must have a sort group, must have a title)	Network expressed using the XLink extended link with an XBRL extended link role
This is <i>part of a component</i> , but because different taxonomies use network, hypercube, or combinations of network/hypercube; this cannot be mapped to one physical technical syntax	<i>Balance sheet, significant accounting policies, maturities of long-term debt</i>	<b>[Table]</b> : XML schema element with the substitutionGroup value of “xbrldt:hypercubeItem” (period must be “duration”, must not have a balance attribute, must be abstract)	XML schema element with the substitutionGroup value of “xbrldt:hypercubeItem”
<b>Characteristic description</b> – This is part of a characteristic; the description of the characteristic	<i>The “Legal entity” to which a fact relates</i>	<b>[Axis]</b> : XML schema element with the substitutionGroup value of “xbrldt:dimensionItem” (period must be “duration”, must not have a balance attribute, must be abstract)	XBRL Dimensions dimension which is XML schema element with the substitutionGroup value of “xbrldt:dimensionItem”; some characteristics are expressed within an XBRL instance as a context; the concept is expressed using XML Schema elements which have the substitutionGroup value of “xbrli:item”. XBRL Formula refers to this as an “aspect”
<b>Characteristic value</b> – The value of a characteristic.	<i>“Consolidated entity” is the value of “Legal Entity” characteristic</i>	<b>[Member]</b> : XML schema element with a type of “nonnum:domainMemberItem”, period must be “duration”, must not have a balance attribute, must be abstract	XBRL Dimensions Member
<b>Line items</b> – Set of concepts	<i>Assets [Roll up] of a balance sheet</i>	<b>[Line Items]</b>	Primary Items
<b>Line Item</b> – This is the concept characteristic	<i>Cash and cash equivalents; Assets; Net income (loss)</i>	<b>Concept or Line Item</b> : (one line item from the set of [Line Items]); XML schema element with the substitutionGroup value of “xbrli:item”, a specific type, a specific period, and a specific balance; must NOT be abstract.	XML schema element with the substitutionGroup value of “xbrli:item”, a specific type, a specific period, and a specific balance; must NOT be abstract.

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Relations between values of a characteristic	<i>North America, United States, Canada</i>	Domain partition aggregation model: Partial set, complete set, etc.	--Does not have this level--
Relationship between components or the order or sequence of components	<i>Balance sheet, then income statement, then statement of changes in equity, ...</i>	Flow, uses Network {SortCode} - {Type} - {Title}	--Does not have this level--
<b>Property</b> – Property or trait of an object.	<i>Units, rounding, balance type, period type</i>	Property	Generally an XBRL, XML schema, or XLink element or attribute
Set of financial reports which are being worked with; reading one, comparing across period for same reporting entity; comparing one or more financial reports from multiple reporting entities	<i>Comparing IBM, Apple, and Microsoft</i>	De facto standard is the RSS Feed provided by SEC	--Does not have this level--