

1. Member Arrangement Pattern Examples

The purpose of this section is to provide physical example of each of the member arrangement patterns and to explain the subtleties and nuances of each pattern.

This section provides examples for specific member arrangement patterns¹.

1.1. Whole-part

A *whole-part* member arrangement pattern is equivalent in terms of meaning to a roll up. However, rather than being represented using a set of Concepts within a [Line Items], a whole-part member arrangement pattern is represented using the a set of [Member]s within an [Axis].

A whole-part represents something composed exactly of their parts and nothing else; the sum of the parts is equal to the whole. In terms of meaning conveyed, a whole-part relation is equivalent to a [Roll Up]. The only difference is representation syntax.

1.1.1. Visual Example

Component: (Network and Table)			
Network	Director Compensation		
Table	Director Compensation [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Period [Axis]	2010-01-01/2010-12-31		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Director [Axis]		
Director Compensation [Line Items]	John Doe [Member]	Jane Doe [Member]	Directors, All [Member]
Director [Hierarchy]			
Director, Salary	1,000	1,000	2,000
Director, Bonuses	1,000	1,000	2,000
Director, Fees	1,000	1,000	2,000
Director, Options Granted, at Fair Value	1,000	1,000	2,000

1.1.2. Basic Automated Rendering

Component: (Network and Table)			
Network	Director Compensation		
Table	Director Compensation [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Period [Axis]	2010-01-01/2010-12-31		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Director [Axis]		
Director Compensation [Line Items]	John Doe [Member]	Jane Doe [Member]	Directors, All [Member]
Director [Hierarchy]			
Director, Salary	1,000	1,000	2,000
Director, Bonuses	1,000	1,000	2,000
Director, Fees	1,000	1,000	2,000
Director, Options Granted, at Fair Value	1,000	1,000	2,000

¹ Member arrangement pattern examples, <http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/MemberArrangementPatterns/2017-05-07/>

1.1.3. Report Elements and Model Structure

Example 1

Label	Report Element Class	Period	Balance	Preferred Label Role	Name
Director Compensation [Table]	[Table]	For Period		Standard Label	pattern:DirectorCompensationTable
Legal Entity [Axis]	[Axis]	For Period		Standard Label	frm:LegalEntityAxis
Consolidated Entity [Member]	[Member]	For Period		Standard Label	frm:ConsolidatedEntityMember
Director [Axis]	[Axis]	For Period		Standard Label	frm:DirectorAxis
Directors, All [Member]	[Member]	For Period		Standard Label	frm:DirectorsAllMember
John Doe [Member]	[Member]	For Period		Standard Label	pattern:JohnDoeMember
Jane Doe [Member]	[Member]	For Period		Standard Label	pattern:JaneDoeMember
Director Compensation [Line Items]	[LineItems]	For Period		Standard Label	pattern:DirectorCompensationLineItems
Director [Hierarchy]	[Abstract]	For Period		Standard Label	pattern:DirectorHierarchy
Director, Salary	[Concept] Monetary	For Period	Credit	Standard Label	pattern:DirectorSalary
Director, Bonuses	[Concept] Monetary	For Period	Credit	Standard Label	pattern:DirectorBonuses
Director, Fees	[Concept] Monetary	For Period	Credit	Standard Label	pattern:DirectorFees
Director, Options Granted, at Fair Value	[Concept] Monetary	For Period	Credit	Standard Label	pattern:DirectorOptionsGrantedAtFairValue

Example 2

	Order	Data Type	Element Type	Period	Name
Presentation View					
Director Compensation			Extended Link		
Director Compensation [Table]	0	String	Table	duration	DirectorCompensationTable
Legal Entity [Axis]	1	String	Axis	duration	LegalEntityAxis
Consolidated Entity [Member]	1	String	Member	duration	ConsolidatedEntityMember
Director [Axis]	2	String	Axis	duration	DirectorAxis
Directors, All [Member]	1	String	Member	duration	DirectorsAllMember
Director Compensation [Line Items]	3	String	Abstract	duration	DirectorCompensationLineItems
Director [Hierarchy]	1	String	Abstract	duration	DirectorHierarchy
Director, Salary	1	Monetary	Element	duration	DirectorSalary
Director, Bonuses	2	Monetary	Element	duration	DirectorBonuses
Director, Fees	3	Monetary	Element	duration	DirectorFees
Director, Options Granted, at Fair Value	4	Monetary	Element	duration	DirectorOptionsGrantedAtFairValue

1.1.4. Business Rules

Roll up total = sum of the facts for each [Member] or part of the whole which is also represented using a [Member], generally with [Domain].

1.1.5. Description

The example shows a *Hierarchy* of information about directors which differentiates each director using the Director [Axis]. See the [Hierarchy] concept arrangement pattern for more information.

1.1.6. Extension Points

The following are the logical extension points for a *Hierarchy* metapattern:

- Add new [Axis]
- Add new [Member] to [Axis]
- Add new concepts to [Line Items] of *Hierarchy*

1.2. Is-a

An *Is-a* member arrangement pattern is descriptive and differentiates one type or class of thing from some different type or class of thing; but the things do not add up to a whole.

1.2.1. Visual Example

SUBSEQUENT EVENTS

The following is a summary of events subsequent to the balance sheet date:

Description of subsequent event number 1 which relates to the loss of an uncollectable receivable and occurred on January 16, 2011.

Description of subsequent event number 2 which relates to the purchase of a business and occurred on February 1, 2011.

1.2.2. Basic Automated Rendering

Component: (Network and Table)		
Network	Subsequent Events	
Table	Subsequent Events [Table]	
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com	
Legal Entity [Axis]	Consolidated Entity [Member]	
Period [Axis]	2010-01-01/2010-12-31	
	Subsequent Event [Axis] ▲	
Subsequent Event [Line Items]	Uncollected Receivable [Member]	Purchase of Business [Member]
Subsequent Event [Hierarchy]		
Subsequent Event, Description	Description of subsequent event number 1 which relates to the loss of an uncollectable receivable and occurred on January 16, 2011.	Description of subsequent event number 2 which relates to the purchase of a business and occurred on February 1, 2011.
Subsequent Event, Date	2011-01-16	2011-02-01

1.2.3. Report Elements and Model Structure

Example 1:

Label	Report Element Class	Period	Balance	Preferred Label Role	Name
Subsequent Events [Table]	[Table]	For Period		Standard Label	pattern:SubsequentEventsTable
Legal Entity [Axis]	[Axis]	For Period		Standard Label	firm:LegalEntityAxis
Consolidated Entity [Member]	[Member]	For Period		Standard Label	firm:ConsolidatedEntityMember
Subsequent Event [Axis]	[Axis]	For Period		Standard Label	pattern:SubsequentEventAxis
Uncollected Receivable [Member]	[Member]	For Period		Standard Label	pattern:UncollectedReceivableMember
Purchase of Business [Member]	[Member]	For Period		Standard Label	pattern:PurchaseBusinessMember
Subsequent Event [Line Items]	[LineItems]	For Period		Standard Label	pattern:SubsequentEventLineItems
Subsequent Event [Hierarchy]	[Abstract]	For Period		Standard Label	pattern:SubsequentEventHierarchy
Subsequent Event, Description	[Concept] Text/String	For Period		Standard Label	pattern:SubsequentEventDescription
Subsequent Event, Date	[Concept] Date	For Period		Standard Label	pattern:SubsequentEventDate

Example 2:

	Element Type	Data Type	Period	Balance	Order	Name
Presentation View						
Subsequent Events	Extended Link					
Subsequent Events [Table]	Table	String	duration	na	0	SubsequentEventsTable
Legal Entity [Axis]	Axis	String	duration	na	1	LegalEntityAxis
Consolidated Entity [Member]	Member	String	duration	na	1	ConsolidatedEntityMember
Subsequent Event [Axis]	Axis	String	duration	na	2	SubsequentEventAxis
Uncollected Receivable [Member]	Element	String	duration	na	1	UncollectedReceivableMember
Purchase of Business [Member]	Element	String	duration	na	2	PurchaseBusinessMember
Subsequent Event [Line Items]	Abstract	String	duration	na	3	SubsequentEventLineItems
Subsequent Event [Hierarchy]	Abstract	String	duration	na	1	SubsequentEventHierarchy
Subsequent Event, Description	Element	String	duration	na	1	SubsequentEventDescription
Subsequent Event, Date	Element	Date	duration	na	2	SubsequentEventDate

1.2.4. Business Rules

None.

1.2.5. Description

The *Is-a* relation in the example above differentiates two different subsequent events that are disclosed. The two subsequent events are identified by the [Member] of the [Axis] "Subsequent Event [Axis]". The first event is "Uncollected Receivable [Member]", the second is "Purchase of Business [Member]". Each even provides two pieces of information, the "Subsequent Event, Description" and the "Subsequent Event, Date".

1.2.6. Extension Points

The following are extension points for a *Is-a* member arrangement pattern:

- Add new [Axis]
- Add new [Member] to [Axis]
- Add new concepts to the set of [Line Items] which provide information about the facts being differentiated by the [Member]s, for example in this case perhaps an "Amount" might be added

1.3. Nested whole-part relations

Consider the breakdown of sales by geographic area below. Note that the breakdown is by country, but that there is a subtotal for the country breakdown by region “Total North America” and “Total Europe”. Then there is a grand total.

	2010	2009
NORTH AMERICA:		
United States	\$4,000	\$4,000
Canada	2,000	2,000
Total North America	6,000	6,000
EUROPE:		
United Kingdom	2,000	2,000
Germany	2,000	2,000
Total Europe	4,000	4,000
Total	\$10,000	\$10,000

There are two approaches to representing this information. The first alternative is to represent the breakdown using one [Axis] which has nested layers of [Member]s to represent the total, subtotal, and detailed items:

Nested set of [Member]s:

Label	Report Element Class	Period	Balance	Preferred Label Role	Name
Sales Analysis, by Geographic Area [Table]	[Table]	For Period		Standard Label	pattern:SalesAnalysisByGeographicAreaTable
Legal Entity [Axis]	[Axis]	For Period		Standard Label	frm:LegalEntityAxis
Consolidated Entity [Member]	[Member]	For Period		Standard Label	frm:ConsolidatedEntityMember
Geographic Area [Axis]	[Axis]	For Period		Standard Label	frm:GeographicAreaAxis
Geographic Areas, All [Member]	[Member]	For Period		Standard Label	frm:GeographicAreasAllMember
North America Region [Member]	[Member]	For Period		Standard Label	frm:NorthAmericaRegionMember
United States [Member]	[Member]	For Period		Standard Label	pattern:UnitedStatesMember
Canada [Member]	[Member]	For Period		Standard Label	pattern:CanadaMember
Europe Region [Member]	[Member]	For Period		Standard Label	frm:EuropeRegionMember
United Kingdom [Member]	[Member]	For Period		Standard Label	pattern:UnitedKingdomMember
Germany [Member]	[Member]	For Period		Standard Label	pattern:GermanyMember
Sales Analysis, by Geographic Area [Line Items]	[LineItems]	For Period		Standard Label	pattern:SalesAnalysisByGeographicAreaLineItems
Sales Analysis, by Geographic Area [Hierarchy]	[Abstract]	For Period		Standard Label	pattern:SalesAnalysisByGeographicAreaHierarchy
Sales	[Concept] Monetary	For Period	Credit	Standard Label	pattern:Sales

A second approach is to represent the information using two independent [Axis], one to represent the geographic area, a second to represent the country. This representation approach yields two flat sets of [Member]s.

Two separate [Axis] which yields two flat sets of [Member]s:

Label	Report Element Class	Period	Balance	Preferred L...	Name
Sales Analysis, by Geographic Area [Table]	[Table]	For Period		Standard L...	pattern:SalesAnalysisByGeographicAreaTable
Legal Entity [Axis]	[Axis]	For Period		Standard L...	frm:LegalEntityAxis
Consolidated Entity [Member]	[Member]	For Period		Standard L...	frm:ConsolidatedEntityMember
Geographic Area [Axis]	[Axis]	For Period		Standard L...	frm:GeographicAreaAxis
Geographic Areas, All [Member]	[Member]	For Period		Standard L...	frm:GeographicAreasAllMember
North America Region [Member]	[Member]	For Period		Standard L...	frm:NorthAmericaRegionMember
Europe Region [Member]	[Member]	For Period		Standard L...	frm:EuropeRegionMember
Country [Axis]	[Axis]	For Period		Standard L...	pattern:CountryAxis
Countries, All [Member]	[Member]	For Period		Standard L...	pattern:CountriesAllMember
United States [Member]	[Member]	For Period		Standard L...	pattern:UnitedStatesMember
Canada [Member]	[Member]	For Period		Standard L...	pattern:CanadaMember
United Kingdom [Member]	[Member]	For Period		Standard L...	pattern:UnitedKingdomMember
Germany [Member]	[Member]	For Period		Standard L...	pattern:GermanyMember
Sales Analysis, by Geographic Area [Line Items]	[LineItems]	For Period		Standard L...	pattern:SalesAnalysisByGeographicAreaLineItems
Sales Analysis, by Geographic Area [Hierarchy]	[Abstract]	For Period		Standard L...	pattern:SalesAnalysisByGeographicAreaHierarchy
Sales	[Concept] Monetary	For Period	Credit	Standard L...	pattern:Sales

1.4. Recognize that different syntax does not mean different meaning

The ultimate objective when representing information using XBRL is to convey meaning. Just because syntax is different it does not mean that the meaning conveyed is different.

The set of examples is intended to show different representation syntax convey the same meaning.

What is different between these examples is the following:

- **Explicit or implied [Table]:** Whether a hypercube or [Table] is explicitly provided and therefore specifically identifiable or whether the hypercube or [Table] is implied.
- **Explicit or implied [Axis]:** Whether a dimension or [Axis] is explicitly present on an implied or explicit [Table].
- **Physically present [Axis]/[Member]:** Whether an [Axis]/[Member] is physically present within the context is determined by whether dimension-default information is provided.

Whether a hypercube is explicitly present or not and/or whether a dimension is explicitly present or not, a hypercube represents a Cartesian product of the set of dimensions².

In the examples provided the meaning conveyed is the exactly the same even though the syntax used to represent that meaning is different.

The business use case is to represent “Sales” in total and broken down by business segment and by geographic area.

² XBRL Dimensions 1.0 Specification, <https://www.xbrl.org/specification/dimensions/rec-2012-01-25/dimensions-rec-2006-09-18+corrected-errata-2012-01-25-clean.html>

1.4.1. Business use case

TOTAL Only, Sales for all business segments and all geographic areas:

Component: (Network and Table)			
Network	Sales Analysis, Summary		
Table	Sales Analysis, Summary [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Geographic Area [Axis]	Geographic Areas, All [Member]		
Business Segment [Axis]	Business Segments, All [Member]		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Period [Axis]		
Sales Analysis, Summary [Line Items]	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2008-12-31
Sales Analysis, Summary [Hierarchy]			
Sales	32,038,000	35,805,000	32,465,000

Breakdown of TOTAL by Business segment breakdown:

Component: (Network and Table)			
Network	Sales Analysis, by Business Segment		
Table	Sales Analysis, by Business Segment [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Legal Entity [Axis]	Consolidated Entity [Member]		
Geographic Area [Axis]	Geographic Areas, All [Member]		
	Period [Axis]		
Sales Analysis, by Business Segment [Line Items]	Business Segment [Ax...]	2010-01-01/2010-12-31	2009-01-01/2009-12-31
Sales Analysis, by Business Segment [Hierarchy]			
Sales	Pharmaceuticals Segment [Member]	20,181,000	18,150,000
	Generics Segment [Member]	2,433,000	1,973,000
	Consumer Health Segment [Member]	6,675,000	6,514,000
	Other Segments [Member]	2,749,000	9,168,000
	Business Segments, All [Member]	32,038,000	35,805,000
			2008-01-01/2008-12-31
			15,275,000
			1,823,000
			5,752,000
			9,615,000
			32,465,000

Breakdown of TOTAL by Geographic area breakdown:

Component: (Network and Table)			
Network	Sales Analysis, by Geographic Area		
Table	Sales Analysis, by Geographic Area [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Business Segment [Axis]	Business Segments, All [Member]		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Period [Axis]		
Sales Analysis, by Geographic Area [Line Items]	Geographic Area [Ax...]	2010-01-01/2010-12-31	2009-01-01/2009-12-31
Sales Analysis, by Geographic Area [Hierarchy]			
Sales	North America Region [Member]	10,214,000	12,649,000
	Europe Region [Member]	11,901,000	10,374,000
	Asia Region [Member]	5,639,000	4,371,000
	Other Regions [Member]	4,284,000	8,411,000
	Geographic Areas, All [Member]	32,038,000	35,805,000
			2008-01-01/2008-12-31
			10,137,000
			10,396,000
			3,210,000
			8,722,000
			32,465,000

1.4.2. Test case 0

Test Case 0: Income statement fragment shows total sales for the reporting economic entity which is a consolidated entity; breakdowns of that total are provided by business segment and by geographic area

<http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/MemberArrangementPatterns/2017-05-07/MAPO7-IntersectingTables/IntersectingTables-SampleInstance.xml>

Imagine an income statement; here is one line item from that income statement.

Component: (Network and Table)			
Network	Income Statement (Fragment)		
Table	Income Statement (Fragment) [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Period [Axis]		
Income Statement (Fragment) [Line Items]	2010-01-01/2010-12-31	2009-01-01/2009-12-31	
Income Statement [Roll Up]			
Sales	32,038,000	35,805,000	

That income statement line item can be broken down by the business segment dimension or the geographic area dimension.

Component: (Network and Table)			
Network	Income Statement (Fragment)		
Table	Income Statement (Fragment) [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Period [Axis]		
Income Statement (Fragment) [Line Items]	2010-01-01/2010-12-31	2009-01-01/2009-12-31	
Income Statement [Roll Up]			
Sales	32,038,000	35,805,000	

Report Element Properties

Properties Labels References Occurrences To Do

Fragments containing: Sales

- Income Statement (Fragment) ◆ Income Statement (Fragment) [Table]
- Sales Analysis, by Business Segment ◆ Sales Analysis, by Business Segment [Table]
- Sales Analysis, by Geographic Area ◆ Sales Analysis, by Geographic Area [Table]

In this case assume that the sum of total business segment sales equals total sales; the sum of total geographic area sales equals total sales.

1.4.3. Test case 1

Test Case 1: Explicit hypercube/[Table] exists for Sales Analysis, Summary; Legal Entity [Axis], Business Segment [Axis], Geographic Area [Axis] Explicitly provided

<http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/BusinessUseCases/2017-05-07/BUC34-PivotTable/PivotTable-SampleInstance.xml>

Component: (Network and Table)			
Network	Sales Analysis, Summary		
Table	Sales Analysis, Summary [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Geographic Area [Axis]	Geographic Areas, All [Member]		
Business Segment [Axis]	Business Segments, All [Member]		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Period [Axis]		
Sales Analysis, Summary [Line Items]	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2008-12-31
Sales Analysis, Summary [Hierarchy]			
Sales	32,038,000	35,805,000	32,465,000

Explicit hypercube/[Table/ exists; Legal Entity [Axis], Business Segment [Axis], and Geographic Area [Axis] explicitly provided; NO dimension-default is used, all dimensions explicitly exist in XBRL contexts

XBRL definition relations:

	Order	Arrole
-		
▼ D Definition View		
▼ Sales Analysis, by Business Segment		
▼ Sales Analysis, by Business Segment [Line Items]	0	
▶ Sales Analysis, Summary [Hierarchy]	1	http://xbrl.org/int/dim/arrole/domain-member
▼ Sales Analysis, by Business Segment [Table]	2	http://xbrl.org/int/dim/arrole/all
▼ Legal Entity [Axis]	1	http://xbrl.org/int/dim/arrole/hypercube-dimension
Consolidated Entity [Member]	1	http://xbrl.org/int/dim/arrole/dimension-domain
▼ Business Segment [Axis]	2	http://xbrl.org/int/dim/arrole/hypercube-dimension
Business Segments, All [Member]	1	http://xbrl.org/int/dim/arrole/dimension-domain
▼ Geographic Area [Axis]	3	http://xbrl.org/int/dim/arrole/hypercube-dimension
Geographic Areas, All [Member]	1	http://xbrl.org/int/dim/arrole/dimension-domain
▶ Sales Analysis, by Geographic Area		
▶ Sales Analysis, Summary		

1.4.4. Test case 2

Test Case 2: Explicit hypercube/[Table] exists for Sales Analysis, Summary; Legal Entity [Axis], Business Segment [Axis], Geographic Area [Axis] Explicitly provided

<http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/BusinessUseCases/2017-05-07/BUC55-PivotTable/PivotTable-SampleInstance.xml>

Component: (Network and Table)			
Network	Sales Analysis, Summary		
Table	Sales Analysis, Summary [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Geographic Area [Axis]	Geographic Areas, All [Member]		
Business Segment [Axis]	Business Segments, All [Member]		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Period [Axis]		
Sales Analysis, Summary [Line Items]	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2008-12-31
Sales Analysis, Summary [Hierarchy]			
Sales	32,038,000	35,805,000	32,465,000

Explicit hypercube/[Table] exists; Legal Entity [Axis], Business Segment [Axis], and Geographic Area [Axis] explicitly provided

XBRL definition relations:

	Arcrole	Order
-		
▼ D Definition View		
▶ Sales Analysis, by Business Segment		
▶ Sales Analysis, by Geographic Area		
▼ Sales Analysis, Summary		
▼ Sales Analysis, by Business Segment [Line Items]		0
▶ Sales Analysis, Summary [Hierarchy]	http://xbrl.org/int/dim/arcrole/domain-member	1
▼ Sales Analysis, Summary [Table]	http://xbrl.org/int/dim/arcrole/all	2
▼ Legal Entity [Axis]	http://xbrl.org/int/dim/arcrole/hypercube-dimension	1
Consolidated Entity [Member]	http://xbrl.org/int/dim/arcrole/dimension-domain	1
Consolidated Entity [Member]	http://xbrl.org/int/dim/arcrole/dimension-default	2
▼ Business Segment [Axis]	http://xbrl.org/int/dim/arcrole/hypercube-dimension	2
Business Segments, All [Member]	http://xbrl.org/int/dim/arcrole/dimension-domain	1
Business Segments, All [Member]	http://xbrl.org/int/dim/arcrole/dimension-default	2
▼ Geographic Area [Axis]	http://xbrl.org/int/dim/arcrole/hypercube-dimension	3
Geographic Areas, All [Member]	http://xbrl.org/int/dim/arcrole/dimension-domain	1
Geographic Areas, All [Member]	http://xbrl.org/int/dim/arcrole/dimension-default	2

1.4.5. Test case 3

Test Case 3: Explicit hypercube/[Table] exists for Sales Analysis, Summary; Legal Entity [Axis] Explicitly provided

<http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/BusinessUseCases/2017-05-07/BUC56-PivotTable/PivotTable-SampleInstance.xml>

Component: (Network and Table)			
Network	Sales Analysis, Summary		
Table	Sales Analysis, Summary [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Period [Axis]		
Sales Analysis, Summary [Line Items]	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2008-12-31
Sales Analysis, Summary [Hierarchy]			
Sales	32,038,000	35,805,000	32,465,000

Explicit hypercube/[Table/ exists; Legal Entity [Axis] explicitly provided

XBRL Definition relations:

-	Arcrole	Order
Definition View		
Sales Analysis, by Business Segment		
Sales Analysis, by Geographic Area		
Sales Analysis, Summary		
Sales Analysis, by Business Segment [Line Items]		0
Sales Analysis, Summary [Hierarchy]	http://xbrl.org/int/dim/arcrole/domain-member	1
Sales Analysis, Summary [Table]	http://xbrl.org/int/dim/arcrole/all	2
Legal Entity [Axis]	http://xbrl.org/int/dim/arcrole/hypercube-dimension	1
Consolidated Entity [Member]	http://xbrl.org/int/dim/arcrole/dimension-domain	1
Consolidated Entity [Member]	http://xbrl.org/int/dim/arcrole/dimension-default	2

1.4.6. Test case 4

Test Case 4: Explicit hypercube/[Table], but no dimensions /[Axes] are explicitly provided

<http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/BusinessUseCases/2017-05-07/BUC57-PivotTable/PivotTable-SampleInstance.xml>

Component: (Network and Table)			
Network	Sales Analysis, Summary		
Table	Sales Analysis, Summary [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
	Period [Axis]		
Sales Analysis, Summary [Line Items]	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2008-12-31
Sales Analysis, Summary [Hierarchy]			
Sales	32,038,000	35,805,000	32,465,000

Explicit hypercube/[Table/ exists; but the hypercube/[Table] has no explicit dimensions/[Axes].

XBRL Definition relations: (a hypercube without any dimensions, which is perfectly legal per the XBRL Dimensions specification)

	Arcrole	Order
-		
Definition View		
Sales Analysis, by Business Segment		
Sales Analysis, by Geographic Area		
Sales Analysis, Summary		
Sales Analysis, by Business Segment [Line Items]		0
Sales Analysis, Summary [Hierarchy]	http://xbrl.org/int/dim/arcrole/domain-member	1
Sales	http://xbrl.org/int/dim/arcrole/domain-member	1
Sales Analysis, Summary [Table]	http://xbrl.org/int/dim/arcrole/all	2

1.4.7. Test case 5

Test Case 5: No explicit hypercube/[Table] exists for Sales Analysis, Summary

<http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/BusinessUseCases/2017-05-07/BUC58-PivotTable/PivotTable-SampleInstance.xml>

Component: (Network and Table)			
Network	Sales Analysis, Summary		
Table	Implied [Table]		
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
	Period [Axis] ▼		
Implied [Line Items]	2010-01-01/2010-12-31	2009-01-01/2009-12-31	2008-01-01/2008-12-31
Sales Analysis, Summary [Hierarchy]			
Sales	32,038,000	35,805,000	32,465,000

No explicit hypercube exists, hypercube is implied

XBRL Definition relations: (i.e. there are none because there is no explicit hypercube provided)

	Order	Arrole
-		
<ul style="list-style-type: none"> ▼ D Definition View <ul style="list-style-type: none"> ▶ ◆ Sales Analysis, by Business Segment ▶ ◆ Sales Analysis, by Geographic Area 		

1.4.8.XBRL instance technical syntax

In each case, the actual FACTS reported are exactly the same. The only thing that changes is whether the dimensional information is explicitly provided with the context:

Facts: (exactly the same for all test cases)

```

<!--Total-->
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2010-All">32038000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2009-All">35805000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2008-All">32465000</pattern:Sales>
<!--By Segment-->
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2010-Pharm">20181000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2009-Pharm">18150000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2008-Pharm">15275000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2010-Gen">2433000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2009-Gen">1973000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2008-Gen">1823000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2010-ConHealth">6675000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2009-ConHealth">6514000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2008-ConHealth">5752000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2010-OtherSeg">2749000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2009-OtherSeg">9168000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2008-OtherSeg">9615000</pattern:Sales>
<!--By Region-->
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2010-US">10214000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2009-US">12649000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2008-US">10137000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2010-Europe">11901000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2009-Europe">10374000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2008-Europe">10396000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2010-Asia">5639000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2009-Asia">4371000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2008-Asia">3210000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2010-OtherRegions">4284000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2009-OtherRegions">8411000</pattern:Sales>
<pattern:Sales decimals="INF" unitRef="U-Monetary" contextRef="D-2008-OtherRegions">8722000</pattern:Sales>
/xbrl>
    
```

Context:

Test Case 1:

<http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/BusinessUseCases/2017-05-07/BUC34-PivotTable/PivotTable-SampleInstance.xml>

```

<!--All-->
<context id="D-2010-All">
  <entity>
    <identifier scheme="http://www.SampleCompany.com">SAMP</identifier>
    <segment>
      <xbrldi:explicitMember dimension="frm:LegalEntityAxis">frm:ConsolidatedEntityMember</xbrldi:explicitMember>
      <xbrldi:explicitMember dimension="frm:BusinessSegmentAxis">frm:BusinessSegmentsAllMember</xbrldi:explicitMember>
      <xbrldi:explicitMember dimension="frm:GeographicAreaAxis">frm:GeographicAreasAllMember</xbrldi:explicitMember>
    </segment>
  </entity>
  <period>
    <startDate>2010-01-01</startDate>
    <endDate>2010-12-31</endDate>
  </period>
</context>
    
```

Test Case 2:

<http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/BusinessUseCases/2017-05-07/BUC55-PivotTable/PivotTable-SampleInstance.xml>

```

<context id="D-2010-All">
  <entity>
    <identifier scheme="http://www.SampleCompany.com">SAMP</identifier>
  </entity>
  <period>
    <startDate>2010-01-01</startDate>
    <endDate>2010-12-31</endDate>
  </period>
</context>
    
```