Updates to Table Linkbase
Model-based Overview

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(Models by Jon Siddle, CoreFiling)

XBRL XXV

# What is Table Linkbase?

- Abstract model for viewing (~presentation)
- Implementation of tables and form
- ~~Replaces presentation linkbase~~
  - Yes – for case of specifying rendering (e.g., SEC viewer)
  - No – for case of concept-to-concept hierarchy definition
- ~~Two~~ 2 ½ versions circulating
  - Eurofiling (2010)
  - Montreal PWDs (2011)
    - (½) Oxford model-based updates (Nov. 2012)

Table Models (Oxford)
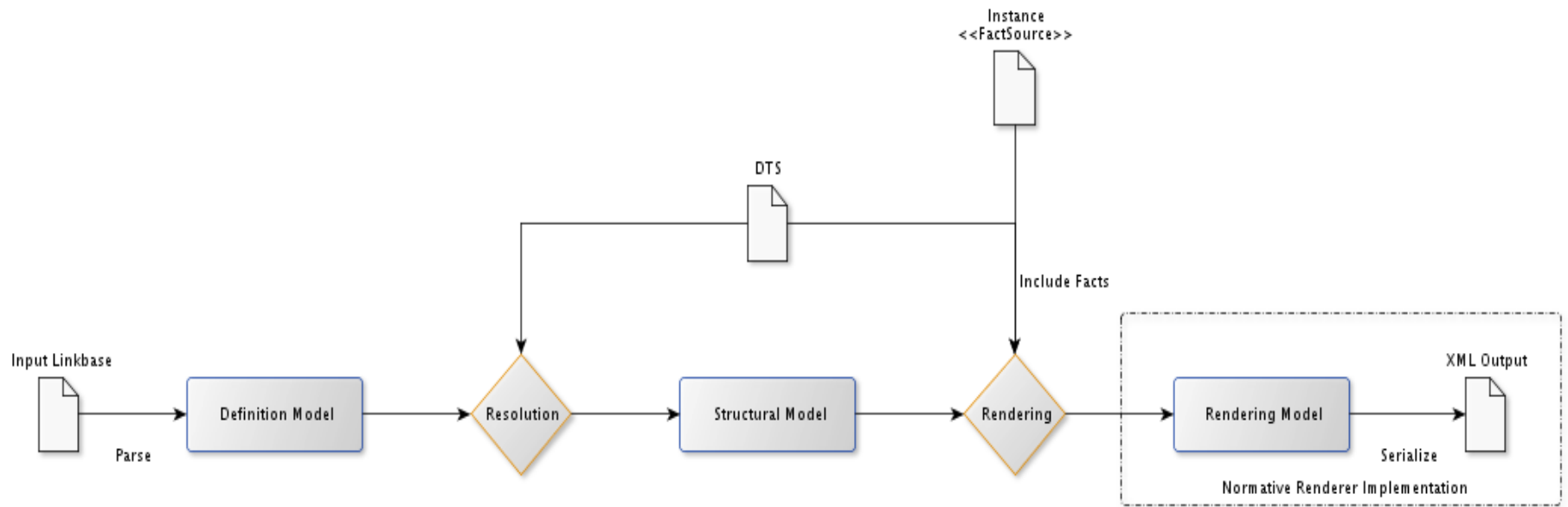
Table Models

- Definition model
  - Models content of the linkbase
  - Independent of syntax
  - Independent of instance and its DTS

- Structural model
  - Represents structure of the table
  - Captures meaning of business information table
  - Independent of definition

- Rendering model
  - Structure and values for final output
 - All values and breakdowns projected onto X/Y/Z axes

Processes

- Resolution
  - Transform definition model into structural model
  - May require instance and its DTS

- Rendering
  - Transform structural model to rendering model
  - Project breakdowns onto X, Y, or Z axis
  - Create table headers (often from DTS labels)
  - Populate cell values (usually from instance)

Other participants

- Input linkbase
  - Syntax describing table definition model
- DTS
  - Taxonomies, linkbases to resolve definition into structure
- Instance
  - Source of facts, to populate rendering model

Structural model
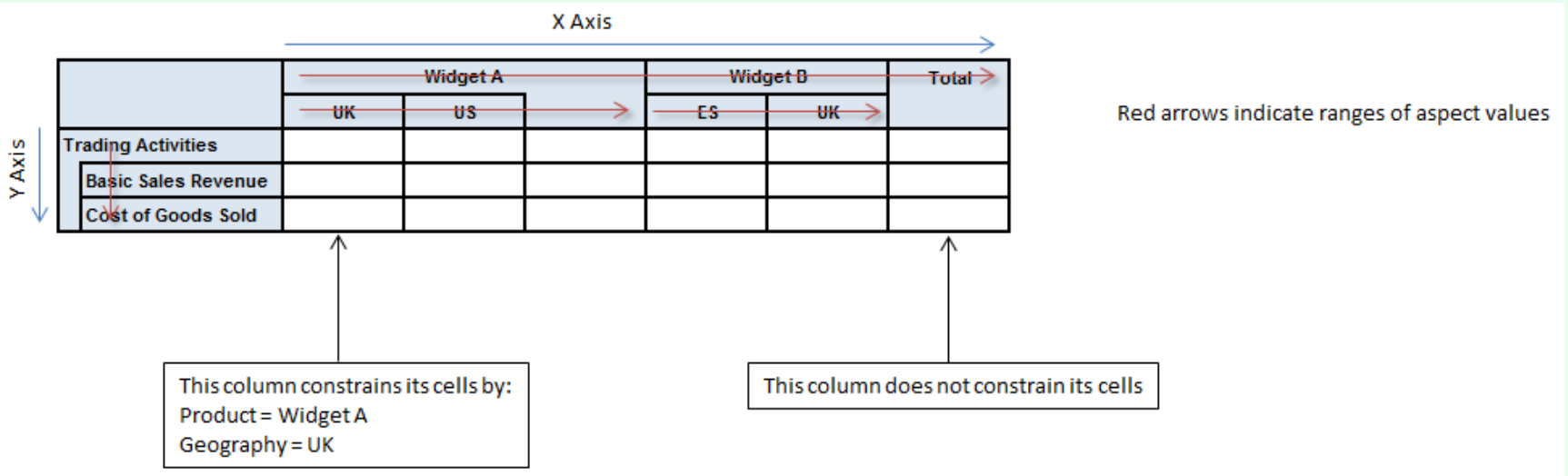
- Each axis is a series of trees
  - Tree defines logical breakdown of facts
    – Nodes specify constraints of aspects for cells
      – Closed node constrains single column/row
      – Open node expands during rendering to multiple columns/rows
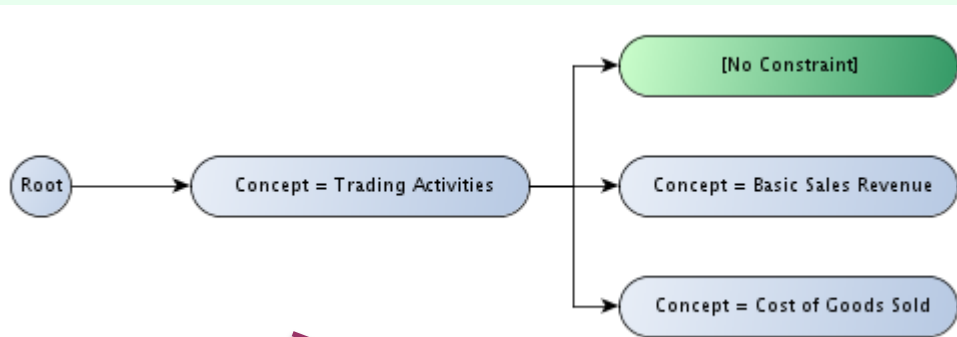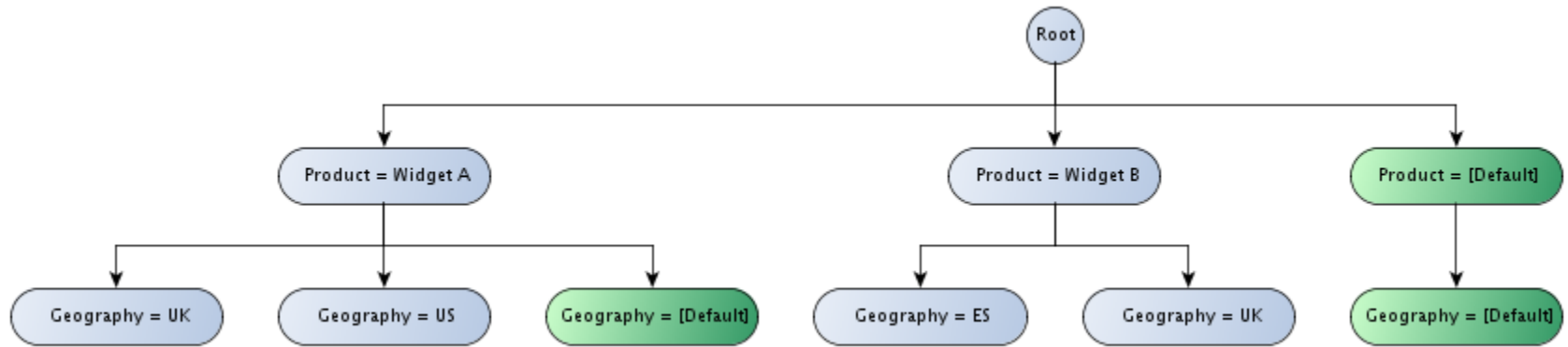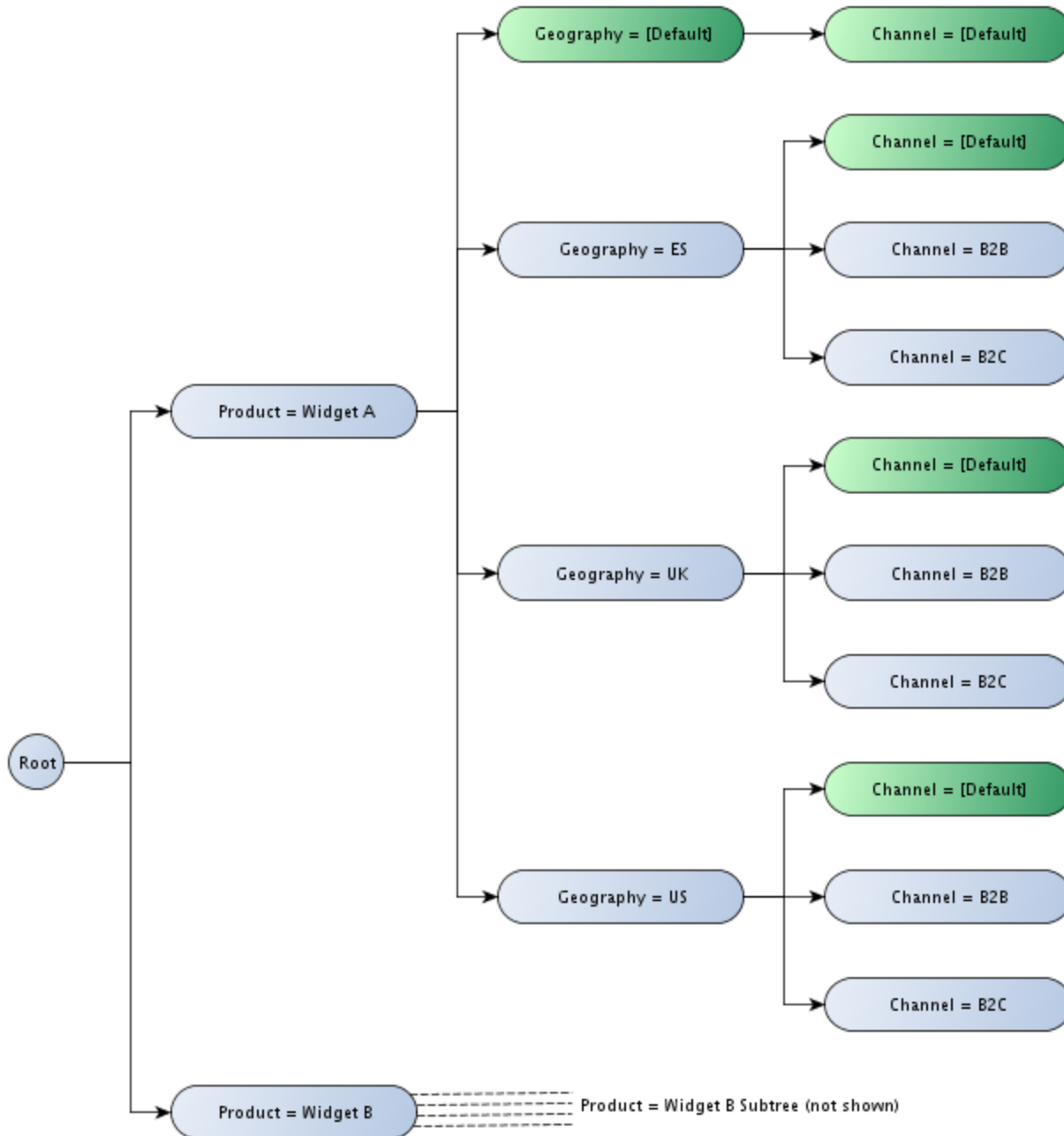
Breakdown trees

Two dims Y axis

		Sales
Widget A		
ES		
	B2B	
	B2C	
UK		
	B2B	
	B2C	
US		
	B2B	
	B2C	
Widget B		
ES		
	B2B	
	B2C	
UK		
	B2B	
	B2C	
US		
	B2B	
	B2C	

Tree diagram:

- Root
  - Product = Widget A
    - Geography = [Default]
      - Channel = [Default]
    - Geography = ES
      - Channel = [Default]
      - Channel = B2B
      - Channel = B2C
    - Geography = UK
      - Channel = [Default]
      - Channel = B2B
      - Channel = B2C
    - Geography = US
      - Channel = [Default]
      - Channel = B2B
      - Channel = B2C
  - Product = Widget B
    - Product = Widget B Subtree (not shown)

Table set

Balance Sheet	UK	US	ES
Assets			
Current Asset			
Fixed Assets			

Balance Sheet	UK	US	ES
Shares			
Class A			
Class B			
Class C			

- A sequence of tables with a common definition
  - Example, financial schedules of 2 link roles, balance sheets of assets and shares
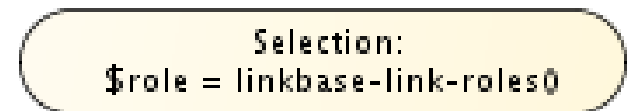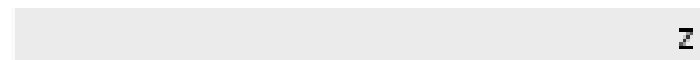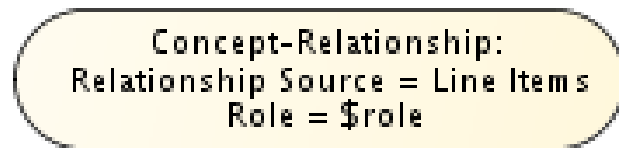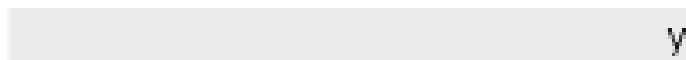   - Each table has different y axes despite having common definition

Definition axis-node model
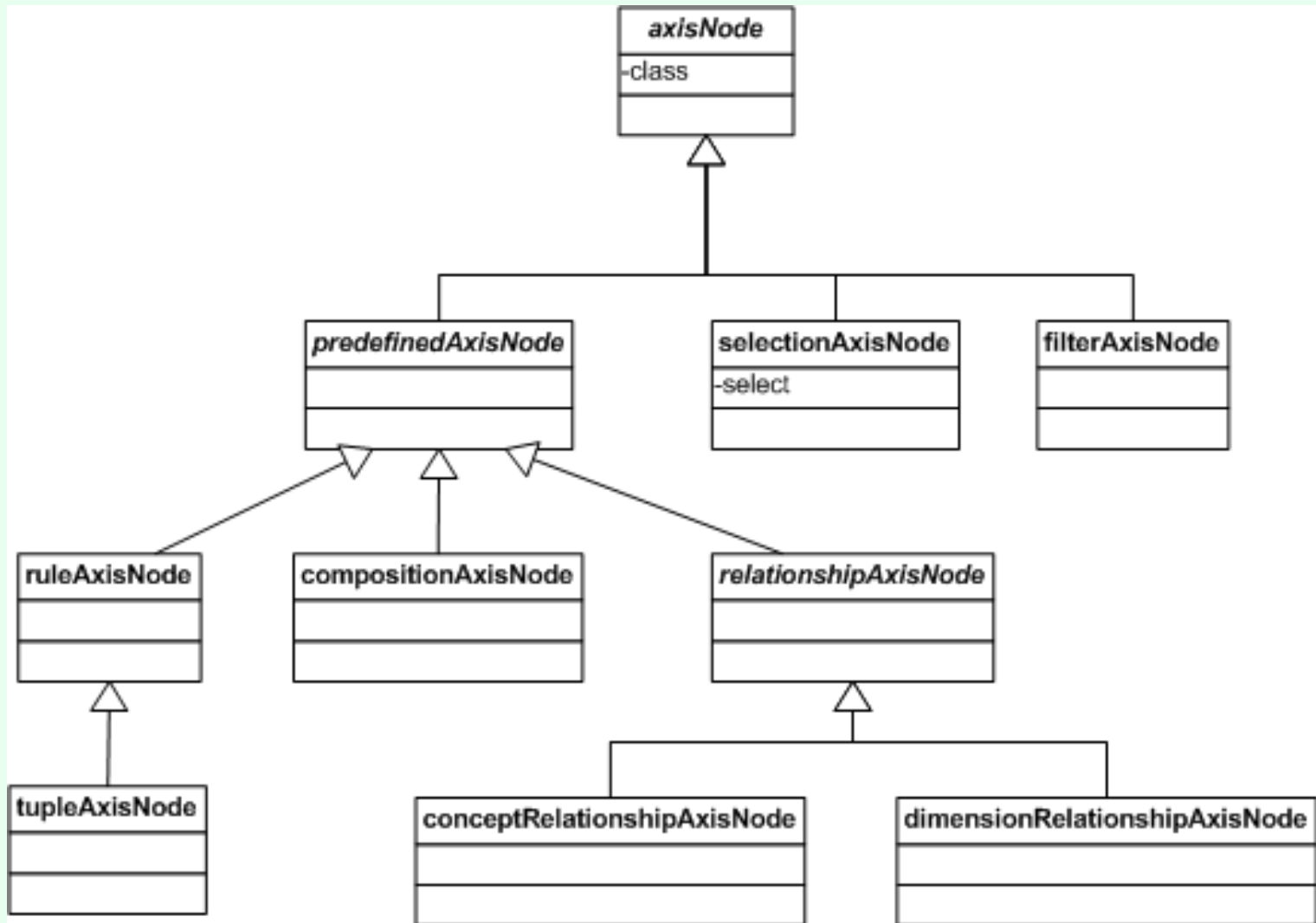
Table set definition model

| Balance Sheet	UK	US	ES
Assets			
Current Asset			
Fixed Assets			

Balance Sheet	UK	US	ES
Shares			
Class A			
Class B			
Class C			

x

Rule:

Rule:
Geography = UK

Rule:
Geography = US

Rule:
Geography = ES

y

Concept-Relationship:
Relationship Source = Line Items
Role = $role

z

Selection:
$role = linkbase-link-roles()
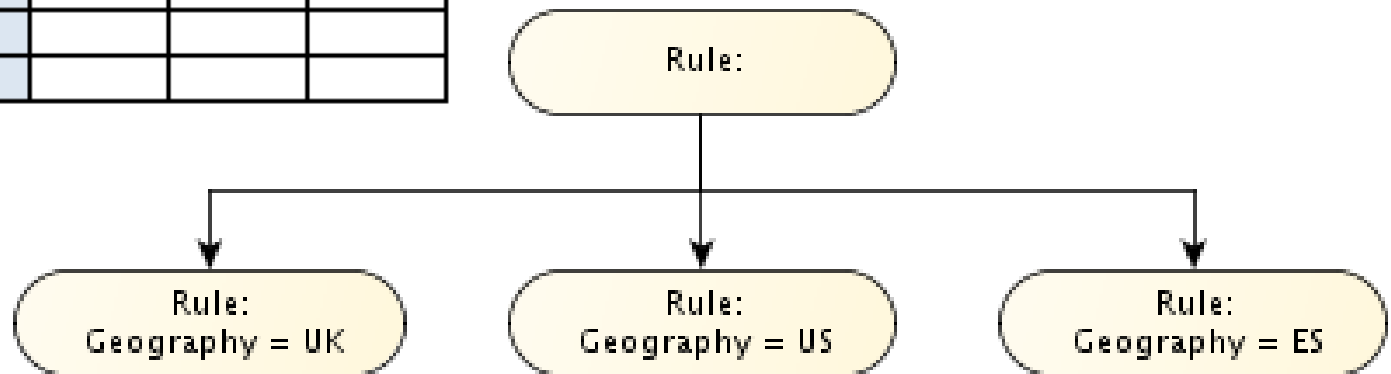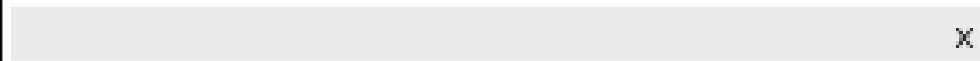
Rendering model, X-axis

	Widget A			Widget B		Total
	UK	US		ES	UK	
Trading Activities						
Basic Sales Revenue						
Cost of Goods Sold						
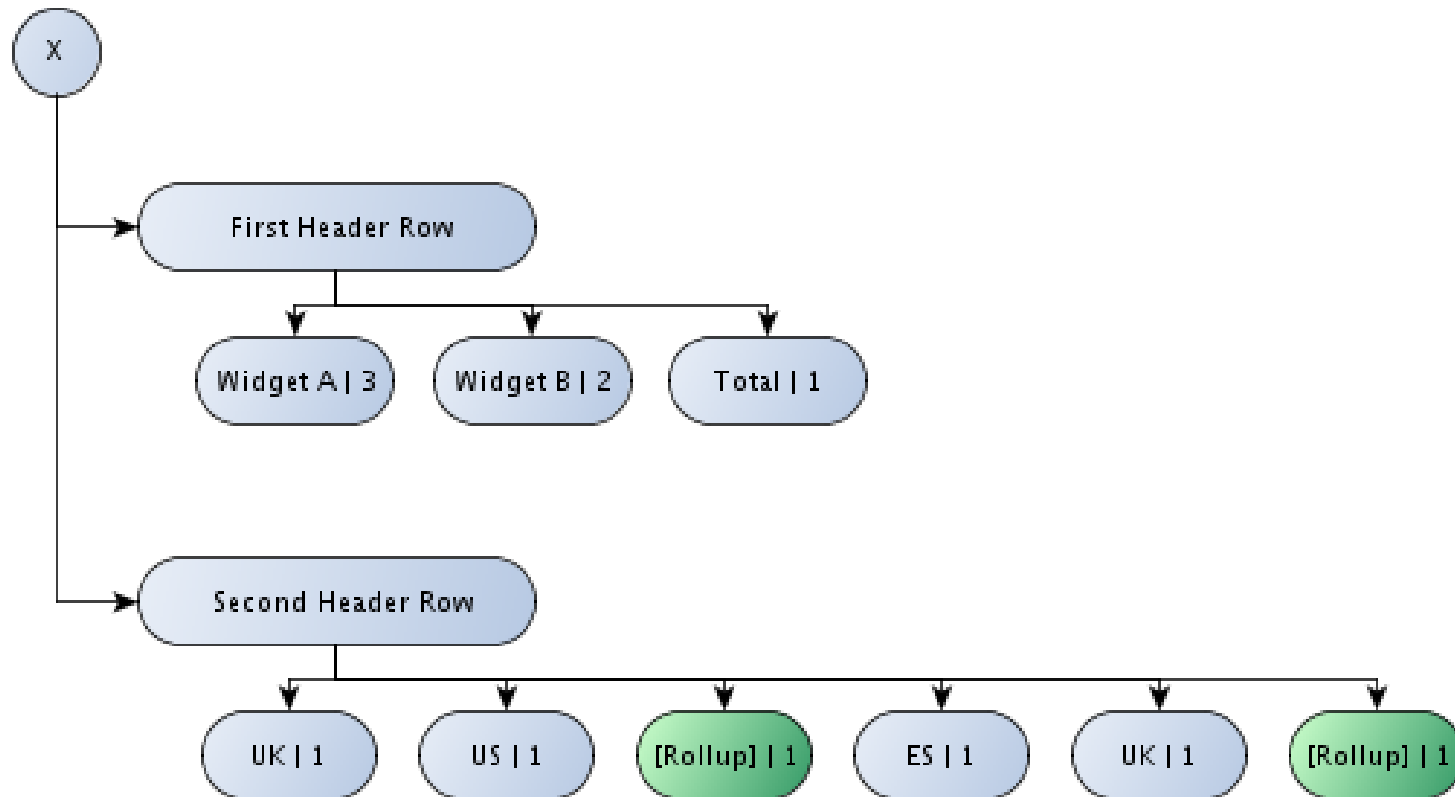
Rendering model, Y-axis

	Widget A			Widget B		Total
	UK	US		ES	UK	
Trading Activities						
Basic Sales Revenue						
Cost of Goods Sold						
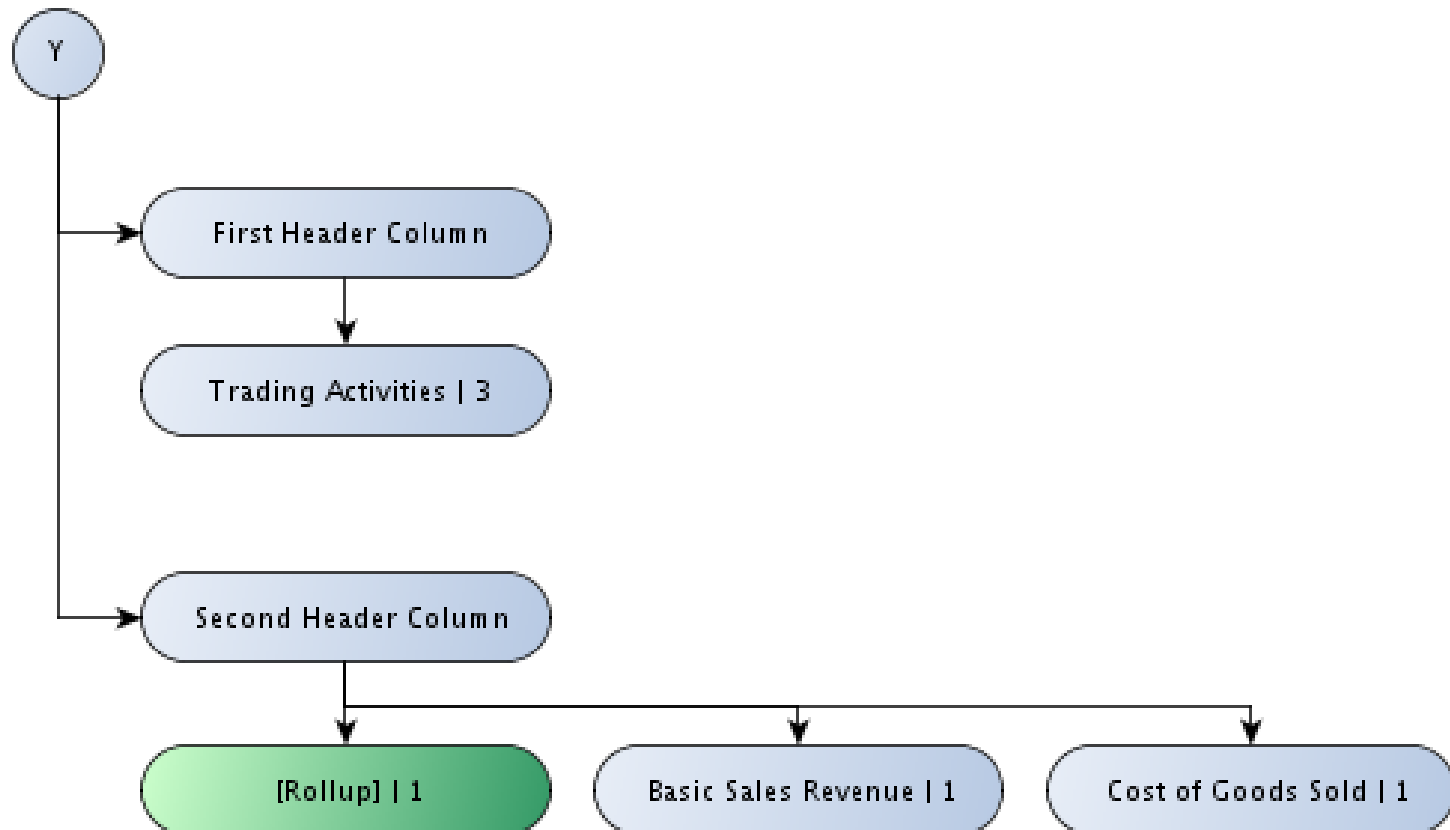
Resolving X-axis

	Widget A			Widget B		Total
	UK	**US**		**ES**	**UK**	
Trading Activities						
Basic Sales Revenue						
Cost of Goods Sold						
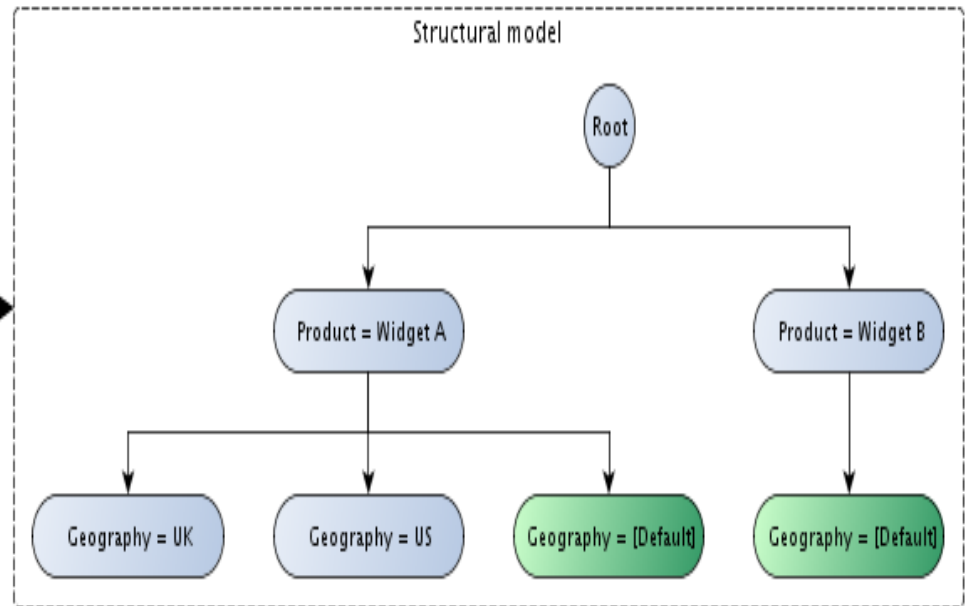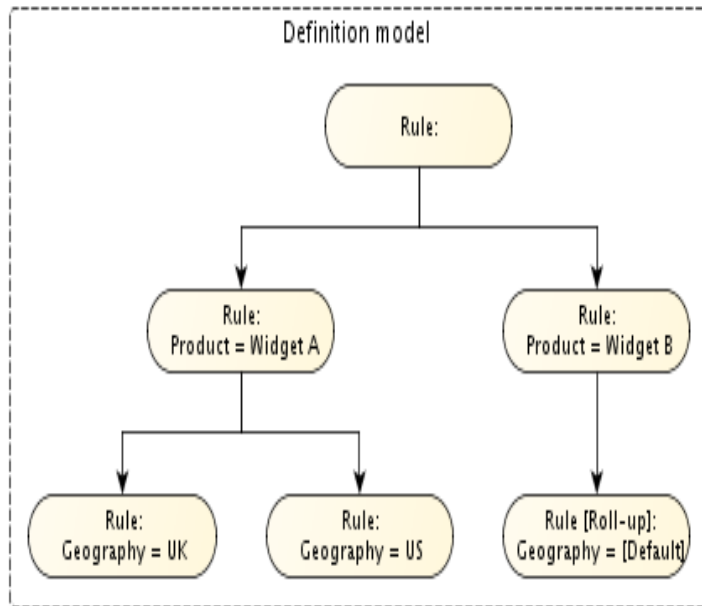
Resolving Y-axis

	Widget A			Widget B		Total
	UK	US		ES	UK	
Trading Activities						
Basic Sales Revenue						
Cost of Goods Sold						
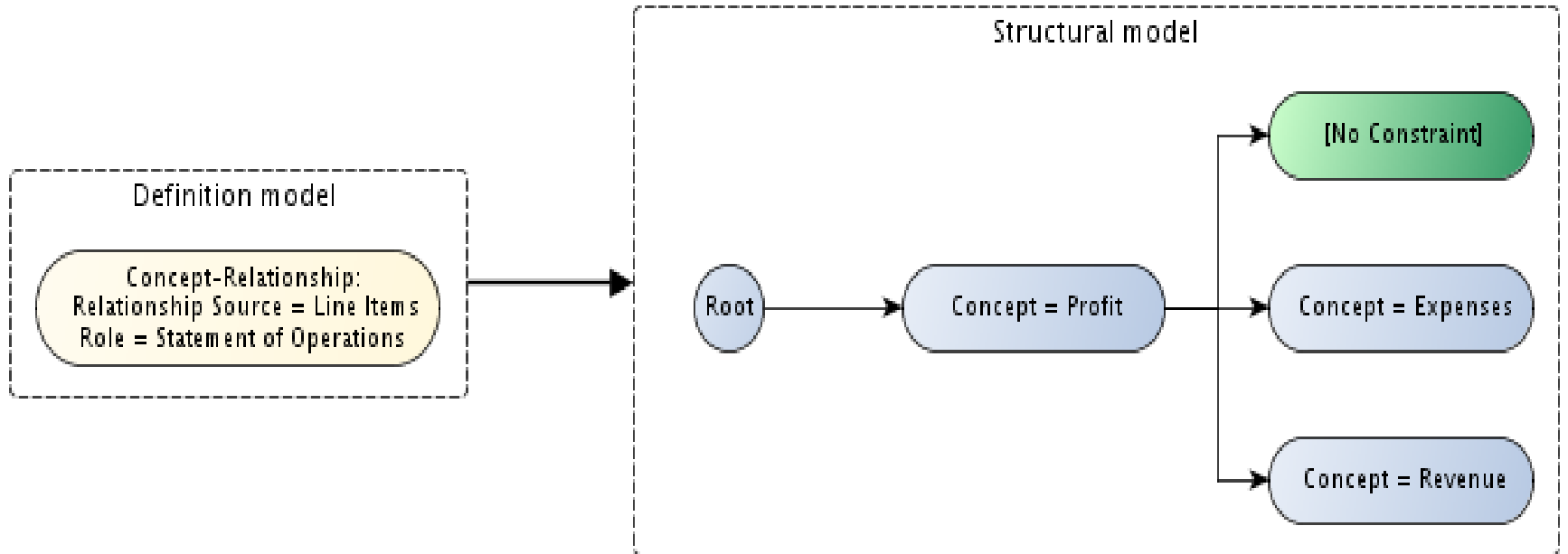
Resolving double X breakdown

		2011			2012		
		UK	US	World	UK	US	World
Profit							
	Revenue						
	Expenses						

Definition model

Breakdown by Period

Selection:
Period = [2011, 2012]
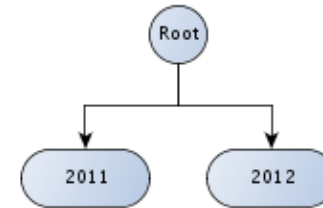
Breakdown by Geography
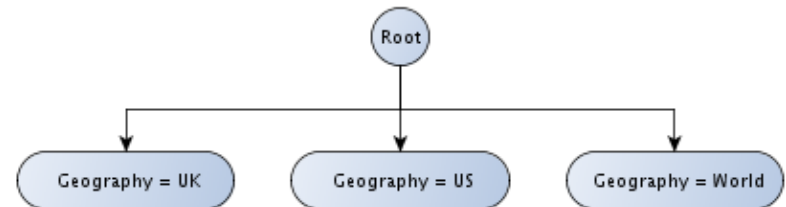
Rule:

Rule:
Geography = UK

Rule:
Geography = US

Rule:
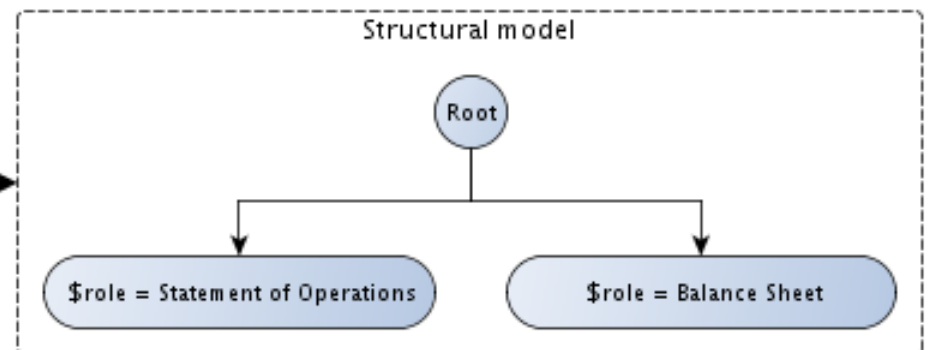Geography = [Default]

Structural model

Breakdown by Period

Root

2011

2012

Breakdown by Geography

Root

Geography = UK

Geography = US

Geography = World

Resolving table set Z-axis

Statement of Operations

	2011			2012		
	UK	US	World	UK	US	World
Profit						
Revenue						
Expenses						

Balance Sheet

	2011			2012		
	UK	US	World	UK	US	World
Assets						
Fixed Assets						
Cash						
Other Assets						
Liabilities						
Accounts Payable						
Loans Payable						

Definition model

Selection:
$role = [Statement of Operations, Balance Sheet]

Structural model

Root

$role = Statement of Operations

$role = Balance Sheet

Resolving table set Y-axes