Many to Many relations in timeXtender

Scenario

In this scenario we have 3 tables:

Table: Parents

ParentID	Parent
1000	Marge Simpson
1001	Homer Simpson
1002	Single Sue
1003	Remarried René
1004	Firstwife Fiona
1005	Secondwife San...

Table: Childs

ChildID	Child
5000	Bart Simpson
5001	Lisa Simpson
5002	Maggie Simpson
5003	Sam Sueson
5004	Dennis Sueson
5005	Paul Reneson
5006	Peter Reneson

Table: ParentChild

ParentID	ChildID
1000	5000
1000	5001
1000	5002
1001	5000
1001	5001
1001	5002
1002	5003
1002	5004
1003	5005
1003	5006
1004	5005
1005	5006

We want to have a cube where we can measure how many children a given parent has and how many parents a child has. Furthermore we would like to have a Parent and a Child dimension where we can see how they are connected.

Concept:

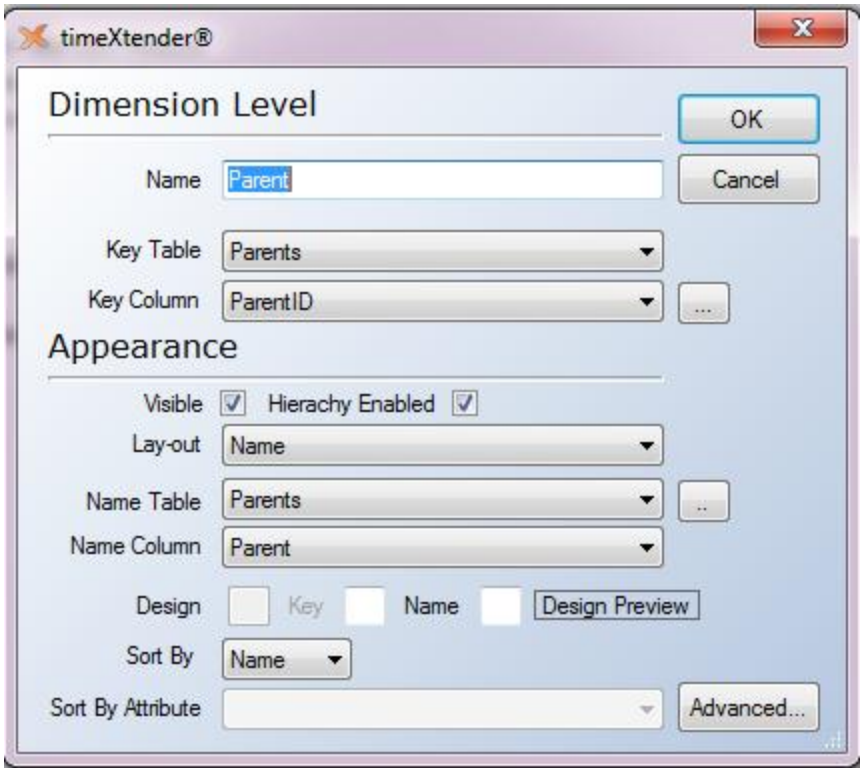
In order to link the parents to the children we need an intermediate fact table containing the relation. In this scenario the intermediate fact table will be “ParentChild”.

We will end up having two dimensions, Parents and Children that are both linked directly to the intermediate fact table. Furthermore the dimensions will be related to their own fact table (In this scenario as fact table dimensions, in real life more likely as normal dimensions). Having a dimension related to one of the fact tables and the intermediate fact table opens the option to link the dimension to another fact table, through the intermediate fact table. In this scenario, we can create a relation from the Parents dimension to the Child Fact table, through the ParentChild fact table.

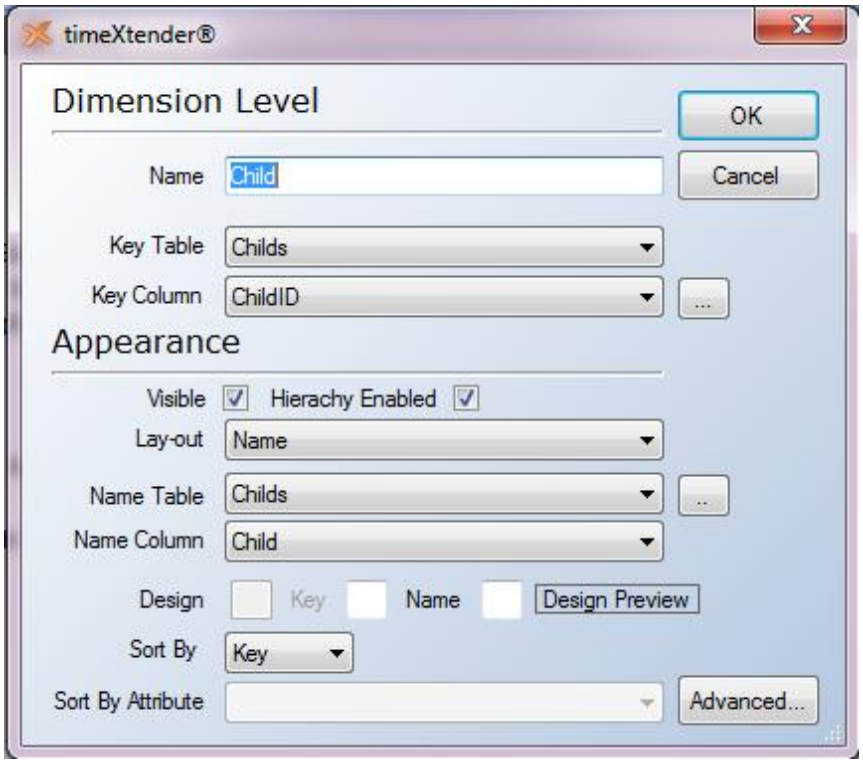
NOTE: You do not need an intermediate fact table if you have a dimension linking the fact tables directly.

Solution

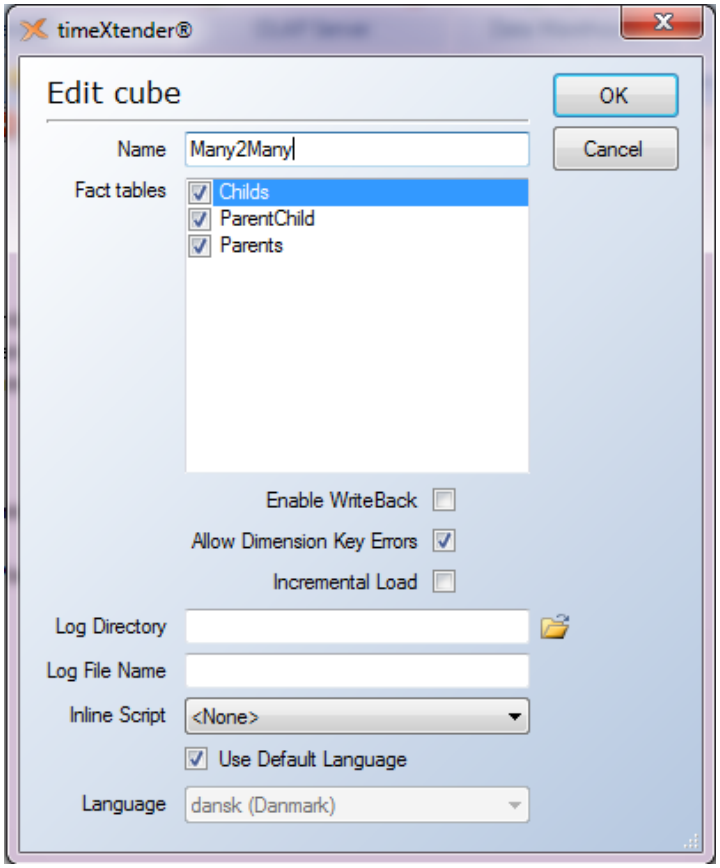
Build a standard Parent dimension:



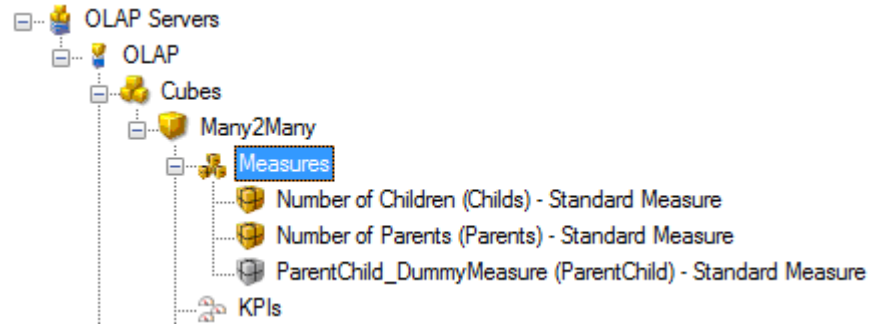
Build a standard Child dimension:

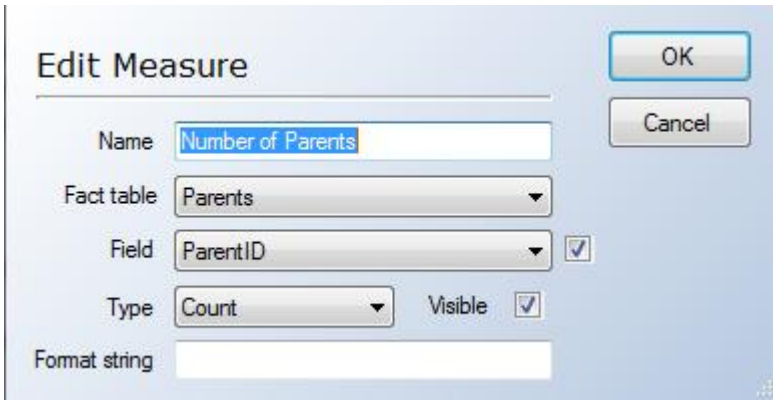


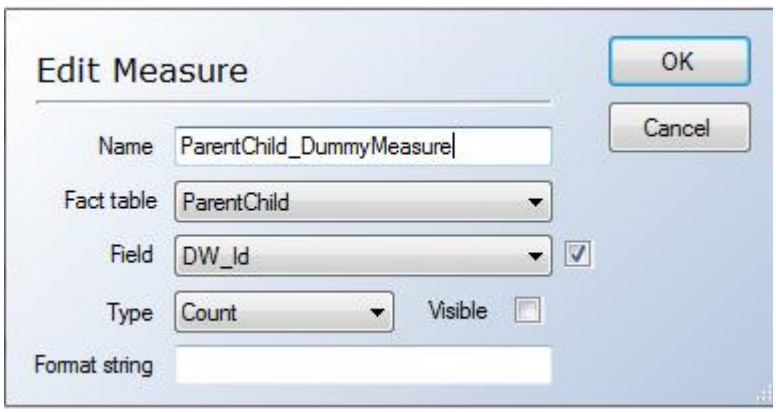
Create a cube using all 3 tables as fact tables:



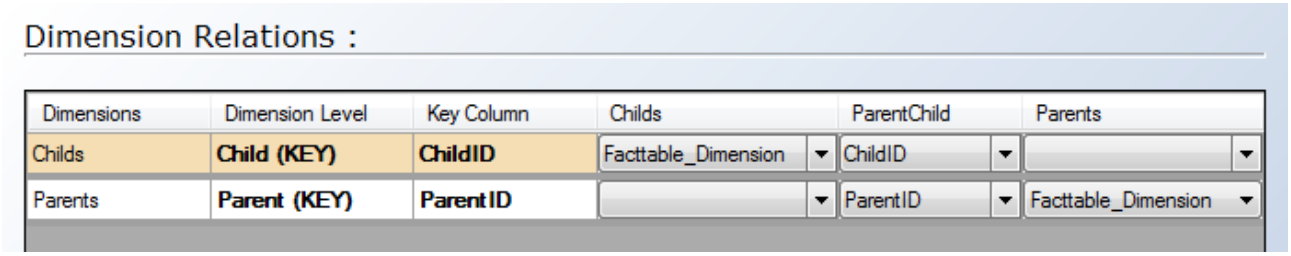
Create a standard measure (using Count) on each of the 3 fact tables:



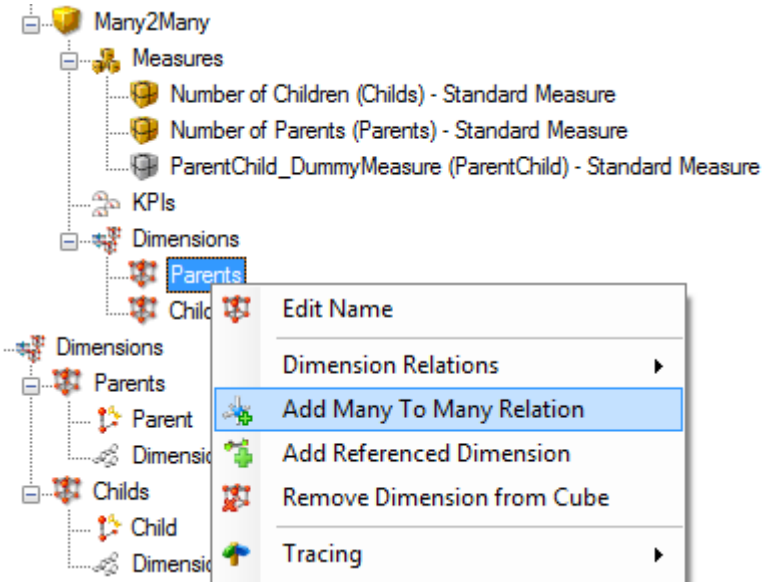




Add the Parent and the Child dimension to the cube, and set up the relations:

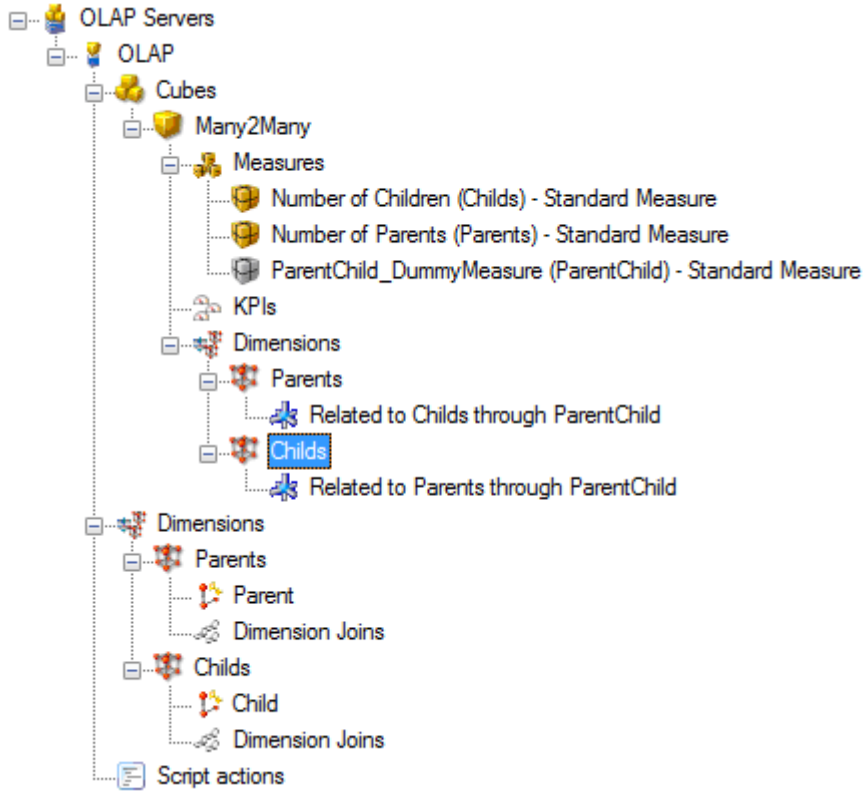


Right click the Parent dimension on the cube and Setup the many to many relationship between the Parent dimension and the Child Fact:



Set up the Many to Many relation between the Child dimension and the Parent Fact:

The project:



The result, viewed in excel:

	A	B	C
1	**Row Labels**	**Number of Parents**	**Number of Children**
2	**Firstwife Fiona**	**1**	**1**
3	Paul Reneson	1	1
4	**Homer Simpson**	**1**	**3**
5	Bart Simpson	1	1
6	Lisa Simpson	1	1
7	Maggie Simpson	1	1
8	**Marge Simpson**	**1**	**3**
9	Bart Simpson	1	1
10	Lisa Simpson	1	1
11	Maggie Simpson	1	1
12	**Remarried René**	**1**	**2**
13	Paul Reneson	1	1
14	Peter Reneson	1	1
15	**Secondwife Sandra**	**1**	**1**
16	Peter Reneson	1	1
17	**Single Sue**	**1**	**2**
18	Sam Sueson	1	1
19	Dennis Sueson	1	1
20	**Grand Total**	**6**	**7**