

## Global11 demo

This document describes how Global11\_demo Data Modeler design was built.

### I. Schema setup

Install global schema as it's described here

<http://www.oracle.com/technetwork/database/options/olap/global-11g-readme-082667.html>

and using data here <http://www.oracle.com/technetwork/database/enterprise-edition/downloads/global-11g-schema-1-128202.zip>

Do not create analytic workspace.

Additional privileges need to be granted to used user for Oracle 12 c :

grant create view, create cube, create cube dimension, create cube measure folder to global;

Changes introduced to GLOBAL schema:

#### 1) Two new columns added in UNITS\_FACT table - to illustrate role playing dimensions

```
alter table global.units_fact add SHIP_MONTH_ID varchar2(7);
```

```
alter table global.units_fact add DELIVERY_MONTH_ID varchar2(7);
```

```
update global.units_fact set SHIP_MONTH_ID = MONTH_ID;
```

```
update global.units_fact set DELIVERY_MONTH_ID = MONTH_ID;
```

#### 2) New table is created using following statement:

```
create table GLOBAL.cust_account AS
SELECT GLOBAL.CUSTOMER_DIM.SHIP_TO_ID,
GLOBAL.CUSTOMER_DIM.SHIP_TO_DSC,
GLOBAL.CUSTOMER_DIM.SHIP_TO_DSC_FRENCH,
GLOBAL.CUSTOMER_DIM.SHIP_TO_DSC_DUTCH,
GLOBAL.ACCOUNT.ACCOUNT_ID,
GLOBAL.ACCOUNT.FIRSTNAME,
GLOBAL.ACCOUNT.LASTNAME,
GLOBAL.ACCOUNT.ADDRESS,
GLOBAL.ACCOUNT.ADDRESS2,
GLOBAL.ACCOUNT.CITY,
```

```

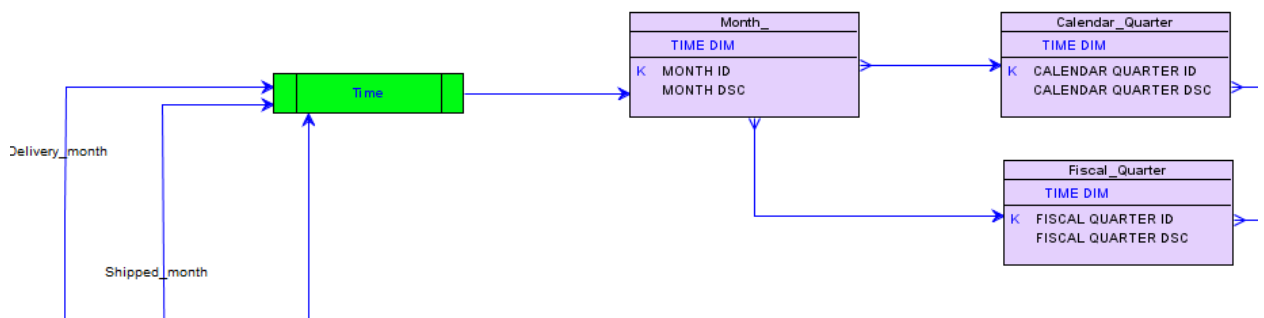
GLOBAL.ACCOUNT.STATE_PROV,
GLOBAL.ACCOUNT.COUNTRY,
GLOBAL.ACCOUNT.ZIP_PC,
GLOBAL.ACCOUNT.PHONE,
GLOBAL.ACCOUNT.FAX,
GLOBAL.ACCOUNT.EMAIL
FROM GLOBAL.CUSTOMER_DIM
INNER JOIN GLOBAL.ACCOUNT
ON GLOBAL.CUSTOMER_DIM.ACCOUNT_ID = GLOBAL.ACCOUNT.ACCOUNT_ID ;

```

3)

## II. Building the design

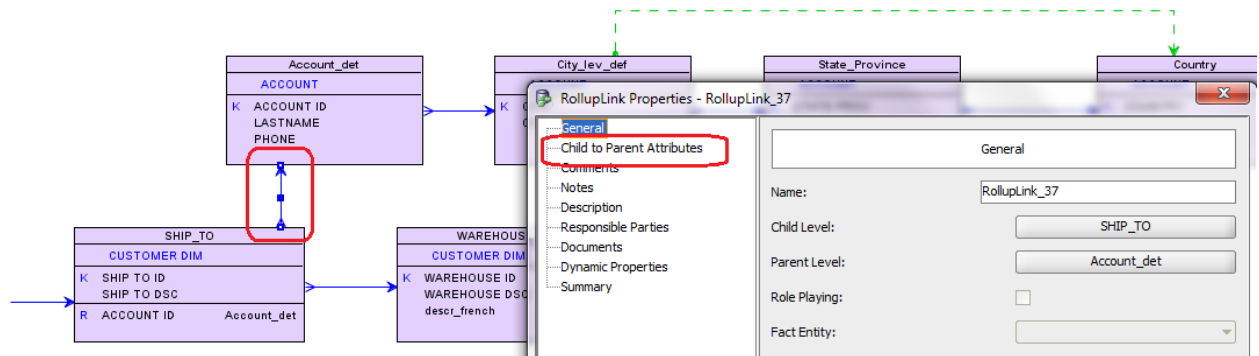
1. Import Created schema (GLOBAL)
2. Engineer relational model to logical model
3. Create Dimensional model
4. Dimension is created using “New Dimension” icon on tool bar. Dimension can be set as time dimension. Hierarchies in dimension are created in rollup manner connecting base level of dimension (lowest granularity level) to dimension shape on diagram. Each sequence of levels (starting from base level) constitutes a hierarchy belonging to that dimension. One level can belong to several dimensions.
5. Hierarchy is created when dimension shape is connected (using “New Link”) to base level.



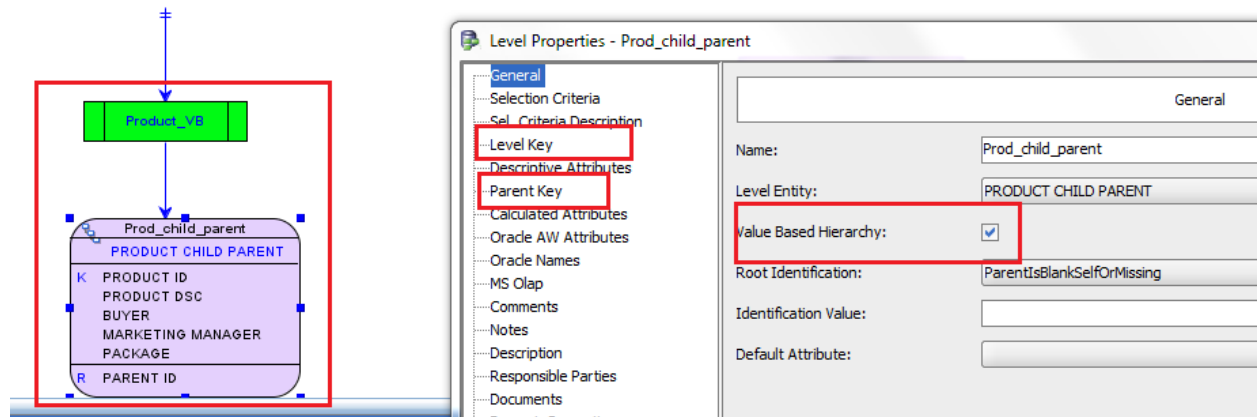
Levels are connected (in level based hierarchies) using “New Link” tool.

6. Level – level entity need to be defined, and also – definition includes level key, descriptive attributes and calculated attributes. Mapping of optional short description and long description attributes can be defined and for level belonging to time dimension mapping of mandatory ‘time span” and “time end” attributes should be defined.

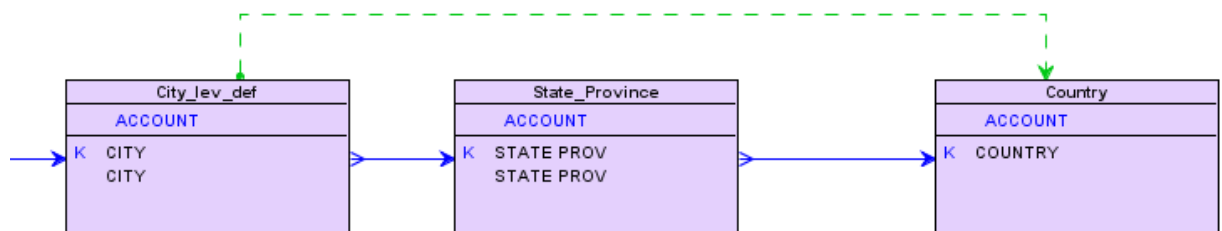
- Link – used to define hierarchies and dimension usage. Child to parent attributes can be defined when link connects levels defined on different entities



- Value based hierarchy - used level to define level key, parent key and descriptive attributes



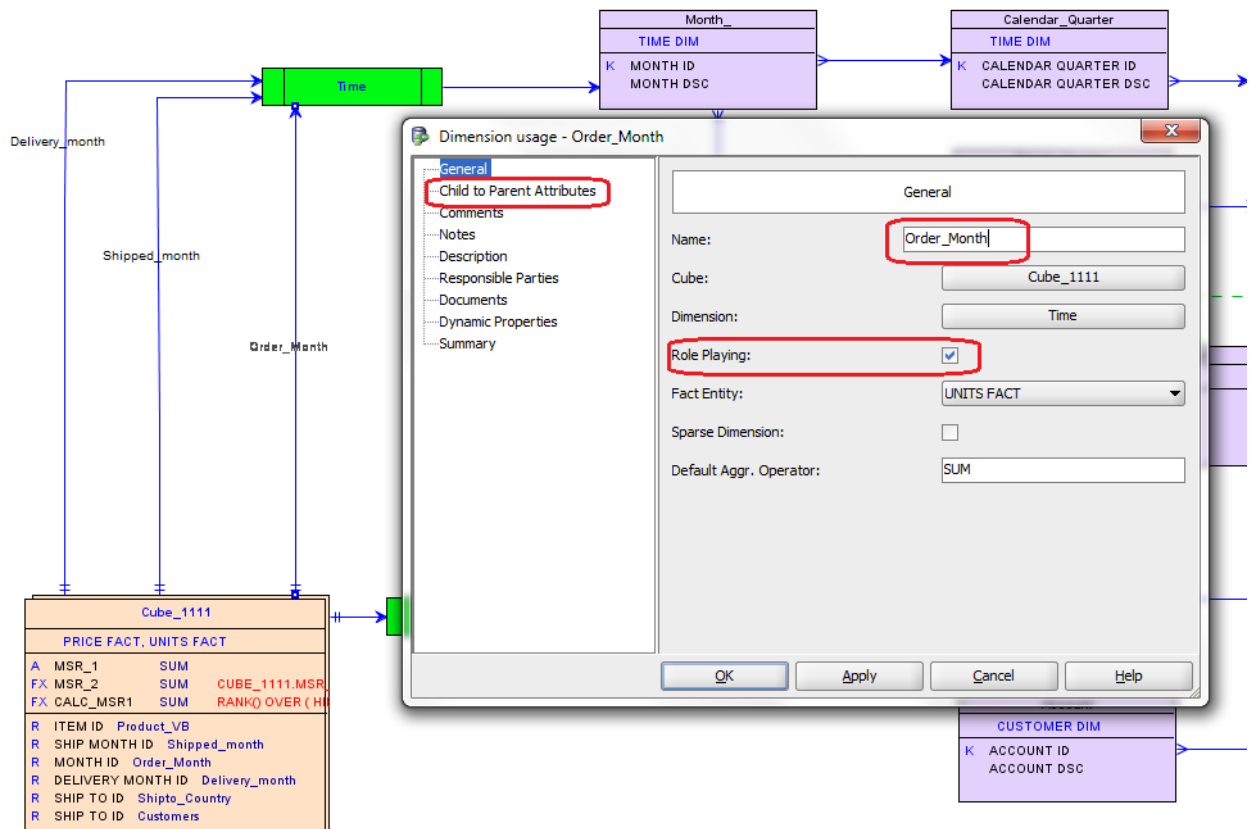
- Ragged hierarchy – corresponds to skip level hierarchy in Oracle OLAP – use “New Ragged Hierarchy Link” tool in order to mark and represent a “jump” over level(s) – dashed green link below.



Ragged hierarchy is exported to Oracle OLAP as ragged and “skip level” hierarchy.

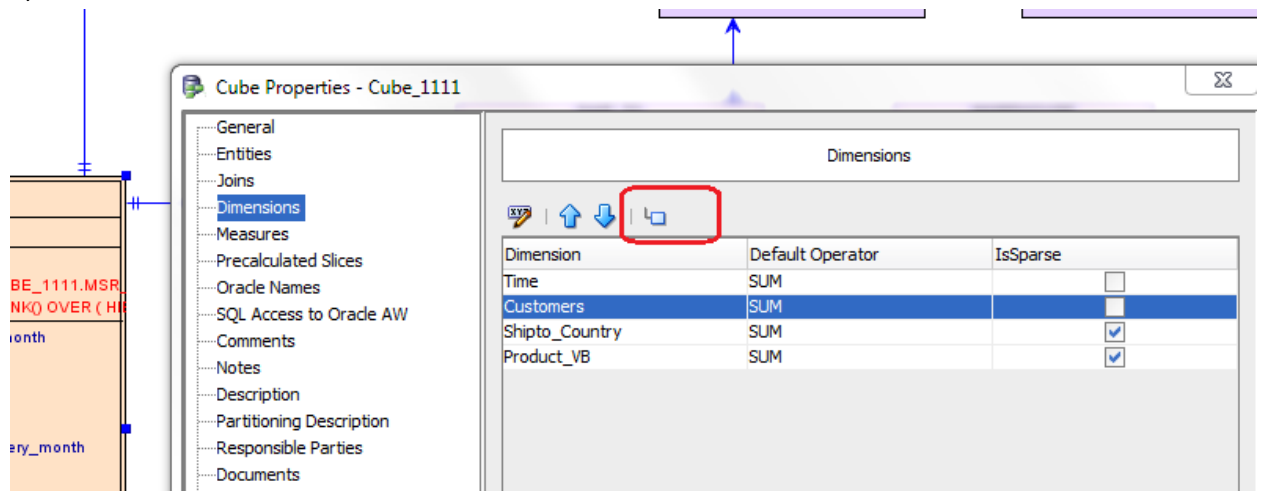
- Dimension usage (link between cube and dimension) – defines child to parent attributes (join of fact entity to base level of dimension), whether it’s role playing dimension and other related

properties

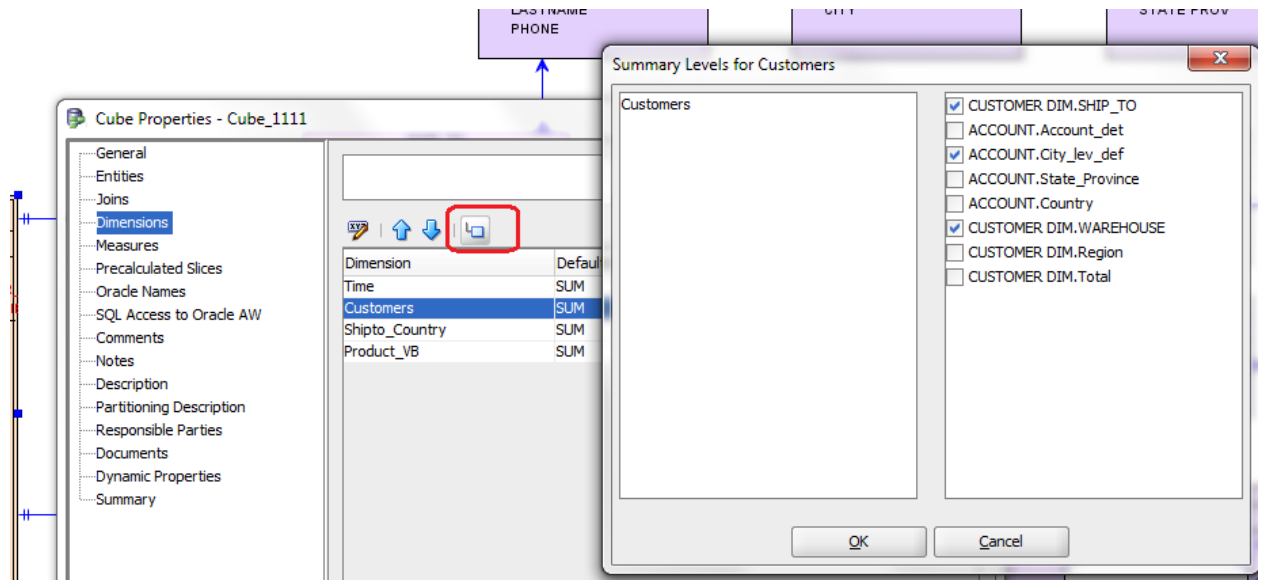


11. Cube – fact entities, measures and pre-compute of the cube can be defined  
pre-compute:

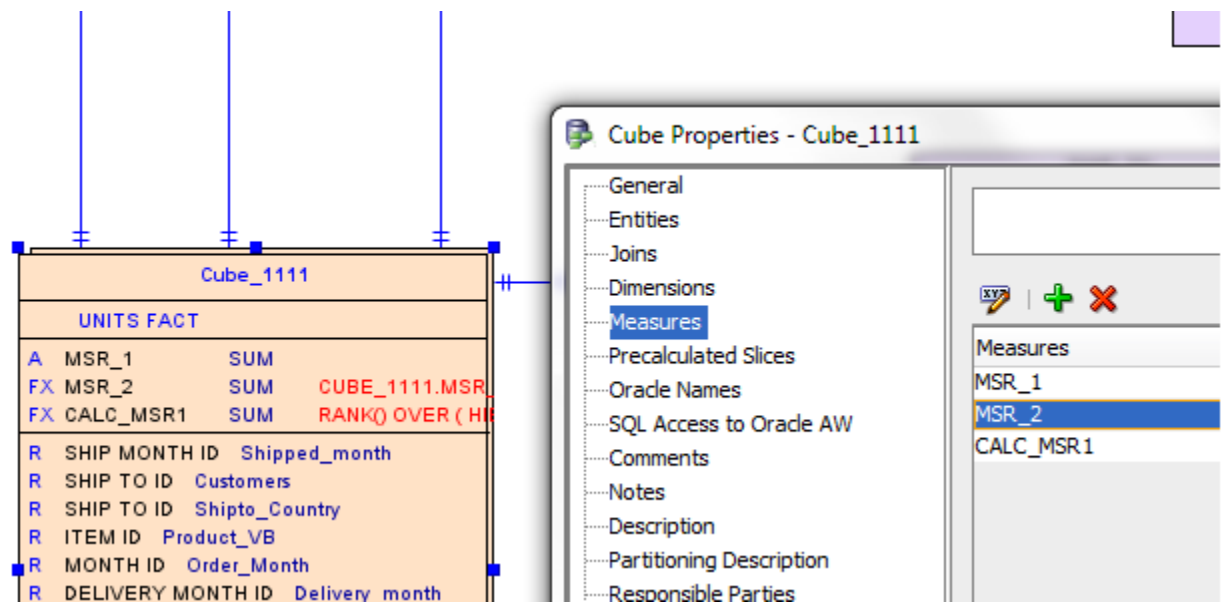
1)



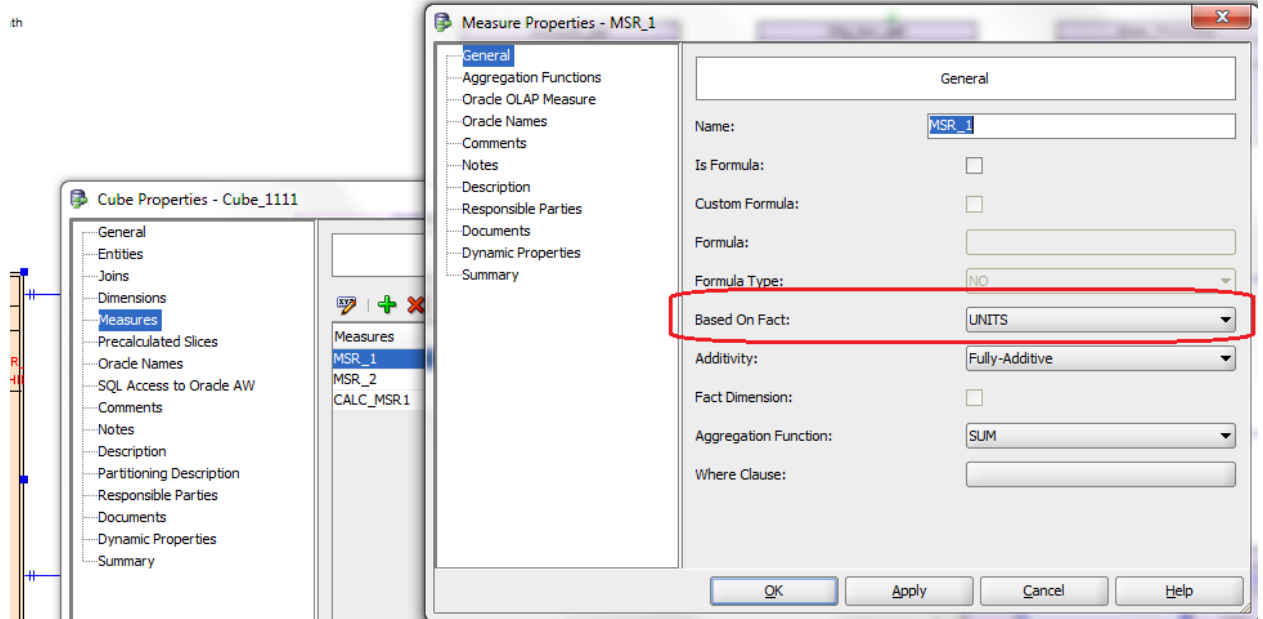
2)



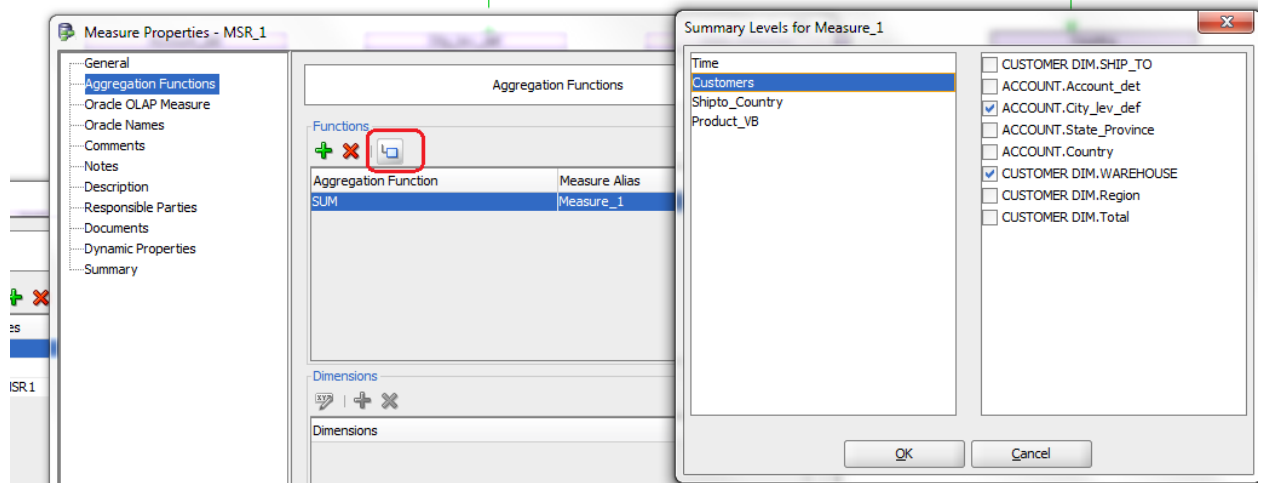
measures:



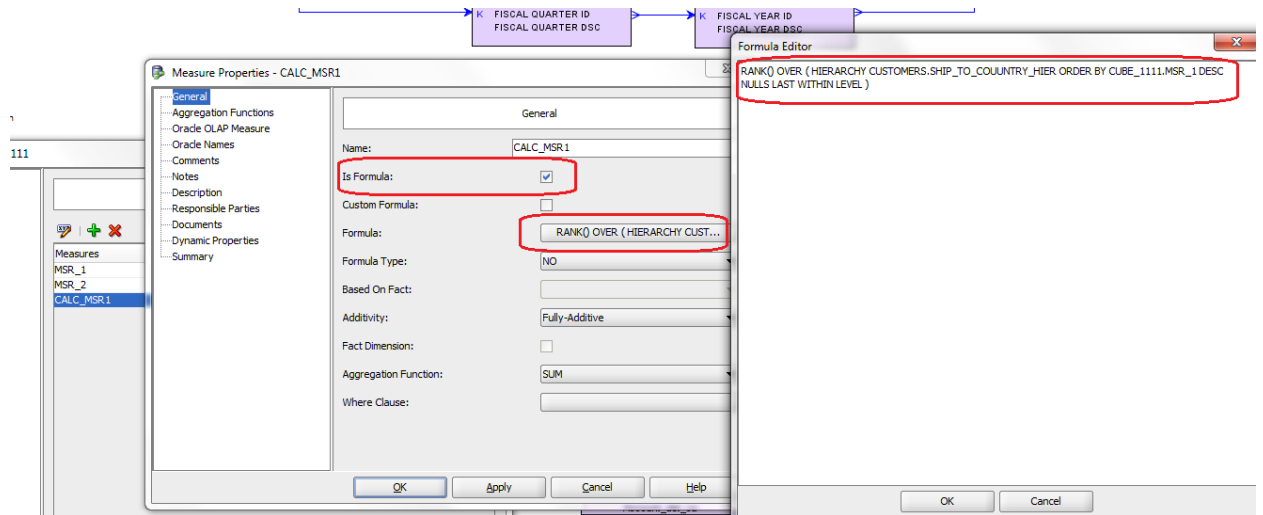
- Measure –  
basic measure – mapped to attribute in fact entity



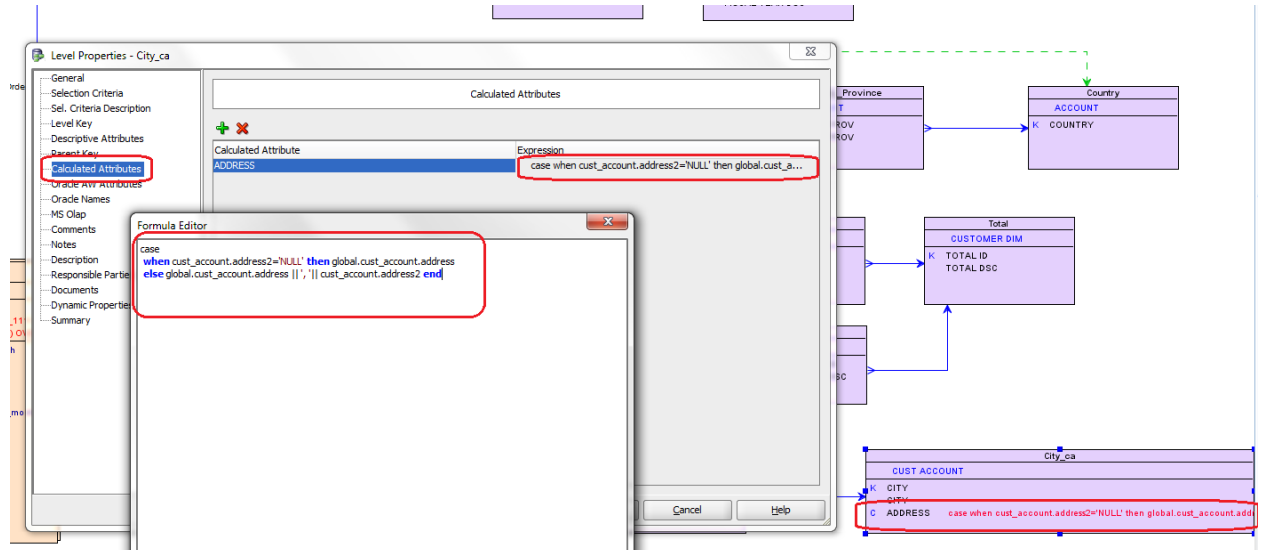
summary levels for basic measure can be defined – not exported to Oracle OLAP



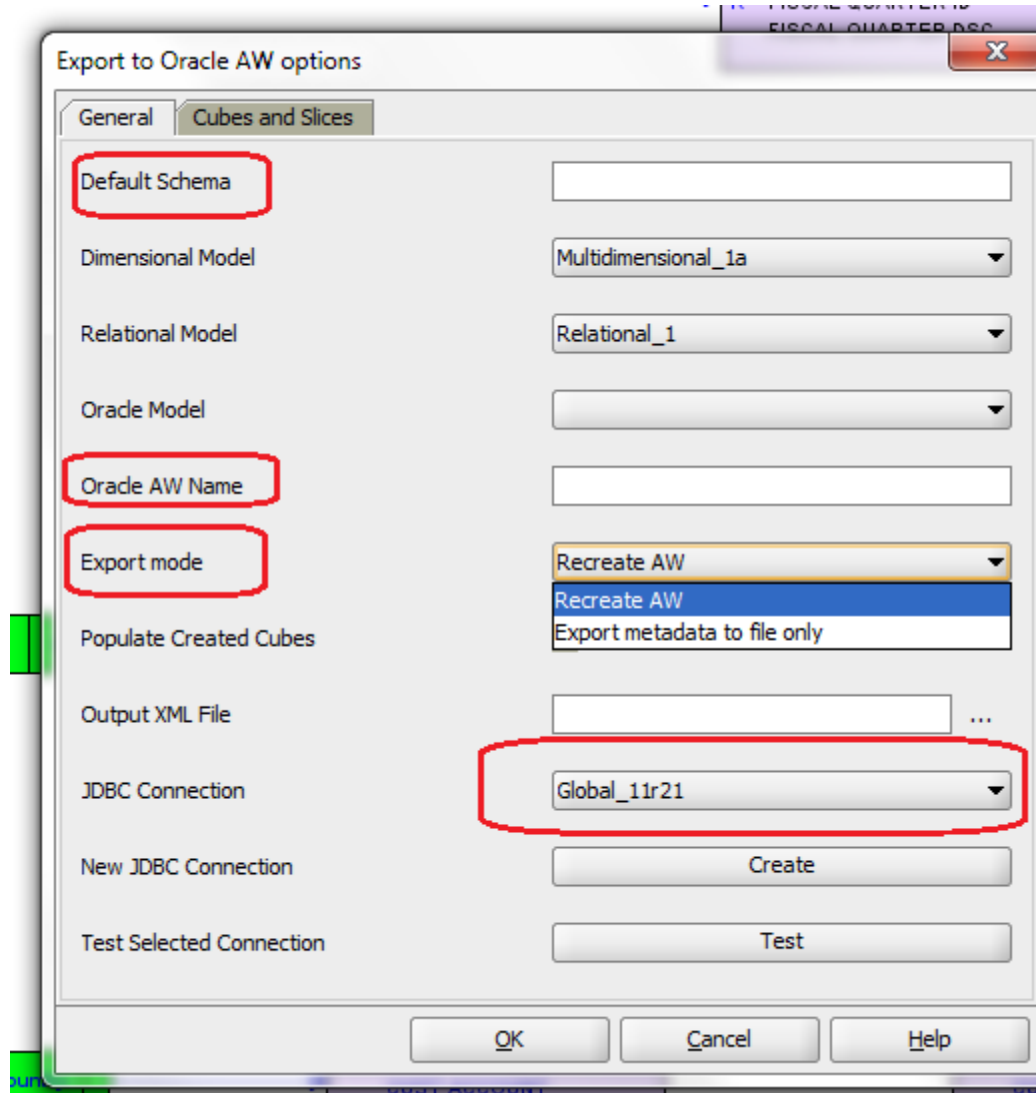
## calculated measure



## 13. Calculated attribute (level)



#### 14. Export to Oracle AW



if AW with given name exist it'll be dropped first and then recreated, metadata will be exported to file if file name is provided. Export to file only – still needs connection to Oracle database because metadata are created but not committed to database.

“Default schema” can be set if there are objects in relational/physical model without schema defined, if not set then schema from connection is used to resolve objects without schema in the model.

Can be selected which cubes to be exported.

#### 15.