

About Queries On Dimensions That Are Unrelated To One Or More Queried Measures

You can use the **Unrelated Dimensions Handling** feature (which is enabled by default) to specify the behavior of the AtScale engine when all of the following conditions apply:

- ▶ A client queries a cube that has more than one fact dataset.
- ▶ The data in each fact dataset are at a different level of granularity than the data in the other fact datasets.
- ▶ The query references dimensions that are not related to the measures that it queries.

The three possible behaviors are:

- ▶ Reject the query and return an error message
- ▶ In the query results, display empty cells
- ▶ In the query results, repeat the values for the measure at a level of aggregation that is determined from the shared dimensions in the query

A common use for this feature is querying to perform Per Member Per Month (PMPM) calculations. To illustrate with a simple example, suppose that a cube contains two fact tables: Claims and Membership.

Table 1. Structure of the Claims and Membership tables

Table	Columns
Claims	Month
Claims	Procedure Code
Claims	Claim Amount
Membership	Month
Membership	Member Months

To find the cost of each procedure averaged per member per month, you want the total count of members to be the same for each procedure over the queried period of time.

Suppose the Claims table contained this data:

Table 2. The Claims table

Month	Procedure Code	Claim Amount
January	0310	5000
January	0210	2000
January	0110	3000
January	0210	1500
February	0110	2500
February	0110	2700
February	0210	1600
March	0110	2600
March	0310	4300

And the Membership table contained this data:

Table 3. The Membership table

Month	Member Months
January	100
February	80
March	90

You know that one of the uses that will be made of your cube is to query the tables to get the PMPM for each procedure code during these months, calculating the PMPM as $(\text{Claim Amount})/(\text{Member Months})$. So, before you publish the cube, you edit the measure Member Months to make these two changes under the heading **Unrelated Dimensions Handling** in the **Edit a Measure** dialog:

1. Select the check box **Override Default Handling**. The default is for the AtScale engine to reject the query and issue an error message.
2. In the list box, select either the option **Include empty cells in query results** or the option **Include repeated values in query results**.

After saving the edits, you publish the cube. When the query is issued to find the PMPM for the procedure codes, the results look like this, even though the measure Member Months is unrelated to the dimensional attribute Procedure Code:

Table 4. Query results if you selected **Include empty cells in query results**

Procedure Code	Claim Amount	Member Months	PMPM
0110	10800		40
0210	3300		12.22
0310	9300		34.44

Table 5. Query results if you selected **Include repeated values in query results**

Procedure Code	Claim Amount	Member Months	PMPM
0110	10800	270	40
0210	3300	270	12.22
0310	9300	270	34.44

Known Issues

When using a Scatter Chart in Power BI with filters applied, the results differ from the data available in Atscale.

