

Add Calculated Metrics

You can add a calculated metric to a model by writing an MDX formula that operates on existing metrics already defined in the model.

Calculated metric formulas are written in MDX syntax, but only support a small subset of MDX functions and operators. They can only operate on the existing metrics in the model, and must return a numeric value. You can do simple math operations to combine metrics, or simple comparison operations to return a given metric value when certain conditions are met.



Note: AtScale recommends using [Dimension Calculation Groups](#), which allows you to reduce the number of calculated metrics in a model.

Before You Begin

- ▶ If you have experience with creating formulas in Tableau, you need to consider that the formulas for calculated metrics in AtScale are somewhat different. For details, see [Calculated metric syntax](#).
- ▶ The syntax validation mechanism used when entering the MDX formula detects cases where the equals operator is used incorrectly for comparing the CurrentMember function to a scalar value. Also, it displays a warning about using the `[Dimension].[Hierarchy].[Level].CurrentMember` syntax.

If you need to disable these syntax checks, you can do so using the

`query.language.mdx.currentMember.allowLegacySyntax` engine setting. For details, see [Changing Engine Settings](#).

Procedure

To add a calculated metric:

1. In Design Center, open the model you want to add a calculated metric to.
2. If you want to reference a particular metric in the calculated metric, determine its unique name.



Note: If you plan to use the `CURRENTMEMBER.NAME` function in your formula, you will also need to get the dimension attribute's unique name. Pay attention to role-playing dimensions, as their unique names have a prefix that proceeds the attribute's unique name.

3. Click the plus icon at the top of the page and select **New Calculation**. The **Edit Calculated Measure** panel opens.
4. Complete the following fields:

- ▲ **Display Name:** The name of the calculated metric as it appears in AtScale.
- ▲ **Unique Name:** The unique name of the calculated metric. This must be unique across all repositories and subrepositories.
- ▲ **Description:** A description of the calculated metric.
- ▲ **MDX Aggregation Function:** The aggregation function to use when this calculated metric is referenced via the [Aggregate MDX function](#).



Note: AtScale recommends setting this field to a value other than **None** if you plan on referencing this calculated metric from calculation groups. Otherwise, you may encounter errors at query time.

- ▲ **Visible in BI Tool:** Determines whether the calculated metric appears in BI tools.
 - ▲ **Formatting:** The format for results of queries against the calculated metric. If you select **Custom**, you must also enter a [custom format](#).
5. In the **Formula** field, enter the [MDX formula](#) you want to use. Be aware of the following:
- ▲ The formula must return a numeric value.
 - ▲ When using Power BI, AtScale recommends using the hierarchy name in the expression, rather than the dimension name.
 - ▲ You cannot combine metrics from multiple fact tables in the same formula if using [CURRENTMEMBER.NAME](#) in your formula.
 - ▲ You can only evaluate dimensions in a calculated metric formula with metrics from a single fact table.
6. Click **TEST MDX SYNTAX** to validate your formula.
7. Click **Apply**.

The new calculated metric appears in the `calculations/` folder in the **Repo Browser** and can be added to models as needed.

MDX Reference

For details about the MDX functions and operators allowed in a calculated metric formula, see [MDX Reference](#).