

BI Office Create Custom Calculations

In BI Office Data Discovery, users can build **custom measures** which are calculations written in MDX that can be used to derive values from anywhere within the query. With the custom measures wizard it is easy to define basic metrics and measure definitions without writing MDX.

Open the Model

Start with a **data model** opened in Data Discovery.

Notice the **measures** on columns.

From the **selection panel** select the **Gear** icon then choose **Measure Wizard**.

The screenshot shows the BI Office Data Discovery interface. The top ribbon includes tabs for File, Home, Report, Query, Analytics, Grid, Chart, Map, Gauges, Visualization, Text, and Modeling. The main workspace displays a data model with columns for Sales and COGS, and a bar chart visualization showing Sales and COGS by Month Dates. A selection panel on the left shows the Measures menu with the Measure Wizard option highlighted.

Create a Custom Measure

Name the measure.

Select the **Formula Type**.

The Measure Wizard dialog box is shown with the following fields and options:

- Name: Profit
- Description: (empty)
- Format: No Formatting
- Formula Type: X-Y (Subtraction)
- Choose Measures And Click Next: Sales - COGS
- Buttons: Next, Close

Determine the left and right side **measures** of the equation.

Select **Next**.

▶ Edit and Create

Choose to either save it in a **Private** or **Public** folder, then select the **Text MDX** button to test the calculation.

Custom Member

Member Name: Profit Description:

Access: Public

Show Advanced

Notice the green check mark indicates that the query has **passed**.

Information

Query passed!

On the **Custom Set** editor click **Create**.

▶ Set Role Rights

Custom Member Security

Public member or set definitions are available to all users with read access for inclusion in their public and private content. Private definitions can also be included in a public content, but can only be edited by the definition owner. Users with write access to public definitions can change the item's definition which will then affect all related content.

Custom Member Name : Profit

Custom Member Security

<input type="checkbox"/> Read	<input type="checkbox"/> Write	Roles
<input type="checkbox"/>	<input type="checkbox"/>	Technical Product M...
<input type="checkbox"/>	<input type="checkbox"/>	North America
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Decision Makers
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge Workers

Choose who can **Read** or **Edit** the new Custom Calculation in the **Selected** folder. Click **OK**.

▶ Test

Under the **Elements** pane, navigate to the **Custom Elements** folder, then **Public**. Notice the **new** custom calculation here, CTRL click to select it.

Measures

- Sales
 - Metrics
 - % Discount
 - Return Rate
 - Customer Count
 - Custom Elements
 - Private
 - Public
 - Avg Sales
 - Dynamic Gear Calculation
 - Product Category Code
 - Product Code
 - Profit

Hierarchies Elements



Run the query.

See the custom **calculation** appear in the report.

Create Custom Calculations

Sales, COGS and Profit by Month Dates (Date) on rows

	Sales	COGS	Profit
All Dates	\$558,010,158	\$424,958,277	\$133,051,880.96

