How to connect the Power BI app to your data

To connect the Power BI app to your own Alpha.AI database instance and report on its live data follow the steps below:

1. Go to “Apps” tab in your Power BI solution and select “Alpha.AI” from the list:

2. On the “Get started with your new app” modal window click “Connect” in “Connect you data” section:

3. In the “Connect to Alpha.AI” connection wizard enter server address of your Alpha.AI database instance and then the database name. Sample values are provided for reference.
Then click “Next”.

4. On the next screen select “Authentication method” (plus conditional extra info based on selected method) specific to your installation and “Privacy level setting for this data source” specific to your organization policy. Then click “Sign in”.

5. After being successfully signed in wait a moment until the data is refreshed and open (or reload) the report to see your live data.
How to use the Power BI app

Product Demand Report gives an overview of your sales and their forecast. On the left-hand side of the dashboard you can find a time and category hierarchy filters. They can be used to limit the displayed information to a specific timeframe and specific product (sub-)categories. By default it shows entire history and forecast for all categories.

The map shows geographic distribution of sales. You can switch between the world map view and tree map view using switches above the map. In world map view volumes are reflected with color intensity (the darker the blue, the higher the volume), while in tree map view volumes are reflected with box area (the larger the box, the higher the volume).
Hovering the pointer over a specific country (in either map) displays a tooltip with actual number information:

The chart below the map shows sales volume distribution over time. The lighter part with solid line reflects actual historical results, while the darker part with dashed line is a forecast. For overlapping period (i.e. time frame for which there are both historical actuals and forecasted values) two error metrics are calculated:

- **MAPE** — Mean Average Percentage Error — which should be used to compare quality of forecast over different datasets (e.g. different products or categories)
- **RMSE** — Root Mean Square Error — which should be used to compare quality of forecast over time for the same dataset (as it’s scale dependent)
Better insights into evolution of forecast quality metrics can be gained using bar charts showing average RMSE/MAPE by forecast month. “T+n” denotes a forecast calculated n periods ahead. In general, a decreasing trend should be observed for both metrics with decreasing value of n. If it’s not the case, it means that the forecast quality worsen over time and is a signal to execute fine-tuning of the forecast model hyper-parameters in Alpha.AI management panel.

Order history volume and value charts shows split of the volume (i.e. number of ordered items) and value (i.e. monetary value of ordered items) over distribution channels. Again, hovering over a specific part of the chart provides detailed information.

In left-bottom corner of the dashboard a detailed list of products is displayed with their volume share over the selected time period. It can be used to drill-through to a report specific to a selected product. To achieve this right-click on a selected product and select “Drill through” and the “Product Details”.
**Product Details** report provides insights into forecast performance for a specific product.

To navigate back to the dashboard, click the “Back” link in left-top part of the report.

Clicking on a specific country in the bottom chart “Top 5 countries...” applies a visual filter showing how the selected country performed within total.

Remark: After filtering to a specific country the forecast is not available, as it is calculated for a product per distribution channel, not per country. Therefore, the filtering is not applied to displayed error metric (it’s the same as for entire product).