



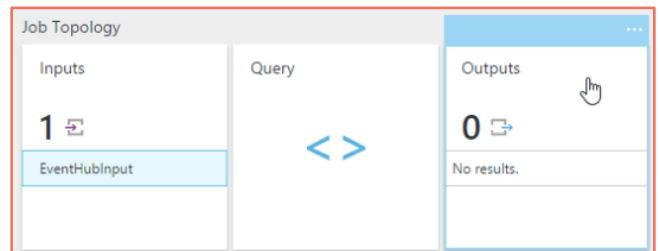
# Azure Stream Analytics

## Integrating Power BI with ASA

Let's see how we can add a new output to a Stream Analytics Job.



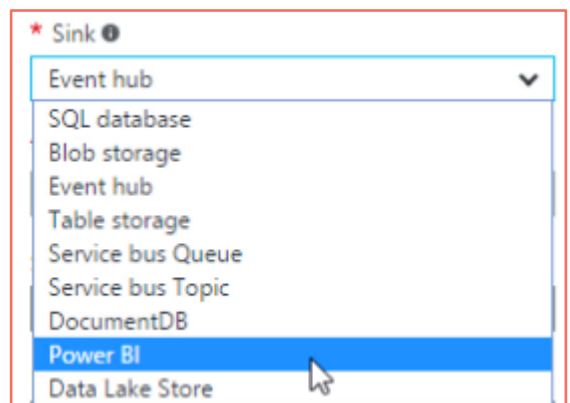
**1.** In the Job Topology section of the Overview tab click **Outputs**.



**2.** Click **Add** to start setting up the Output.



**3.** Select **Power BI** in the Sink drop-down menu.



After selecting Power BI, you will need to Authorize the connection entering your Power BI **User Name** and **Password**.





# Azure Stream Analytics

## Integrating Power BI with ASA

4. Complete the Dataset Name and Table Name and click **Create**.

The screenshot shows the configuration interface for creating a new dataset and table. It includes the following elements:

- Group Workspace:** A dropdown menu with "My Workspace" selected.
- \* Dataset Name:** A text input field containing "DemoDS" with a green checkmark on the right.
- Warning:** A grey box with a warning icon and the text: "If the dataset or table already exists in your Microsoft Power BI subscription, it will be overwritten."
- \* Table Name:** A text input field containing "DemoT".
- Create:** A blue button at the bottom.



5. Going back to the Job Topology section, click **Query**.

The screenshot shows the Job Topology section. It features three main areas:

- Inputs:** A list containing "1" and "EventHubInput".
- Query:** A central editor window with a blue border and a blue double-headed arrow icon.
- Outputs:** A list containing "1" and "pbi".



6. Edit the query and click **Save**.

The screenshot shows the query editor interface. It includes the following elements:

- Buttons:** "Save", "Discard", and "Test" at the top.
- Inputs:** A tree view showing "Inputs (1)" with "EventHubInput" selected.
- Outputs:** A tree view showing "Outputs (1)" with "pbi" selected.
- Query Editor:** A text area containing the following SQL query:

```
1 SELECT
2 *
3 INTO
4 Pbi
5 FROM
6 EventHubInput
```





# Azure Stream Analytics

## Integrating Power BI with ASA

7. Click **Start** to run the Stream Analytics Job.

Settings Start Stop Delete

Stopped

Essentials

Resource group (change) Demo Send feedback UserVoice

Status Stopped Created Sunday, April 2, 2017, 1:08:29 PM

Location Central US Started Sunday, April 16, 2017, 4:30:29 PM

Subscription name (change) Windows Azure MSDN - Visual Studio Ultimate Last output Sunday, April 16, 2017, 4:33:19 PM

Subscription ID cf96ad51-03f1-455b-a048-9edfc410fa81

Job Topology

Inputs	Query	Outputs
1		1
EventHubInput		pbi



8. In Power BI, click the **Info** icon to view the details of this data.

Streaming data

Search streaming datasets...

NAME	TYPE	USED IN DASHBOARDS	HISTORICAL	ACTIONS
DemoDS	API		Enabled	



9. In this section you can see the details of the data. While **Event Processed UTC Time**, **Partition ID** and **Event Enqueued UTC Time** are added by Event hubs, the other fields are set by the Python script.

Raw cURL PowerShell

```
[
  {
    "frequency": "AAAAA55555",
    "mname": "AAAAA55555",
    "temperature": "AAAAA55555",
    "timestamp": "AAAAA55555",
    "voltage": "AAAAA55555",
    "EventProcessedUtcTime": "2017-04-16T12:40:12.017Z",
    "PartitionId": 98.6,
    "EventEnqueuedUtcTime": "2017-04-16T12:40:12.017Z"
  }
]
```

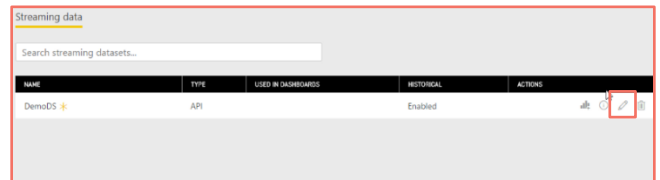




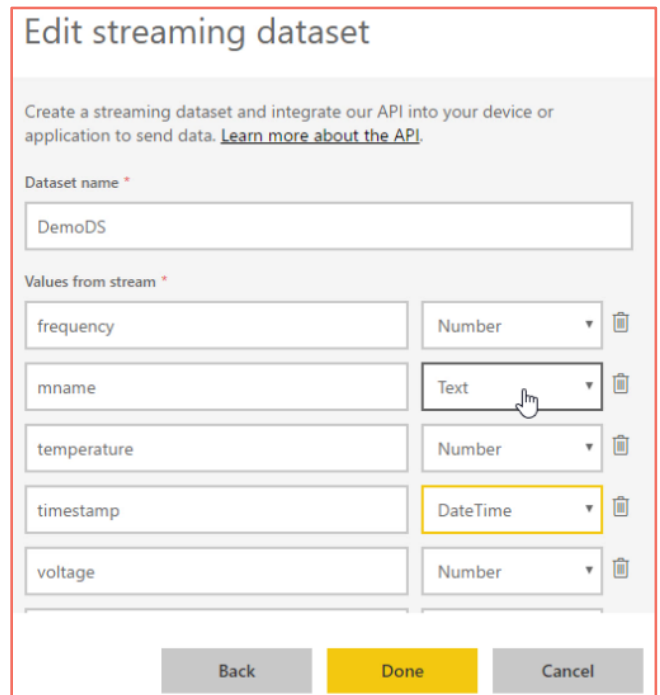
# Azure Stream Analytics

## Integrating Power BI with ASA

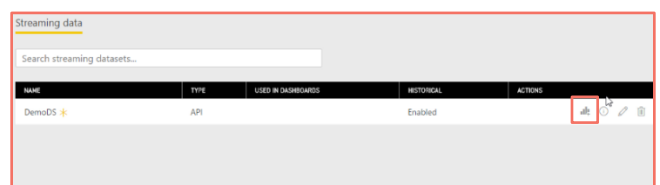
**10.** Click the **Edit** icon to explore the dataset options.



**11.** In this window you can edit or the fields as desired. You can also remove any of them by clicking the Trashcan icon. After editing all the data fields, click **Done** to save the changes.



**12.** To view the report, click the **Create Report** icon and select the desired visualization option.





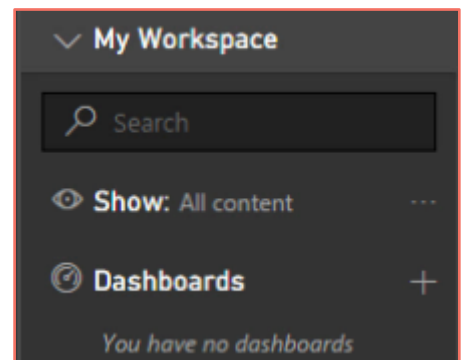
# Azure Stream Analytics

## Creating a Real-Time Report and Dataset

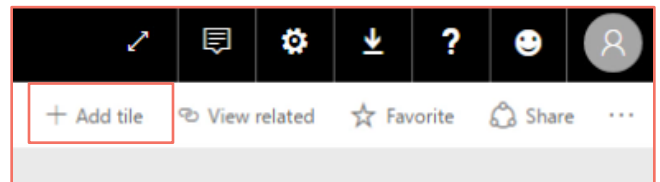
Now that we have explored how to visualize the data in Power BI, let's briefly touch base on how to create a real-time report and Dataset.



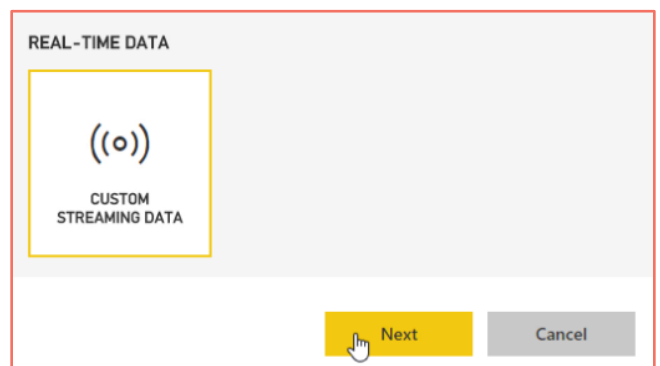
**1.** Click the **Plus** icon next to Dashboards.



**2.** Click **Add Tile** to set up the dashboard for custom streaming data.



**3.** Select **Custom Streaming Data** in the Real-Time Data section, and click **Next**.





# Azure Stream Analytics

## Creating a Real-Time Report and Dataset

4. Insert the Dataset and click **Next**.

Add a custom streaming data tile

Choose a streaming dataset

+ Add streaming dataset

YOUR DATASETS

DemoDS

Manage datasets

Back Next Cancel



5. Complete the required information.

Then, click the **Next** button.

Add a custom streaming data tile

Choose a streaming dataset > Visualization design

Visualization Type

Line chart

Axis

EventProcessedUtcTime

+ Add value

Legend

+ Add value

Manage datasets

Back Next Cancel

- > Visualization Type,
  - > Axis
  - > Legend
  - > Values
  - > Visualization Type,
- As defined by dataset





# Azure Stream Analytics

## Creating a Real-Time Report and Dataset

**6.** Enter a **Display Title** and **Subtitle**.  
Then, click the **Apply** button.

The screenshot shows the configuration interface for a real-time report. It is divided into two main sections: 'Details' and 'Functionality'. In the 'Details' section, the 'Display title and subtitle' checkbox is checked. The 'Title' field contains the text 'Real Time Streaming Data'. The 'Subtitle' field is currently empty. In the 'Functionality' section, the 'Set custom link' checkbox is unchecked. Below this section are links for 'Restore default' and 'Technical Details'. At the bottom of the interface are three buttons: 'Back', 'Apply' (highlighted in yellow), and 'Cancel'.



**7.** You can now see the real-time data.

