

Purpose

Wyng Profiles can be integrated with PowerBI for monitoring, analysis, and business intelligence across customer and enterprise datasets.

1. Push datasets

PowerBI provides a variety of mechanisms to onboard data. Our recommendation is to use a type of streaming dataset called a *push dataset* to transfer real-time data into the Power BI service. This has the following benefits:

- PowerBI automatically creates a new database, that stores data as it arrives
- Data is stored permanently in Power BI for historic analysis
- Can use all of Power BI's report building features (visuals, alerts, pinned tiles)
- Compatible with real-time dashboards

2. Creating a push dataset

First step is to create a *push dataset* in the Power BI service. Navigate to Power BI, open your workspace, and select **New > Streaming dataset**. Choose **API** as the data source and click **Next**. In the new pane, name your new dataset, and turn **Historic data analysis** on: if this is not enabled, the data transferred will only be stored temporarily and not available for future analysis.

The screenshot shows the 'New streaming dataset' configuration window. It contains the following elements:

- Title:** New streaming dataset
- Instructions:** Create a streaming dataset and integrate our API into your device or application to send data. [Learn more about the API](#)
- Dataset name:** A text input field with the placeholder 'What do you want to name your dataset?'.
- Values from stream:** A section with a text input field 'Enter a new value name' and a dropdown menu currently set to 'Text'.
- Historic data analysis:** A toggle switch that is turned 'On', highlighted with a red rectangle.
- Buttons:** 'Back', 'Create', and 'Cancel' at the bottom.

Add values to your dataset

Power BI requires you to add value names and types to your dataset, for each of the possible attributes that will be in the incoming stream.

The published event stream from Wyng Profiles will include three classes of attributes:

- Default system attributes
- Values of user-defined fields in your Wyng data model
- Meta-data for the user-defined fields in your data model

Refer to your Wyng data model configuration (**Profiles > Data Model**) and the table below for the value names and types to use.

Table 1: Mapping Wyng event stream attributes to Power BI value names

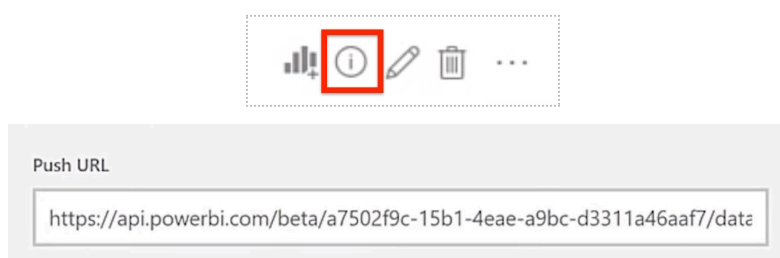
Wyng Attribute	Value name to add	Value type
Profile creation time	created_at	Date/Time/Timezone
Profile update time	updated_at	Date/Time/Timezone
Canonical profile ID in Wyng system	oid	Text
Comma separated list of segment IDs for this profile	segments_as_text	Text
Comma separated list of anonymous visitor IDs for devices used by this profile	uids	Text
Any user-defined attributes in the Wyng data model. Check the ID column in the Profiles > Data Model for the <i>attribute-id</i> . For each attribute, the following meta-data are available: <ul style="list-style-type: none"> • Attribute value • When attribute was first set • When attribute was last updated • Source of last update 	<i>attribute-id</i>	Various – see Table 2
	<i>attribute-id.created</i>	Date/Time/Timezone
	<i>attribute-id.updated</i>	Date/Time/Timezone
	<i>attribute-id.source</i>	Text

Table 2: Mapping Wyng attribute types to Power BI value types

Wyng Attribute Type	Purpose	Power BI value type
text	Unicode character data string which can be letters, numbers, or dates represented in a text format.	Text
set	A collection of unique text values not in any particular order, e.g., a collection of email addresses, or a wish list of SKUs.	Text (comma-separated list of text values)
num	Any whole or decimal number.	Decimal number Fixed decimal number Whole number
date	Represents both a date and a time value, with a timezone offset.	Date/Time/Timezone
bool	Boolean value of either True or False.	True/False

Get the Push URL for your dataset

Once you've finished adding values, create your dataset. Once successfully created, the dataset will appear in your Workspace in the **Datasets** tab; find it there and click the API Info icon:



Copy the text in the **Push URL** field; you will need this to set up a webhook in Wyng. Be sure to select and copy all of the text in the field. The Wyng system will push data to this URL to populate your new dataset in Power BI.

3. Setting up a Wyng profile data stream

Next, a profile subscription and a webhook can be set up to stream data to your Power BI dataset. Administrative access to your Wyng account is required to set this up.

Configure a webhook with a PowerBI compatible format

To add a webhook integration:

1. Log into Wyng. If you have access to multiple Wyng properties (brand or team accounts), select the one that contains the profile data you want to integrate.
2. Navigate to **More > Integrations > Add**, select **Custom Webhook**, and click **Connect**.
3. Choose **Profiles subscription** as the data source, name it "Power BI", and click **Next**.
4. Paste the Push URL for your streaming dataset from Power BI and click **Next**. Refer to the prior section if you are not sure where to find the Push URL.
5. Turn on **Use a Custom Request Body** and paste this into the body template section, and then click **Save**. Be careful to copy and paste this exactly.

```
[ "{{profile|with_meta}}" ]
```

Once your webhook has been created, you will see it in the **Integrations > Manage** table. Use this to track how much data is sent to your dataset in Power BI, discover and retry any failures, or update webhook configuration if required.

Set up a profile subscription to stream events to the webhook

Once your webhook has been set up, to start streaming data, a subscription needs to be set up in Wyng to stream profile create and/or update events to the new webhook.

To add a profile subscription:

1. Navigate to **Profiles > Subscriptions**, click **Add Subscription**.
2. Select your new webhook integration by name.
3. Select the type(s) of events you want to subscribe for and send to Power BI.
4. Click **Add Subscription** to create it.

Once successfully created, you will see your new subscription listed on **Profiles > Subscriptions**. All new profile events matching your criteria will now be pushed to your dataset in Power BI.

4. Sample event

For reference, here is an example event from this type of data stream. In addition to default system attributes, this event includes values and metadata for the following user-defined attributes:

- email
- first_name
- last_name

```
[
  {
    "uids": "2e362b73ce704d10b7f2fa3f74254324,
730e2cf0cab64e3a978625cb1bb35705",
    "email": "someone@somewhere.com",
    "first_name": "Someone",
    "last_name": "Somewhere",
    "created_at": "2022-02-02 21:38:34.285000",
    "updated_at": "2023-05-24 00:27:33.489876",
    "oid": "61faf9daa2a75d452b9f5ef0",
    "segments_list": [
      {
        "id": "6166fa4801224a6a311b70da",
        "updated": "2023-05-24 00:27:33.489813"
      },
      {
        "id": "616d000069a3b9267fe78260",
        "updated": "2023-05-24 00:27:33.489841"
      },
      {
        "id": "625d4ed169d2d8aef54a55fb",
        "updated": "2023-05-24 00:27:33.489843"
      }
    ],
    "segments_as_text": "6166fa4801224a6a311b70da, 616d000069a3b9267fe78260,
625d4ed169d2d8aef54a55fb",
    "tdm_id": "5f68d02b9f207cb11e829460",
    "uids.updated": "2023-05-24 00:27:33.454283",
    "uids.created": "2022-02-02 21:38:34.254000",
    "uids.source": "https://wyng.wyng.com/646cf7b1217fc8660830e8b0",
    "email.updated": "2023-05-23 18:32:57.815000",
    "email.created": "2022-02-02 21:38:34.254000",
    "email.source": "https://wyng.wyng.com/646cf7b1217fc8660830e8b0",
    "first_name.updated": "2023-05-24 00:27:33.454283",
    "first_name.created": "2023-05-23 18:41:03.164000",
    "first_name.source": "https://wyng.wyng.com/646cf7b1217fc8660830e8b0",
    "last_name.updated": "2023-05-24 00:25:30.468000",
    "last_name.created": "2023-05-24 00:21:59.952000",
    "last_name.source": "https://wyng.wyng.com/646cf7b1217fc8660830e8b0"
  }
]
```

5. More information and support

- Wyng user docs: <https://help.wyng.com/>
- Profile subscriptions: <https://help.wyng.com/s/article/Profiles-Integration-and-Subscription>
- Microsoft Power BI docs: <https://learn.microsoft.com/en-us/power-bi/>
- Developer docs and tutorials for Wyng APIs and SDKs: <https://developers.wyng.com/>
- 24x7 support for users is available at support@wyng.com

Technical support for developers is available on Slack; to get access, reach out to Wyng support or your account manager.