FlowTimebaseDB Database Service

Information on how to set up a TagProvider connection with TimebaseDB Database.

Reference Modules UNS UI Services TimebaseDB

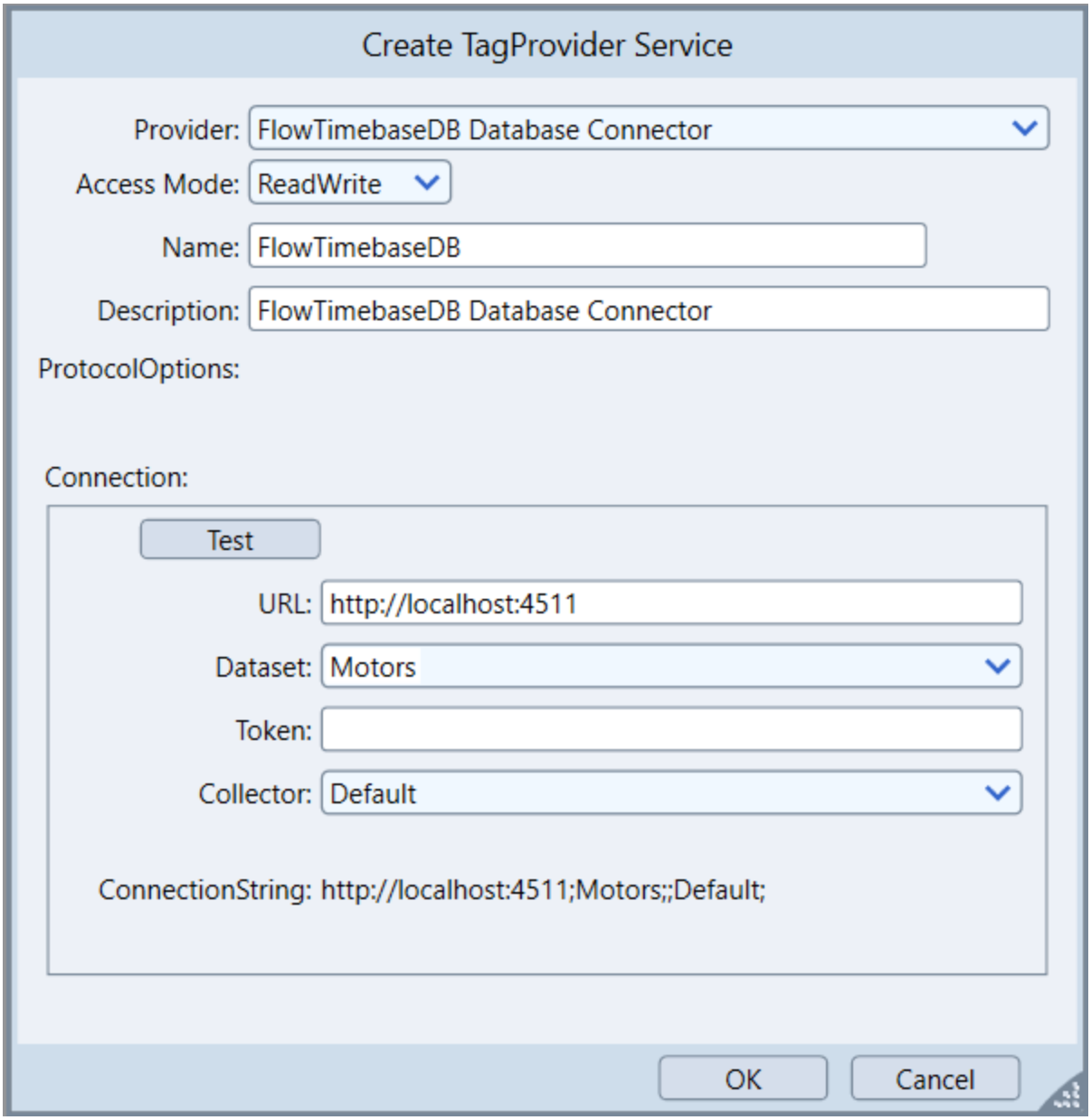
The FlowTimebaseDB TagProvider allow dynamic retrieval of data from TimebaseDB Historian Datasets of Flow Software, as well to save tags values to the TimebaseDB Historian Datasets. It can be used in read-only mode mode, or updating values, using as an Unified Namespace TagProvider.

Configuration
- Connection Parameters
- Address Parameters

Collectors
- Default Collector
- MQTT Collector

Configuration

To set up a new TagProvider connection navigate to **Unified Namespace/TagProvider Connections** and press the add button to open the New TagProvider Connection dialog. You can also create your TagProvider Connection directly from the AssetTree. To do this, navigate to **Unified Namespace/Assets Tree** and press  to open the New TagProvider Connection dialog. In the configuration dialog, select the **FlowTimebaseDB Database Connector** on the Provider field and insert the required connection parameters. After that, press the Ok button to finish the provider configuration. Creating the connection adds no folder to the Asset Tree. To use its data with Asset(), open **Unified Namespace / Assets Tree**, select a folder (create one first if needed) and click **Insert data from TagProvider** on the toolbar: the folder linked to the TagProvider is created inside the selected folder. A linked folder cannot sit at the root of the Asset Tree.



Connection Parameters

Field	Description
Provider	Specifies the system the TagProvider will interface with. In this case, it interfaces with the FlowTimebaseDB Database Connector.
Access Mode	Determines permissions for interacting with tags. **Read** allows only data reading. **Write** permits only data writing. **ReadWrite** enables both reading and writing.
Name	User-defined name for the TagProvider instance. Identifies the specific configuration in the system.
Description	Defines a short description for the TagProvider's purpose or the systems it interfaces with. Provides context for its usage.
ProtocolOptions	Defines specific communication settings for the connection to the device.
Connection	Defines connection settings for the FlowTimebaseDB, including IP address, port, token, bucket, and organization.
URL	Specifies the URL with port of the FlowTimebaseDB server.

Dataset	Defines the Dataset within FlowTimebaseDB to retrieve or store data.
Token	Specifies the token for authentication with the FlowTimebaseDB server.
Collector	Specifies the type of Collector to be used. Each one have a specific behavior in Runtime.
ConnectionString	Displays the full connection string used to connect to the FlowTimebaseDB server. Provides a summary of all connection parameters.

- **Collector**: Specifies the type of Collector to be used. Each one have a specific behavior in Runtime. Options are:
  - *Default*: Connects to any FlowTimebaseDB Database without any custom TreeView is based only on **Filter** configuration.
  - *SolutionHistorian*: Is used to **Write** ProjectTags Historian data in a custom.
    - **Filters** field will **always** be disabled, with **measurement** and **field** columns added to.
    - When Provider is used as **Historian**, Historian TableName will be used as **measurement**.
    - TreeView structure will behave different than **Default** and **MQTT** More details available in following sections.
  - *MQTT*: Is used to Read Data that was stored using Telegraf's MQTT Plugin pre-defined column structure.
    - The **Topic** information **MUST** be stored in a column named **topic**.
    - **Filters** field will **always** be disabled, with **measurement**, **topic** and **field** columns added to
    - TreeView structure will behave different than **Default** and **tProj Historian**. More details available in following sections.

Collector Selection

When using the FlowTimebaseDB in conjunction with Unified Namespace TagProvider, the Collector Default and MQTT can be used.

CustomColumns in InfluxDB

TagProvider connections **cannot** create new CustomColumns in FlowTimebaseDB Database, only access existing ones. To create new CustomColumns, use the Device Module Configuration.

Address Parameters

Field	Description
Measurement	Specifies the prefix used to save or read the Tag value in the FlowTimebaseDB. If blank, the prefix set will be "Tag".
Tag	Specifies the identifier used when saving or retrieving the tag value. If left blank, the tag's own name will be used as the default.
Use Template As Custom Fields	Adds the template used as a custom field.
Additional Custom Fields	Specifies the "Fields" column in Timebase Historian. Usage would be: "Fields=myField".

Columns configuration

Description, **Unit of Measure**, **Format**, and **Type** are configured and retrieved from the Tag settings in **Unified Namespaces / Tags**.

Collectors

Default Collector

This collector will access any FlowTimebaseDB Database, and create the TreeView Structure based on the Filters.

This Collector can **Read/Write** data, and it is used with the Unified Namespace TagProviders.

MQTT Collector

This Collector is used to Read Data from an FlowTimebaseDB Database Structure that was stored using Telegraf's MQTT Plugin pre-defined schema, with MQTT topic stored in a column called **topic**.

The filters are, by default, defined as **_measurement**, **topic** and **_field**.

In Runtime, the TreeView Structure will use the MQTT Topic similar to what is done in MQTTspB ExternalTags.

As an example, let us assume we have an MQTT Client publishing to Topics:

```
Panel/Motor1/RPM
Panel/Motor2/RPM
```

The **_measurement** is defined as **mqtt_consumer** and **_field** is **value**.

Reading Historical Data

By using the Complete TagName as **_field**, the TreeView can use that information to transform that name into a multi-level structure.

In this section...
