InfluxDB Database Connector

InfluxDB databases

- Name: **InfluxDB**
- Version: 1.0.0.0
- Protocol: Proprietary
- Interface: TCP/IP
- Runtime: .NET 4.8 (Multiplatform)
- Configuration:
    - Devices / Protocols

Channel Configuration
Node Configuration
Points Configuration
Troubleshoot

Overview

Communication Driver Information	
Driver name	InfluxDB
Assembly Name	T.ProtocolDriver.InfluxDB
Assembly Version	1.0.0.0
Multiplatform	True
Supported versions	InfluxDB 2.x
Manufacturer	InfluxData
Supported protocols	Proprietary for custom, non-standardized communication and REST API for HTTP-based standardized interaction.
PC Requirements	Ethernet port

Channel Configuration

There is no configuration settings necessary for this interface.

Node Configuration

PrimaryStation or SecondaryStation

The station parameters are:

- **IP Address**: InfluxDB Database Server Address. Default value is *localhost*.
- **Port**: InfluxDB Database Server Port Number. Default value is *8086*.
- **ConnectionType**: Specifies the ConnectionType with the Database Server. Options are:
    1. *User Credentials*: Connection will be made using UserName and Password validation.
    2. *Token*: Connection will be made using security token validation.
- **UserName**: UserName used to verify credentials. Valid for *User Credentials* ConnectionType.
- **Password**: Password used to verify credentials. Valid for *User Credentials* ConnectionType.
- **Token**: Token used to verify credentials. Valid for *Token* ConnectionType.
- **Database**: Database in which client will connect to.
- **Bucket**: Bucket in which client will connect to. If Connection parameters are correctly filled, you should see all buckets available in the ComboBox DropDown.
- **Organization**: Organization defined for user in InfluxDB Database Server.

Always use the **Test** button to verify the connection status.

Points Configuration

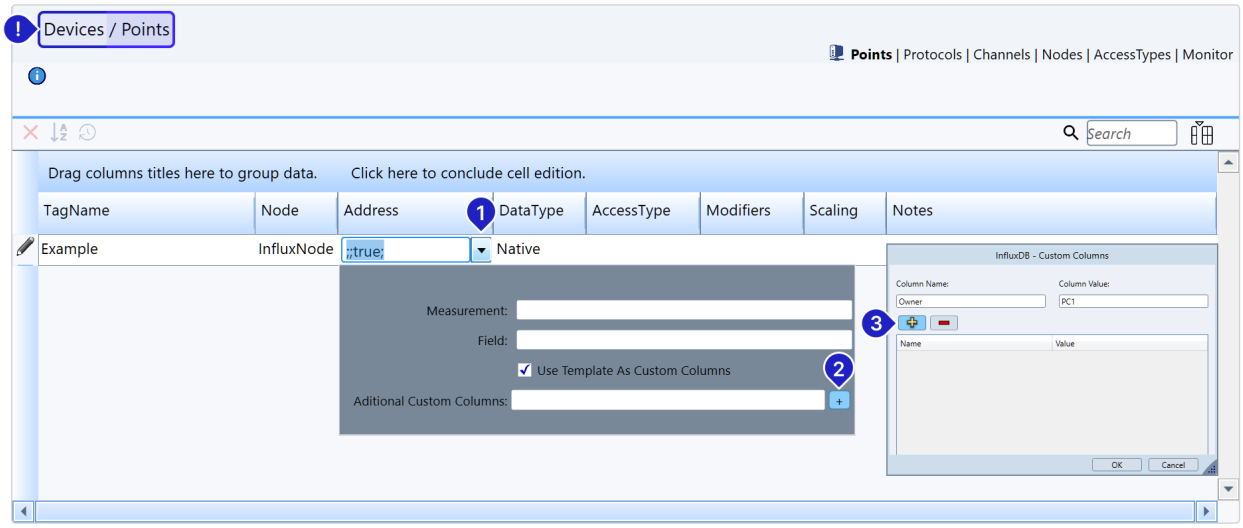
The address parameters are:

- **Measurement**: Measurement in which Tag Will be assigned in InfluxDB Table.
    - If Point is a **Project Tag** and measurement field is blank, Main TagName (Name defined in **Edit Tags** > **Objects**) will be used.
    - If Point is from **TagProvider** and measurement field is blank, ProviderName will be used.
- **Field**: Field in which Tag Will be assigned in InfluxDB Table. If blank, Tag Attibute will be used (element of default types, like Integer, Decimal, etc).
- **Use Template As Custom Columns**: Flag indicating if Templates which Tag belongs to will be used as Custom Columns in InfluxDB Table. Default value is **true**.

  If Point is from **TagProvider** and CheckBox is **true**, a Column called **TagProviderPath** will be created with the path leading to the TagProvider asset.
- **Additional Custom Columns**: List of User-Defined Custom Columns, separated by comma, to map a variable in the Database.

  Syntax: <ColumnName> = <ColumnValue>

  You can add, remove or edit custom columns in the dialog window at '+' button.



Example

To illustrate the result of a sucessfull configuration we will make the following assumptions.

- The Tag is structured as:

```
Panel1 [Tag of Template 'Panel']

       Motor1 [Tag of Template 'Motor']

              AMP [Final Attribute of 'Double' Type]

              RPM [Final Attribute of 'Double' Type]

       Motor2 [Tag of Template 'Motor']

              AMP [Final Attribute of 'Double' Type]

              RPM [Final Attribute of 'Double' Type]
```

The Address is configured as:

1. **Measurement**: Panel1.
2. **Field**: " ". [Leave it blank so our attributes are used].
3. **Use Template As Custom Columns**: true.
4. **Additional Custom Columns**: Owner = PC1.

This configuration will result in the following Table inside InfluxDB:

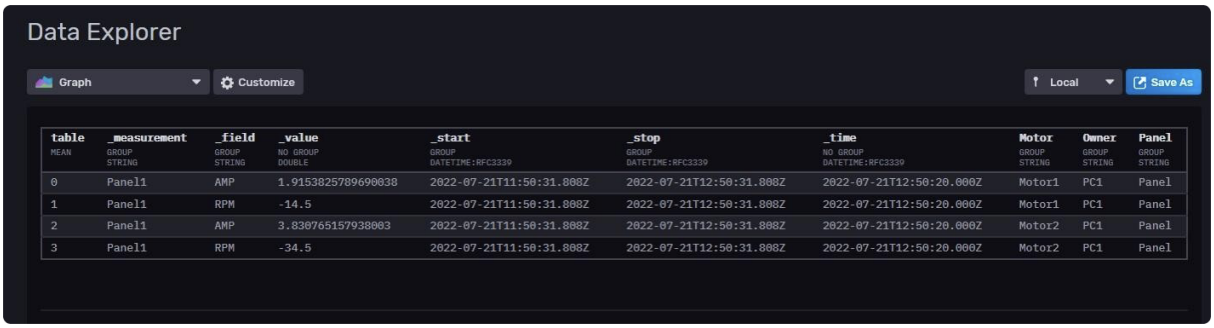


table	_measurement	_field	_value	_start	_stop	_time	Motor	Owner	Panel
MEAN	GROUP STRING	GROUP STRING	NO GROUP DOUBLE	GROUP DATETIME:RFC3339	GROUP DATETIME:RFC3339	NO GROUP DATETIME:RFC3339	GROUP STRING	GROUP STRING	GROUP STRING
0	Panel1	AMP	1.9153825789690038	2022-07-21T11:50:31.808Z	2022-07-21T12:50:31.808Z	2022-07-21T12:50:20.000Z	Motor1	PC1	Panel
1	Panel1	RPM	-14.5	2022-07-21T11:50:31.808Z	2022-07-21T12:50:31.808Z	2022-07-21T12:50:20.000Z	Motor1	PC1	Panel
2	Panel1	AMP	3.830765157938003	2022-07-21T11:50:31.808Z	2022-07-21T12:50:31.808Z	2022-07-21T12:50:20.000Z	Motor2	PC1	Panel
3	Panel1	RPM	-34.5	2022-07-21T11:50:31.808Z	2022-07-21T12:50:31.808Z	2022-07-21T12:50:20.000Z	Motor2	PC1	Panel

Reading Data

To Read back these values, all you have to do is use another Tag, of same "Panel" Template and use the same Custom Column Configuration.

Working with Arrays

When Tag Attribute is **Array**, a new column called **ArrayIndex** will be created and populated with the indexes. An example is illustrated below:

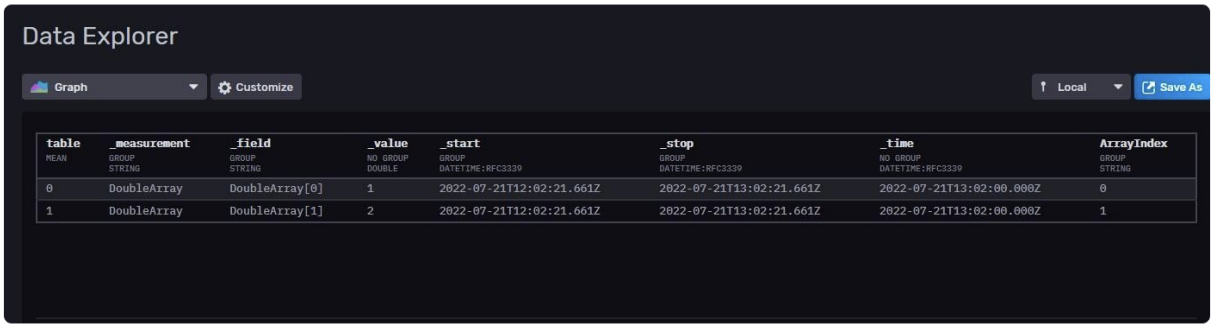


table	_measurement	_field	_value	_start	_stop	_time	ArrayIndex
MEAN	GROUP STRING	GROUP STRING	NO GROUP DOUBLE	GROUP DATETIME:RFC3339	GROUP DATETIME:RFC3339	NO GROUP DATETIME:RFC3339	GROUP STRING
0	DoubleArray	DoubleArray[0]	1	2022-07-21T12:02:21.661Z	2022-07-21T13:02:21.661Z	2022-07-21T13:02:00.000Z	0
1	DoubleArray	DoubleArray[1]	2	2022-07-21T12:02:21.661Z	2022-07-21T13:02:21.661Z	2022-07-21T13:02:00.000Z	1

Troubleshoot

The status of the driver execution can be observed through the platform built-in diagnostic tools. Refer to Devices - Using Diagnostic Tools.

In this section...