

InfluxDB Driver for Tridium Niagara N4

User Guide

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1 Introduction

InfluxDB is an open-source time series database developed by the company InfluxData. It is written in the Go programming language for storage and retrieval of time series data in fields such as operations monitoring, application metrics, Internet of Things sensor data, and real-time analytics.

The driver allows to automatically discover organizations, buckets, tables, columns and import histories into your Niagara history database. The driver also allows to export data from your Niagara History to InfluxDB.

The driver might be deployed in JACE or in Niagara Supervisor, which could reside either locally on site, or on remote premises, or on a cloud.

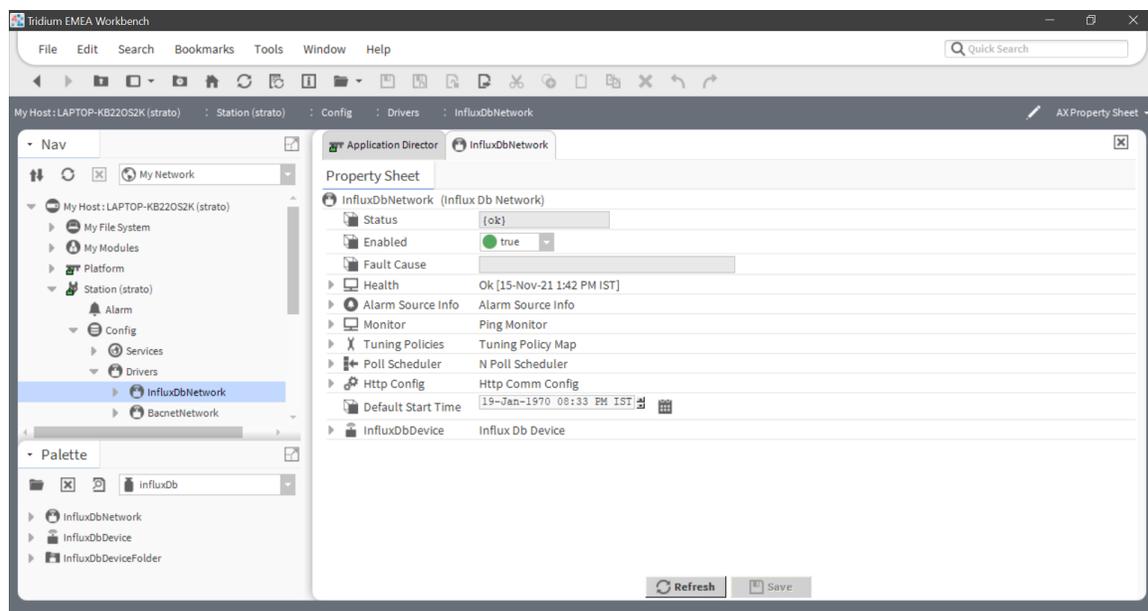
2 Requirements

- Niagara-powered device such as Jace 8000 or Supervisor version 4.0 or later
- InfluxDB instance v2.0 or higher
- InfluxDB driver module
- An *All Access* API token generated in InfluxDB

Please note, the system was tested on Niagara-4.8.0.110 Supervisor and Jace 8000

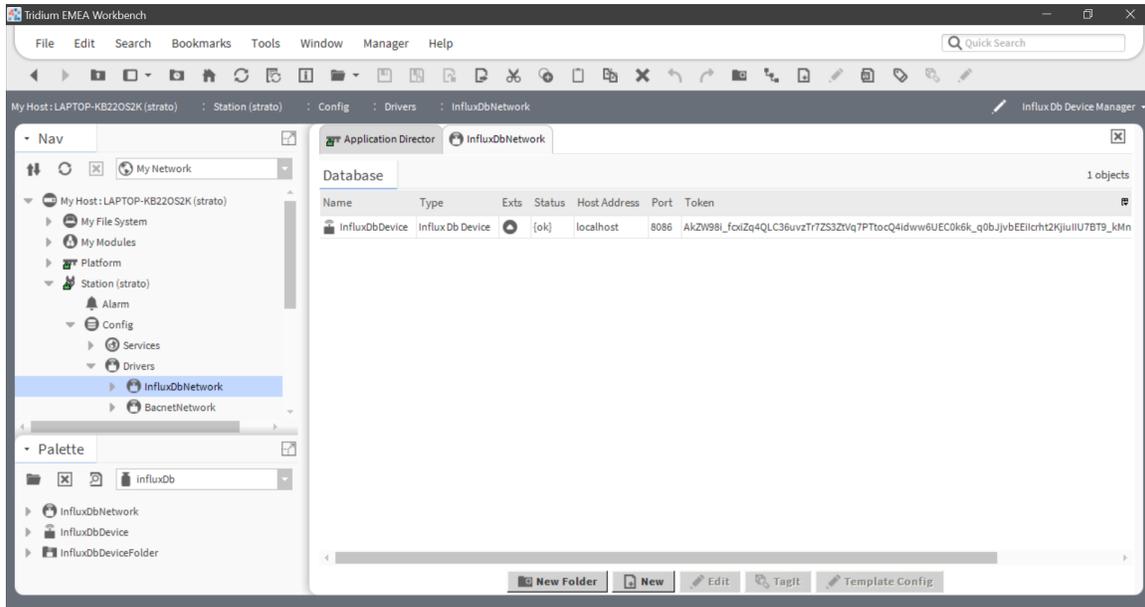
3 InfluxDB Network

1. Copy influx-rt.jar to modules folder in Workbench and Jace, restart your station and Workbench.
2. Add InfluxNetwork to Drivers container
3. In the network **Properties sheet** view enter the license code and press **Save**



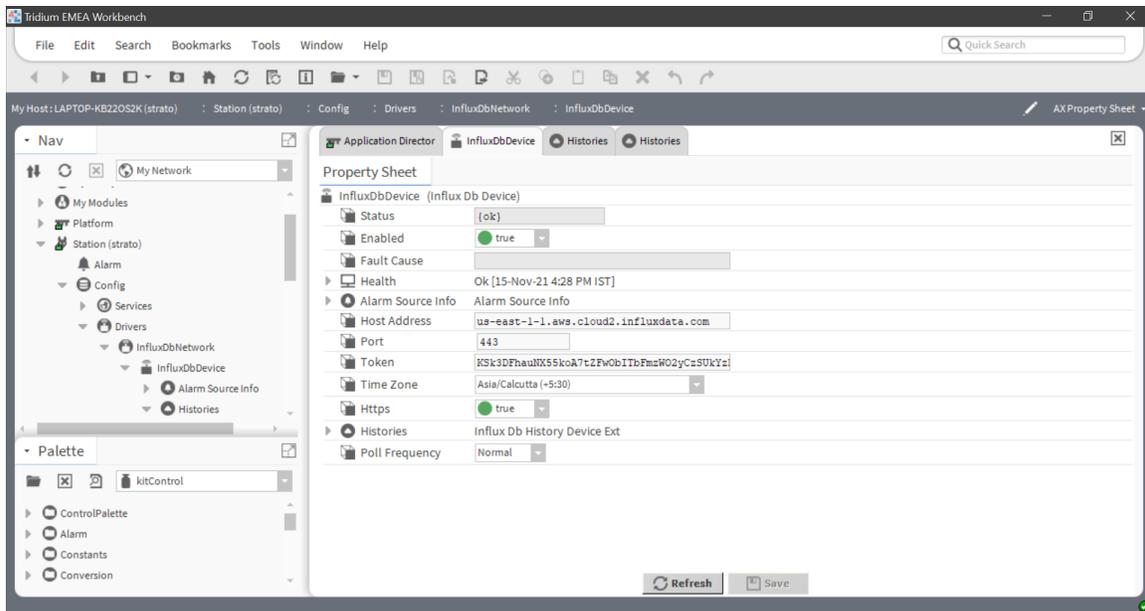
4 InfluxDB Device

1. Add InfluxDevice to InfluxNetwork container



2. Influx device has to be configured with the following to enable communication between the InfluxDB and N4.

- **Host Address** - IP or URL of InfluxDB machine. InfluxDB can be setup on premises (normally as docker container) and on cloud.
- **Port** - The port number on which the InfluxDB instance is running. Usually it is HTTPS port, i.e. 411.
- **Https** - Enabled if communication requires Https (recommended).
- **Token** - The token generated in InfluxDB (see *Load Data => API Tokens => Generate API Token*) which has an *All Access* permissions to read and write data.
- **TimeZone** - Time zone based on which you would like to access and import histories from InfluxDB.

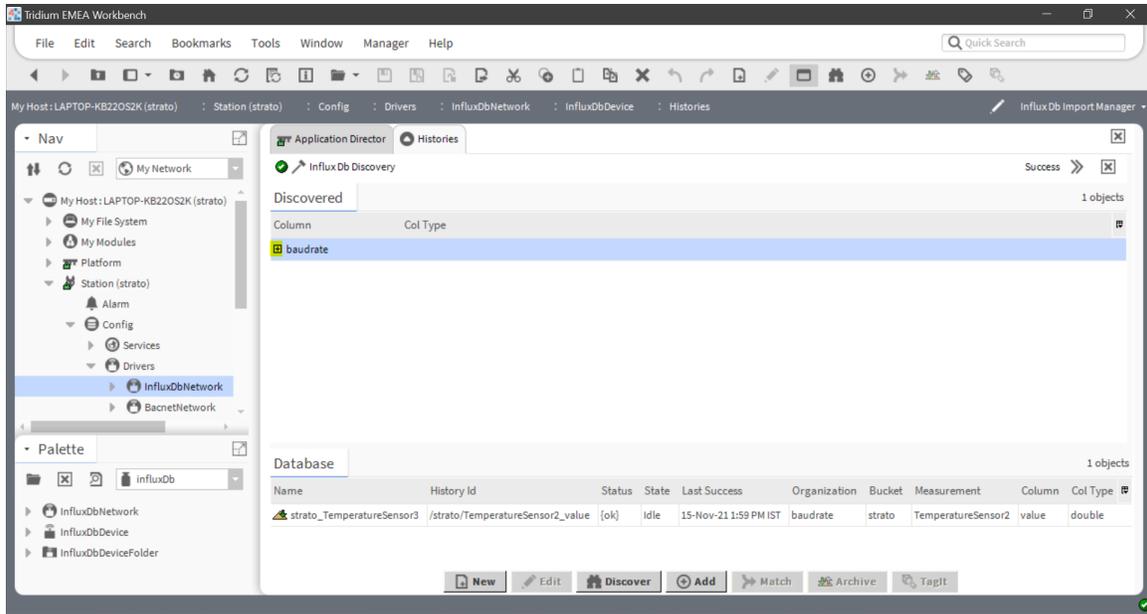


5 Import Histories

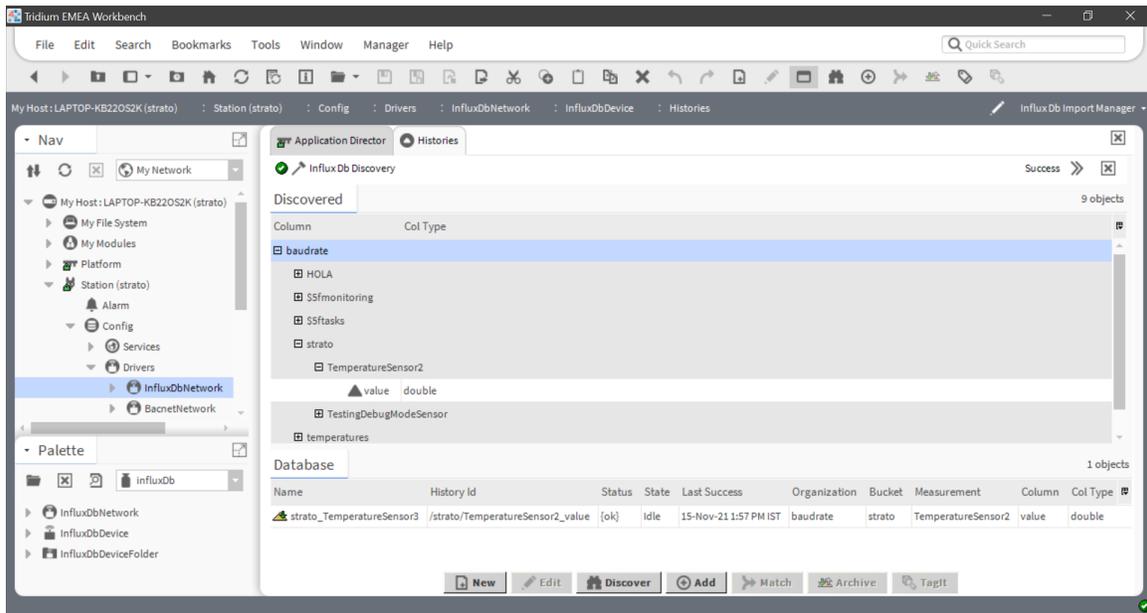
Note - For both import and export Niagara do not create any entity except the table on the InfluxDB hence for successful import and export we expect the organizations and buckets to have been already created by the DBA.

Note - For successful import discovery you need to generate an **All Access API token** from InfluxDB GUI under Generate API Token.

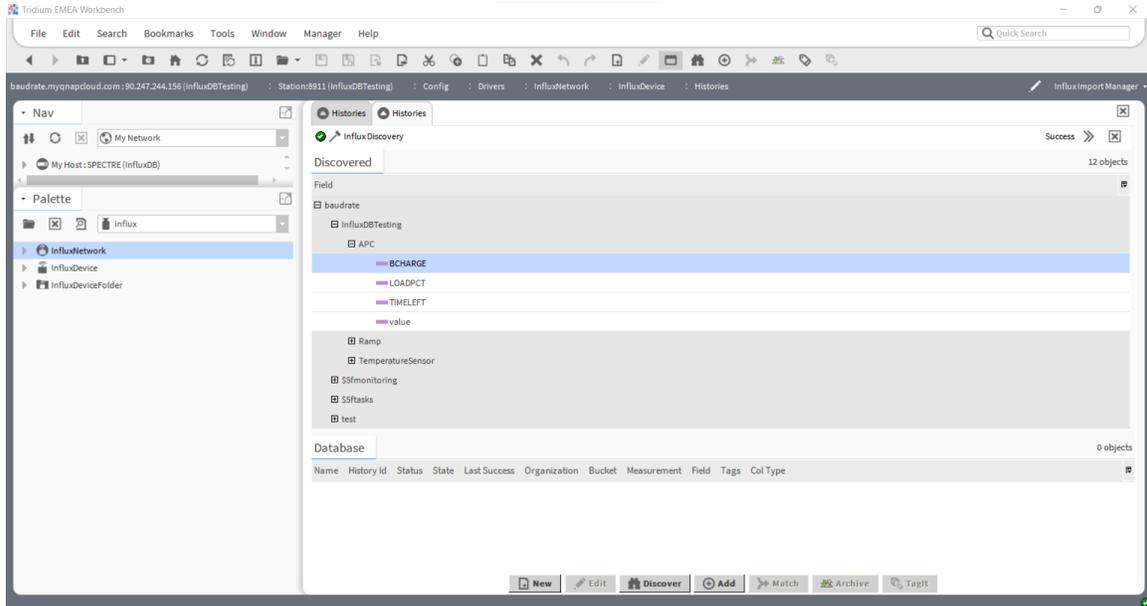
1. Click on Histories and make sure that on the right hand side top corner it shows Influx Import Manager
2. Then click on discover, once discovered you can click on the expand icon on the left hand side beside each discovered item on the discovery pane to view the hierarchy.



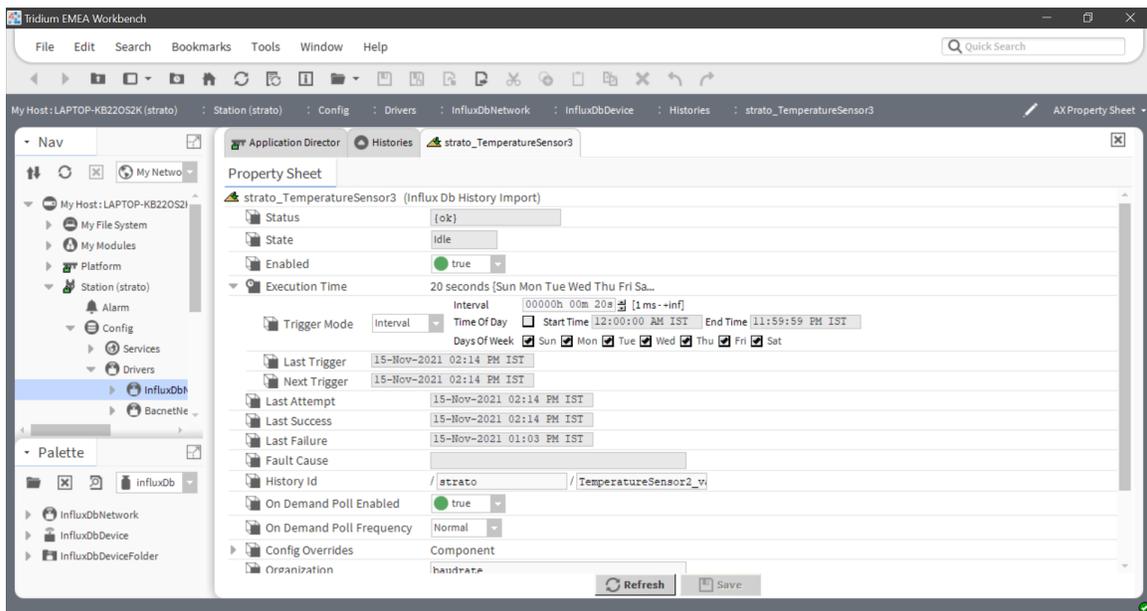
3. There are about 4 levels of hierarchy involving Organizations, Buckets, Measurements and Fields.



4. Here you can see the discovered field name. Choose this row and click on Add to import this data from Influx to your local Niagara History database. **Note** The history Id will be a combination of measurement and field name.



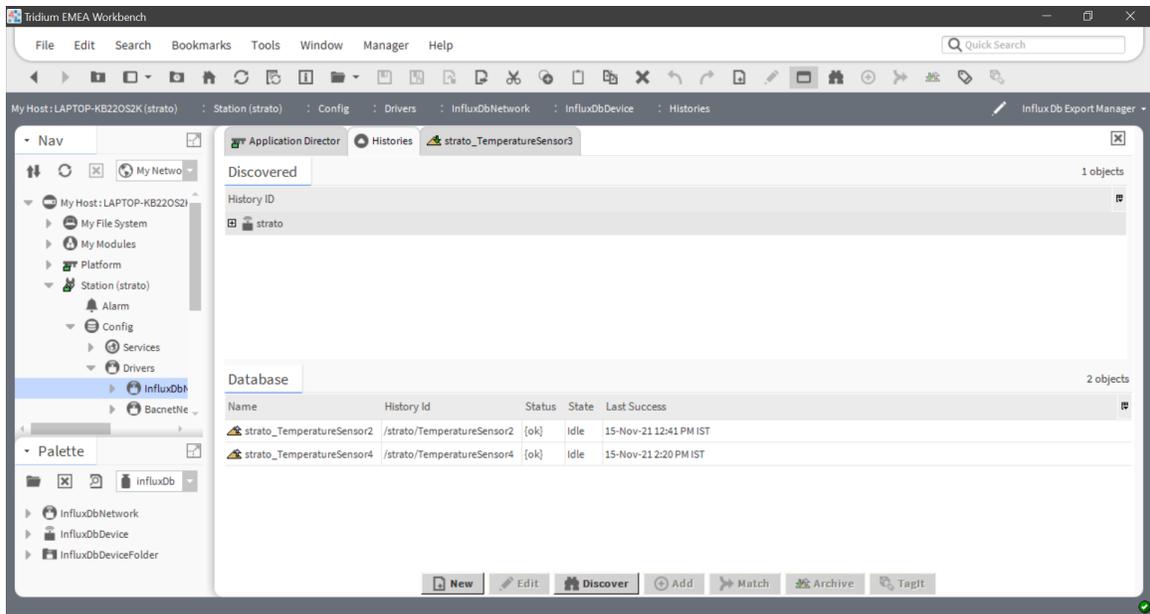
5. Right click on the imported point and navigate to Views -> AX Property Sheet. Here you can configure various properties along with the import interval based on your requirements.



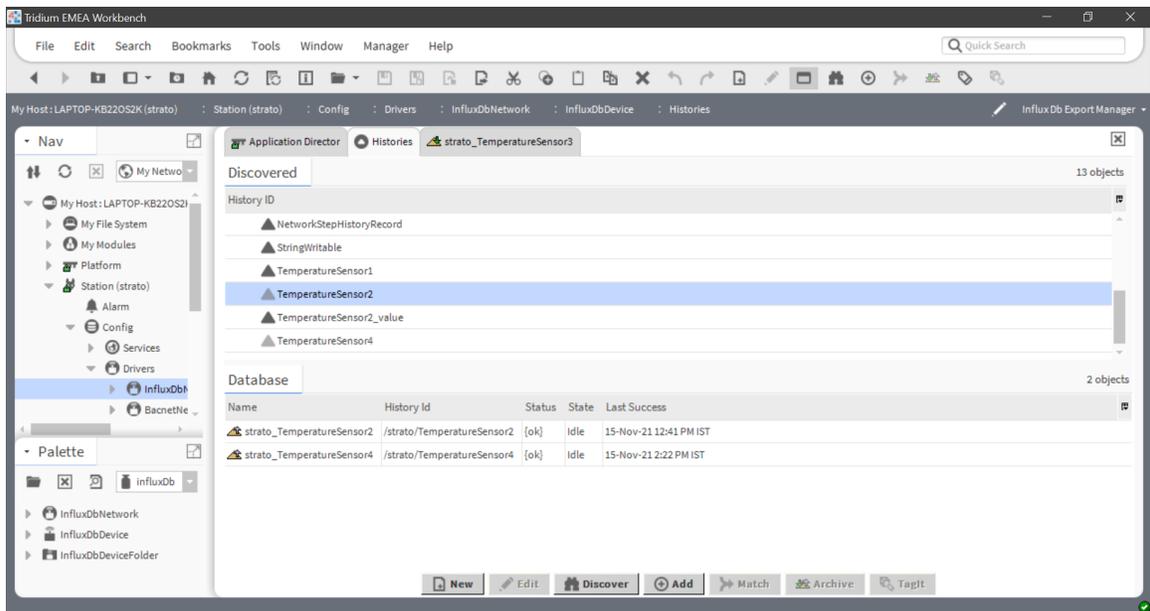
Note - In case of any exceptions this can be observed in the Status and Fault Cause fields of the imported point.

6 Export Histories

1. Click on Histories and make sure that on the right hand side top corner it shows Influx Export Manager
2. Then click on discover, it will show all the available local history databases.

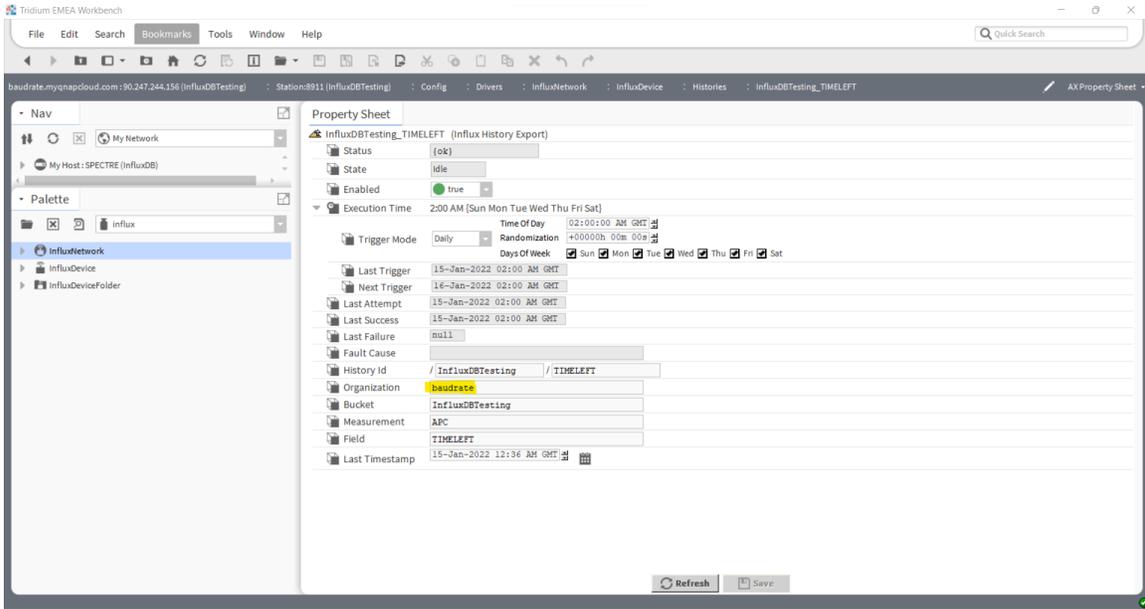


3. Expand the tree and choose a history table to export to Influx.



4. Click on Add to add it to the Niagara Database, then fill in the organization, bucket and measurement properties.

Note Below image is just an example, please fill in the organization according to your InfluxDB setup.



5. The export interval can be configured as per your requirements.

