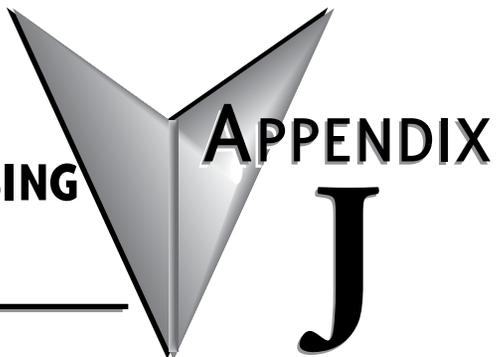


SET UP DATA SOURCE USING BACNET/IP PROTOCOL



In this Appendix...

Set up data source for a device using BACnet/IP protocol J-3

J

This manual covers the StrideLinx platform available from 2017 through 2021.

For details covering the StrideLinx Cloud 2.0 platform available after April 2021, please [click here](#) to link to that manual.

The StrideLinx Cloud 2.0 manual includes details describing the [Activation Code](#) model of Data Logging, Cloud Notify and other add-on features.

For information on the migration wizard from the original platform to StrideLinx Cloud 2.0, [click here](#).

Set up data source for a device using BACnet/IP protocol

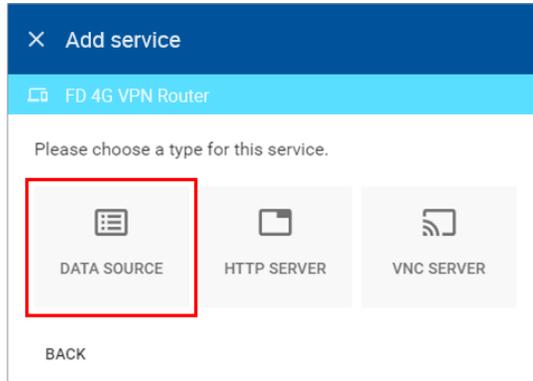
Configure the address and protocol for the PLC from which data will be read

Click on the SERVICES tab (10). Click the +(Add) button (11).

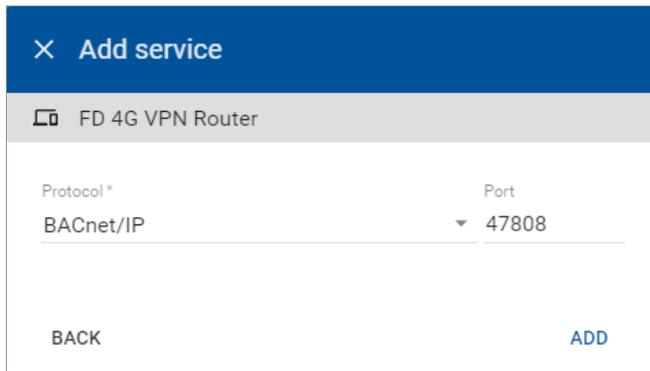


Add a Name and the IP Address of the PLC where the data resides. Click NEXT.

Select DATA SOURCE.

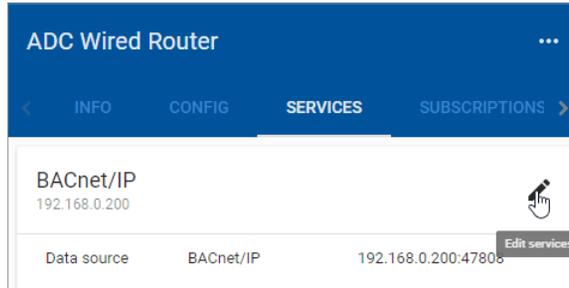


Select the BACnet/IP protocol and enter the port number of the BACnet device (47808 by default). Click ADD to continue.

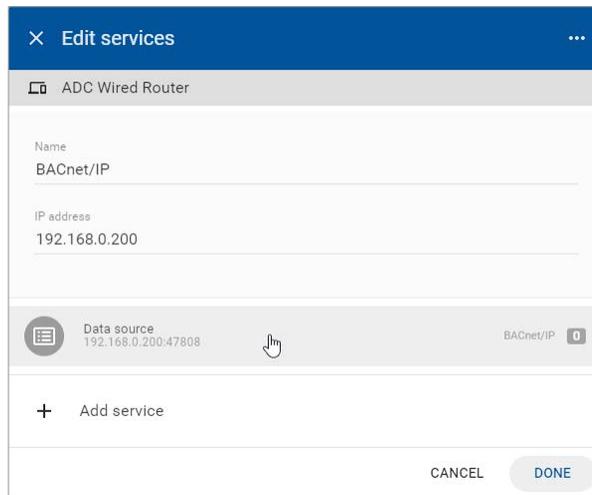


Configure the data tags

To add a data tag, go to the SERVICES tab for the router and click the Edit services (pencil) icon next to the device for which you want to add the data tag.

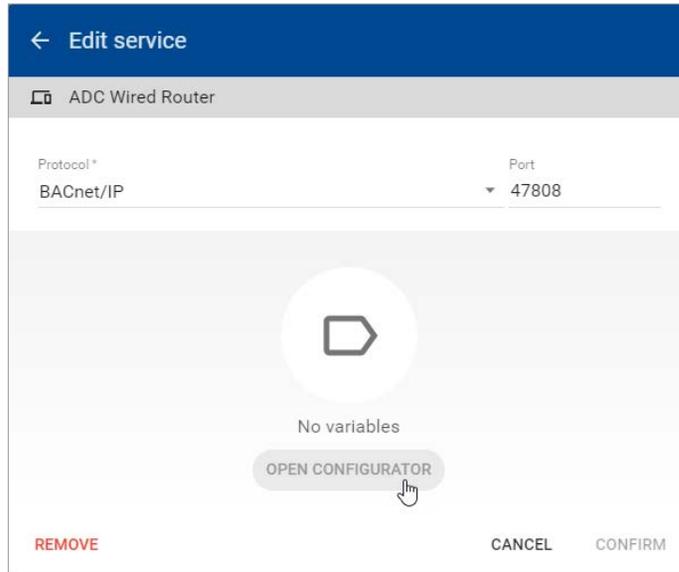


This opens the Edit services dialog. Click the name of the existing device for which you would like to add a data tag.

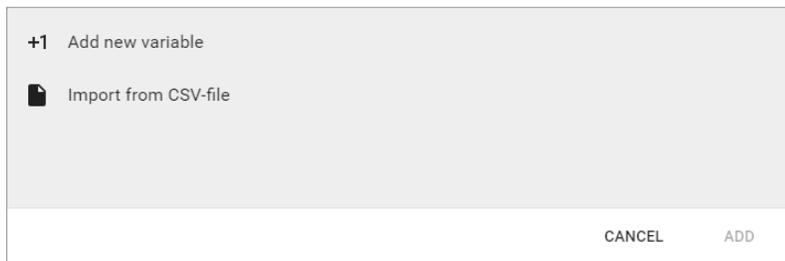


NOTE: It is advisable to enter data tags in small batches, and test the variables periodically to verify the entries. The entries can be tested by clicking "RUN TEST" in the Configurator, or from the Cloud Logging Web App as described in the [Data Logger Test Utility](#) section. Please refresh your browser if the information on screen appears to not be updated properly at any time. Possible EtherNet/IP errors and their potential resolutions are listed in the Error Messages subsection at the end of this appendix.

The resulting “Edit service” screen displays the parameters for the data source, plus a count of existing data tags. Click OPEN CONFIGURATOR to add or edit tags.



Data tags can be entered interactively, or a set of tags can be imported from a previously-exported CSV file. Export of sets of data tags is discussed later in the “Export Data Tags” subsection. For this example, select “Add new variable” to manually enter tags.



A data entry screen opens, with one new data tag ready to be entered. Set the relevant parameters for the new data tag. The data tag input fields are described in the next table. Details for determining data tag addressing with BACnet/IP is presented in the next subsection. Additional data tags can be entered in this round by clicking “+1” in the lower left corner of the screen. When all the desired tags have been entered click ADD.

Name *

Select a data type *

| | | |
|---------------|-------------------|-----------|
| Object Type * | Property * | |
| Search... | Object Instance * | Search... |
| | | Index |

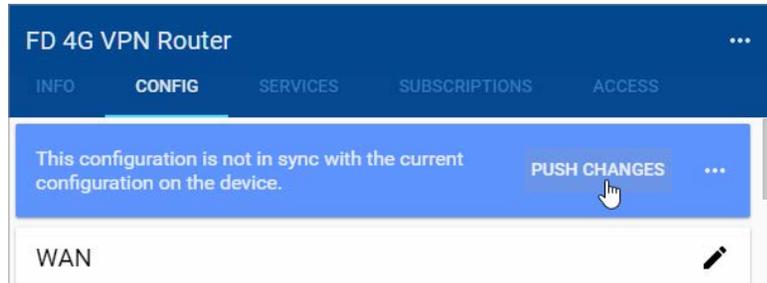
| | |
|--------|------|
| Factor | Unit |
|--------|------|

+1
CANCEL
ADD

| Data Tag Input Fields | |
|-----------------------|--|
| Field | Description |
| Name | Give the data tag a logical name. |
| Select a data type | See next two subsections for the available data types. |
| Object Type | BACnet addressing parameters. See "Find BACnet addresses using BACnet Explorer" on page J-9 for help determining parameters. |
| Object Instance | |
| Property | |
| Unit (optional) | Here you can assign a value to a unit, for example, gallons or psi. |
| Factor (optional) | This allows you to multiply by a value. For example, factor 0.01 divides the data value by 100. |

After all data is entered, click ADD to continue.

Once you have added all the data tags you want to log, you will be prompted to push the configuration to the router.



The data tag entries should now be verified using the procedure described in the “Test Utility” subsections of Chapter 4 and Chapter 5.



NOTE: Additional data tag parameters related specifically to data logging (i.e., sampling interval, data retention policy, and logging only when changed) can be set from the Cloud Logging web app discussed in Chapter 4.

The Cloud Logging web app can now be used to set up data dashboards and to adjust additional data tag parameters related specifically to data logging, and the Cloud Notify web app can be used to set up alarm notifications.

Export data tags

Data tag configurations can be exported in CSV format. The CSV file is downloaded to your local PC, and can later be imported to set up another StrideLinx router.

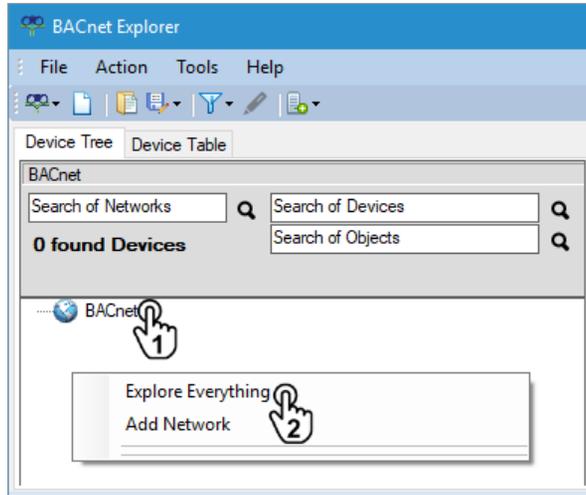
Select data tags to be exported by clicking the icon for each data tag, or select all data tags at once from the More Options (⋮) menu in the upper right corner of the screen. The selected data tags can then be deleted, duplicated, or exported from the pop up menu at the bottom of the screen.

Find BACnet addresses using BACnet Explorer

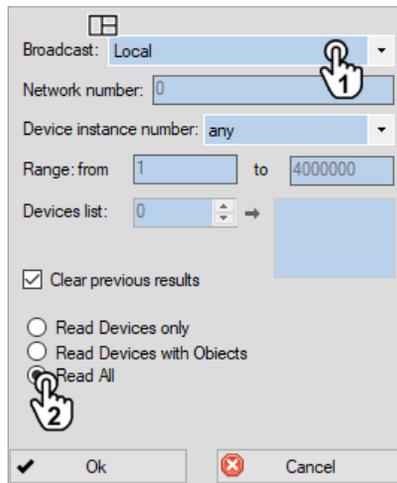
The address of a BACnet variable consists of an object type, object instance and object property. The BACnet Explorer software from Cimetrics, Inc. (<https://www.cimetrics.com/products/bacnet-explorer>) is one convenient method to determine the addressing for your variables.

To retrieve BACnet addresses using BACnet Explorer:

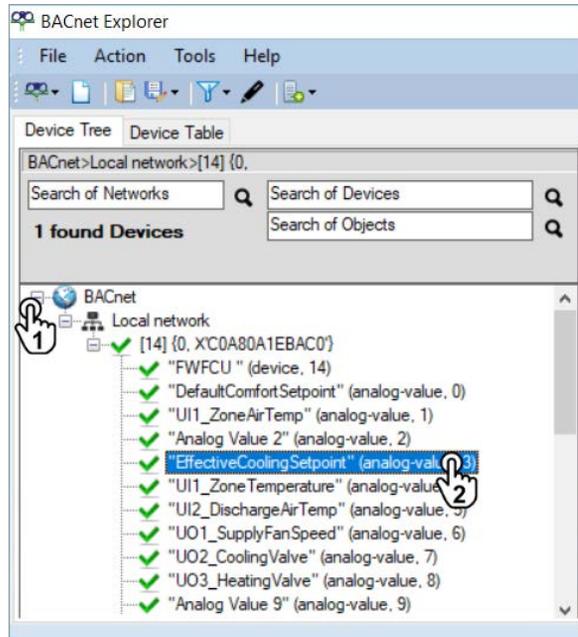
- Connect your PC to the BACnet device, or its network, and open BACnet Explorer
- Right-click 'BACnet' in the device tree (1) and select 'Explore Everything' (2).



- Select 'Local' as broadcast type (1), select 'Read All' (2) and press OK.

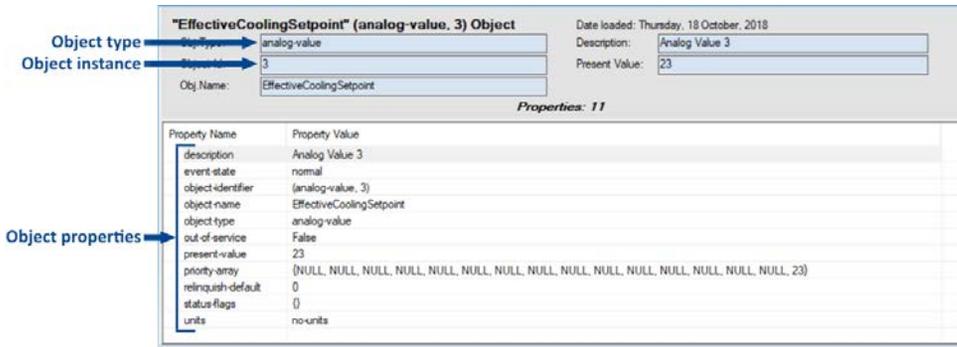


- Expand the device tree (1) and select an object from the list (2).



NOTE: If your device is not listed, connect your PC to the BACnet device, or its network, before you open BACnet Explorer.

- After selecting an object, you'll see its details to the right. Record the Object Type, Object Instance and Object Property of all variables that you would like to log. These values can now be used to define data tags in your StrideLinX data source.



NOTE: If the object property is an array, you can choose an index number to read a specific element of the array. Be aware that the first index in an array is often 0, not 1.