Platform Services
BACnet Network and Device Discovery

APPLICATION NOTE

October 2015

Description: Guide to BACnet Network and Device discovery which is required for proper BACnet functionality.
General Requirement: GENESIS64 version 10.8 or higher.

Introduction

This guide describes how to setup the BACnet Network and Device discovery process. In versions before 10.8 the BACnet Network and Device discovery was carried out automatically and the user did not have any control over the discovery process. It was initiated automatically each time BACnet Runtime started and then periodically each 60 minutes by default. The user also did not have an indication of the current device discovery process stage. Additional status information is now provided

Introduced in version 10.8 (in Workbench-SL and Workbench Desktop), the user has control over which devices are discovered in the BACnet network. The user can select ranges of devices or specific devices, to be discovered. The discovery process will be only be executed on the selected devices. The ICONICS system will only be able to communicate with devices that have been discovered, or have been manually added to the BACnet Static-IP list.

Discovery process

Since version 10.9 the Workbench Classic's BACnet configurator and Workbench Silverlight's BACnet provider have been replaced by new **provider in Workbench**. To initiate discovery, get a list of devices that need to be discovered and add them to cache as following:

1. Launch Workbench Desktop

2. Select the BACnet provider under Data Connectivity item

3. Expand the tree until you can see the 'Devices' tree item

4. Right-click on the 'Devices' tree item

5. From the context menu, select 'Network Discovery' similar to Figure 1.

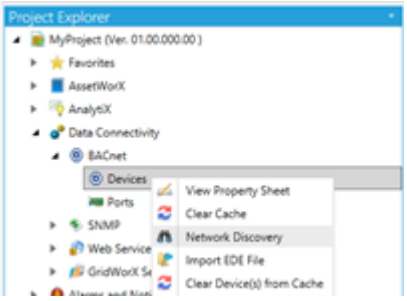

Figure 1 - BACnet Network Discovery option

6. If needed, adjust the Who-is range ('From' and 'To' fields). Limiting the scope as needed.
   You can also, set 'Discovery Scope' usually needed in more structured network scanning where the Port has to be specified as well.

7. Initiate the Network Discovery process by clicking the 'Scan' button on the upper right corner of the dialog.

8. When the scanning finishes, you will get a list of discovered devices. You can now add them to the BACnet cache by clicking '+' next to each device. The caching process reads all objects from the device, and creates a local cache entry of the addressing information needed to directly access that object when needed. Please note that reading in all objects may take some time for heavily populated devices. Also you will see an alarm ICON next to the'+'. You subscribe to Alarms from the device. If selected the ICONICS server will add itself as a subscriber to the notification object of the device. You can monitor progress of device scanning at the bottom while you also have the option of stopping the process.

9. When the task finishes, you can close the dialog.
   Now you should see the address space (object instances) of scanned devices and be able to retrieve data from them. The data should also be brows-able in the Data Browser.

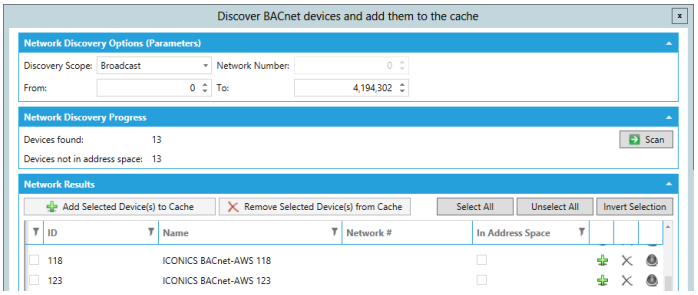

Figure 2 - BACnet Device Discovery dialog