

## Niagara JAR file simplifies integration to Digital Lighting Management WattStopper solution features customized BACnet discovery service for Niagara AX station

**Topic:** DLM “SegManBacnet” service

**Issue:** # TB187

**Date:** September 25, 2012

This bulletin describes how Niagara integrators can utilize WattStopper’s standard Niagara JAR file when working with WattStopper Digital Lighting Management (DLM) networked lighting control systems. It also outlines the helpful “Sun” function that can be used to add astronomical functionality to a Niagara station.

### Background Information

WattStopper’s LSM-201 and LSM-603 DLM Segment Managers are Niagara “appliances,” based respectively on the Niagara JACE-2 and JACE-6. The two models operate identically; only the hardware is different. As a Niagara appliance, each has two components; a GUI web servlet, and the “SegManBacnet” segment manager service.

The SegManBacnet service, which is distributed as

a file called “segmentManager.jar” can also be installed in any Niagara station. There is no WattStopper-specific licensing dependency. Please see the following pages for step-by-step instructions on accessing and using this file.

For a complete list of available DLM BACnet objects, and their functions, download TB175 “Native BACnet Communication” from wattstopper.com.



LSM Segment Manager

LMBC-300 Network Bridge Module

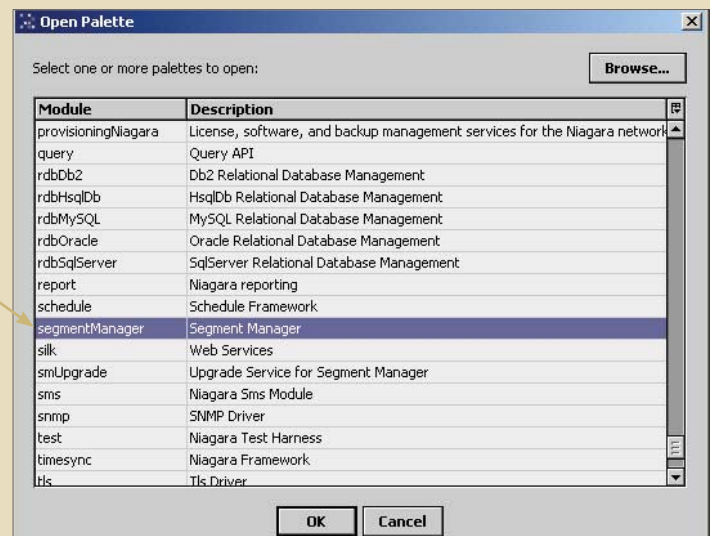


### INSTALLING THE SEGMENT MANAGER JAR FILE

#### Step 1 >

**Copy** the “segmentManager.jar” file into the Modules folder in your instance of Workbench.

From the Open Pallet dialog box **select** the “segmentManager” module.



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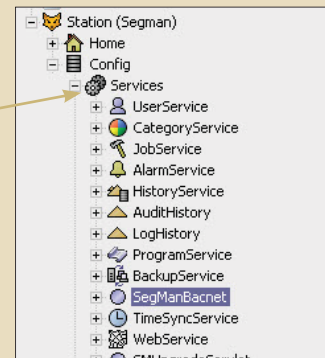
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#### INSTALLING THE FILE AND INITIATING DEVICE DISCOVERY

##### Step 2 >

Drag the "SegManBacnet" service from the Open Pallet menu and drop it into the Services folder in your station.

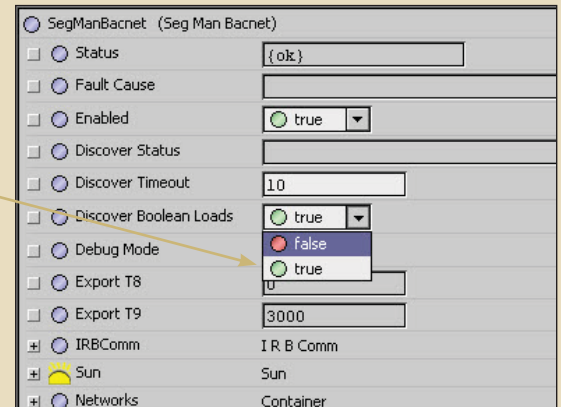


##### Option 1 >

WattStopper treats DLM loads as dimmable, and thus AO objects.

To treat switched loads as Boolean writable, open the SegManBacnet service and select "True" for Discover Boolean Loads.

This selection expands discovery to include the BO objects associated with loads as well as the AO objects.

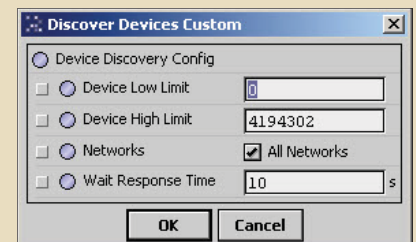
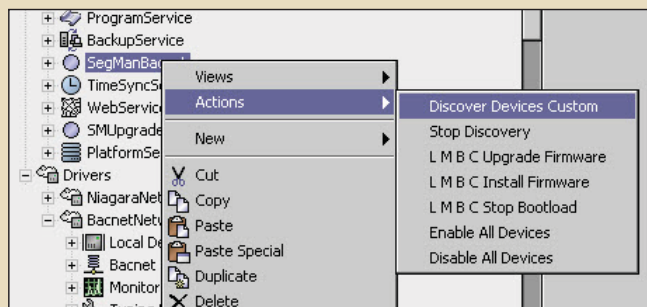


##### Step 3 >

To initiate DLM device discovery, right click the SegManBacnet service to access the Actions menu.

Select "Discover Devices Custom" to open the discovery dialog box.

Click "OK" to start the discovery process.



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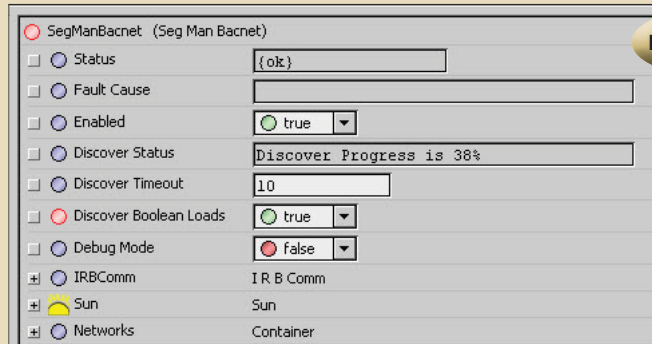
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#### DISCOVERY PROGRESS AND BACNET DEVICE OBJECT LIST



SegManBacnet (Seg Man Bacnet)	
Status	{ok}
Fault Cause	
Enabled	true
Discover Status	Discover Progress is 38%
Discover Timeout	10
Discover Boolean Loads	true
Debug Mode	false
IRBComm	I R B Comm
Sun	Sun
Networks	Container

Note 1 >

The SegManBacnet service Discover Status field displays progress of the discovery.

When the process is complete, all discovered DLM rooms or LILM panels appear in the tree under BacnetNetwork.

The rooms and panels can be **expanded** to show the individual control devices.

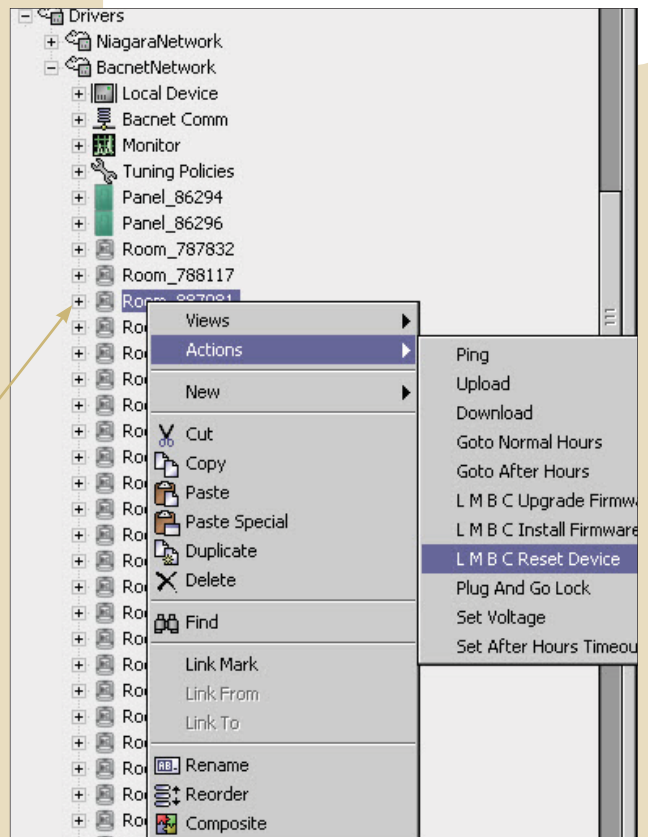
All have custom WattStopper icons.

Note 2 >

The LMBC-300 network bridge module contains the BACnet device object list for the room. When energized, the LMBC takes inventory and creates the objects to model the room. If devices are added to the room, the LMBC will automatically add them to the object list for discovery, but it will not delete removed devices.

**If devices are removed from a room, you must reset the LMBC-300** so that it will create a fresh inventory. Either **select** the LMBC from the BacnetNetwork folder, **right click** to access the Actions menu and **select** "LMBC Reset Device," or cycle power to the LMBC-300.

If a room inventory is modified, **repeat Step 3**, device discovery.



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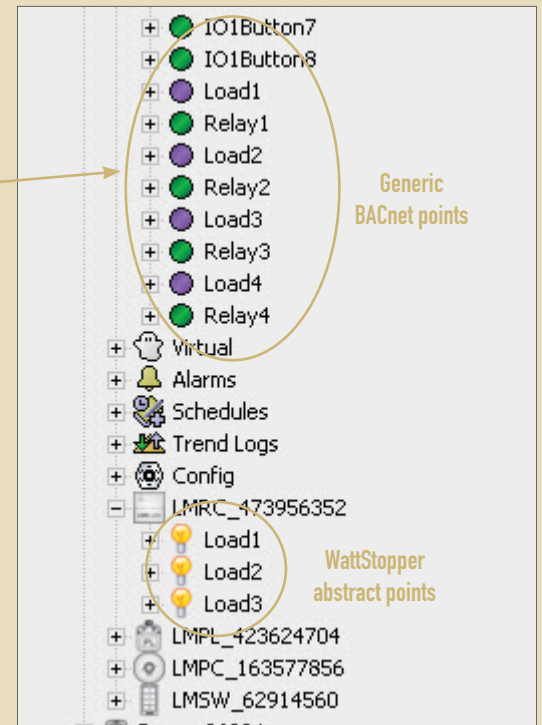
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### SETTING WIRE SHEET LOGIC AND ASTRONOMIC CONTROL

#### Note 3 >

Both BACnet points and JAR file-specific abstractions are created as Niagara objects during the discovery process. **Use only the generic BACnet points from the Points folder for wire sheet logic.** Never use the abstractions for wire sheet logic.



#### Option 2 >

WattStopper's custom Sun service is enabled by default, and is a source for Sunrise and Sunset times.

To use this service in your station, **open Sun and enter values** for job site Latitude and Longitude.

