

Date: May 21, 2004
Vendor Name: Lithonia Lighting
Product Name: Synergy MSTP
Product Model Number: SYSC MSTP
Applications Software Version: N/A **Firmware Revision:** 2.60
BACnet Protocol Revision: 1.0

Product Description:

Synergy is a unique lighting control system that integrates all aspects of lighting control into a single system platform. Synergy combines architectural dimming, low voltage switching, lighting automation and lighting energy management functions into a single scalable package capable of meeting the requirements of virtually any lighting control application.

BACnet Standardized Device Profile (Annex L)

	BACnet Operator Workstation (B-OWS)
	BACnet Building Controller (B-BC)
	BACnet Advanced Application Controller (B-AAC)
x	BACnet Application Specific Controller (B-ASC)
	BACnet Smart Sensor (B-SS)
	BACnet Smart Actuator (B-SA)

List all BACnet Interoperability Building Blocks supported (see Annex K in BACnet Addendum 135d):

DS-RP-B Read Property
 DS-RPM-B Read Property Multiple
 DS-WP-B Write Property
 DM-DDB-B Dynamic Device Binding
 DM-DOB-B Dynamic Object Binding
 DM-TS-B Time Synchronization
 DM-RD-B Reinitialize Device
 DM-DCC-B Device Communication Control
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 DS-RP-A Read Property
 DS-WP-A Write Property
 DM-DDB-A Dynamic Device Binding
 DM-DOB-A Dynamic Object Binding
 DM-TS-A Time Synchronization
 DM-RD-A Reinitialize Device
 DM-DCC-A Device Communication Control

Which of the following device binding methods does the product support? (check one or more)

x	Send Who-Is, receive I-Am (BIBB DM-DDB-A)
x	Receive Who-Is, send I-Am (BIBB DM-DDB-B)
x	Send Who-Has, receive I-Have (BIBB DM-DOB-A)
x	Receive Who-Has, send I-Have (BIBB DM-DOB-B)
x	Manual configuration of recipient device's network number and MAC address
	None of the above

Standard Object Types Supported:

Analog Input Object Type

1. Dynamically creatable using BACnet's CreateObject service? No

2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:

Description
Reliability

4. List of all properties that are writable where not otherwise required by this standard

Present_Value

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
Present Value	0.0 – 100.0, resolution of 1.0.

Analog Output Object Type

- 1. Dynamically creatable using BACnet's CreateObject service? No
- 2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:

Description
Reliability

4. List of all properties that are writable where not otherwise required by this standard

Strike_Count (512) – Resets the strike count and runtime hours to 0 regardless of value.
Runtime Hours (513) - Resets the strike count and runtime hours to 0 regardless of value.

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning
Strike_Count (512)	REAL	Number of OFF to ON transitions
Runtime Hours (513)	REAL	Number of hours present value is ON

6. List of any property value range restrictions:

Property Identifier	Restrictions
Present_Value	0.0 to 100.0, 1.0 resolution, 128.0 = STOP, 129.0 = LOWER, 130.0 = RAISE, 256 = BLINK, 1000.0 * fade time (1/10 seconds) + level = FADE, 255 = NULL

Analog Value Object Type

- 1. Dynamically creatable using BACnet's CreateObject service? No
- 2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:

Description
Reliability
Priority_Array
Relinquish_Default

4. List of all properties that are writable where not otherwise required by this standard

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5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
Present_Value	0.0 to 100.0, 1.0 resolution, 128.0 = STOP, 129.0 = LOWER, 130.0 = RAISE, 256 = BLINK, 1000.0 * fade time (1/10 seconds) + level = FADE, 255 = NULL

Binary Input Object Type

- 1. Dynamically creatable using BACnet's CreateObject service? No
- 2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:

Description
Reliability

4. List of all properties that are writable where not otherwise required by this standard

Present_Value

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions

Binary Output Object Type

- 1. Dynamically creatable using BACnet's CreateObject service? No
- 2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:

Description
Reliability

4. List of all properties that are writable where not otherwise required by this standard

Strike_Count (512) – Resets the strike count and runtime hours to 0 regardless of value.
Runtime Hours (513) - Resets the strike count and runtime hours to 0 regardless of value.

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning
Strike_Count (512)	REAL	Number of OFF to ON transitions
Runtime Hours (513)	REAL	Number of hours present value is ON

6. List of any property value range restrictions:

Property Identifier	Restrictions

Binary Value Object Type

- 1. Dynamically creatable using BACnet's CreateObject service? No
- 2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:

Description
Reliability
Priority_Array
Relinquish_Default

4. List of all properties that are writable where not otherwise required by this standard

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5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions

File Object Type

- 1. Dynamically creatable using BACnet's CreateObject service? No
- 2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:

Description

4. List of all properties that are writable where not otherwise required by this standard

File_Size

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions

Device Object Type

- 1. Dynamically creatable using BACnet's CreateObject service? No
- 2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:
Location, Description, Local_Time, Local_Date, UTC_Offset, Daylight_Savings_Status, APDU_Segment_Timeout, Max_Master, Max_Info_Frames.

4. List of all properties that are writable where not otherwise required by this standard

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions

Data Link Layer Options (check all that are supported):

	BACnet IP, (Annex J)	
	BACnet IP, (Annex J), Foreign Device	
	ISO 8802-3, Ethernet (Clause 7)	
	ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)	
	ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s):	
x	MS/TP master (Clause 9), baud rate(s):	9600,19200,38400,57600,115200
	MS/TP slave (Clause 9), baud rate(s):	
	Point-To-Point, EIA 232 (Clause 10), baud rate(s):	
	Point-To-Point, modem, (Clause 10), baud rate(s):	
	LonTalk, (Clause 11), medium:	
	Other:	

Networking Options (check all that are supported):

	Router, Clause 6 - List all routing configurations (e.g. ARCNET-Ethernet, Ethernet-MS/TP, etc.):	
	Annex H.3, BACnet Tunneling Router over UDP/IP	
	BACnet/IP Broadcast Management Device (BBMD)	
	BBMD supports registrations by Foreign Devices	

Segmentation Capability (check all that apply):

x	Segmented requests supported	Window Size	16
x	Segmented responses supported	Window Size	16

Character Sets Supported (check all that apply):

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

x	ANSI X3.4
	IBM™/Microsoft™ DBCS
	ISO 8859-1
	ISO 10646 (UCS-2)
	ISO 10646 (ICS-4)
	JIS C 6226

If this product is a communication gateway, describe the non-BACnet equipment/network(s) that the gateway supports:

N/A

Include any addition information about the product's BACnet capabilities relevant to interoperability:

Analog Value objects are group write objects such that they control a group of output objects. The values in the priority array will reflect the average value of the objects controlled by the analog value objects. This was done to accommodate the missing multiplexer object (group write).

Internal proprietary schedules write to objects at priority 10.

Binary Input and Analog Input objects that are linked to output objects write at priority 3 (Priority ON), priority 4 (priority OFF), priority 10 (priority NORMAL), and priority 13 (priority LOW).

A write to the Present_Value (including priority 1) of Binary_Output and Analog_Output objects may be simple acked, but the value will not be actually written to the physical output until the OVERRIDDEN Status_Flags is cleared. When the HOA (hand-off-auto) switch status is Hand or Off, and the OVERRIDDEN flag is set, and the value of the switch is shown at Priority 1.