



Delta Control Unit (DCU) 3.30

BACNET PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT

Date: August 14, 2003
Vendor Name: Delta Controls Inc.
Product Name: Delta Control Unit
Product Model Number: DSC-1616EX, DCU-050, DSM-050
Product Version: 3.30
BACnet Protocol Revision: 3

Product Description:

Incorporating native BACnet and high performance 32-bit architecture, the *Delta Control Unit* is the heart of the modular ORCA (Open Real-time Controller Architecture) product series. Various plug-in network cards and I/O boards allow it to be configured as a powerful communications controller, implementing global optimization strategies for distributed Local Area Network (LAN) BACnet devices, as well as a Direct Digital Control (DDC) panel, processing up to 145 directly connected input/output (I/O) points.

BACnet Standardized Device Profile (Annex L):

- BACnet Operator Workstation (B-OWS)
- BACnet Building Controller (B-BC) *(except DM-DOB-A)*
- BACnet Advanced Application Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Sensor (B-SS)
- BACnet Smart Actuator (B-SA)

Note that this product does not support the BIBB DM-DOB-A because we could not establish a use for it. There is currently a proposal before the BACnet committee to remove this requirement from the B-BC profile.

BACnet Interoperability Building Blocks Supported (Annex K):

BACnet Interoperability Building Block	Supported
Data Sharing	
Data Sharing-ReadProperty-A (DS-RP-A)	<input checked="" type="checkbox"/>
Data Sharing-ReadProperty-B (DS-RP-B)	<input checked="" type="checkbox"/>
Data Sharing-ReadPropertyMultiple-A (DS-RPM-A)	<input checked="" type="checkbox"/>
Data Sharing-ReadPropertyMultiple-B (DS-RPM-B)	<input checked="" type="checkbox"/>
Data Sharing-ReadPropertyConditional-A (DS-RPC-A)	<input type="checkbox"/>
Data Sharing-ReadPropertyConditional-B (DS-RPC-B)	<input type="checkbox"/>
Data Sharing-WriteProperty-A (DS-WP-A)	<input checked="" type="checkbox"/>
Data Sharing-WriteProperty-B (DS-WP-B)	<input checked="" type="checkbox"/>
Data Sharing-WritePropertyMultiple-A (DS-WPM-A)	<input checked="" type="checkbox"/>
Data Sharing-WritePropertyMultiple-B (DS-WPM-B)	<input checked="" type="checkbox"/>
Data Sharing-COV-A (DS-COV-A)	<input checked="" type="checkbox"/>
Data Sharing-COV-B (DS-COV-B)	<input checked="" type="checkbox"/>
Data Sharing-COVP-A (DS-COVP-A)	<input type="checkbox"/>
Data Sharing-COVP-B (DS-COVP-B)	<input type="checkbox"/>
Data Sharing-COV-Unsolicited-A (DS-COVU-A)	<input checked="" type="checkbox"/>
Data Sharing-COV-Unsolicited-B (DS-COVU-B)	<input checked="" type="checkbox"/>
Scheduling	
Scheduling-A (SCHED-A)	<input checked="" type="checkbox"/>
Scheduling-Internal-B (SCHED-I-B)	<input checked="" type="checkbox"/>
Scheduling-External-A (SCHED-E-B)	<input checked="" type="checkbox"/>
Trending	
Trending-Viewing and Modifying Trends-A (T-VMT-A)	<input type="checkbox"/>
Trending-Viewing and Modifying Trends-Internal-B (T-VMT-I-B)	<input checked="" type="checkbox"/>
Trending-Viewing and Modifying Trends-External-B (T-VMT-E-B)	<input checked="" type="checkbox"/>
Trending-Automated Trend Retrieval-A (T-ATR-A)	<input type="checkbox"/>
Trending-Automated Trend Retrieval-B (T-ATR-B)	<input checked="" type="checkbox"/>
Network Management	
Network Management-Connection Establishment-A (NM-CE-A)	<input checked="" type="checkbox"/>
Network Management-Connection Establishment-B (NM-CE-B)	<input checked="" type="checkbox"/>
Network Management-Router Configuration-A (NM-RC-A)	<input type="checkbox"/>
Network Management-Router Configuration-B (NM-RC-B)	<input type="checkbox"/>
Alarm and Event Management	
Alarm and Event-Notification-A (AE-N-A)	<input checked="" type="checkbox"/>
Alarm and Event-Notification Internal-B (AE-N-I-B)	<input checked="" type="checkbox"/>
Alarm and Event-Notification External-A (AE-N-E-B)	<input checked="" type="checkbox"/>
Alarm and Event-ACK-A (AE-ACK-A)	<input type="checkbox"/>
Alarm and Event-ACK-B (AE-ACK-B)	<input checked="" type="checkbox"/>
Alarm and Event-Alarm Summary-A (AE-ASUM-A)	<input checked="" type="checkbox"/>
Alarm and Event-Alarm Summary-B (AE-ASUM-B)	<input checked="" type="checkbox"/>
Alarm and Event-Enrollment Summary-A (AE-ESUM-A)	<input checked="" type="checkbox"/>
Alarm and Event-Enrollment Summary-B (AE-ESUM-B)	<input checked="" type="checkbox"/>
Alarm and Event-Information-A (AE-INFO-A)	<input type="checkbox"/>
Alarm and Event-Information-B (AE-INFO-B)	<input checked="" type="checkbox"/>
Alarm and Event-LifeSafety-A (AE-LS-A)	<input type="checkbox"/>
Alarm and Event-LifeSafety-B (AE-LS-B)	<input type="checkbox"/>
Device Management	
Device Management-Dynamic Device Binding-A (DM-DDB-A)	<input checked="" type="checkbox"/>
Device Management-Dynamic Device Binding-B (DM-DDB-B)	<input checked="" type="checkbox"/>
Device Management-Dynamic Object Binding-A (DM-DOB-A)	<input type="checkbox"/>
Device Management-Dynamic Object Binding-B (DM-DOB-B)	<input checked="" type="checkbox"/>

BACnet Interoperability Building Block	Supported
Device Management-DeviceCommunicationControl-A (DM-DCC-A)	<input type="checkbox"/>
Device Management-DeviceCommunicationControl-B (DM-DCC-B)	<input checked="" type="checkbox"/>
Device Management-Private Transfer-A (DM-PT-A)	<input checked="" type="checkbox"/>
Device Management-Private Transfer-B (DM-PT-B)	<input checked="" type="checkbox"/>
Device Management-Text Message-A (DM-TM-A)	<input checked="" type="checkbox"/>
Device Management-Text Message-B (DM-TM-B)	<input type="checkbox"/>
Device Management-TimeSynchronization-A (DM-TS-A)	<input checked="" type="checkbox"/>
Device Management-TimeSynchronization-B (DM-TS-B)	<input checked="" type="checkbox"/>
Device Management-UTCTimeSynchronization-A (DM-UTC-A)	<input checked="" type="checkbox"/>
Device Management-UTCTimeSynchronization-B (DM-UTC-B)	<input checked="" type="checkbox"/>
Device Management-ReinitializeDevice-A (DM-RD-A)	<input type="checkbox"/>
Device Management-ReinitializeDevice-B (DM-RD-B)	<input checked="" type="checkbox"/>
Device Management-Backup and Restore-A (DM-BR-A)	<input type="checkbox"/>
Device Management-Backup and Restore-B (DM-BR-B)	<input checked="" type="checkbox"/>
Device Management-List Manipulation-A (DM-LM-A)	<input type="checkbox"/>
Device Management-List Manipulation-B (DM-LM-B)	<input checked="" type="checkbox"/>
Device Management-Object Creation and Deletion-A (DM-OCD-A)	<input type="checkbox"/>
Device Management-Object Creation and Deletion-B (DM-OCD-B)	<input checked="" type="checkbox"/>
Device Management-Virtual Terminal-A (DM-VT-A)	<input type="checkbox"/>
Device Management-Virtual Terminal-B (DM-VT-B)	<input type="checkbox"/>

Segmentation Capability:

Segmented Requests Supported	<input checked="" type="checkbox"/>	Window Size:	CONFIGURABLE
Segmented Responses Supported	<input checked="" type="checkbox"/>	Window Size:	CONFIGURABLE

Standard Object Types Supported:

Object-Type	Supported	Dynamically Creatable	Dynamically Deletable	Optional Properties Supported	Writable Properties
Analog Input	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Device Type, Reliability, Min Pres Value, Max Pres Value, Update Interval, Resolution, COV Increment	Object Name, Description, COV Increment, Out of Service
Analog Output	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Device Type, Reliability, Min Pres Value, Max Pres Value, Resolution, COV Increment	Object Name, Description, Present Value, COV Increment, Relinquish Default, Out of Service
Analog Value	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Reliability, COV Increment	Object Name, Description, Present Value, COV Increment, Out of Service
Averaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Binary Input	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Device Type, Reliability, Active Text, Inactive Text, COS Time, COS Count, COS Time, Reset	Object Name, Description, Polarity, COV Increment, Out of Service
Binary Output	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Device Type, Reliability, Active Text,	Object Name, Description, Present Value, Polarity,



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Object-Type	Supported	Dynamically Creatable	Dynamically Deletable	Optional Properties Supported	Writable Properties
				Inactive Text, COS Time, COS Count, COS Time Reset, Min On Time, Min Off Time	Relinquish Default, Min On Time, Min Off Time, Out of Service
Binary Value	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Reliability, Active Text, Inactive Text	Object Name, Description, Present Value
Calendar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description	Object Name, Description, Date List
Command	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Device	YES	N/A	N/A	Description, Location, APDU Seg Timeout, Time Synch Recip's, Max Master, Max Info Frames, Local Time, Local Date, UTC Offset, DST Status	Object Name, Description, Location, Time Synch Recip's, UTC Offset
Event Enrollment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Notification Class	Object Name, Description, Event Type, Notify Type, Event Parameters, Object Property Reference, Event Enable, Notification Class
File	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description	Object Name, Description, File Type, File Access, File Size
Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Life Safety Point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Life Safety Zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Loop	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Reliability, Update Interval, Proportional Constant, Proportional Units, Integral Constant, Integral Units, Derivative Constant, Derivative Units, Bias, Maximum Output, Minimum Output, COV Increment	Object Name, Description, Action, Manipulated Var Ref, Controlled Variable Ref, Controlled Var Value, Controlled Var Units, Setpoint, Setpoint Ref, Proportional Constant, Integral Constant, Derivative Constant, Bias, Priority For Writing, COV Increment
Multi-state Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Multi-state Output	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Multi-state Value	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Reliability, State Text	Object Name, Description, Present Value, Out Of Service
Notification Class	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description	Object Name, Description, Priority, Ack Required, Recipient List
Program	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Reliability	Object Name, Description, Present Value
Schedule	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Schedule Exceptions	Object Name, Description, Present Value, Effective Period, Schedule Exceptions, Controlled Properties, Write Priority
Trend Log	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description, Start Time,	Object Name, Description, Log

Object-Type	Supported	Dynamically Creatable	Dynamically Deletable	Optional Properties Supported	Writable Properties
				Stop Time, Log Device Object Prop, Log Interval	Enable, Start Time, Stop Time, Log Device Object Prop, Log Interval, Stop When Full, Buffer Size, Record Count
Proprietary	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7) (10Base2, 10Base5, 10BaseT, Fiber)
- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s):
- MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 76800
- MS/TP slave (Clause 9), baud rate(s):
- Point-To-Point, EIA 232 (Clause 10), baud rate(s): 9600, 19200, 38400
- Point-To-Point, modem, (Clause 10), baud rate(s): 9600, 19200, 38400
- LonTalk, (Clause 11), medium:
- Other: Intelli-Net (Coax)

Device Address Binding:

Is static device binding supported? Yes No
 (Necessary for two-way communication with MS/TP slaves and certain other devices.)

Networking Options:

- Router Router between 1 Ethernet network, 1 BACnet/IP network, 1 MS/TP network, 2 PTP networks and 1 Intelli-Net network.
- Annex H, BACnet Tunnelling
- BACnet/IP Broadcast Management Device (BBMD)
- Does the BBMD support registrations by Foreign Devices? Yes

Character Sets Supported:

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

- ANSI X3.4
- IBM/Microsoft DBCS
- JIS C 6226
- ISO 10646 (ICS-4)
- ISO 10646 (UCS2)
- ISO 8859-1

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

Not applicable.