

**EBI R310.1 SP1 CU4
BACnet Protocol
Implementation
Conformance
Statement (PICS)**

Topic: BACnet Protocol Implementation Conformance Statement (PICS)

Date: November 2006

Version 1.1a

Applicable Products EBI R310.1 SP1 CU4 and the following interfaces:

- BACnet Client (Scan Task)
- BACnet Server,
- BACnet Direct (Point Server)

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Honeywell BACnet Server

Annex A - Protocol Implementation Conformance Statement

Date: 16th June 2006

Vendor Name: Honeywell (BACnet Vendor ID 17)

Product Name: Enterprise Buildings Integrator BACnet Server

Product Model Number: R310.1 Build 32.5

Applications Software Version: 780.3.1.265

Firmware Revision: N/A

BACnet Protocol Revision: 1

Product Description:

The Honeywell Enterprise Buildings Integrator BACnet server.

BACnet Standardized Device Profile (Annex L):

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

BACnet Interoperability Building Blocks Supported (Annex K):

Data Sharing	Data Sharing - Read Property-B	DS-RP-B
	Data Sharing - Read Property Multiple-B	DS-RPM-B
	Data Sharing - Write Property-B	DS-WP-B
	Data Sharing - Write Property Multiple-B	DS-WPM-B
	Data Sharing - COV-B	DS-COV-B
Alarm & Event Management	Alarm and Event - Notification Internal-B	AE-N-I-B
	Alarm and Event - ACK-B	AE-ACK-B
	Alarm and Event - Alarm Summary-B	AE-ASUM-B
Device & Network Management	Device Management - Dynamic Device Binding-B	DM-DDB-B
	Device Management - Dynamic Object Binding-B	DM-DOB-B
	Device Management - Time Synchronization-B	DM-TS-B

Segmentation Capability:

Able to transmit segmented messages yes no Window Size 16

Able to receive segmented messages yes no Window Size 16

Standard Object Types Supported:

Object Type	Supported	Dynamically creatable	Dynamically deletable
Analog Input	Y	N	N
Analog Output	Y	N	N
Analog Value	Y	N	N
Averaging	N	N	N
Binary Input	Y	N	N
Binary Output	Y	N	N
Binary Value	Y	N	N
Calendar	N	N	N
Command	N	N	N
Device	Y	N	N
Event Enrollment	N	N	N
File	N	N	N
Group	N	N	N
Loop	N	N	N
Life Safety Point	N	N	N
Life Safety Zone	N	N	N
Multistate Input	Y	N	N
Multistate Output	Y	N	N
Multistate Value	N	N	N
Notification Class	Y	Y	Y
Program	N	N	N
Schedule	N	N	N
Trend Log	N	N	N

Analog Input Properties:

Required Properties	Optional Properties	Proprietary Properties	Writeable where not required by standard	Property range restrictions
Object_Identifier				
Object_Name				
Object_Type				
Present_Value			Y	
	Description			
	Device_Type			
Status_Flags				
Event_State				
	Reliability			
Out_Of_Service			Y	
	Update_Interval			
Units				
	Min_Pres_Value			
	Max_Pres_Value			
	Resolution			
	COV_Increment			
	Time_Delay		Y	
	Notification_Class		Y	
	High_Limit			
	Low_Limit			
	Deadband			
	Limit_Enable			
	Event_Enable		Y	
	Acked_Transitions			
	Notify_Type		Y	

Analog Output Properties:

Required Properties	Optional Properties	Proprietary Properties	Writeable where not required by standard	Property range restrictions
Object_Identifier				
Object_Name				
Object_Type				
Present_Value				
	Description			
	Device_Type			
Status_Flags				
Event_State				
	Reliability			
Out_Of_Service			Y	
Units				
	Min_Pres_Value			
	Max_Pres_Value			
	Resolution			
Priority_Array				
Relinquish_Default				
	COV_Increment			
	Time_Delay		Y	
	Notification_Class		Y	
	High_Limit			
	Low_Limit			
	Deadband			
	Limit_Enable			
	Event_Enable		Y	
	Acked_Transitions			
	Notify_Type		Y	

Analog Value Properties:

Required Properties	Optional Properties	Proprietary Properties	Writeable where not required by standard	Property range restrictions
Object_Identifier				
Object_Name				
Object_Type				
Present_Value				
	Description			
Status_Flags				
Event_State				
	Reliability			
Out_Of_Service			Y	
Units				
	Priority_Array			
	Relinquish_Default			
	COV_Increment			
	Time_Delay		Y	
	Notification_Class		Y	
	High_Limit			
	Low_Limit			
	Deadband			
	Limit_Enable			
	Event_Enable		Y	
	Acked_Transitions			
	Notify_Type		Y	

Binary Input Properties:

Required Properties	Optional Properties	Proprietary Properties	Writeable where not required by standard	Property range restrictions
Object_Identifier				
Object_Name				
Object_Type				
Present_Value			Y	
	Description			
	Device_Type			
Status_Flags				
Event_State				
	Reliability			
Out_Of_Service			Y	
Polarity				
	Inactive_Text			
	Active_Text			
	Time_Delay		Y	
	Notification_Class		Y	
	Alarm_Value			
	Event_Enable		Y	
	Acked_Transitions			
	Notify_Type		Y	

Binary Output Properties:

Required Properties	Optional Properties	Proprietary Properties	Writeable where not required by standard	Property range restrictions
Object_Identifier				
Object_Name				
Object_Type				
Present_Value				
	Description			
	Device_Type			
Status_Flags				
Event_State				
	Reliability			
Out_Of_Service			Y	
Polarity				
	Inactive_Text			
	Active_Text			
Priority_Array				
Relinquish_Default				
	Time_Delay		Y	
	Notification_Class		Y	
	Feedback_Value			
	Event_Enable		Y	
	Acked_Transitions			
	Notify_Type		Y	

Binary Value Properties:

Required Properties	Optional Properties	Proprietary Properties	Writeable where not required by standard	Property range restrictions
Object_Identifier				
Object_Name				
Object_Type				
Present_Value				
	Description			
Status_Flags				
Event_State				
	Reliability			
Out_Of_Service			Y	
	Inactive_Text			
	Active_Text			
Priority_Array				
Relinquish_Default				
	Time_Delay		Y	
	Notification_Class		Y	
	Alarm_Value			
	Event_Enable		Y	
	Acked_Transitions			
	Notify_Type		Y	

Device Properties:

Required Properties	Optional Properties	Proprietary Properties
Object_Identifier		
Object_Name		
Object_Type		
System_Status		
Vendor_Name		
Vendor_Identifier		
Model_Name		
Firmware_Revision		
Application_Software_Version		
	Description	
Protocol_Version		
Protocol_Revision		
Protocol_Services_Supported		
Protocol_Object_Types_Supported		
Object_List		
Max_APDU_Length_Accepted		
Segmentation_Supported		
	Max_Segments_Accepted	
	Local_Time	
	Local_Date	
	UTC_Offset	
	Daylight_Savings_Status	
	APDU_Segment_Timeout	
APDU_Timeout		
Number_Of_APDU_Retries		

Multistate Input Properties:

Required Properties	Optional Properties	Proprietary Properties	Writeable where not required by standard	Property range restrictions
Object_Identifier				
Object_Name				
Object_Type				
Present_Value			Y	
	Description			
	Device_Type			
Status_Flags				
Event_State				
	Reliability			
Out_Of_Service			Y	
Number_Of_States				
	State_Text			
	Time_Delay		Y	
	Notification_Class		Y	
	Alarm_Values			
	Fault_Values			
	Event_Enable		Y	
	Acked_Transitions			
	Notify_Type		Y	

Multistate Output Properties:

Required Properties	Optional Properties	Proprietary Properties	Writeable where not required by standard	Property range restrictions
Object_Identifier				
Object_Name				
Object_Type				
Present_Value				
	Description			
	Device_Type			
Status_Flags				
Event_State				
	Reliability			
Out_Of_Service			Y	
Number_Of_States				
	State_Text			
Priority_Array				
Relinquish_Default				
	Time_Delay		Y	
	Notification_Class		Y	
	Event_Enable		Y	
	Acked_Transitions			
	Notify_Type		Y	

Notification Class Properties:

Required Properties	Optional Properties	Proprietary Properties	Writeable where not required by standard	Property range restrictions
Object_Identifier				
Object_Name				
Object_Type				
Notification_Class				
Priority			Y	
Ack_Required			Y	
Recipient_List				

Data Link Layer Options:

- 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) _____
- MS/TP master (Clause 9), baud rate(s):
- 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:

Device Address Binding:

Is static device binding supported?

(This is currently necessary for two-way communication with MS/TP slaves and certain other devices.)

Yes No

Networking Options:

Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.

Annex H, BACnet Tunneling Router over IP

BACnet/IP Broadcast Management Device (BBMD)

Does the BBMD support registrations by Foreign Devices? Yes No

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 (UCS-4)

ISO 10646 (UCS-2)

ISO 8859-1

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

Access Controllers:

- PCSC MicroLPM, MicroALM, and MicroELV
- PCSC IQ and Ultimate access control panels
- Honeywell Security Electronics 800 series and 4100 series controllers
- Honeywell FS90 AMC

Security Controllers:

- Honeywell SMP or R1200 (Pacific only)
- Aplex 100E
- Tecom Challenger
- Honeywell I9000
- Honeywell FS90 Plus

Life Safety Controllers:

- Honeywell FS90 Plus
- Honeywell XLS 200 and XLS 1000

Building Management Controllers:

- Honeywell Excel 5000 controllers via Scan Task, excluding dial-up
- Honeywell Excel 5000 controllers via Point Server, excluding dial-up *
- Honeywell Excel Classic *
- Honeywell Excel IRC *
- Honeywell Excel EMC *
- BACnet Controllers
- LonMark Controllers *
- Honeywell R7044 *

PLCs:

- Honeywell LCS620 PLCs
- Honeywell HC900
- Modbus Modicon 984, 584 PLCs
- Modbus Plus
- Allen Bradley PLC2, PLC5 SLC5/xx SLC5/03 PLCs
- UMC 800

* Refer to Product Bulletin 364 located on the [EBI & DVM Global Intranet](#) site for information regarding the mapping of point server alarms through to BACnet server alarms. Refer to the “Engineering BACnet Server with point server points” Solution Suite located on the [EBI & DVM Global Intranet](#) site for information regarding the engineering of the BACnet server with point server points.

Honeywell BACnet Direct (Point Server)

Annex A - Protocol Implementation Conformance Statement

Date: 9th June 2006

Vendor Name: Honeywell (BACnet Vendor ID 17)

Product Name: Enterprise Buildings Integrator BACnet Direct

Product Model Number: R310.1 Build 32.5

Applications Software Version: 310.4.2.1

Firmware Revision: N/A

BACnet Protocol Revision: 1.2

Product Description:

The Honeywell Enterprise Buildings Integrator BACnet Workstation.

BACnet Standardized Device Profile (Annex L):

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

BACnet Interoperability Building Blocks Supported (Annex K):

Data Sharing	Data Sharing - Read Property-A	DS-RP-A
	Data Sharing - Read Property-B	DS-RP-B
	Data Sharing - Read Property Multiple-A	DS-RPM-A
	Data Sharing - Write Property-A	DS-WP-A
	Data Sharing - Write Property Multiple-A	DS-WPM-A
	Data Sharing - COV-A	DS-COV-A
	Data Sharing - COVP-A	DS-COVP-A
	Alarm & Event Management	Alarm and Event - Notification-A
Alarm and Event - ACK-A		AE-ACK-A
Alarm and Event - Alarm Summary-A		AE-ASUM-A
Alarm and Event - Information-A		AE-INFO-A
Alarm and Event - LifeSafety-A		AE-LS-A
Scheduling	Scheduling - A	SCHED-A
Device & Network Management	Device Management - Dynamic Device Binding-A	DM-DDB-A
	Device Management - Dynamic Device Binding-B	DM-DDB-B
	Device Management - Dynamic Object Binding-A	DM-DOB-A

	Device Management - Device Communication Control-A	DM-DCC-A
	Device Management - Time Synchronization-A	DM-TS-A
	Device Management - UTC Time Synchronization-A	DM-UTC-A
	Device Management - Reinitialise Device-A	DM-RD-A
	Device Management - List Manipulation-A	DM-LM-A
	Device Management - Connection Establishment-A	NM-CE-A

Segmentation Capability:

Able to transmit segmented messages yes no Window Size 16
 Able to receive segmented messages yes no Window Size 16

Standard Object Types Supported:

Device Properties:

Required Properties	Optional Properties	Proprietary Properties
Object_Identifier		
Object_Name		
Object_Type		
Description		
System_Status		
Vendor_Name		
Vendor_Identifier		
Model_Name		
Firmware_Revision		
Application_Software_Version		
Protocol_Version		
Protocol_Revision		
Protocol_Services_Supported		
Protocol_Object_Types_Supported		
Object_List		
Max_APDU_Length_Accepted		
Segmentation_Supported		
	Max_Segments_Accepted	
	APDU_Segment_Timeout	
APDU_Timeout		
Number_Of_APDU_Retries		

Data Link Layer Options:

- 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) _____
- MS/TP master (Clause 9), baud rate(s): _____
- 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:

Device Address Binding:

Is static device binding supported?

(This is currently necessary for two-way communication with MS/TP slaves and certain other devices.)

Yes No

Networking Options:

Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.

Annex H, BACnet Tunneling Router over IP

BACnet/IP Broadcast Management Device (BBMD)

Does the BBMD support registrations by Foreign Devices? Yes No

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 (UCS-4)

ISO 10646 (UCS-2)

ISO 8859-1



Honeywell BACnet Client (Scan Task)

Annex A - Protocol Implementation Conformance Statement

Date: 8th June 2006

Vendor Name: Honeywell (BACnet Vendor ID 17)

Product Name: Enterprise Buildings Integrator BACnet Client

Product Model Number: R310.1 Build 32.5

Applications Software Version: 780.3.1.224

Firmware Revision: N/A

BACnet Protocol Revision: 1

Product Description:

The Honeywell Enterprise Buildings Integrator BACnet Client.

BACnet Standardized Device Profile (Annex L):

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

BACnet Interoperability Building Blocks Supported (Annex K):

Data Sharing	Data Sharing - Read Property-A	DS-RP-A
	Data Sharing - Write Property-A	DS-WP-A
	Data Sharing - COV-A	DS-COV-A
	Data Sharing - COV-Unsolicited-A	DS-COVU-A
Device & Network Management	Device Management - Dynamic Device Binding-A	DM-DDB-A
	Device Management - Time Synchronization-A	DM-TS-A
	Device Management - Connection Establishment-A	NM-CE-A

Segmentation Capability:

Able to transmit segmented messages yes no Window Size 16
Able to receive segmented messages yes no Window Size 16

Standard Object Types Supported:

None

Data Link Layer Options:

- 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) _____
- MS/TP master (Clause 9), baud rate(s):
- 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:

Device Address Binding:

Is static device binding supported?
(This is currently necessary for two-way communication with MS/TP slaves and certain other devices.)

- Yes No

Networking Options:

- Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
 - Annex H, BACnet Tunneling Router over IP
 - BACnet/IP Broadcast Management Device (BBMD)
- Does the BBMD support registrations by Foreign Devices? Yes No

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 (UCS-4)
- ISO 10646 (UCS-2)
- ISO 8859-1