Honeywell

Honeywell ComfortPoint^{TM} Open Unitary Controller Protocol Implementation Conformance Statement (PICS)

Topic:	BACnet Protocol Implementation Conformance Statement (PICS)
Date:	February 2012
Version	1.1
Applicable Products	ComfortPoint^{TM} Open VAV (CP-VAV), ComfortPoint^{TM} Open SPC (CP-SPC)
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Honeywell ComfortPoint^{TM} Open Unitary Controller

Annex A - Protocol Implementation Conformance Statement

Date: 2nd Sep 2011
Vendor ID: 17
Vendor Name: Honeywell International Inc.
Product Name: Honeywell ComfortPoint^{TM} Open Unitary Controller
Product Model Number: CP-VAV, CP-SPC
Applications Software Version: 2.00.00.89
Firmware Revision: ComfortPoint_VAV_v2.5.1
BACnet Protocol Revision: 7 (135-2008)

Product Description and Intended Use:
CP-VAV and CP-SPC are Native BACnet® fully programmable digital controller that communicate via BACnet Master-Slave/Token-Passing (MS/TP) Protocol. They are designed to meet the requirements of a BACnet B-AAC (BACnet Advanced Application Controller) profile providing support for calendar & schedule objects too.

CP-VAV controllers can be configured for both single and dual duct VAV applications and other variety of customized VAV applications.

Powerful and yet easily programmable, CP-SPC controllers can perform complex control, monitoring and energy management functions. This unitary controller is ideally suitable for FCU control and device input output monitoring.

BACnet Standardized Device Profile (Annex L):

☐ BACnet Operator Workstation (B-OWS)
☐ BACnet Advanced Operator Workstation (B-AWS)
☐ BACnet Operator Display (B-OD)
☐ 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	Read Property-B	DS-RP-B
	Read Property Multiple-B	DS-RPM-B
	Write Property-B	DS-WP-B
	Write Property Multiple-B	DS-WPM-B
	Change Of Value-B	DS-COV-B
Alarm & Event Management	Notification Internal-B	AE-N-I-B
	Acknowledgement-B	AE-ACK-B
	Alarm Summary-B	AE-ASUM-B
	Event Information –B	AE-INFO-B
Scheduling	Scheduling Internal-B	SCHED-I-B
Device & Network Management	Dynamic Device Binding-A	DM-DDB-A
	Dynamic Device Binding-B	DM-DDB-B
	Dynamic Object Binding-B	DM-DOB-B

	Device Communication Control-B	DM-DCC-B
	Time Synchronization-B	DM-TS-B
	UTC Time Synchronization-B	DM-UTC-B
	Reinitialize Device-B	DM-RD-B
	Back-up and Restore-B	DM-BR-B
	List Manipulation-B	DM-LM-B

Following device binding methods Supported by the controller

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

Segmentation Capability:

Able to transmit segmented messages ❏ no   ⇛ no   Window Size ___
Able to receive segmented messages ❏ no   ⇛ no   Window Size ___

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): 9.6k, 19.2k, 38.4k, 76.8k bps
☐ 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 - BACnet IP (Annex J) - MS/TP (3 MSTP Ports).
☐ 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

Standard Object Types Supported:

	Object supported	Object dynamically creatable	Object 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	Y	N	N
COMMAND	N	N	N
DEVICE	Y	N	N
EVENT_ENROLLMENT	N	N	N
FILE	Y	N	N
GROUP	N	N	N
LOOP	N	N	N
LIFE_SAFETY_DEVICE	N	N	N
LIFE_SAFETY_ZONE	N	N	N
MULTISTATE_INPUT	N	N	N
MULTISTATE_OUTPUT	N	N	N
MULTISTATE_VALUE	Y	N	N
NOTIFICATION_CLASS	Y	N	N
PROGRAM	N	N	N
SCHEDULE	Y	N	N
TRENDLOG	N	N	N
ACCUMULATOR	Y	N	N
PULSE CONVERTER	N	N	N

Standard Objects and Properties Supported:

Accumulatore Object

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
PRESENT_VALUE	PRESENT_VALUE
STATUS_FLAGS	
EVENT_STATE	
OUT_OF_SERVICE	OUT_OF_SERVICE

Readable Properties	Writable Properties
SCALE	
UNITS	
MAX_PRES_ VALUE	MAX_PRES_VALUE
DESCRIPTION	
RELIABILITY	
PRESCALE	
VALUE_CHANGE_TIME	
VALUE_BEFORE_CHANGE	
VALUE_SET	VALUE_SET
PULSE_RATE	
HIGH_LIMIT	HIGH_LIMIT
LOW_LIMIT	LOW_LIMIT
LIMIT_MONITORING_INTERVAL	
NOTIFICATION_CLASS	
TIME_DELAY	TIME_DELAY
LIMIT_ENABLE	LIMIT_ENABLE
EVENT_ENABLE	EVENT_ENABLE
ACKED_TRANSITION	
NOTIFY_TYPE	NOTIFY_TYPE
EVENT_TIME_STAMPS	

Analog Input Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
PRESENT_VALUE	PRESENT_VALUE
STATUS_FLAGS	
EVENT_STATE	
OUT_OF_SERVICE	OUT_OF_SERVICE
UNITS	
DESCRIPTION	
RELIABILITY	
COV_INCREMENT	COV_INCREMENT
TIME_DELAY	TIME_DELAY
NOTIFICATION_CLASS	
HIGH_LIMIT	HIGH_LIMIT
LOW_LIMIT	LOW_LIMIT
DEADBAND	DEADBAND
LIMIT_ENABLE	LIMIT_ENABLE
EVENT_ENABLE	EVENT_ENABLE
ACKED_TRANSITIONS	
NOTIFY_TYPE	NOTIFY_TYPE
EVENT_TIME_STAMPS	

Analog Output Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
PRESENT_VALUE	PRESENT_VALUE
STATUS_FLAGS	

Readable Properties	Writable Properties
EVENT_STATE	
OUT_OF_SERVICE	OUT_OF_SERVICE
UNITS	
PRIORITY_ARRAY	
RELINQUISH_DEFAULT	RELINQUISH_DEFAULT
DESCRIPTION	
RELIABILITY	
COV_INCREMENT	COV_INCREMENT
TIME_DELAY	TIME_DELAY
NOTIFICATION_CLASS	
HIGH_LIMIT	HIGH_LIMIT
LOW_LIMIT	LOW_LIMIT
DEADBAND	DEADBAND
LIMIT_ENABLE	LIMIT_ENABLE
EVENT_ENABLE	EVENT_ENABLE
ACKED_TRANSITIONS	
NOTIFY_TYPE	NOTIFY_TYPE
EVENT_TIME_STAMPS	

Analog Value Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
PRESENT_VALUE	PRESENT_VALUE
STATUS_FLAGS	
EVENT_STATE	
OUT_OF_SERVICE	OUT_OF_SERVICE
UNITS	
DESCRIPTION	
RELIABILITY	
COV_INCREMENT	COV_INCREMENT
TIME_DELAY	TIME_DELAY
NOTIFICATION_CLASS	
HIGH_LIMIT	HIGH_LIMIT
LOW_LIMIT	LOW_LIMIT
DEADBAND	DEADBAND
LIMIT_ENABLE	LIMIT_ENABLE
EVENT_ENABLE	EVENT_ENABLE
ACKED_TRANSITIONS	
NOTIFY_TYPE	NOTIFY_TYPE
EVENT_TIME_STAMPS	
PRIORITY_ARRAY	
RELINQUISH_DEFAULT	RELINQUISH_DEFAULT

Binary Input Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
PRESENT_VALUE	PRESENT_VALUE
STATUS_FLAGS	

Readable Properties	Writable Properties
EVENT_STATE	
OUT_OF_SERVICE	OUT_OF_SERVICE
POLARITY	
DESCRIPTION	
RELIABILITY	
INACTIVE_TEXT	
ACTIVET_TEXT	
ELAPSED_ACTIVE_TIME	ELAPSED_ACTIVE_TIME
TIME_OF_ACTIVE_TIME_RESET	
TIME_DELAY	TIME_DELAY
NOTIFICATION_CLASS	
ALARM_VALUE	ALARM_VALUE
EVENT_ENABLE	EVENT_ENABLE
ACKED_TRANSITIONS	
NOTIFY_TYPE	NOTIFY_TYPE
EVENT_TIME_STAMPS	

Binary Output Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
PRESENT_VALUE	PRESENT_VALUE
STATUS_FLAGS	
EVENT_STATE	
OUT_OF_SERVICE	OUT_OF_SERVICE
POLARITY	
PRIORITY_ARRAY	
RELINQUISH_DEFAULT	RELINQUISH_DEFAULT
DESCRIPTION	
RELIABILITY	
INACTIVE_TEXT	
ACTIVET_TEXT	
ELAPSED_ACTIVE_TIME	ELAPSED_ACTIVE_TIME
TIME_OF_ACTIVE_TIME_RESET	

Binary Value Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
PRESENT_VALUE	PRESENT_VALUE
STATUS_FLAGS	
EVENT_STATE	
OUT_OF_SERVICE	OUT_OF_SERVICE
DESCRIPTION	
RELIABILITY	
INACTIVE_TEXT	
ACTIVET_TEXT	
ELAPSED_ACTIVE_TIME	ELAPSED_ACTIVE_TIME
TIME_OF_ACTIVE_TIME_RESET	
TIME_DELAY	TIME_DELAY

NOTIFICATION_CLASS	
ALARM_VALUE	ALARM_VALUE
EVENT_ENABLE	EVENT_ENABLE
ACKED_TRANSITIONS	
NOTIFY_TYPE	NOTIFY_TYPE
EVENT_TIME_STAMPS	
PRIORITY_ARRAY	
RELINQUISH_DEFAULT	RELINQUISH_DEFAULT

Calendar Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
PRESENT_VALUE	
DATE_LIST	DATE_LIST
DESCRIPTION	

Device Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
SYSTEM_STATUS	
VENDOR_NAME	
VENDOR_ IDENTIFIRE	
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	
APDU_TIMEOUT	APDU_TIMEOUT
NUMBER_OF_APDU_RETRIES	
DEVICE_ADDRESS_BINDING	
DATABASE_REVISION	
LOCATION	
DESCRIPTION	
LOCAL_TIME	
LOCAL_DATE	
UTC_OFFSET	
DAYLIGHT_SAVING_STATUS	
MAX_MASTERS	MAX_MASTERS
MAX_INFO_FRAMES	
CONFIGURATION_FILES	
LAST_RESTORE_TIME	
BACKUP_FAILURE_TIMEOUT	BACKUP_FAILURE_TIMEOUT
ACTIVE_COV_SUBSCRIPTIONS	

File Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
FILE_TYPE	
FILE_SIZE	FILE_SIZE
MODIFICATION_DATE	
ARCHIVE	ARCHIEVE
READ_ONLY	
FILE_ACCESS_METHOD	
DESCRIPTION	

Multi-State Value Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
PRESENT_VALUE	PRESENT_VALUE
STATUS_FLAGS	
EVENT_STATE	
OUT_OF_SERVICE	OUT_OF_SERVICE
DESCRIPTION	
RELIABILITY	
STATE_TEXT	
PRIORITY_ARRAY	
RELINQUISH_DEFAULT	RELINQUISH_DEFAULT
TIME_DELAY	TIME_DELAY
NOTIFICATION_CLASS	
ALARM_VALUES	ALARM_VALUES
FAULT_VALUES	FAULT_VALUES
EVENT_ENABLE	EVENT_ENABLE
ACKED_TRANSITIONS	
NOTIFY_TYPE	NOTIFY_TYPE
EVENT_TIME_STAMPS	

Notification Class Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	
NOTIFICATION_CLASS	
PRIORITY	PRIORITY
RECIPIENT_LIST	RECIPIENT_LIST
ACK_REQUIRED	ACK_REQUIRED
DESCRIPTION	

Schedule Object:

Readable Properties	Writable Properties
OBJECT_IDENTIFIRE	
OBJECT_NAME	
OBJECT_TYPE	

PRESENT_VALUE	PRESENT_VALUE
EFFECTIVE_PERIOD	EFFECTIVE_PERIOD
LIST_OF_OBJECT_PROPERTY_REFERENCE	LIST_OF_OBJECT_PROPERTY_REFERENCE
PRIORITY_FOR_WRITING	PRIORITY_FOR_WRITING
STATUS_FLAGS	
RELIABILITY	
OUT_OF_SERVICE	OUT_OF_SERVICE
SCHEDULE_DEFAULT	SCHEDULE_DEFAULT
DESCRIPTION	
WEEKLY_SCHEDULE	WEEKLY_SCHEDULE
EXCEPTION_SCHEDULE	EXCEPTION_SCHEDULE