

# BACnet Protocol Implementation Conformance Statement (PICS)

## Content

[www.pcvuesolutions.com](http://www.pcvuesolutions.com)

FRANCE - Paris  
ARC Informatique  
Head Office

GERMANY - Munich  
PcVue GmbH

ITALY - Milan  
PcVue Srl

UK - London  
Control Technology  
International

USA - Boston  
PcVue Inc

SINGAPORE - Singapore  
PcVue Sea

MALAYSIA – Kuala Lumpur  
PcVue Sdn Bhd

CHINA - Shangai  
PcVue China

JAPAN - Nagoya  
PcVue Japan

<b>1. BACnet Operator Workstation .....</b>	<b>2</b>
<b>1.1. Product Description .....</b>	<b>2</b>
<b>1.2. BACnet Standardized Device Profile .....</b>	<b>2</b>
<b>1.3. BACnet Interoperability Building Blocks Supported.....</b>	<b>3</b>
<b>1.4. Segmentation Capability.....</b>	<b>3</b>
<b>1.5. Standard Object Types Supported .....</b>	<b>4</b>
<b>1.6. Data Link layer Options.....</b>	<b>12</b>
<b>1.7. Device Address Binding.....</b>	<b>12</b>
<b>1.8. Networking Options .....</b>	<b>12</b>
<b>1.9. Character Sets Supported .....</b>	<b>12</b>

ARC Informatique  
ISO 9001 : 2008  
ISO 14001 : 2004  
certified



## 1. BACnet Operator Workstation

<b>Date:</b>	<b>27 October 2010</b>
<b>Vendor Name:</b>	<b>ARC Informatique</b>
<b>Product Name:</b>	<b>PcVue</b>
<b>Product Model Number:</b>	<b>PcVue 9.0 SP1</b>
<b>Application Software Version:</b>	<b>9.0 SP1</b>
<b>Firmware Revision:</b>	<b>N/A</b>
<b>BACnet Protocol Revision:</b>	<b>135-2004</b>

### 1.1. Product Description

PcVue is a SCADA Software that can act as a **BACnet Operator Workstation (B-OWS)**. PcVue is able to communicate with BACnet devices via BACnet-/IP and BACnet-MS/TP

### 1.2. BACnet Standardized Device Profile

- 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)

### 1.3. BACnet Interoperability Building Blocks Supported

<b>Data Sharing</b>	<b>ReadProperty-A</b> <b>ReadPropertyMultiple-A</b> <b>WriteProperty-A</b> <b>WritePropertyMultiple-A</b> <b>COV-A</b>	DS-RP-A DS-RPM-A DS-WP-A DS-WPM-A DS-COV-A
<b>Device &amp; Network Management</b>	<b>Dynamic Device Binding-A</b> <b>TimeSynchronization-A</b> <b>UTCTimeSynchronization-A</b>	DM-DDB-A DM-TS-A DM-UTC-A
<b>Event &amp; Alarm</b>		
<b>Scheduling</b>		
<b>Trending</b>		

### 1.4. Segmentation Capability

- Segmented requests supported      Window Size: Configurable
- Segmented responses supported      Window Size: Configurable

### 1.5. Standard Object Types Supported

Object Type	Object Type Supported	Dynamically Creatable and Deletable	Addressable Properties Supported	Proprietary Properties
Accumulator	Yes	No	Description Device Type Reliability Prescale Value_Change_Time Value_Before_Change Value_Set Logging_Record Logging_Object Pulse_Rate High_Limit Low_Limit Limit_Monitoring_Interval Notification_Class Time_Delay Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-
Analog-input	Yes	No	Description Device Type Reliability Update_Interval Min_Pres_Value Max_Pres_Value Resolution COV_Increment Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-

Object Type	Object Type Supported	Dynamically Creatable and Deletable	Addressable Properties Supported	Proprietary Properties
Analog-output	Yes	No	Description Device Type Reliability Min_Pres_Value Max_Pres_Value Resolution COV_Increment Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-
Analog-value	Yes	No	Description Reliability Priority_Array Relinquish_Default COV_Increment Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-
Averaging	Yes	No	Minimum_Value_Timestamp Variance_Value Maximum_Value_Timestamp Description Profile_Name	-

<b>Object Type</b>	<b>Object Type Supported</b>	<b>Dynamically Creatable and Deletable</b>	<b>Addressable Properties Supported</b>	<b>Proprietary Properties</b>
Binary-input	Yes	No	Description Device_Type Reliability Inactive_Text Active_Text Change_Of_State_Time Change_Of_State_Count Time_Of_State_Count_Reset Elapsed_Active_Time Time_Of_Active_Time_Reset Time_Delay Notification_Class Alarm_Value Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-
Binary-output	Yes	No	Description Device_Type Reliability Inactive_Text Active_Text Change_Of_State_Time Change_Of_State_Count Time_Of_State_Count_Reset Elapsed_Active_Time Time_Of_Active_Time_Reset Minimum_Off_Time Minimum_On_Time Time_Delay Notification_Class Feedback_Value Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-

<b>Object Type</b>	<b>Object Type Supported</b>	<b>Dynamically Creatable and Deletable</b>	<b>Addressable Properties Supported</b>	<b>Proprietary Properties</b>
Binary-value	<i>Yes</i>	<i>No</i>	Description Reliability Inactive_Text Active_Text Change_Of_State_Time Change_Of_State_Count Time_Of_State_Count_Reset Elapsed_Active_Time Time_Of_Active_Time_Reset Minimum_Off_Time Minimum_On_Time Priority_Array Relinquish_Default Time_Delay Notification_Class Alarm_Value Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-
Calendar	<i>Yes</i>	<i>No</i>	Description Profile_Name	-
Command	<i>Yes</i>	<i>No</i>	Description Action_Text Profile_Name	-
Device	<i>Yes</i>	<i>No</i>	Location Description Max_Segments_Accepted Local_Time Local_Date UTC_Offset Daylight_Savings_Status APDU_Segment_Timeout Time_Synchronization_Recipients Configuration_Files Last_Restore_Time Backup_Failure_Timeout Active_COV_Subscriptions Profile_Name	-
Event-enrollment	<i>Yes</i>	<i>No</i>	Description Profile_Name	-
File	<i>Yes</i>	<i>No</i>	Description Profile_Name	-
Group	<i>Yes</i>	<i>No</i>	Description Profile_Name	-

Object Type	Object Type Supported	Dynamically Creatable and Deletable	Addressable Properties Supported	Proprietary Properties
Life-safety-point	Yes	No	Tracking_Value Description Device_Type Time_Delay Notification_Class Life_Safety_Alarm_Values Alarm_Values Fault_Values Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Maintenance_required Setting Direct_Reading Units Member_Of Profile_Name	-
Life-safety-zone	Yes	No	Tracking_Value Description Device_Type Time_Delay Notification_Class Life_Safety_Alarm_Values Alarm_Values Fault_Values Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Maintenance_required Member_Of Profile_Name	-



<b>Object Type</b>	<b>Object Type Supported</b>	<b>Dynamically Creatable and Deletable</b>	<b>Addressable Properties Supported</b>	<b>Proprietary Properties</b>
Loop	Yes	No	Reliability Update_Interval Proportional_Constant Proportional_Constant_Units Integral_Constant Integral_Constant_Units Derivative_Constant Derivative_Constant_Units Bias Maximum_Output Minimum_Output COV_Increment Time_Delay Notification_Class Error_Limit Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-
Multi-state-input	Yes	No	Description Device_Type Reliability State_Text Time_Delay Notification_Class Alarm_Values Fault_Values Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-
Multi-state-output	Yes	No	Description Device_Type Reliability State_Text Time_Delay Notification_Class Feedback_Value Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-

<b>Object Type</b>	<b>Object Type Supported</b>	<b>Dynamically Creatable and Deletable</b>	<b>Addressable Properties Supported</b>	<b>Proprietary Properties</b>
Multi-state-value	Yes	No	Description Reliability State_Text Priority_Array Relinquish_Default Time_Delay Notification_Class Alarm_Values Fault_Values Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-
Notification-class	Yes	No	Description Profile_Name	-
Program	Yes	No	Reason_For_Halt Description_Of_Halt Program_Location Description Instance_Of Reliability Profile_Name	-
Pulse-converter	Yes	No	Description Input_Reference Reliability COV_Increment COV_Period Notification_Class Time_Delay High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-
Schedule	Yes	No	Description Weekly_Schedule Exception_Schedule Profile_Name	-

Object Type	Object Type Supported	Dynamically Creatable and Deletable	Addressable Properties Supported	Proprietary Properties
Trend-log	Yes	No	Description Start_Time Stop_Time Log_DeviceObjectProperty Log_Interval COV_Resubscription_Interval Client_COV_Increment Notification_Threshold Records_Since_Notification Last_Notify_Record Notification_Class Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps Profile_Name	-

## 1.6. 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: \_\_\_\_\_

## 1.7. 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

## 1.8. 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

## 1.9. 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
- ISO 8859-1
- ISO 10646 (UCS-2)
- ISO 10646 (UCS-4)
- JIS C 6226