



PcVue - BACnet Client PICS

Last update :	September 2, 2021
Revision :	4.2/15.0.0
Content :	This document contains Protocol Implementation Conformance Statement of the CimWay built-in Client driver for BACnet.

The last revision of the technical content accommodates changes in PcVue 15.0.0. Unless otherwise stated, this document is valid for releases made publicly available since.

The information in this book is subject to change without notice and does not represent a commitment on the part of the publisher. The software described in this book is furnished under a license agreement and may only be used or copied in accordance with the terms of that agreement. It is against the law to copy software on any media except as specifically allowed in the license agreement. No part of this manual may be reproduced or transmitted in any form or by any means without the express permission of the publisher. The author and publisher make no representation or warranties of any kind with regard to the completeness or accuracy of the contents herein and accept no liability of any kind including but not limited to performance, merchantability, fitness for any particular purpose, or any losses or damages of any kind caused or alleged to be caused directly or indirectly from this book. In particular, the information contained in this book does not substitute to the instructions from the products' vendor. This book may contain material belonging to third-parties. Such information is used exclusively in internal work processes and is not intended to be disclosed. In addition, this notice is not a claim of property on such third-party information.

All product names and trademarks mentioned in this document belong to their respective owner.

Authorization

	Name	Stamp	Date
Written by	JS/JL		November 25 th , 2015
Checked by	BL		November 25 th , 2015
Authorized by	AB		November 25 th , 2015

Revision history

Revision	Author	Action	Editing	Date	Distribution
4.0	JS, JL	Update for PcVue 11.2: - B-AWS profile	BL	November 25 th , 2015	Public
4.1	BL	Update for PcVue 15.0.0: - Added support for Static Binding	JL	January 10 th , 2020	Public
4.2	BL	Editorial changes (15.1.3)	JL, FMA	August 27 th , 2021	Public

Content

1	BACNET ADVANCED OPERATOR WORKSTATION	4
1.1	PRODUCT DESCRIPTION	4
1.2	BACNET STANDARDIZED DEVICE PROFILE	4
1.3	BACNET INTEROPERABILITY BUILDING BLOCKS SUPPORTED	5
1.4	SEGMENTATION CAPABILITY	6
1.5	STANDARD OBJECT TYPES SUPPORTED	6
1.6	DATA LINK LAYER OPTIONS	8
1.7	DEVICE ADDRESS BINDING	8
1.8	NETWORKING OPTIONS.....	9
1.9	CHARACTER SETS SUPPORTED.....	9
1.10	NETWORK SECURITY OPTIONS	9

1 BACnet Advanced Operator Workstation

Date:	August 28 th , 2021
Vendor Name:	ARC Informatique
Vendor Id:	624
Product Name:	PcVue
Product Model Number:	PcVue 15.0
Application Software Version:	1.0
Firmware Revision:	The full build number under the form x.y.z (for example 15.0.0)
BACnet Protocol Revision:	12 (135-2010)

1.1 Product description

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

1.2 BACnet Standardized Device Profile

- ☒ BACnet Advanced Operator Workstation (B-AWS)
- ☒ BACnet Operator Workstation (B-OWS)
- ☐ 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)

1.3 BACnet Interoperability Building Blocks Supported

Data Sharing	ReadProperty-A ReadProperty-B ReadPropertyMultiple-A WriteProperty-A WriteProperty-B WritePropertyMultiple-A View-A Advanced View-A Modify-A Advanced Modify-A COV-A COVP-A	DS-RP-A DS-RP-B DS-RPM-A DS-WP-A DS-WP-B DS-WPM-A DS-V-A DS-AV-A DS-M-A DS-AM-A DS-COV-A DS-COVP-A
Device & Network Management	Dynamic Device Binding-A Dynamic Device Binding-B Dynamic Object Binding-B Automatic Network Mapping-A Automatic Device Mapping-A DeviceCommunicationControl-A Object Creation and Deletion-A ReinitializeDevice-A Backup and Restore-A List Manipulation-A List Manipulation-B Time Synchronization-A UTC Time Synchronization-A Manual Time Synchronization-A Automatic Time Synchronization-A	DM-DDB-A DM-DDB-B DM-DOB-B DM-ANM-A DM-ADM-A DM-DCC-A DM-OCD-A DM-RD-A DM-BR-A DM-LM-A DM-LM-B DM-TS-A DM-UTC-A DM-MTS-A DM-ATS-A
Event & Alarm	Notification-A ACK-A Alarm Summary-A Enrollment Summary-A Information-A Alarm Summary View-A View and Modify-A Advanced View and Modify-A View Notifications-A Advanced View Notifications-A Event Log View-A Event Log View and Modify-A	AE-N-A AE-ACK-A AE-ASUM-A ¹ AE-ESUM-A ¹ AE-INFO-A ¹ AE-AS-A AE-VM-A AE-AVM-A AE-VN-A AE-AVN-A AE-ELV-A AE-ELVM-A
Scheduling	Scheduling-A View and Modify-A Advanced View and Modify-A Weekly schedule-A	SCHED-A ² SCHED-VM-A SCHED-AVM-A SCHED-WS-A

Trending	Viewing-A	T-V-A
	Viewing and Modifying Trends-A	T-VMT-A ³
	Viewing and Modifying Multiple Values-A	T-VMMV-A ³
	Advanced View and Modify-A	T-AVM-A
	Automated Trend Retrieval-A	T-ATR-A
	Automated Multiple Value Retrieval-A	T-AMVR-A
	Archival-A	T-A-A

¹ Deprecated, contained in Alarm Summary View-A (AE-AS-A)

² Deprecated, contained in View and Modify-A (SCHED-VM-A)

³ Deprecated

1.4 Segmentation Capability

- ☒ Segmented requests supported
- ☒ Segmented responses supported

Window Size: Configurable
Window Size: Configurable

1.5 Standard Object Types Supported

- PcVue as BACnet server

Object Type	Object Type Supported	Dynamically Creatable and Deletable	Optional Properties Supported	Proprietary Properties
Device	Yes	No	Location Description Max_Segments_Accepted Local_Time Local_Date UTC_Offset Daylight_Savings_Status APDU_Segment_Timeout Time_Synchronization_Recipients UTC_Time_Synchronization_Recipients Time_Synchronization_Interval Align_Intervals Interval_Offset	-

- PcVue as BACnet client

The following description defines all objects that PcVue is able to read as a BACnet client. That doesn't mean these objects may be present in PcVue.

Object Type	Object Type Supported	Dynamically Creatable and Deletable	Optional Properties Supported	Proprietary Properties
Access-credential	Yes	Yes	All	Yes ¹
Access-door	Yes	Yes	All	Yes ¹
Access-point	Yes	Yes	All	Yes ¹
Access-rights	Yes	Yes	All	Yes ¹
Access-user	Yes	Yes	All	Yes ¹
Access-zone	Yes	Yes	All	Yes ¹
Accumulator	Yes	Yes	All	Yes ¹
Analog-input	Yes	Yes	All	Yes ¹
Analog-output	Yes	Yes	All	Yes ¹
Analog-value	Yes	Yes	All	Yes ¹
Averaging	Yes	Yes	All	Yes ¹
Binary-input	Yes	Yes	All	Yes ¹
Binary-output	Yes	Yes	All	Yes ¹
Binary-value	Yes	Yes	All	Yes ¹
Bitstring-value	Yes	Yes	All	Yes ¹
Calendar	Yes	Yes	All	Yes ¹
Characterstring-value	Yes	Yes	All	Yes ¹
Command	Yes	Yes	All	Yes ¹
Credential-data-input	Yes	Yes	All	Yes ¹
Date-pattern-value	Yes	Yes	All	Yes ¹
Date-value	Yes	Yes	All	Yes ¹
Datetime-pattern-value	Yes	Yes	All	Yes ¹
Datetime-value	Yes	Yes	All	Yes ¹
Device	Yes	No	All	Yes ¹
Event-enrollment	Yes	Yes	All	Yes ¹
Event-log	Yes	Yes	All	Yes ¹
File	Yes	Yes	All	Yes ¹
Global-group	Yes	Yes	All	Yes ¹
Group	Yes	Yes	All	Yes ¹
Integer-value	Yes	Yes	All	Yes ¹
Large-analog-value	Yes	Yes	All	Yes ¹
Life-safety-point	Yes	Yes	All	Yes ¹
Life-safety-zone	Yes	Yes	All	Yes ¹

Object Type	Object Type Supported	Dynamically Creatable and Deletable	Optional Properties Supported	Proprietary Properties
Load-control	Yes	Yes	All	Yes ¹
Loop	Yes	Yes	All	Yes ¹
Multi-state-input	Yes	Yes	All	Yes ¹
Multi-state-output	Yes	Yes	All	Yes ¹
Multi-state-value	Yes	Yes	All	Yes ¹
Network-security	Yes	Yes	All	Yes ¹
Notification-class	Yes	Yes	All	Yes ¹
Octetstring-value	Yes	Yes	All	Yes ¹
Positive-integer-value	Yes	Yes	All	Yes ¹
Program	Yes	Yes	All	Yes ¹
Pulse-converter	Yes	Yes	All	Yes ¹
Schedule	Yes	Yes	All	Yes ¹
Structured-view	Yes	Yes	All	Yes ¹
Trend-log	Yes	Yes	All	Yes ¹
Trend-log-Multiple	Yes	Yes	All	Yes ¹
Time-pattern-value	Yes	Yes	All	Yes ¹
Time-value	Yes	Yes	All	Yes ¹

¹ Proprietary properties are supported if based on one of the primitive datatypes.

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: _____
- ☐ BACnet/Zigbee (Annex O): _____
- ☐ 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
 - Does the BBMD support network address translation? ☐ Yes ☒ No

1.9 Character Sets Supported

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

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> ANSI X3.4 | <input checked="" type="checkbox"/> IBM™/Microsoft™ DBCS | <input checked="" type="checkbox"/> ISO 8859-1 |
| <input checked="" type="checkbox"/> ISO 10646 (UCS-2) | <input checked="" type="checkbox"/> ISO 10646 (UCS-4) | <input checked="" type="checkbox"/> JIS X 0208 (JIS C 6226) |
| <input checked="" type="checkbox"/> ISO 10646 (UTF-8) | | |

1.10 Network Security Options

- ☒ Non-secure Device - is capable of operating without BACnet Network Security
- ☐ Secure Device - is capable of using BACnet Network Security (NS-SD BIBB)
 - ☐ Multiple Application-Specific Keys
 - ☐ Supports encryption (NS-ED BIBB)
 - ☐ Key Server (NS-KS BIBB)

ARC Informatique

Headquarters and Paris offices
2 avenue de la Cristallerie
92310 Sèvres - France

tel + 33 1 41 14 36 00
fax + 33 1 46 23 86 02
hotline +33 1 41 14 36 25
arcnews@arcinfo.com
www.pcvuesolutions.com

ARC Informatique

Private limited company
capitalized
at 1 250 000 €
RCS Nanterre B 320 695 356
APE 5829C
SIREN 320 695 356
VAT N°FR 19320695356

PcVue - BACnet Client PICS

© 2021 ARC Informatique.
All rights reserved.
Partial or integral reproduction is
prohibited without prior authorization
All names and trademarks are the
property of their respective owners.



ISO 9001 and ISO 14001 certified

We would love to hear your thoughts and suggestions
so we can improve this document
Contact us at team-doc@pcvuesolutions.com