

SAIA-Burgess **Controls AG** **BACnet PCD3** Protocol Implementation Conformance Statement (PICS)

Version 1.5

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Document Revision

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26.05.2005	Simon Ginsburg	1.0	Initial release
27.06.2005	Simon Ginsburg	1.1	Review version finalized
08.07.2005	Simon Ginsburg	1.2	Minor corrections
11.07.2005	Simon Ginsburg	1.3	Final adaptations for 135-2001
15.11.2005	Simon Ginsburg	1.4	Corrections: <ul style="list-style-type: none"> - Protocol Revision 1.4 updated - All Objects updated to 135-2004 - Accumulator Object Added - Trendlog Object Added
19.06.2006	Simon Ginsburg	1.5	Additions: <ul style="list-style-type: none"> - BIBBs AE-N-E-B, AE-ASUM-B, T-VMT-E-B DM-R-B, NM-RC-A, NM-RC-B added - List of on line creatable objects updated: Calender, Event Enrollment, Notification Class, Scheduler, Trendlog

BACnet Protocol Implementation Conformance Statement (PICS)

Date: 19.06.2006
Vendor Name: Saia-Burgess Controls AG (Vendor ID = 89)
Product Name: PCD3 automation station
Product Model Number: PCD3.Mxxx
Applications Software Version: -
Firmware Revision: PCD3.Mxxx0_BACnet_\$0.020
BACnet Protocol Revision: 1.4 (BACnet ANSI/ASHRAE 135-2004)

1. Product Description:

The **SAIA-Burgess BACnet Memory Flash Card** is a Plugin into the **PCD3 controller** hardware extending its communication capabilities to a **BACnet Building Controller (B-BC)**.

The following Controllers are tested to support the B-BC profile:

- PCD3.M3120
- PCD3.M3330
- PCD3.M5540

2. 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)

3. BACnet Interoperability Building Blocks Supported (Annex K):

3.1 Data Sharing BIBBs

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 Read-Property-Multiple-B	DS-RPM-B
Data Sharing Write-Property-A	DS-WP-A
Data Sharing Write-Property-B	DS-WP-B
Data Sharing Write-Property-Multiple-B	DS-WPM-B
Data Sharing COV-A	DS-COV-A
Data Sharing COV-B	DS-COV-B
Data Sharing COV-Unsolicited-A	DS-COVU-A
Data Sharing COV-Unsolicited-B	DS-COVU-B
Data Sharing COV-Property-B	DS-COVP-B

3.2 Alarm / Event BIBBs

Alarm and Event-Notification Internal-B	AE-N-I-B
Alarm and Event-Notification External-B	AE-N-E-B
Alarm and Event-Acknowledge-B	AE-ACK-B
Alarm and Event-Information-B	AE-INFO-B
Alarm and Event-Alarm Summary-A	AE-ASUM-B
Alarm and Event-Enrollment Summary-B	AE-ESUM-B

3.3 Scheduling BIBBs

Scheduling-Internal-B	SCHED-I-B
Scheduling-External-B	SCHED-E-B

3.4 Trending BIBBs

Trending-Viewing and Modifying Trends Internal-B	T-VMT-I-B
Trending-Viewing and Modifying Trends External-B	T-VMT-E-B
Trending-Automated Trend Retrieval-B	T-ATR-B

3.5 Device Management BIBBs

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-Dynamic Object Binding-B	DM-DOB-B
Device Management-DeviceCommunicationControl-B	DM-DCC-B
Device Management-TimeSynchronization-A	DM-TS-A
Device Management-TimeSynchronization-B	DM-TS-B
Device Management-UTCTimeSynchronization-A	DM-UTC-A
Device Management-UTCTimeSynchronization-B	DM-UTC-B
Device Management-ReinitializeDevice-B	DM-RD-B
Device Management-Backup and Restore-B	DM-BR-B
Device Management-Restart-B	DM-R-B
Device Management-List Manipulation-B	DM-LM-B
Device Management-Object Creation and Deletion-B	DM-OCD-B

3.6 Network Management BIBBs

Network Management-Connection Establishment-A	NM-CE-A
Network Management-Connection Establishment-B	NM-CE-B
Network Management-Router Configuration-A	NM-RC-A
Network Management-Router Configuration-B	NM-RC-B

4. Segmentation Capability:

- Segmented requests supported Window Size 16
- Segmented responses supported Window Size 16

5. Standard Object Types Supported:

5.1 Standard Object Types Supported: Accumulator-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	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	Value_Set Pulse_Rate High_Limit Low_Limit Time_Delay Limit_Enable Event_Enable	-

5.2 Standard Object Types Supported: Analog-Input-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	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	Present_Value COV_Increment Time_Delay High_Limit Low_Limit Deadband Limit_Enable Event_Enable	-

5.3 Standard Object Types Supported: Analog-Output-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	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	Present_Value COV_Increment Time_Delay High_Limit Low_Limit Deadband Limit_Enable Event_Enable	-

5.4 Standard Object Types Supported: Analog-Value-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	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	Present_Value COV_Increment Time_Delay High_Limit Low_Limit Deadband Limit_Enable Event_Enable	-

5.5 Standard Object Types Supported: Averaging Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	Minimum_Value_Timestamp Variance_Value Maximum_Value_Timestamp Description	Attempted_Samples Window_Interval Window_Samples	-

5.6 Standard Object Types Supported: Binary-Input-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	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	Present_Value Time_Delay Event_Enable	-

5.7 Standard Object Types Supported: Binary-Output-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	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	Present_Value Time_Delay Event_Enable	-

5.8 Standard Object Types Supported: Binary-Value-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	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	Present_Value Time_Delay Event_Enable	-

5.9 Standard Object Types Supported: Calendar-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description	Date_List	-

5.10 Standard Object Types Supported: Command

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	Description Action_Text	Present_Value Action Action_Text	-

5.11 Standard Object Types Supported: Device-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
N/A	N/A	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	Time _Synchronization_Recipients Backup _Failure_Timeout	-

5.12 Standard Object Types Supported: Event Enrollment Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description		-

5.13 Standard Object Types Supported: File

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	Description	File_Size Archive	-

5.14 Standard Object Types Supported: Group

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	Description		-

5.15 Standard Object Types Supported: Loop

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	Description 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	Proportional_Constant Integral_Constant Derivative_Constant Bias Maximum_Output Minimum_Output	-

5.16 Standard Object Types Supported: Multistate-Input-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	Description Device_Type Reliability State_Text Time_Delay Notification_Class Alarm_Values Fault_Values Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	Present_Value Time_Delay Alarm_Values Fault_Values Event_Enable	-

5.17 Standard Object Types Supported: Multistate-Output-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	Description Device_Type Reliability State_Text Time_Delay Notification_Class Feedback_Value Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	Present_Value Time_Delay Event_Enable	-

5.18 Standard Object Types Supported: Multistate-Value-Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	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	Present_Value Time_Delay Alarm_Values Fault_Values Event_Enable	-

5.19 Standard Object Types Supported: Notification Class Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description		-

5.20 Standard Object Types Supported: Program

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	Reason_For_Halt Description_Of_Halt Program_Location Description Instance_Of Reliability	Program_Change	-

5.21 Standard Object Types Supported: Pulse Converter

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input type="checkbox"/>	<input type="checkbox"/>	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	Present_Value Adjust_Value Count_Before_Change	-

5.22 Standard Object Types Supported: Schedule Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Description Weekly_Schedule Exception_Schedule	Weekly_Schedule Exception_Schedule	-

5.23 Standard Object Types Supported: Trendlog Object

Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	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	Log_Enable Start_Time Stop_Time Log_Interval Record_Count	-

6. 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

7. Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ASTM 878.1, 2.5 Mb. ARCNET (Clause 8)
- ASTM 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): max. EIA 232
- Point-To-Point, modem, (Clause 10), baud rate(s): 115200 baud / max. modem
- LonTalk, (Clause 11), medium: _____
- Other: _____

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 Broadcast Management Device (BBMD)
- Does the BBMD support registrations by Foreign Devices? Yes No

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 type="checkbox"/> IBM™/Microsoft™ DBCS | <input type="checkbox"/> ISO 8859-1 |
| <input type="checkbox"/> ISO 10646 (UCS-2) | <input type="checkbox"/> ISO 10646 (ICS-4) | <input type="checkbox"/> JIS C 6226 |