

# Fronnix system iBRX1 BACnet PICS

(BACnet Protocol Implementation Conformance Statement)

Date: April 20, 2011

Vendor Name: **I-CONTROLS, Inc**

Product Name: **iBRX1 Controller**

Product Model Number: **iBRX1**

Applications Software Version: **1.0**

Firmware Revision: **1.23.BBC**

BACnet Protocol Revision: **4 (Standard 135-2004)**

**Product Description:**

The iBRX1 is a management controller which it controls field devices as a integral member of Fronnix BACnet system. The controller developed using 32 bits CPU can operate with high-performance. It communicates on a 10/100MB Ethernet network, and supports BACnet/IP and BACnet MS/TP communication protocols.

The iBRX1 is classified as a BACnet building Controller (B-BC) and supports Routing function between BACnet/IP and BACnet MS/TP communication.

**BACnet Standardized Device Profile (see Annex L in BACnet 2004):**

- 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)

**List all BACnet Interoperability Building Blocks supported (see Annex K in BACnet 2004):**

Data Sharing	Alarm & Event Management	Device & Network Management
DS-RP-A,B DS-RPM-A,B DS-WP-A,B DS-WPM-B DS-COVU-A,B	AE-N-I-B AE-ACK-B AE-INFO-B AE-ESUM-B	DM-DDB-A,B DM-DOB-A,B DM-DCC-B DM-TS-B DM-RD-B DM-BR-B NM-CE-A
Scheduling	Trending	
SCHED-E-B SCHED-I-B	T-VMT-I-B T-ATR-B	

**Which of the following device binding methods does the product support?**

- 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)

**Standard Object Types Supported:**

Dynamically Creatable Objects : None

Dynamically Deletable Objects : None

**Analog Value**

Property Identifier	Optional	Writable	Range
Object_Identifier			
Object_Name		0	MAX 50 Characters
Object_Type			
Present_Value		0	
Description	0	0	MAX 50 Characters
Status_Flags			
Event_State			
Out_Of_Service		0	
Units		0	
Priority_Array	0		
Relinquish_Default	0	0	
COV_Increment	0	0	
Time_Delay	0	0	
Notification_Class	0	0	
High_Limit	0	0	High_Limit > Low_Limit
Low_Limit	0	0	Low_Limit < High_Limit
Deadband	0	0	
Limit_Enable	0	0	
Event_Enable	0	0	
Acked_Transitions	0		
Notify_Type	0	0	
Event_Time_Stamps	0		

### Binary Value

Property Identifier	Optional	Writable	Range
Object_Identifier			
Object_Name		0	MAX 50 Characters
Object_Type			
Present_Value		0	
Description	0	0	MAX 50 Characters
Status_Flags			
Event_State			
Out_Of_Service		0	
Minimum_Off_Time	0	0	
Minimum_On_Time	0	0	
Priority_Array	0		
Relinquish_Default	0	0	
Time_Delay	0	0	
Notification_Class	0	0	
Alarm_Value	0	0	
Event_Enable	0	0	
Acked_Transitions	0		
Notify_Type	0	0	
Event_Time_Stamps	0		

### Calendar

Property Identifier	Optional	Writable	Range
Object_Identifier			
Object_Name		0	MAX 50 Characters
Object_Type			
Description	0	0	MAX 50 Characters
Present_Value			
Date_List		0	

## Device

Property Identifier	Optional	Writable	Range
Object_Identifier			
Object_Name		0	
Object_Type			
System_Status			
Vendor_Name			
Vendor_Identifier			
Model_Name			
Firmware_Revision			
Application_Software_Version			
Description	0	0	MAX 50 Characters
Protocol_Version			
Protocol_Revision			
Protocol_Service_Supported			
Protocol_Object_Types_Supported			
Object_List			
Max_APDU_Length_Accepted			
Segmentation_Supported			
Local_Time	0		
Local_Date	0		
APDU_Segment_timeout	0	0	10 ~ 6000
APDU_Timeout		0	10 ~ 6000
Number_Of_APDU_Retries		0	1 ~ 3
Max_master	0	0	1 ~ 127
Max_Info_Frames	0	0	Max 1
Device_Address_Binding			
Database_Revision			
Configuration_Files	0		
Last_Restore_Time	0		
Backup_Failure_Timeout	0	0	MIN 1 ~ MAX 10
Active_COV_Subscriptions	0		

### File

Property Identifier	Optional	Writable	Range
Object_Identifier			
Object_Name		0	MAX 50 Characters
Object_Type			
Description	0	0	MAX 50 Characters
File_Type			
File_Size			
Modification_Date			
Archive		W	
Read_Only			
File_Access_Method			

### Notification Class

Property Identifier	Optional	Writable	Range
Object_Identifier			
Object_Name		0	MAX 50 Characters
Object_Type			
Description	0	0	MAX 50 Characters
Notification_Class			
Priority		0	
Ack_Required		0	
Recipient_List		0	

## Schedule

Property Identifier	Optional	Writable	Range
Object_Identifier			
Object_Name		0	MAX 50 Characters
Object_Type			
Present_Value			
Description	0	0	MAX 50 Characters
Effective_Period		0	
Weekly_Schedule	0	0	
Exception_Schedule	0	0	
Schedule_Default		0	
List_Of_Object_Property_References		0	MAX 4 List
Priority_For_Writing		0	
Status_Flags			
Reliability			
Out_Of_Service		0	

### Trend Log

Property Identifier	Optional	Writable	Range
Object_Identifier			
Object_Name		0	MAX 50 Characters
Object_Type			
Description	0	0	MAX 50 Characters
Log_Enable		0	
Start_Time	0	0	
Stop_Time	0	0	
Log_DeviceObjectProperty	0		
Log_Interval	0	0	
Stop_When_Full			
Buffer_Size			
Log_Buffer			
Record_Count		0	
Total_Record_Count			
Notification_Threshold	0		
Records_Since_Notification	0		
Last_Notify_Record	0		
Event_State			
Notification_Class	0	0	
Event_Enable	0	0	
Acked_Transitions	0		
Notify_Type	0	0	
Event_Time_Stamps	0		

**Data Link Layer Options:**

- BACnet IP, (Annex J)
  - Able to register as a 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): 9600, 19200, 38400, 76800
- 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: \_\_\_\_\_

**Networking Options:**

- Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.:  
        BACnet IP, MS/TP
- Annex H.3, BACnet Tunneling Router over UDP/IP
- BACnet/IP Broadcast Management Device (BBMD)  
    Does the BBMD support registrations by Foreign Devices?    Yes    No
- MS/TP Slave Proxy

**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 (ICS-4)                       JIS C 6226