



## DESCRIPTION

The WSxx\_NBC products are a new line of native BACnet controllers based on the proven architecture of standard Walker Technologies SAC's (Stand Alone Controllers). The WSxx\_NBC's use Walker's unique object oriented database to store BACnet objects while allowing the standard SAC operating software to still execute concurrently. This combines the power and throughput of the existing Walker systems with the new concepts of interoperability defined by ASHRAE 135-2004 specification.

## WALKER TECHNOLOGIES AND BACNET

Walker Technologies' BACnet solution allows a Walker BACnet panel to integrate easily into a new or existing BACnet system, communicating using either BACnet/IP or ISO 8802-3 on a BACnet Ethernet LAN, all with very little manual configuration required by the operator. Once a Walker BACnet panel is connected to a BACnet LAN, any other BACnet device on the LAN can dynamically discover this panel and the BACnet objects that it contains. A Walker BACnet panel allows any other BACnet device on the LAN to read the value of any property of any BACnet object contained within that panel.

As well, a Walker BACnet panel allows any other BACnet device on the LAN to write the present value property of any BACnet Analog or Binary object contained within that panel.

## FEATURES

- BacNet Application Specific Controller (B-ASC) support.
- Native BACnet Controller using Ethernet or BAC/IP.
- BACnet support available for existing Walker WS1500, WS1600 and WS1616.
- Fully backwards compatible to all Walker Technologies or Honeywell Custodian installations.
- Single low cost BACnet connection available to systems where a minimal BACnet connection is possible.
- BACnet throughput augmented by use of Walker's high speed SmartLAN network.
- WSxxxx\_NBC panels currently provides support of Bridge2000E functionality to allow communication with Connect 2004.

## COMPATIBILITY WITH PRODUCT LINE AND INSTALLED BASE

WSxx\_NBC products are compatible with all WS1500 and WS16xx products from Release 8 (1985) to present (with a firmware upgrade). This includes virtually all installed sites. Existing site connection can be made in a number of ways including a very low cost "Native BACnet System" solution. Any installed Walker site can be ECONOMICALLY upgraded in this manner.

## SCALEABLE SOLUTION

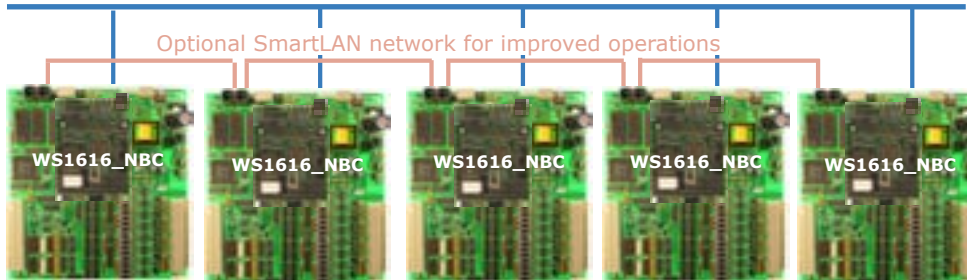
The unique architecture of the Walker Technologies control system allows a native BACnet system at the Ethernet or BAC/IP level to extend down to even unitary VAV controllers. Although this would be cost prohibitive in many applications it may make economic sense in applications where only a few points or loops need to be added.

## COST ADVANTAGES

Where cost is a factor, additional external points from smaller Walker panels can also be efficiently mapped via SmartLAN into the WS16xx\_NBC panels. This will allow the use of less expensive non BACnet panels tied together with the BACnet "host" panel. In this configuration the "host" panel will just appear as a larger Native BACnet panel and will identify itself as such.

## CONFIGURATION

Ethernet or BAC/IP  
BACnet internetwork



### Native BACnet connection

In this configuration, Walker panels WS16xx \_NBC are connected into the BACnet internetwork. These Native BACnet panels exchange data with each other and with the rest of the BACnet internetwork.

## CURRENT BACNET SUPPORT

### TESTING

All testing has followed the test plans provided by BACnet Testing Laboratories (BTL) to ensure compliance to BACnet specifications. WS\_NBC Walker panels have been rigorously tested using a combination of the Visual Test Shell (VTS) application and VTS testing scripts provided by the BTL.

### "STANDARDIZED" TYPE OF BACNET DEVICE

Walker BACnet panels support all of BACnet Application Specific Controller (B-ASC), as outlined in the ASHRAE 135-2004 specification.

### BACNET OBJECT TYPES SUPPORTED

- Analog Input
- Analog Output
- Analog Value
- Binary Input
- Binary Output
- Binary Value
- Device

### BACNET INTEROPERABILITY BUILDING BLOCKS (BIBBS) SUPPORTED

- Data Sharing-ReadProperty-A (DS-RP-A)
- Data Sharing-ReadProperty-B (DS-RP-B)
- Data Sharing-WriteProperty-A (DS-WP-A)
- Data Sharing-WriteProperty-B (DS-WP-B)
- Data Sharing-ReadPropertyMultiple-A (DS-RPM-A)
- Data Sharing-ReadPropertyMultiple-B (DS-RPM-B)
- Data Sharing-WritePropertyMultiple-A (DS-WPM-A)
- Data Sharing-WritePropertyMultiple-B (DS-WPM-B)
- Device Management-Dynamic Device Binding-A (DM-DDB-A)
- Device Management-Dynamic Device Binding-B (DM-DDB-B)
- Device Management-Dynamic Object Binding-B (DM-DOB-B)
- Device Management-Time Synchronization-B (DM-TS-B)
- Device Management-List Manipulation-A (DM-LM-A)
- Device Management-List Manipulation-B (DM-LM-B)

### BACNET DATA LINK LAYER OPTIONS SUPPORTED

- BACnet/IP
- ISO 8802-3, Ethernet