# **HOA BACnet SERIES**

DIGITAL OUTPUT OVERRIDE CARDS FOR IA-BACnet CONTROLLERS





Front View



Front View

## **DESIGNED FOR:**

- IA-BACnet Product Line
- Not for MNB-V1 or MNB-V2

## **BENEFITS & FEATURES:**

- Manual Override of individual output channels
- Monitoring of each individual switch's override status.
- Eliminates the need for interface software when checking out / trouble shooting end devices.

## HOA BACnet SERIES:

The HOA BACnet Series of Digital Output Override Cards are available in two varieties: three and four channel versions. These cards allow for manual override switching of a controller's output channel. The card was designed for the TAC MNB-300, MNB-1000, and MNB-1000-15 Controllers but may be applied to any controller via interposing terminals. The HOA BAC-net cards allow an operator to manually select On-Off-Auto positions for a particular piece of equipment. Monitoring of its own override status is an added feature. Terminals INX and COM provide an individual switch status.

# SPECIFICATIONS:

<b>Operating Temperature:</b>	+32 to +122 Degrees F
	Up to 1 Amp at 250 VAC
Contact Rating:	or Up to 3 Amps at 120 VAC

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BCS-HOA-3-BACNET BCS-HOA-4-BACNET

# HOA BACnet SERIES

DIGITAL OUTPUT OVERRIDE CARDS FOR IA-BACnet CONTROLLERS

# WIRING:



# SOFTWARE:

This card uses a custom DUI object in Workplace Tech for determining the status of the proper outputs. See the following instructions for object use and installation.

<b>120</b>	Cı	ıstom
DUI	_Input	DI1_Ou
DbT	ime	DI2_Ou
		DI3_Ou
		DI4_Ou
		DI5_Ou
	DUI_	Арр

### **CUSTOM DUI OBJECT:**

#### Background

The IA Series BACnet controllers do not currently support the DUI object. Until support is added, an application performing the same basic function was created and tested. This application was created as a custom object named "DUI\_App". It was tested for use with the DUIC-5P-12V interface module and all IA Series BACnet controllers. This custom object must be used with an "Analog Input" object whose "Type" property is set to "6 – Resistance 1K" and is connected to a physical UI point.

#### **Distribution Form**

Since the application is a custom object, we are able to distribute it in a more efficient manner, where it is part of a custom stencil. This custom stencil is named "Application Objects". By doing it in this manner, it will have a similar look and feel to it as the other standard controller objects do. Additionally, this approach can be the starting point of offering other custom objects performing specific functions requested by our field offices.

#### Installation

With Visio\WP-Tech closed, place the custom "Application Objects" stencil in the "C:\Program Files\WorkPlaceTech\Solutions" directory so that all users on that PC can have access to it. Once the custom stencil is in this location, it can be opened from within WP-Tech by selecting "File – Shapes – Application Objects" from the menu on Visio 2003 or "File – Stencils – C:\...Solutions – Application Objects" from the menu on Visio 2003 or "File – Stencils – C:\...Solutions – Application Objects" from the menu on Visio 2002. The stencil will be docked along with the default controller stencils on the left side of the page. Once opened, it can be treated like any other stencil used by WP-Tech. The **DUI\_App** object can be dragged from the stencil onto a drawing as many times as is required. Since the object is based on a custom object, its use must abide by all the same rules and requirements. Therefore, each time the object is placed on a drawing, WP-Tech will create another drawing page containing its the application logic. Typically, no user calibration should be required since the application follows the same resistance table used for the IA Series LonMark controllers.

#### **Messages Displayed When Using Custom Stencils**

Depending upon which version of Visio is being used (Visio 2002 or Visio 2003), the user may see warning messages when opening or closing the custom stencil and/or a drawing that was saved with the stencil open. These messages and their responses are documented below in an effort to eliminate the confusion they may cause.



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## **CUSTOM DUI OBJECT:**

#### WP-Tech using Visio 2002

When the stencil is opened from within a drawing, the system will display the following warning window. Simple respond to it by clicking "OK". This warning message will be displayed anytime the stencil is opened or a drawing containing this stencil is opened.

Microsof	t Visio
	Macros in this document are disabled because the security level is high, and the macros have not been digitally signed or verified as safe. To run the macros, you can either have them signed or change your security level.
	OK

No other messages should be displayed as a result of using the custom stencil.

#### WP-Tech using Visio 2003

When the stencil is used within the Visio 2003 environment, 3 different windows will be displayed. Two will appear any time the stencil is opened or a drawing with the stencil saved within it is opened. One will appear any time the stencil is closed or a drawing containing the stencil is closed.

When the stencil is opened from within a drawing, the system will first display the following warning window. Simply respond to it by clicking "Enable Macros".

Security Warning			
"C:\Program Files\Invensys\WorkPlaceTech\Solutions\Application Objects.vss" contains macros.			
Macros may contain viruses. It is usually safe to disable macros, but if the macros are legitimate, you might lose some functionality.			
Disable Macros         More Info			



## **CUSTOM DUI OBJECT:**

Then, the following warning window will be displayed. Respond to it by clicking "Yes".

Microsof	t Office Visio
	This application is about to initialize ActiveX controls that might be unsafe. If you trust the source of this document, select Yes and the control will be initialized using your document settings. Show Help >>
	Yes No

After the second window disappears, the stencil will be opened and docked to the left side of the drawing. At this point, it can be used like any other stencil. The DUI\_App object can be placed on the drawing as many times as is required.

The last message will be displayed anytime the stencil is closed or a drawing containing the stencil is closed.



Always respond to it by clicking "No". To make the custom stencil compatible with both Visio 2002 and Visio 2003, it was created using WP-Tech with Visio 2002. This message detects that fact and prompts the user to save it since the system converted it for use in Visio 2003. By not saving the stencil in Visio 2003 format, it can remain compatible with both versions of Visio.

If the dual version compatibility of the custom stencil is not required, you can respond to the prompt by clicking "Yes" and assigning the stencil a new name. If "Yes" is selected, the following window will be displayed. Click "OK"

Microsof	t Office Visio 🛛 🔀
<u>.</u>	This file is read-only. To save a copy, click OK, then give the document a new name in the Save As dialog box.
	ОК



# CUSTOM DUI OBJECT:

Then the following window is displayed. Enter a new name such as "Application Objects 2003" and click "Save". This saves the updated copy into the correct directory using the new name.

Save As					
Save in:	Colutions	~	🚱 - 🔟   🔍 🗙 🔛 🎹 - Tools -		
	BACnet		WP4 Custom Object.vss	WP4	
	C MN 50		WP4 IO and Alarm Control 01.vss	WP4	
My Recent	C MN 100		WP4 IO and Alarm Control 02.vss	WP4	
Documents	C MN 110-130		📲 WP4 IO and Alarm Control 03.vss	WP4	
	C MN 150		📲 WP4 IO and Alarm Control 04.vss	WP4	
	mn 200		📲 WP4 IO and Alarm Control 05.vss	WP4	
Desktop	C MN 800		🖏 WP4 IO and Alarm Control 06.vss	WP4	
	C MN VAV		📲 WP4 IO and Alarm Control 07.vss	WP5	
	🛅 Other		📲 WP4 IO and Alarm Control 08.vss	WP5	
	Replication Objects 2003.vss		WP4 IO and Alarm Control 09.vss	WP5	
My Documents	Application Objects.vss		📲 WP4 IO and Alarm Control.vss	WP5	
MegaMaster.vss		er.vss	📲 WP4 Logic and Math Control 01.vss	Ser WP5	
	Stencil1.vss		📲 WP4 Logic and Math Control 02.vss		
<u></u>	WP4 Annotation.vss		📲 WP4 Logic and Math Control 03.vss		
My Computer	WP4 Custom Object 01.vss		📲 WP4 Logic and Math Control.vss		
	<			>	
My Network Places	File <u>n</u> ame:	Application Objects 2003 vss	× 🔒	Save 🔻	
	Save as <u>t</u> ype:	Stencil (*.vss)		Cancel	

Once this has been done, the new copy of the stencil can be used and you will no longer get the prompt to save when closing the stencil.