

BAC-A1616BAC BACnet Building Controller



Applications Guide

Contents

General Information	2
Important Notices	2
Introduction	2
Accessories	3
Trend Log Graphs	4
Viewing from the Object Page	4
Viewing from a Graphics Page	8
Creating Custom Tables	12
Navigating Graphics Pages Via Drop-Down Boxes	16
Introduction	16
Creating the Drop-Down Box	
Navigation Notes	
Index	19

General Information

Important Notices

The KMC logo and KMC Controls are registered trademarks of KMC Controls, Inc. Other products and name brands mentioned may be trademarks of their respective companies or organizations.

All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means without the written permission of KMC Controls, Inc.

The material in this document is for information purposes only. **The contents and the product it describes are subject to change without notice.** KMC Controls, Inc. makes no representations or warranties with respect to this document. In no event shall KMC Controls, Inc. be liable for any damages, direct or incidental, arising out of or related to the use of this document.

Introduction

This document gives information on accessories, configuration, and various applications.

For mounting, connection, configuration, operation, and troubleshooting information, see the BAC-A1616BAC Building Controller Installation and Operation Guide.

For specifications and other information, see the BAC-A1616BAC Building Controller Data Sheet.

The latest support files are always available on https://partners.kmccontrols.com/, the Partner site of the KMC Controls public web site (www.kmc-controls.com).

See also the Help system in TotalControl Design Studio.

Specifications, design, and operation are subject to change without notice.

Accessories

Enclosures

HCO-1035	Steel control panel enclosure, 20 W x 24 H x 6" D	
HCO-1036	Steel control panel enclosure, 24 W x 36 H x 6" D	f

Replacement Parts

HPO-0054	Replacement fuse bulb
HPO-0063	Replacement
	two-pin jumper

Output Override Boards

HPO-6701	Triac output override board
HPO-6702	0–10 VDC analog, with adjustable override pot., output override board
HPO-6703	NO relay output override board
HPO-6704	4–20 mA current loop output over- ride board
HPO-6705	NC relay output override board
HPO-6802	Raised cover, with labels, for output override boards

Repeater and Surge Suppression

HPO-0071	Eight-input tran- sient suppressor board	
HPO-0070	Twelve-output transient sup- pressor board	a 4
KMD-5567	EIA-485 network surge suppressor module	
KMD-5575	EIA-485 network repeater/isolator	

Expansion and Interfaces

CAN-A168EIO KMD-5569

KMD-5672

Transformers

XEE-6111-040

XEE-6112-040

module Modem (for dial-up pointto-point, approved for BAC-A1616BC use) EIA-232 to female DB-9 PC connector cable (for Serial 2 debug port)

I/O expansion







Transformer, 120-to-24 VAC, 40 VA, singlehub Transformer, 120-to-24 VAC,

120-to-24 VAG 40 VA, dualhub **XEE-6111-100** Transformer,

120-to-24 VAC, 96 VA, singlehub

Transformer, 120-to-24 VAC, 96 VA, dualhub



XEE-6112-100

Trend Log Graphs

Viewing from the Object Page

Starting with firmware version R2.0.0.5, a graphical view of a trend log buffer was added to the Trend Log object web page. Two icons allow selection of (new) graph or (existing) tabular views. Click the desired view.

The Graph page visualizes the current contents of the trend buffer and allows the user to zoom, scroll, and see sampled points, values, and dates. See the screen captures on the following pages.



Illustration 1



Illustration 2



Illustration 3

On the Graph page, click *Show Points* to display each sampled point. Hovering the mouse pointer over a sampled point will display a tool tip showing the actual value above the point and the sampled date/ time on the time line below.

To zoom **in**:

- Click on the + magnifer icon to zoom in slowly (two samples at a time).
- Click and hold the left mouse button and drag a box from left to right to select the desire zoom area. (But do not let the zoom box touch the right-hand edge of the graph.)

NOTE: The zoom function only magnifies the time base axis (X), not the value axis (Y).

Use the << or >> buttons to scroll left or right and the |< and >| buttons to jump to the beginning or end of the graph.

To zoom **out**:

- Click on the magnifer icon to zoom in slowly (two samples at a time).
- Click and hold the left mouse button and drag a box from the right to the left (opposite of zoom in) and the graph will zoom completely out (zoom all).



Illustration 4

Binary objects have "Active" and "Inactive" text fields associated with the two levels. This text is displayed on the value axis when a binary object is trended.

Similar to the binary objects, the MSV (Multi-State Value) objects have a "State" text field to represent

the various (up to 16) states of the object. The state text corresponding to each level is displayed on the value axis when an MSV object is trended.

For more information, see the Trend Logs section of the BAC-A1616BAC Building Controller Installation and Operation Guide.





Viewing from a Graphics Page

Starting with firmware version R2.0.0.11, trend log graphs can be viewed from a graphics page by simply clicking a navigation button. The graph opens in a pop-up window and may be resized if desired.

Illustration 6 shows a graphics page with two buttons linked to Trend objects. The Room Temp Graph navigation button is linked to Trend Log 2. Behind the graph (clip art) icon is an invisible navigation button linked to Trend Log 1. Clicking either navigation button pops up new windows corresponding to their respective links. Clicking the Room Temp Graph (Trend Log 2) is shown in Illustration 7. Clicking the (invisible button) graph icon (Trend Log 1) is shown in Illustration 8.

Multiple windows can be open at the same time. (See Illustrations 9.) Both graphs can be displayed together, resized, and moved for comparison. (See Illustration 10.)



Illustration 6



Illustration 7



Illustration 8



Illustration 9



Illustration 10

Illustration 11 shows the TotalControl graphics page setup for the navigation button that links to Trend Log 2.

- 1. In the Hyperlink section of the Properties tab, in the Destination drop-down box, select *UserURL*.
- In the URL field, enter "trend_graph.html?inst=" followed by the instance number of the desired trend object.
- NOTE: Optionally, enter a description for the pop-up graph that will be displayed just

above the graph. After the device instance number, enter "&desc=" and then the desired description.

The sample link shown below is:

"trend_graph.html?inst=2&desc=Room Temp"

For accessing the Building Controller remotely, prefix the IP address to the URL value, such as:

"http://192.168.1.254/trend_graph.html?inst=2& desc=Room Temp"



Illustration 11

Creating Custom Tables

Starting with firmware R2.0.0.5, an easy way to create custom tables was added—by calculating the input table's Y value from the new Input Source Values table.

NOTE: Default input types and tables already cover a great number of sensors. See *Input*

Device Configuration (Firmware R2.0.0.11 and Later Factory Defaults) on page 15.

Sample Input Table 10 below is for a 0–10 VDC temperature transmitter displaying a 55–90° temperature range.



Illustration 12 — Custom Table for 0–10 VDC Temperature Transmitter

To calculate a custom table, select the correct Input Jumper Position (as well as Volts vs. Ohms if applicable) and enter the ("In") input voltage/resistance along with the corresponding desired ("Out") AI present value.

NOTE: Adding as many input/output values that are known or are feasible to add will increase accuracy for non-linear devices. For the STE-6014/6017/6018/6019 temperature sensors with rotary dial (potentiometer) setpoints, the available (CSV) setpoint table gives a range 55–90°. In 2008, the printed numeric °F/C range on the case was replaced with warmer (sun) and cooler (snowflake) icons. This change allows for a custom setpoint range of nearly any value. In the example shown below, the (restricted) range is 68 to 74°. The appropriate lookup table (13) is chosen in the analog input, with a multiplier of 1 and offset of 0.



Illustration 13 — Custom Table and Configuration for Reduced (10K Pot) Setpoint Range

Sample Input Table 11 has been	Input Table 11	Save	Refresh		
configured for a 0–5 VDC humidity					
ransmitter (for 0–100%).	Object Name	Description			
	input_table11.lut	/config/tables/input_table11.lut			
	Input Source Values	"Look-Up-Table" Values Input Jur	mper position		
			10k Pull-up		
-	2 5 100	2 1.875			
	8	3 3.75	1k Pull-up		
		4 5.625	• 4-20 MA		
	1	5 7.5			
B		7 1125	0-12 VDC		
		8 13.125			
		9 15 Y Value			
		10 16.875 100			
A A	1	11 18.75			
		13 22.5			
		14 24.375			
		15 26.25			
THE-1002 Duct-Mounted		16 28.125			
Humidity Transmitter		17 '30 0	4 8 12 Volts		
(w/ Temp. Sensor)	Insert row Delete row	Import			
	Clear All		Last Refresh: 10:35:3		
ample Input Table 12 has been	Clear All Illustration 15 — Control Input #legitration 14	Tustom Table for 0–5 VDC Humidity Tu	Last Refresh: 10:35:3 ransmitter Refresh		
ample Input Table 12 has been onfigured for a 4–20 mA CO,	Clear All Illustration 15 — Co Input मीधराष्ट्रवायुंon 14	Sustom Table for 0–5 VDC Humidity Tu	Last Refresh: 10:35:3 ransmitter Refresh		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — Co Input #asseration 14 Object Name	Save	Last Refresh: 10:35:3 ransmitter Refresh		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — Co Input ###stration 14 Object Name input_table12.lut	Custom Table for 0–5 VDC Humidity Tri Save Description /config/tables/input_table12.lut	Last Refresh: 10:35: ransmitter Refresh		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input #lesteration 14 Object Name input_table12.lut	Save	Last Refresh: 10:35: ransmitter Refresh		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input Hustration 14 Object Name input_table 12.lut	Save	Last Refresh: 10:35:3 ransmitter Refresh		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input #Usstration 14 Object Name input_table 12.lut Imput Source Values	Save Description /config/tables/input_table12.lut "Look-Up-Table" Values Input Jur	Last Refresh: 10:35: ransmitter Refresh		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input Hussignation 14 Object Name input_table12.lut Imput Source Values Index In (MA) Out	Save Description /config/tables/input_table12.lut "Look-Up-Table" Values Input Jur Input Value	Last Refresh: 10:35:3 ransmitter Refresh		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input Hustration 14 Object Name input_table 12.lut Input Source Values Index In (MA) Out 1 4 0	Description /config/tables/input_table12.lut "Look-Up-Table" Values Index Y Value 1 0	Last Refresh: 10:35:3 ransmitter Refresh nper position 0 0 0 10k Pull-up		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input #letsteration 14 Object Name Input_table12.lut Input_Source Values Index In (MA) Out 1 4 0 2 20 2000	Description Save /config/tables/input_table12.lut Input Jut Index Y Value Input Jut 1 0 2 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Last Refresh: 10:35: ransmitter Refresh nper position a co a		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 – C Input Hetsleration 14 Object Name Input_table12.lut Imput Source Values Index In (MA) Out 1 4 0 2 20 2000 3	Custom Table for 0–5 VDC Humidity Trist Save Description /config/tables/input_table12.lut "Look-Up-Table" Values Input Jun 1 0 2 0 3 0 4 0	Last Refresh: 10:35: ransmitter Refresh nper position $\begin{pmatrix} \circ & \circ \\ \circ & \circ \end{pmatrix}$ 10k Pull-up $\begin{pmatrix} \circ & \circ \\ \circ & \circ \end{pmatrix}$ 1k Pull-up		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input Hustration 14 Object Name Input_table 12.lut Input_table 12.lut Input_source Values Index In (MA) Out 1 4 0 2 20 2000 2 0 000 2 000 2 0 0000 2 0 000 2 0 000 2 0 000 2 0 000 2	Save Description /config/tables/input_table12.lut "Look-Up-Table" Values Input Jun Index Y Value 0 2 0 3 0 4 0 5 0	Last Refresh: 10:35: ransmitter Refresh nper position a c 10k Pull-up b c 1k Pull-up c 4-20 MA		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input Husstration 14 Object Name input_table 12.lut Input Source Values Index In (MA) Out 1 4 0 2 20 2000 3	Save Description /config/tables/input_table12.lut "Look-Up-Table" Values Input Jur 1 0 2 0 3 0 4 0 5 0 6 0	Last Refresh: 10:35: ransmitter Refresh nper position a c 10k Pull-up c 1k Pull-up c 4-20 MA a 0 2 0 0 0 0 0		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input #lefstration 14 Object Name Input_table 12.lut Input_table 12.lut	Save Description /config/tables/input_table12.lut Input Jun Index Y Value Input Jun 1 0 0 0 2 0 0 0 0 0 3 0	Last Refresh: 10:35: ransmitter Refresh nper position Control 10k Pull-up Control 1k Pull-up		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input Hustration 14 Object Name Input_table 12.lut Input Source Values Index In (MA) Out 1 4 0 2 20 2000 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tustom Table for 0–5 VDC Humidity Trisser Save Description /config/tables/input_table12.lut Input Jun Index Y Value 1 0 2 0 3 0 4 0 5 0 6 0 7 0 8 0 9 0	Last Refresh: 10:35: ransmitter Refresh nper position Control 10k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input Hetsteration 14 Object Name input_table12.lut Imput Source Values Index In (MA) Out 1 4 0 2 20 2000 2 0 1 4 0 2 2 0 2000 2 0 1 4 0 2 2 0 2000 2 0 1 4 0 2 2 0 2000 1 4 0 1 4 0 2 2 0 2000 1 4 0 1 4 0 1 4 0 2 0 2000 1 4 0 1	Tustom Table for 0–5 VDC Humidity Trisse Save Description /config/tables/input_table12.lut "Look-Up-Table" Values Input Jun 1 0 2 0 3 0 4 0 5 0 6 0 7 0 8 0 9 0 10 0	Last Refresh: 10:35:3 ransmitter Refresh nper position $\circ \circ$ 10k Pull-up $\circ \circ$ 1k Pull-up $\circ \circ$ 4-20 MA $\circ \circ$ 0-12 VDC		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input #letsteration 14 Object Name Input_table12.lut Input_table12	Custom Table for 0–5 VDC Humidity Trisse Save Description /config/tables/input_table12.lut Input Jun Index Y Value 1 0 2 0 3 0 4 0 5 0 6 0 7 0 8 0 9 0 10 0 11 0	Last Refresh: 10:35: ransmitter Refresh nper position Control 10k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input Hetsleration 14 Object Name Input_table12.lut Input_table12.	Custom Table for 0–5 VDC Humidity Trist Save Description /config/tables/input_table12.lut Input Jun Index Y Value Input Jun 1 0 0 0 0 2 0	Last Refresh: 10:35: ransmitter Refresh nper position a c 10k Pull-up c 1k Pull-up c 4-20 MA a c 0-12 VDC		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ransmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input #letsteration 14 Object Name Input_table12.lut Input_table12	Custom Table for 0–5 VDC Humidity The Save Description Input table 12.lut Input Jun Input Jun <th <="" colspan="2" td=""><td>Last Refresh: 10:35: ransmitter Refresh mper position Control 10k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up</td></th>	<td>Last Refresh: 10:35: ransmitter Refresh mper position Control 10k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up</td>		Last Refresh: 10:35: ransmitter Refresh mper position Control 10k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up Control 1k Pull-up
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ansmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input #lefstration 14 Object Name input_table 12.lut Input_table 12.lut	Tustom Table for 0–5 VDC Humidity Tr Save Description Iconfig/tables/input_table 12.lut Input Jun Index Y Value Input Jun 1 0 0 0 2 0 0 0 0 3 0	Last Refresh: 10:35: ransmitter Refresh nper position Control 10k Pull-up Control 10k Pull-up Control 10k Pull-up Control 10k Pull-up Control 10k Pull-up Control 10k Pull-up Control 10k Pull-up		
ample Input Table 12 has been onfigured for a 4–20 mA CO ₂ ransmitter (for 0–2000 ppm).	Clear All Illustration 15 — C Input Hussignation 14 Object Name input_table 12.lut Heput Source Values Index In (MA) Out 1 4 0 2 20 2000 3 4 4 5 1 4 5 2 20 2000 3 4 4 5 1 4 5 2 20 2000 3 4 4 5 1 4 5 1 5	Save Description /config/tables/input_table12.lut Input Jun index Y Value 1 0 2 0 3 0 4 0 5 0 6 0 7 0 8 0 9 0 11 0 12 0 13 0 14 0 15 0 16 0	Last Refresh: 10:35:3 ransmitter Refresh nper position $\stackrel{\circ}{}_{\circ}$ 10k Pull-up $\stackrel{\circ}{}_{\circ}$ 1k Pull-up $\stackrel{\circ}{}_{\circ}$ 4-20 MA $\stackrel{\circ}{}_{\circ}$ 0-12 VDC		
	Clear All Illustration 15 — C Input Hustration 14 Object Name Input_table 12.lut Input_table 12.lut In	Tustom Table for 0–5 VDC Humidity Trisse Save Description /config/tables/input_table12.lut Input Jun index Y Value 1 0 2 0 3 0 4 0 5 0 6 0 7 0 8 0 9 0 11 0 12 0 13 0 14 0 15 0 16 0 17 0	Last Refresh: 10:35:3 ransmitter Refresh nper position Control 10k Pull-up Control 10k Pull-up		
Sample Input Table 12 has been configured for a 4–20 mA CO ₂ ransmitter (for 0–2000 ppm).	Clear All Illustration 15 – C Input Heistration 14 Object Name Input_table 12.lut Input_table 12.lut I	Tustom Table for 0–5 VDC Humidity Trisse Save Description /config/tables/input_table12.lut "Look-Up-Table" Values Input Jun 1 0 2 0 3 0 4 0 5 0 6 0 7 0 8 0 9 0 11 0 12 0 13 0 14 0 15 0 16 0 17 0	Last Refresh: 10 ransmitter Refresh		

Illustration 16 — Custom Table for 4–20 mA CO₂ Transmitter

Clear All

Last Refresh: 10:53:44

Sample Input Table 14 has been Input Table 14 Refresh Save configured for a 1K RTD (Resistance Object Name Temperature Detector) using the Description input_table14.lut /config/tables/input_table14.lut (room temperature range only) values from the manufacturer's chart. Input Source Values "Look-Up-Table" Values Input Jumper position Index In (ohms) Out Index Y Value . 10k Pull-up 1016.922 40 40 1 Ovolts ⊙ohms 2 1038.042 40 2 50 1k Pull-up 40 3 1059,124 60 4 40 1080.169 70 4 4-20 MA 5 5 1101.177 40 80 6 40 6 1122.148 90 0-12 VDC 7 40 8 40 Y Value 9 40 10 40 90 11 40 1K RTD 12 40 73 13 40 14 40 57 15 40 NOTE: Default input types 16 40 40 1124 1032 1078 1169 and tables already Ohms Insert row Delete row cover a great number Import of sensors. Tables Clear All for RTDs and thermistors are also available as CSV 14:07:4 Last Refresh: downloads from the KMC Partners

Illustration 17 — Custom Table for 1K RTD

Input Device Configuration (Firmware R2.0.0.11 and Later Factory Defaults)						
Device Type	Temp. Scale Multiplier		Offset	Input Table		
Type II Thermistor	С	1	0	2		
(10K ohms)	F	1.8	32	2		
Type III Thermistor	С	1	0	2		
(10K ohms)	F	1.8	32	5		
STE-6012/6016 Temperature	С	1	0	4		
(0-12 VDC)	F	1.8	32	4		
STE-6012/6016 Setpoint	С	1	0	F		
(0-12 VDC)	F	1.8	32	5		
STE-6014/6017/6018/6019/6020	C	1	0	G		
Rotary Setpoint (10K ohms)	F	1.8	32	0		
Precon 78 RTD	С	1	0	7		
(1K ohms Platinum 378)	F	1.8	32	/		
Precon 85 RTD	С	1	0	0		
(1K ohms Platinum 385)	F	1.8	32	0		
Precon 91 RTD	С	1	0	0		
(1K ohms Platinum 391)	F	1.8	32	9		

Illustration 18 — Default Input Device Configuration

inputs.

web site (partners. kmccontrols. com). For more information, especially for how to import CSV files using the Import button, see the Tables section of the **BAC-A1616BAC Building Controller** Installation and **Operation Guide.**

See also the

Connecting Inputs section of that document for more information about jumper settings, voltages, and other information about different kinds of

Navigating Graphics Pages Via Drop-Down Boxes

Introduction

Starting with firmware R2.0.0.5, graphics pages can be navigated with a drop-down box. Prior firmware versions allowed navigation of linked pages only through the "Navigation" button element. The drop-down box method allows navigation via user interaction, Control Basic programs, and/or a BACnet write operation from another controller. Navigation is still also available through the *Graphics* button tree list of available pages.

NOTE: This feature is available on BAC-A1616BAC web pages, but it is not available in TotalControl web server pages even though TotalControl Design Studio is used to construct the pages for the BAC-A1616BAC.

- 1 	B-BC Site: Building Controller - 102 148 1 254	NM: Demo Board (2)	NM: Demo Board (2)	NM: Demo Board (2)	GD: text test		
	Durding Concroller - 192,100,1,254	[0] pwc_1 [m540] m54_00	folowc_r[woxro]wov_ro	folowc_r[wow1]wow_or	L		
	<u>^</u>		A second state and second second				
ling Linit		0023221	A A B RR R B				
	Microsoft Sans Serif + 10 + A	• 🕨 • 🖪 / 🛄 📰 署	= = = = • - ·		🖩 • 🛄 • 🛄 •	•••	
nto						Properties	
Unit	1					DropDownBox1 (DropDownBox)	
n Besources			last fort			81. A 100	
me			iextiest and f				
		<unknown></unknown>	œ	<unknown></unknown>		Address	PACant
19Wei	Concrown>					Comm Service	2
1411		(uningum)	0	<unknown></unknown>		Binding Info	-
cave_vav	() <unknown></unknown>					E Appearance	
pervec_2			al	cupinowna N		Text Alignment	Center
rifigal_Fan	() <unknown></unknown>	<unknown></unknown>	w[Bold	False
er System	· · · · ·		-			Fill Lotor	White
test		<unknown></unknown>	œ	<unknown></unknown>		Opacity	
ace	 unknown> 					Text Color	Black
three		cunknown?	•	<unknown></unknown>		Display Value String	(Collection)
	(i) <unknown></unknown>	- GIROOWIP				🗆 Data	
			a	<upknown></upknown>		Tooltip	BAC_1.MSV_01
V		<unknown></unknown>	w[Default Priority	
	v			1.00		Priority	Priority 8
		<unknown></unknown>	Ø	<unknown></unknown>		Hyperlink Position	Left
	 <unicnown></unicnown> <unicnown></unicnown> <unicnown></unicnown> <unicnown></unicnown> <unicnown></unicnown> <unicnown></unicnown> <unicnown></unicnown> <unicnown></unicnown> <unicnown></unicnown> <unicnown></unicnown> <unicnown> <un< td=""><td></td><td></td><td></td><td></td><td>Out Of Service</td><td>False</td></un<></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown></unicnown>					Out Of Service	False
24		distances -		Rinding to		Relinquish	True
4] BV_04	Sunknown>					Is wirable	True
5] BV_05				MSV 01	ustomDataDis	playData Collection Editor	2 🛛
6] BV_06							
7] BV_07	Dura Davis D	D			Members:	pageo	ine properties:
8] BV_08	Drop-Down Bo		n> a		1 Concentre	▲ 12110	
3] DV_03					2 pagethree		t Must Match
					3 four		t Must Match
V21MSV_02			with the		4 five		mes (Evactly)
V3LMSV_03			·····			/ Tage Na	ines (Lracuy)
V41MSV 04			Collection N	lames			
V51 MSV 05	White Deep		concentor		-		
V61 MSV 06	whole Page						
V7] MSV_07	Ready						
V8] MSV_08	Output Window						
V9] MSV_09	🐼 Errors 🥂 Warnings 🕘 Messages						
V10] MSV_10	La Time Descr	ntion		Compo	_		
V256] MSV_256		pion shashadir Daar #E1. Nast testifis	- P-112	Compe	Add	Remove	
	35 6/6/2012 4:34:15 PM admin	checked in Fage #51 · text_test inc	m rishaulo.	SREES			
	40 8/8/2012 4:35:4/ PM admin	cnecked out Mage #51 - text_test" t	o risnaulis.	Site Ex			UK Cancel
	41 8/8/2012 4:42:50 PM admin	checked in Page #51 · 'text_test' fro	im Rishaull3.	Site Ex			

Illustration 19 — Custom Table for 0–10 VDC Temperature Transmitter

A drop-down list element is bound to an MSV (Multi-State Value) object in the BAC-A1616BAC. The collection list within the drop-down element is set to the name of the desired page(s). When the MSV index matches the index corresponding to the page in the collection list, the graphics engine navigates to that selected page. To navigate via the drop-down (MSV) channel, set up a graphics page with the proper binding and collection list. See *Creating* the Drop-Down Box on page 18.



📧 TotalControl Design Studio - Developer Key	y Registered to Jep Hall @ KMC	Controls (Licensed for Internal KMC Controls Use Only)		
File Edit View Tools Help				
🔯 • 🗟 • 🗑 🥔 🕘 🛞 🛞 🔉 🖻 🖻				
Site Explorer 🗸 🕂 🗙	B-BC Site:	Yam 1		
🗅 🥩 🕾 🗟 🔀	Building Controller - 192.168	I.1.254 GD: BACcave		¥ X
🖻 🚮 Conference	🕒 🥩 🛃 🗙			Optimize 🗖 Clean Cancel
The_single_MSV A H Handing Unit denoil deno	Badarg Controlem Statu AWV Pospetvo Pospetvo Stat BACcore Stat BACcore Chief system del.ett Fanace Pospetve tex_lett	~pagetwo in TotalControl Design Studio		
	Publishing finished - Approximately 8.	70 MB (9,126,676 bytes) available		
	Output Window			* 4 X
	Warnings Wes	sages		
	A Time	Description	Component	A
	10 8/9/2012 11:29:32 AM	admin checked in Page #51 · test_test' from Rishauli3.	Site Explorer	
	11 8/9/2012 2:15:37 PM	admin checked out Page #51 - text_test' to Rishauli3.	Site Explorer	
	12 8/9/2012 2:18:19 PM	admin checked in Page #51 · text_test' from Rishaull3.	Site Explorer	
	13 8/9/2012 2:53:55 PM	admin checked out Page #5 · 'BACcave' to Rishaull3.	Site Explorer	
Ready	31			Rect: (464 unit, 252 unit, 528 unit, 284 unit) Size: (64 unit x 32 unit)

Illustration 20 — Custom Table for 0–10 VDC Temperature Transmitter

Creating the Drop-Down Box

To create a drop-down navigation box in Total Control:

- 1. Configure an unused MSV object with the desired page file names for each state. (Right-click in the State Text box and select *Add String* and/ or *Edit String*.) The order must be the desired order in the drop-down box. (The order can be changed by right-clicking and selecting *Move Up* or *Move Down*.)
- 2. Add the drop-down box (from the Graphics Library) on the first page and drag the MSV object icon in the Network Manager onto the box.
- 3. Copy the box to other pages as desired.

For more information, see the Help files in Total Control.

Navigation Notes

Page Naming Convention

For the navigation to work, the collection list **name** must **match** the desired navigation page name **exactly**. If the names are not an exact match, the page jump will not occur.

Every page on the site also must have a **unique name** (even if they are in different folders). The navigation box finds the page in whatever folder it is. (The illustrations in this section, for example, incorrectly have a duplicate "pagethree" in different folders.)

"Invisible" Pages

If the designer wants the user to **not** see the jump page in the *Graphics* button tree list, a tilde (~) can be placed in the front of the page's file name (~pagetwo in the example shown):

- The page now named with the ~ will no longer show up in the *Graphics* button tree list at the top of the web page. The ~ before the page name hides the name in the *Graphics* button tree.
- The page named with the ~, however, can still be accessed via the drop-down list as long as the ~ is before the name in both the MSV state list and the page file name.

Unexpected Navigation

If any navigation page with the drop-down button is selected from the *Graphics* button tree list at the top of the screen, the drop-down box on that page will **automatically reload** the page that corresponds to the present value of the MSV (probably whatever was last selected from the drop-down box unless relinquished or overwritten by Control Basic). Depending on the MSV present value, the end result might be the desired page or an unexpected page. If drop-down boxes are used for navigation, they should be used as exclusively as possible for best results.

Index

Symbols

0-5 VDC: **14** 0-10 VDC: **12** 4-20 mA: **14**

A

Accessories: 3

С

Configuration, input: *15* Custom tables: *12*

D

Device configuration: *15* Drop-down box: *16*

E

Enclosure: **3** Expansion: **3**

G

Graphics page: 8, 16 Graph, trend: 4

I

Important notices: 2 Input device configuration: 15 Interfaces: 3

Μ

MSV (Multi-State Value): 17

Ν

Navigation: 8, 16

0

Object page: 4 Offset: 15 Output override boards: 3

Р

Parts, replacement: 3

R

Reference documents: 2 Repeater: 3 Replacement parts: 3 RTD table: 15

S

Setpoint range: 13 STE-6014/6017/6018/6019 temperature sensors: 13 Support files: 2 Surge suppression: 3

T

Tables Custom: **12** Default input: **15** Transformers: **3** Trend log: **4**

W

Web site: 2

KMC Controls 19476 Industrial Drive New Paris, IN 46553 574.831.5250; Fax 574.831.5252 www.kmccontrols.com info@kmccontrols.com