

Programmable Terminal NA-series

# Practices Guide

## Page Editing – Tab Control

NA5-15□101□

NA5-12□101□

NA5-9□001□

NA5-7□001□



Practices  
Guide

## ■ Introduction

This guide provides reference information on editing pages of the NA. It does not provide safety information.

Be sure to obtain the NA-series Programmable Terminal User's Manuals, read and understand the safety points and other information required for use, and test sufficiently before actually using the equipment.

- (1) All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means, mechanical, electronic, photocopying, recording, or otherwise, without the prior written permission of OMRON.
- (2) No patent liability is assumed with respect to the use of the information contained herein. Moreover, because OMRON is constantly striving to improve its high-quality products, the information contained in this manual is subject to change without notice. Every precaution has been taken in the preparation of this manual. Nevertheless, OMRON assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained in this publication.
- (3) Trademarks
  - Sysmac and SYSMAC are trademarks or registered trademarks of OMRON Corporation in Japan and other countries for OMRON factory automation products.
  - Windows, Visual Basic, and Excel are either registered trademarks or trademarks of Microsoft Corporation in the United States, Japan, and other countries.
  - Other company names and product names in this document are the trademarks or registered trademarks of their respective companies.
  - Microsoft product screen shots reprinted with permission from Microsoft Corporation.
  - The product pictures and drawings contained in this document are the graphical images, which may be different from the actual articles.

# Terms and Conditions Agreement

## Warranty, Limitations of Liability

### Warranties

#### Exclusive Warranty

Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied.

#### Limitations

OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Omron further disclaims all warranties and responsibility of any type for claims or expenses based on infringement by the Products or otherwise of any intellectual property right.

#### Buyer Remedy

Omron's sole obligation hereunder shall be, at Omron's election, to (i) replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product, (ii) repair the non-complying Product, or (iii) repay or credit Buyer an amount equal to the purchase price of the non-complying Product; provided that in no event shall Omron be responsible for warranty, repair, indemnity or any other claims or expenses regarding the Products unless Omron's analysis confirms that the Products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be approved in writing by Omron before shipment. Omron Companies shall not be liable for the suitability or unsuitability or the results from the use of Products in combination with any electrical or electronic components, circuits, system assemblies or any other materials or substances or environments. Any advice, recommendations or information given orally or in writing, are not to be construed as an amendment or addition to the above warranty.

See <http://www.omron.com/global/> or contact your Omron representative for published information.

### Limitation on Liability; Etc

OMRON COMPANIES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.

### Application Considerations

#### Suitability of Use

---

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

#### Programmable Products

---

Omron Companies shall not be responsible for the user's programming of a programmable Product, or any consequence thereof.

### Disclaimers

#### Performance Data

---

Data presented in Omron Company websites, catalogs and other materials is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Omron's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Omron's Warranty and Limitations of Liability.

#### Change in Specifications

---

Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Omron's representative at any time to confirm actual specifications of purchased Product.

#### Errors and Omissions

---

Information presented by Omron Companies has been checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.

## Contents

<b>Terms and Conditions Agreement .....</b>	<b>3</b>
Warranty, Limitations of Liability .....	3
Application Considerations .....	4
Disclaimers .....	4
<b>Related Manuals .....</b>	<b>6</b>
<b>1 Tab Control.....</b>	<b>7</b>
1-1 Tab Control Basic Settings.....	7
<b>Revision History .....</b>	<b>13</b>

# Related Manuals

The following manuals are related to this manual.

Cat.No.	Model	Manual Name
W504	SYSMAC-SE2□□□	Sysmac Studio Version 1 Operation Manual
V117	NA5-15W□□□□ NA5-12W□□□□ NA5-9W□□□□ NA5-7W□□□□	NA-series Programmable Terminal Hardware User's Manual
V118	NA5-15W□□□□ NA5-12W□□□□ NA5-9W□□□□ NA5-7W□□□□	NA-series Programmable Terminal Software User's Manual
V119	NA5-15W□□□□ NA5-12W□□□□ NA5-9W□□□□ NA5-7W□□□□	NA-series Programmable Terminal Device Connection User's Manual
V120	NA5-15W□□□□ NA5-12W□□□□ NA5-9W□□□□ NA5-7W□□□□	NA-series Programmable Terminal Startup Guide

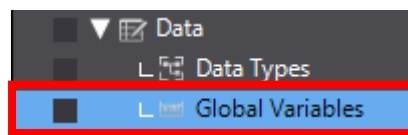
# 1 Tab Control

## 1-1 Tab Control Basic Settings

You can create a smaller tab page inside the main screen, and switch the tab pages with the tabs. This function is equivalent to the frames defined in the NS series.

### 1-1-1 Setting the Properties of a Tab Control Object

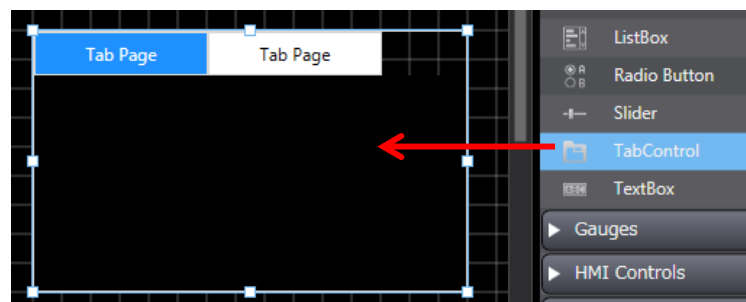
1. Register a variable to be used for tab control. Double-click in the Multiview Explorer [HMI]-[Data]-[Global Variables].



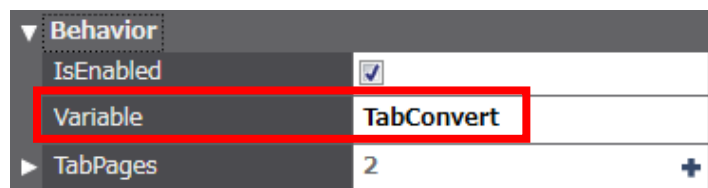
2. Register an arbitrary variable. Set the data type to a numeric one such as Short or Integer.

Name	Data Type	Initial Value	AT	Retain	Constant	Update Rate	Scaling
TabConvert	Integer			<input type="checkbox"/>	<input type="checkbox"/>	None	None

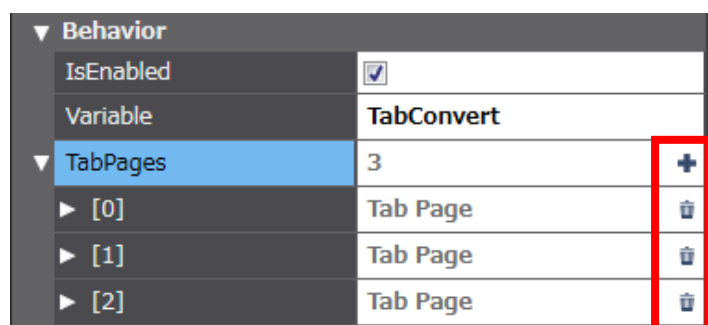
3. Place a Tab Control object on the screen. From [Toolbox], select [Standard Controls]-[TabControl], and drag and drop it to the page.



4. Specify the variable to be used for controlling tab pages. In [Variable] under [Behavior] in the [Properties] tab for the Tab Control object created in Step 3, set the variable registered in Step 2.



5. To increase the number of the tab pages, select the [+] button of [TabPage]. To decrease the number, select the [-] button.



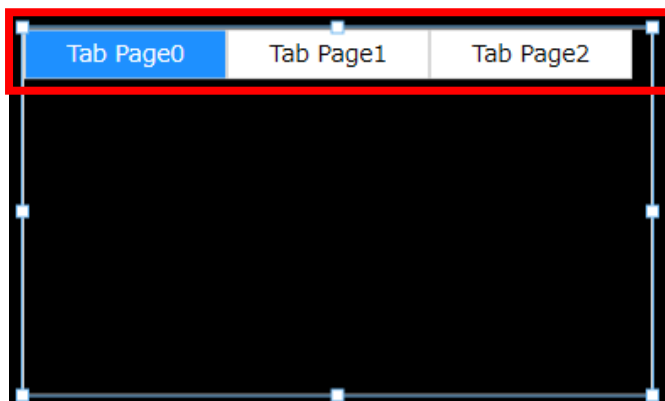
6. Clicking the arrowhead to the left of [TabPage] expands the menu in which you can specify the tab name or background color for each tab page.

▼ Behavior	
IsEnabled	<input checked="" type="checkbox"/>
Variable	TabConvert
▼ TabPages	3 +
▼ [0]	Tab Page ▢
Name	TabPage0
Type	TabPage
▼ Text (Default)	Tab Page
Resource ID	String0
TabWidth	120
BackgroundColor	Black ▾
AccessLevel	None ▾
VisibilityLevel	None ▾
▶ [1]	Tab Page ▢
▶ [2]	Tab Page ▢



7. You can edit the cell of [Text(Default)] to change the text shown on the tab. In this guide change the tabs starting with Page0 to "Tab Page0", "Tab Page1", and "Tab Page2" in this order.

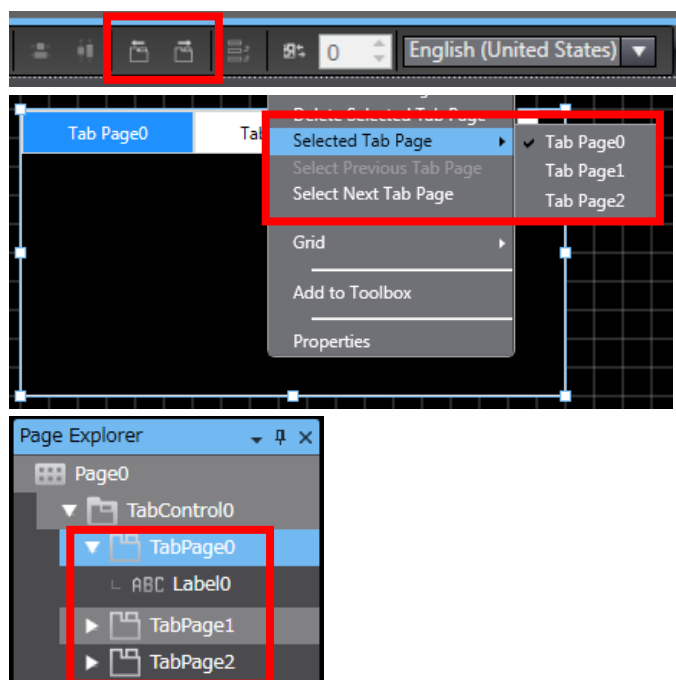
▼ Behavior	
IsEnabled	<input checked="" type="checkbox"/>
Variable	TabConvert
▼ TabPages	3 +
▶ [0]	Tab Page0 ▢
▶ [1]	Tab Page1 ▢
▼ [2]	Tab Page2 ▢
Name	TabPage2
Type	TabPage
▶ Text (Default)	Tab Page2
TabWidth	120

8. The contents of editing performed in Steps 4 to 7 are now reflected to the Tab Control object.

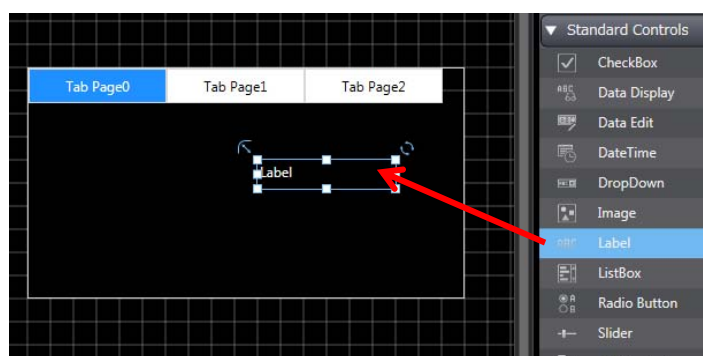




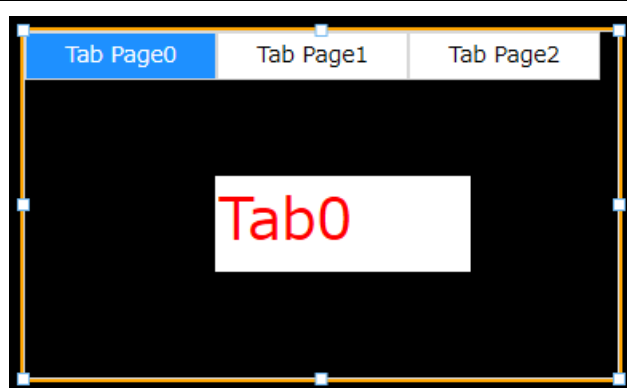
9. There are three ways to switch the tab pages within the tool, as described below.
- (1) While keeping the Tab Control object selected, click the  or  buttons on the toolbar.
  - (2) While keeping the Tab Control object selected, right-click on it and select "Selected Tab Page" to select an arbitrary tab page. Otherwise, select "Select Previous Tab Page" or "Select Next Tab Page" from the context menu.
  - (3) Select [View]-[Page Explorer] to display the Page Explorer, and select an arbitrary tab page or an object placed on the tab page.



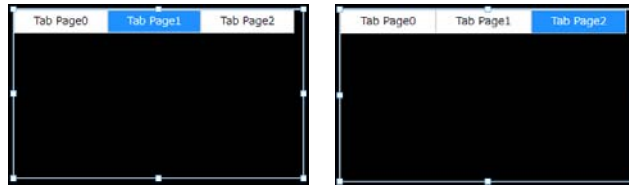
10. Place an object in the Tab Control object. Switch the tab to "TabPage0" following the procedure described in Step 9. From [Toolbox], select [Standard Controls]-[Label] and drag and drop it to the tab page of the Tab Control object. Specify arbitrarily the font type, size, and other parameters. Besides dragging and dropping from [Toolbox], you can place an object that already exists on the page to the Tab Control object.



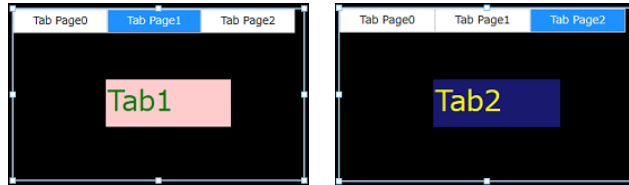
11. The object is now placed on the "TabPage0".



12. Use the procedure of Step 9 to check “Tab Page1” and “Tab Page2”. You will find that no object is laid out on either tab page.



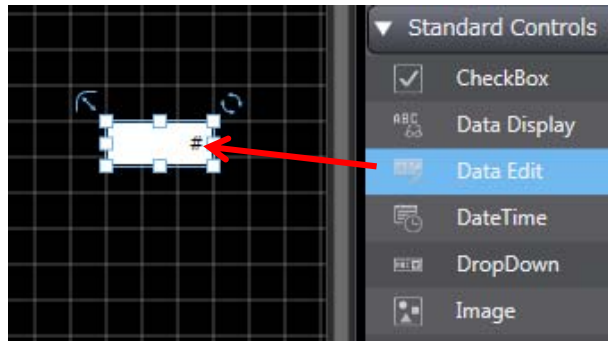
13. Place also an object on “Tab Page1” and “Tab Page2”. Switch to the respective tab pages and lay out an object following the procedure of Step 10.



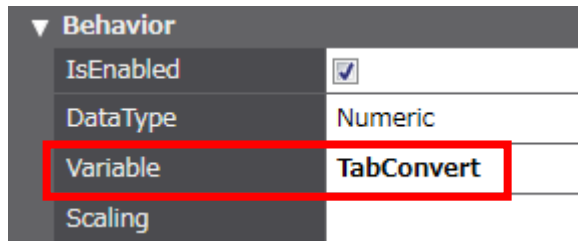
## 1-1-2 Checking Operations of the Tab Control Object

Check the operations of the Tab Control object created in the previous subsection.

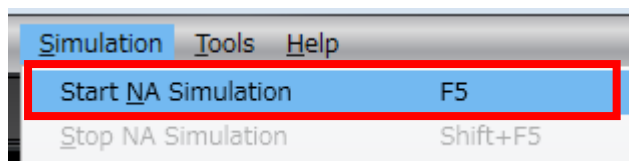
1. Create a Data Edit object for checking the operations. From [Toolbox], select [Standard Controls]-[Data Edit] and drag and drop it to the page. Specify arbitrarily the font type and size.



2. In [Variable] in the [Properties] tab for the Data Edit object created in Step 1, set the variable registered in Step 2 of Subsection 1-1-1 “Setting the Properties of a Tab Control Object”.



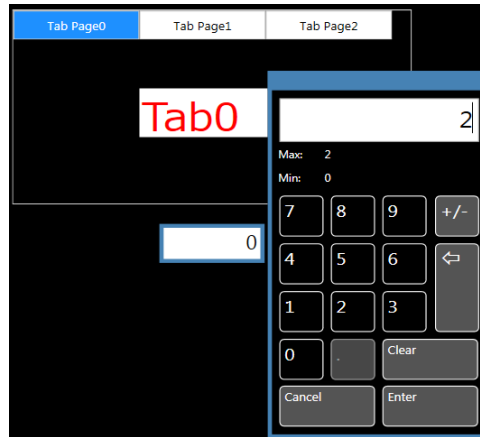
3. Use the simulation function to check the operations. From the menu bar, select [Simulation]-[Start NA Simulation].



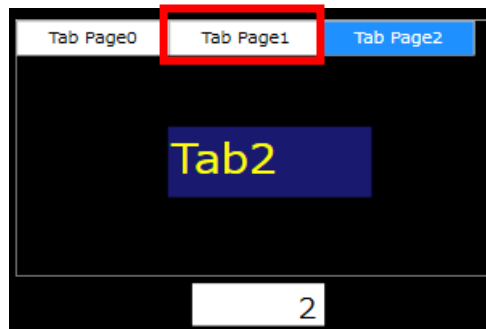
4. On the actual unit, there are two ways to switch the tabs as described below.  
 (1) Change the value of the variable assigned to the Tab Control object.  
 (2) Touch the tab.



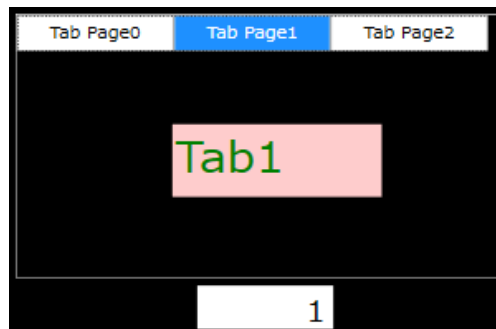
5. Check the operation of switching the tab by changing the value of the variable assigned to the Tab Control object. Touch the Data Edit object created in Steps 1 and 2 and enter "2".



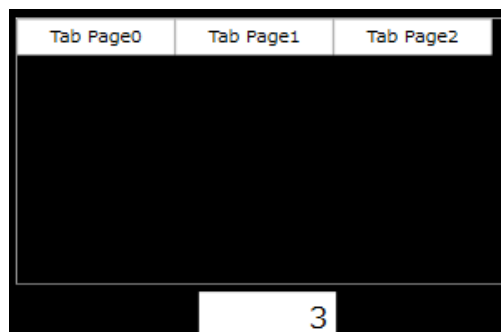
6. As the value of the variable is changed, the tab is now switched to "Tab Page2". Next, check the operation of switching the tab by touching it. Touch "Tab Page1".



7. As the tab is switched to "Tab Page1", the value of the variable is also changed.

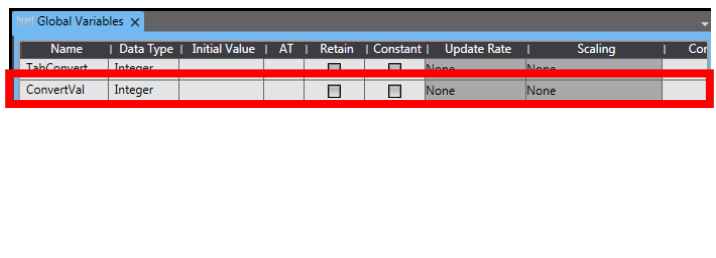
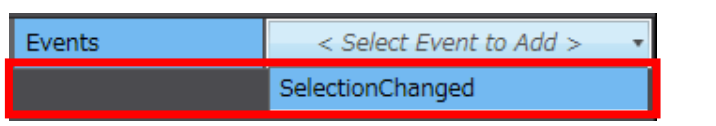
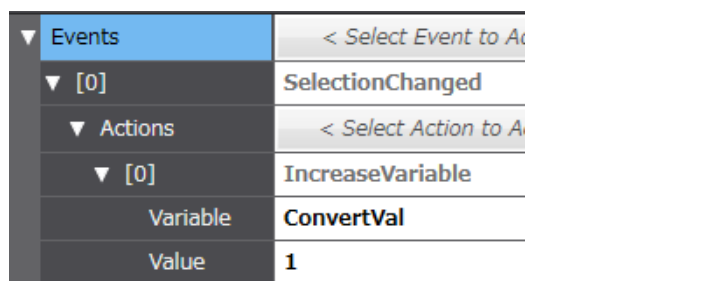
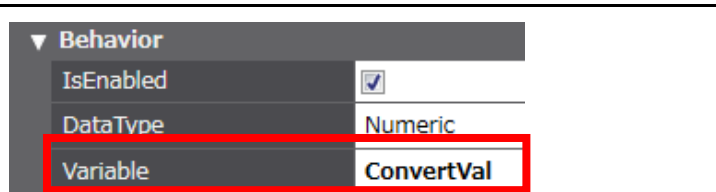
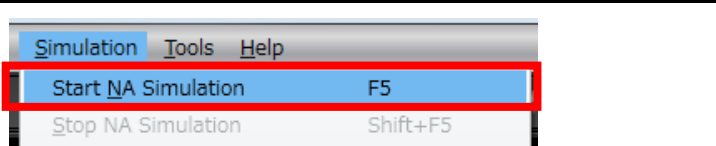
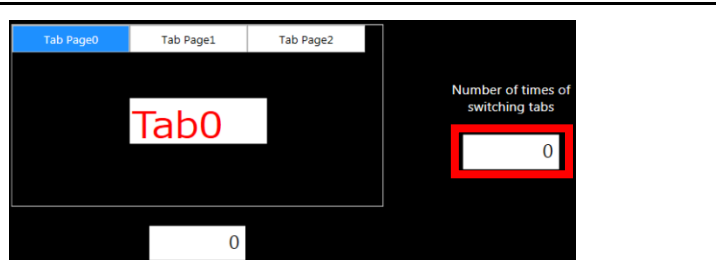
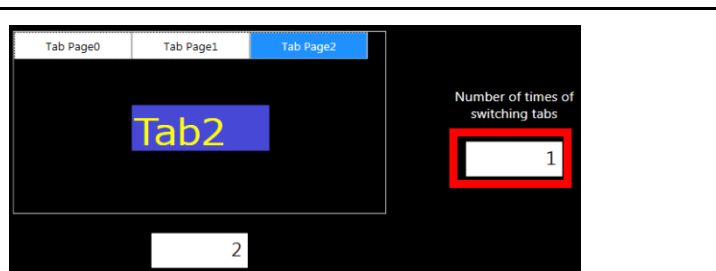


8. When you switch the tabs using the variable, if you enter a value outside the specified range, no tab page will be displayed. Make sure to specify the upper and lower limits for the Data Edit object to avoid entry of any value outside the range.



### 1-1-3 Events and Actions for Tab Control Objects

For Tab Control Objects, you can select the event of “SelectionChanged” that allows you to set various actions which are taken upon switching the tabs. Following is the example of use of “SelectionChanged”.

<p>1. In this example, you are to use “SelectionChanged” to create an action of recording the number of times of switching tab pages by incrementing the value of a variable upon switching the tab pages. Register an Integer-type variable in [Global Variables].</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Data Type</th> <th>Initial Value</th> <th>AT</th> <th>Retain</th> <th>Constant</th> <th>Update Rate</th> <th>Scaling</th> <th>Cor</th> </tr> </thead> <tbody> <tr> <td>ConvertVal</td> <td>Integer</td> <td></td> <td></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>None</td> <td>None</td> <td></td> </tr> </tbody> </table>	Name	Data Type	Initial Value	AT	Retain	Constant	Update Rate	Scaling	Cor	ConvertVal	Integer			<input type="checkbox"/>	<input type="checkbox"/>	None	None	
Name	Data Type	Initial Value	AT	Retain	Constant	Update Rate	Scaling	Cor											
ConvertVal	Integer			<input type="checkbox"/>	<input type="checkbox"/>	None	None												
<p>2. Set “SelectionChanged” as [Events] of the [Events and Actions] tab for the Tab Control object.</p>																			
<p>3. To increment the value of the variable upon activation of the event, perform the following settings. [Actions]: “IncreaseVariable” [Variable]: Variable added in Step 1 [Value]: “1”</p>																			
<p>4. Create an object for checking the operations. Place a Data Edit object on the page and enter in [Variable] the variable specified in Step 3.</p>																			
<p>5. Use the simulation function to check the operations. From the menu bar, select [Simulation]-[Start NA Simulation].</p>																			
<p>6. Immediately after the startup of the simulator, the Data Edit object created in Step 4 indicates “0”. Touch “Tab Page2” to switch the tab.</p>																			
<p>7. As the tab is switched, “1” is added to the number of times of switching tabs.</p>																			

# Revision History

---

Revision code	Date	Revised content
01	December 2015	Original production

Note: Do not use this document to operate the Unit.

**OMRON Corporation Industrial Automation Company**

Tokyo, JAPAN

Contact: [www.ia.omron.com](http://www.ia.omron.com)

**Regional Headquarters**

**OMRON EUROPE B.V.**

Wegalaan 67-69, 2132 JD Hoofddorp  
The Netherlands  
Tel: (31)2356-81-300/Fax: (31)2356-81-388

**OMRON ELECTRONICS LLC**

2895 Greenspoint Parkway, Suite 200  
Hoffman Estates, IL 60169 U.S.A  
Tel: (1) 847-843-7900/Fax: (1) 847-843-7787

**OMRON ASIA PACIFIC PTE. LTD.**

No. 438A Alexandra Road # 05-05/08 (Lobby 2),  
Alexandra Technopark,  
Singapore 119967  
Tel: (65) 6835-3011/Fax: (65) 6835-2711

**OMRON (CHINA) CO., LTD.**

Room 2211, Bank of China Tower,  
200 Yin Cheng Zhong Road,  
PuDong New Area, Shanghai, 200120, China  
Tel: (86) 21-5037-2222/Fax: (86) 21-5037-2200

Authorized Distributor:

© OMRON Corporation 2015 All Rights Reserved.  
In the interest of product improvement,  
specifications are subject to change without notice.

Cat. No. V425-E1-01

1215 (1215)