



VEBKO ONLINE HELP

Writing “XRIO Converter” for an Overcurrent Relay

Category	tester
Section	Modules Toolbar and Statusbar
Language	English
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To write an "XRIO Converter" file in the "Test Object" page, first, you need to add a block. To begin, right-click on "Custom" block and select "Add Block". Also, you can use "Ctrl+B" Combined key to add a block. Likewise, another block is added to the subset of "Custom" block.

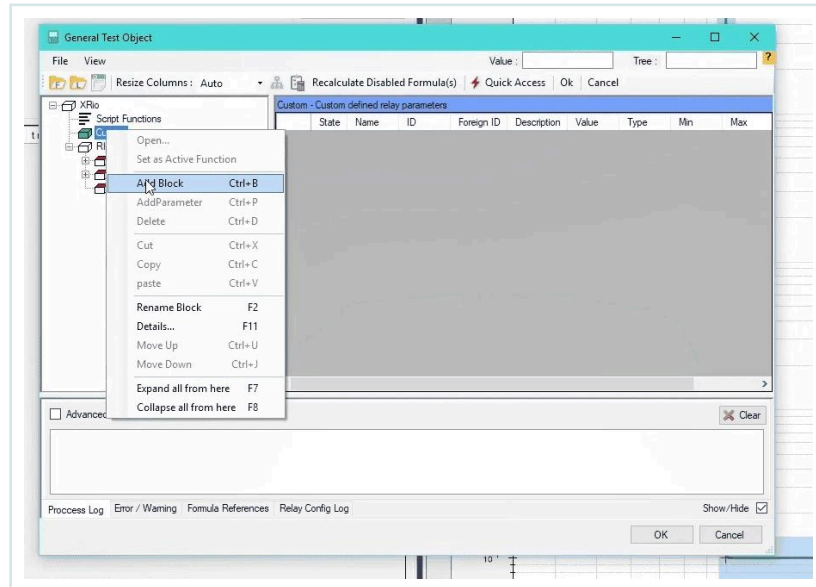


Figure 1

Then, the blocks should be named; to rename the blocks, right-click on "Custom" block and select "Rename Block". "7sj62" is selected as the name for this block which is an example of an Over current relay. It should be noted that you can also use "F2" shortcut key to rename a block. The blocks "Block1" and "Block2" are named "Relay Parameter Section" and "Additional Information" respectively according to the relay menu.

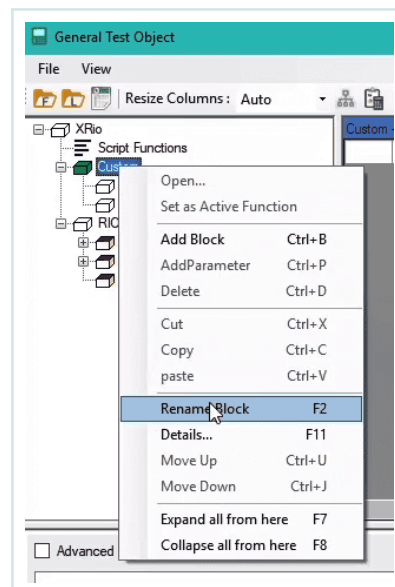


Figure 2

After naming them, you should specify "ID", "Name", etc. for each of the blocks. By double-clicking on "7sj62" block on "Rio Parameter Viewer" page, "ID=CUSTOM" and "Name=7sj62" are specified. You can also specify "Description= Custom defined relay parameters", "Foreign ID" and "Comment" for this block. In "Enabled" section, by selecting "Enable" it is specified that this block is active (enabled). Then, click on "OK" to save the changes. Likewise, double-click on "Relay Parameter Section" and specify "ID=SETTING". Also, for the "Additional Information" block, specify "ID=ADD_PARAM". It should be noted that only capital letters are accepted as "ID" and it is not possible to use characters such as "()", "{}", "/" etc. the only allowed character is "_".

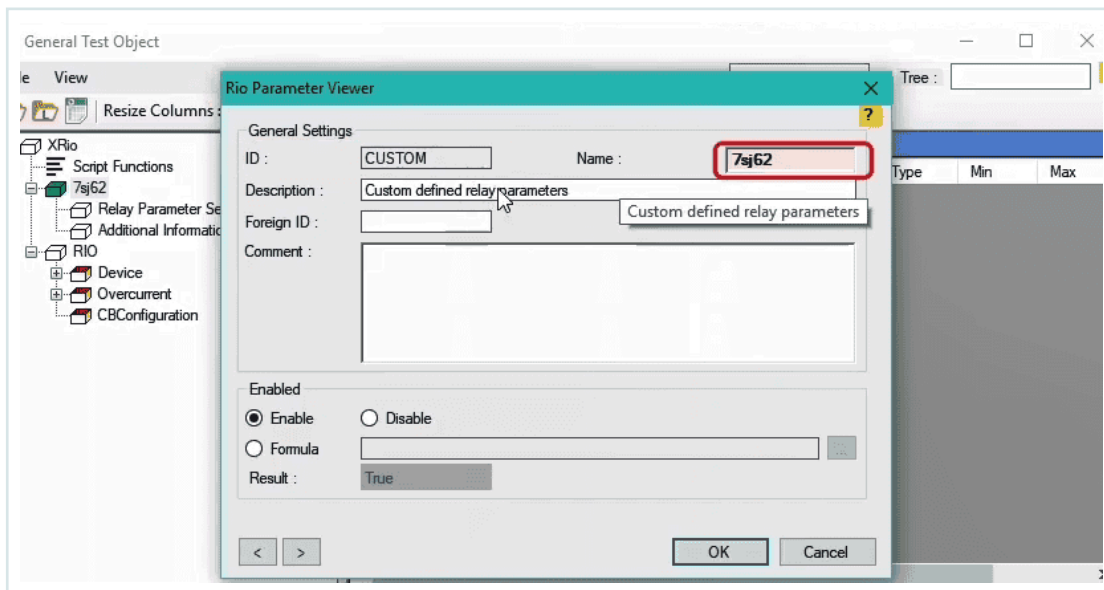


Figure 3

Next, the "Relay Parameter Section" block is selected and three more blocks are added to its subset. The first block is named "Device Config" and by double-clicking on it, "ID=DC" (short for Device Config.) is specified. To add a parameter to this block, right-click on it and select "Add Parameter"; then select the parameter type from the options available in the "Enumeration" on the "Parameter Type" window. Then, the list of "Enumerations" of this parameter is specified on the "Edit Enumeration Items" window and for each "Enumeration", "ID(string)" and "Value(string)" is entered. For example, the first "Enumeration" with "ID=TX1_101" and "Value=Disabled", the second "Enumeration" with "ID=TX2_101" and "Value=Definite Time" and the third "Enumeration" with "ID=TX1_101" and "Value=Time Overcurrent" are specified. By clicking on "OK", this parameter is added to the box on the right side and a "Name" and an "ID" should be specified for it. By double-clicking on "State" column, "Rio Parameter Viewer" window opens and "ID=OC_101", "Name=50/51" and "Description=Time Overcurrent" are specified for the parameter.

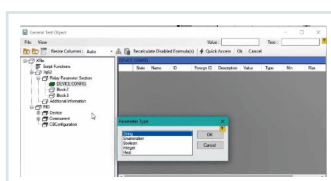


Figure 4

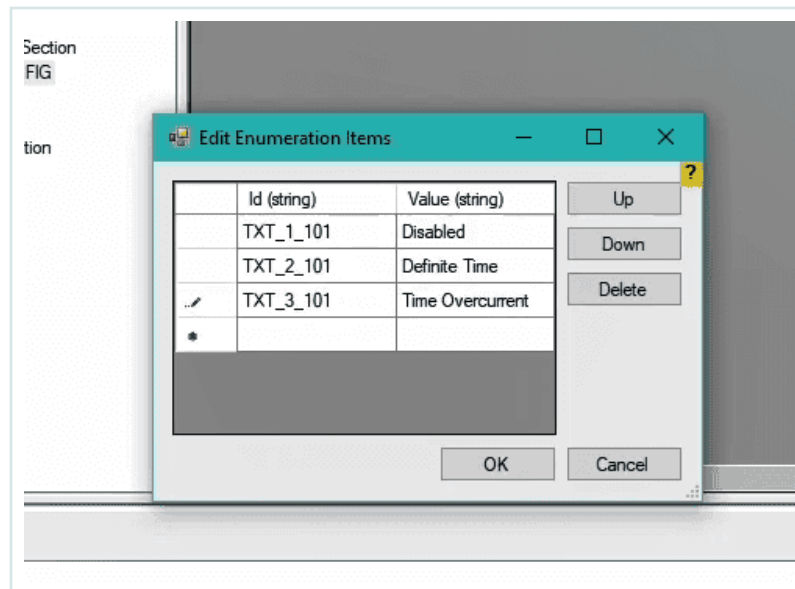


Figure 5

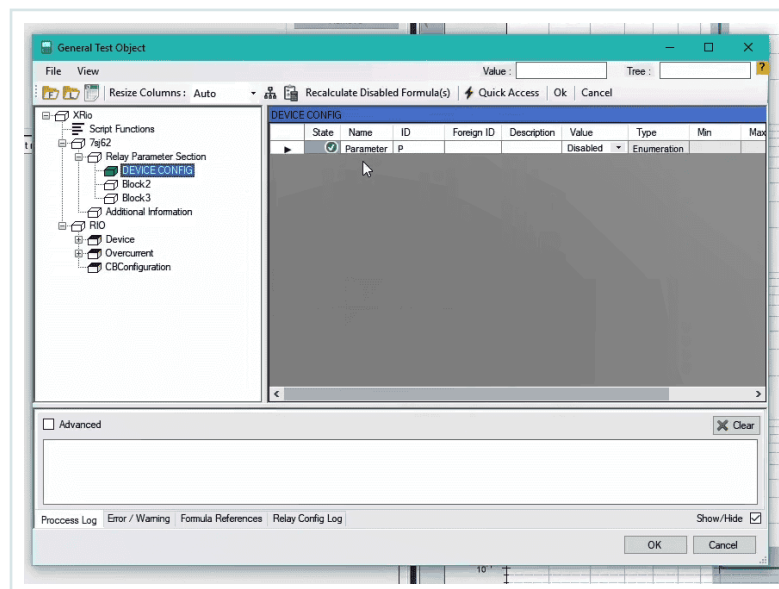


Figure 6

Next, rename the second block to "Power System Data" and by double-clicking on it, specify "ID=PS" (short for Power System). Then, add another block named "CT's" with "ID=CT" to the subset of this block. Now, add a "Real" type parameter to this block. "Real" type is used for parameters with numerical value. By double-clicking on "State" column, on this window, specify "ID=CT_PRIMARY", "Name=CT PRIMARY", "Value=300", "Min Value=10", "Max Value=5000" and "Unit=A" for the parameter. This time add an "Enumeration" type parameter and specify two "Enumerations" with "ID=TXT_1_201", "Value=1A", "ID=TXT_2_201" and "Value=5A". Then, by double-clicking on "State" column, specify "ID=CT_SEC" and "Name=CT Secondary".

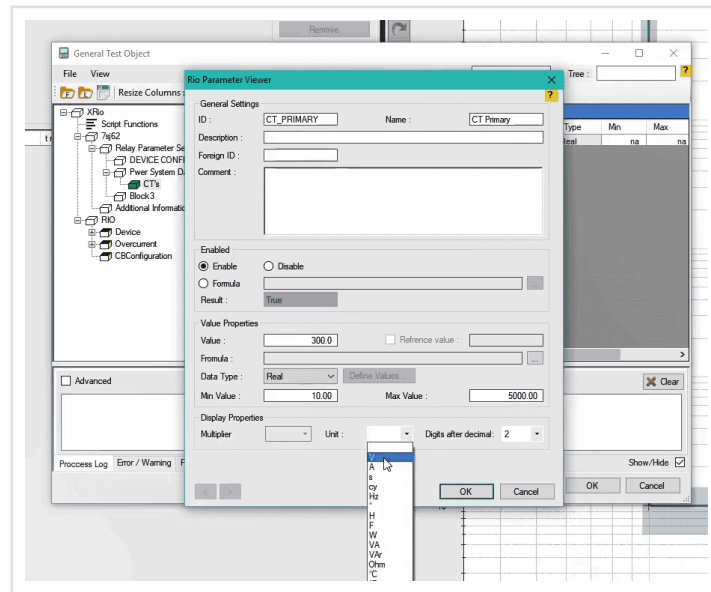


Figure 7

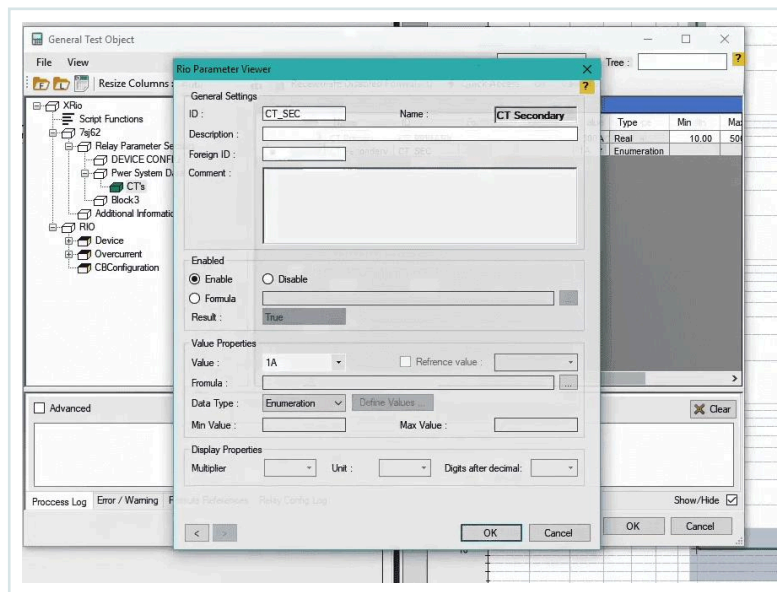


Figure 8

Now, to proceed, press "F2" button and rename the third block to "Setting Group" and by double-clicking on it, specify "ID=SG" (short for Setting Group). By using "Ctrl+B" combination key, add another block to the subset of this block and name it "50/51"; then double-click on it and specify "ID=ID_50_51" for this block. Add two more blocks with the names of "50" and "51" to the subset of this block and specify "ID=ID_50" and "ID=ID_51" for them respectively.

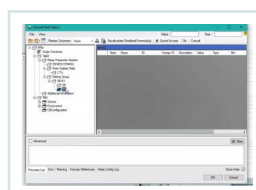


Figure 9

In the "50" block which includes the function "50", add "Time Delay 50" and "Pickup 50" parameters according to the aforementioned information. As an example, for "Pickup 50" parameter, information such as "ID=PICKUP_50" and "Name=Pickup 50" are specified on "Rio Parameter Viewer" window.

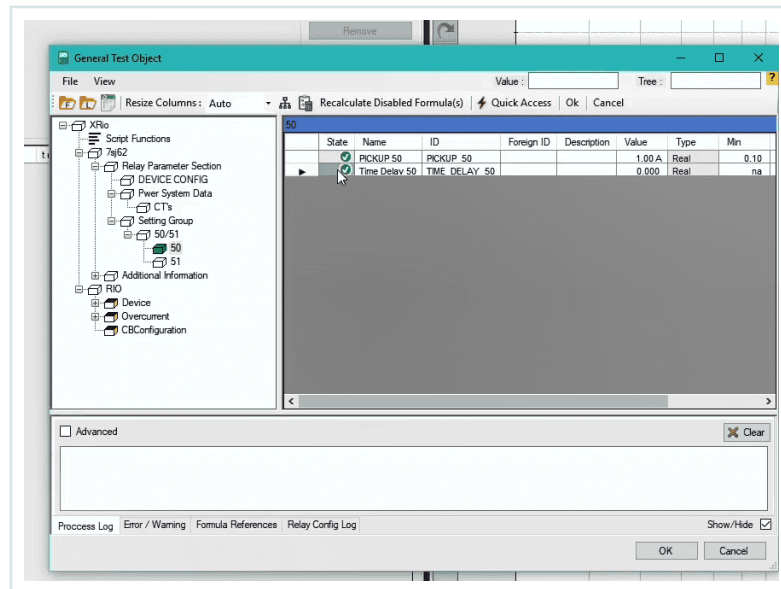


Figure 10

Likewise, add two parameters to block "51". After adding these two parameters with names of "Pickup 51" and "Time Dial 51", you should add another parameter in which curve function "51" is specified. This parameter is of "Enumeration" type with two "Enumerations" and with "ID=TX1_51", "Value=Normal Inverse", "ID=TX2_51" and "Value=Very Inverse". Then, double-click on "State" column and specify "ID=CURVE_51" and "Name=IEC_Curve".

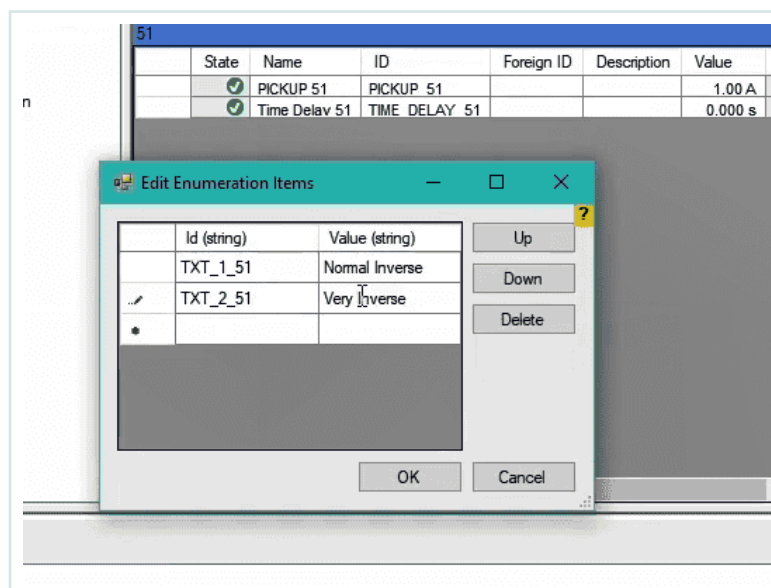


Figure 11

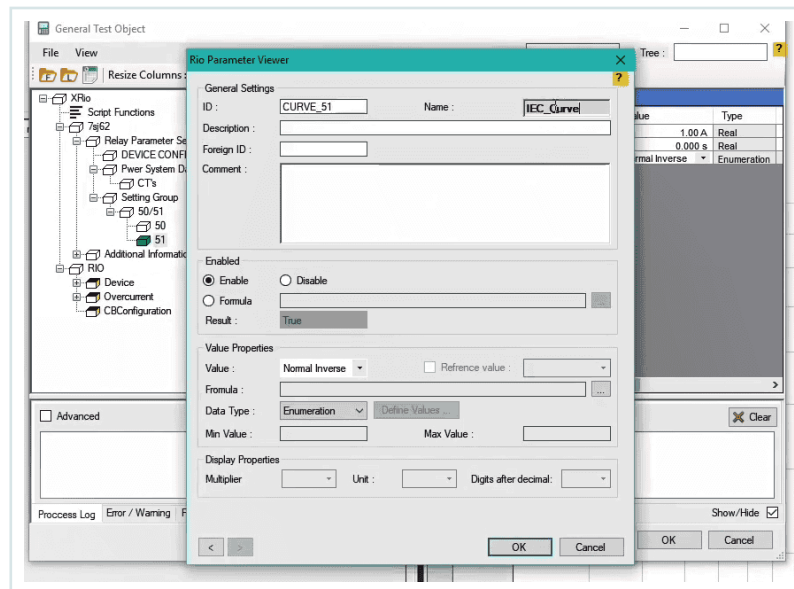


Figure 12

Add a block named "Relay Information" with "ID=RI" (short for Relay Information) to the subset of "Additional Parameter" block. In this new block, information such as time and current tolerances are entered which are specified according to the manual of the relay. To do this, press "Ctrl+P", select a "Real" type parameter and specify "ID=L_TOL_ABS1" and "Name=L Tolerance abs" for this parameter and then according to the manual of the relay, specify "10mA" as its "Value". Add more parameters to this block with names of "Operate Time", "t-Tolerance rel", "t-Tolerance abs", "I-Tolerance abs5" and "I-Tolerance rel5". The information related to these parameters is mentioned on each line. So far, the information about "Relay Parameter Section" and "Additional Information" for the overcurrent function is provided simply and briefly. Also, the structure of "XRIO Converter" is completely covered. Now, whether these blocks are enabled should be determined.

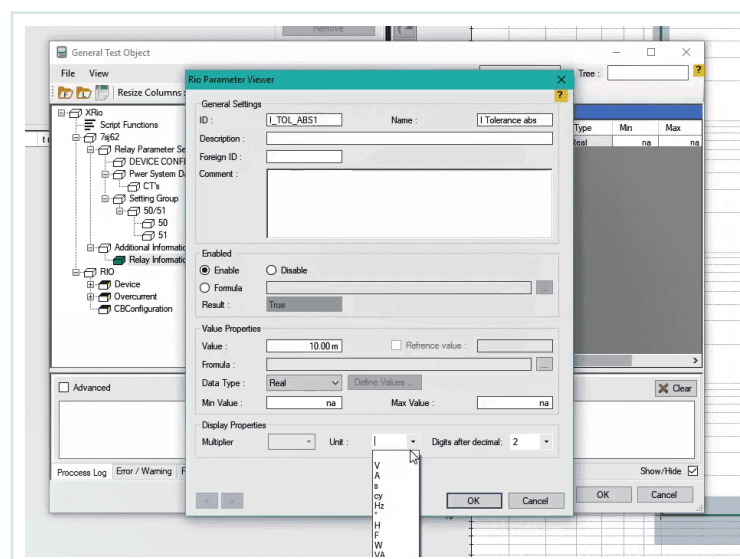


Figure 13

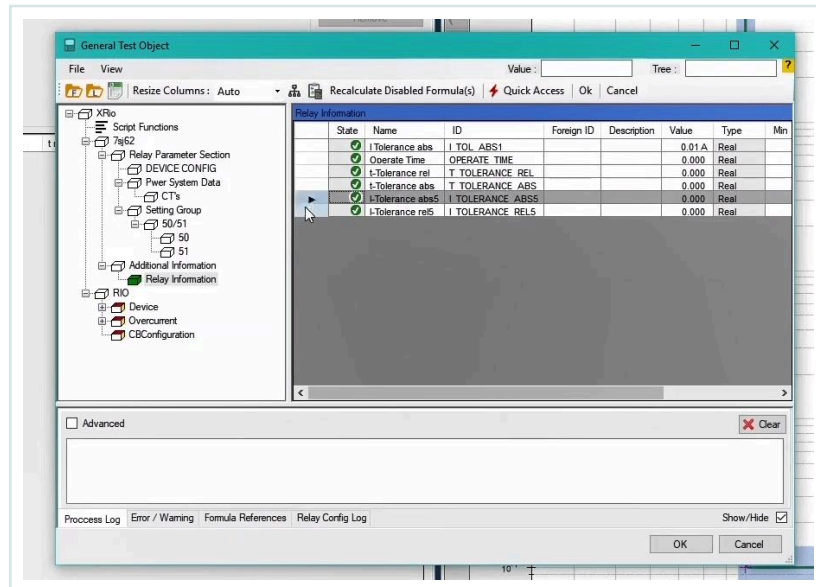


Figure 14

[jg1]Writing_formula_for_the_XRIO_Converter2