



VEBKO ONLINE HELP

Writing Formula for the “XRIO Converter” 3

Category	tester
Section	Modules Toolbar and Statusbar
Language	English
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So far, "Relay Parameter Section" and "Additional Information" for an Overcurrent function have been explained simply and briefly; also we have completely covered the structure of "XRio Converter" menu. Now we should talk about determining whether these blocks and parameters are enabled.

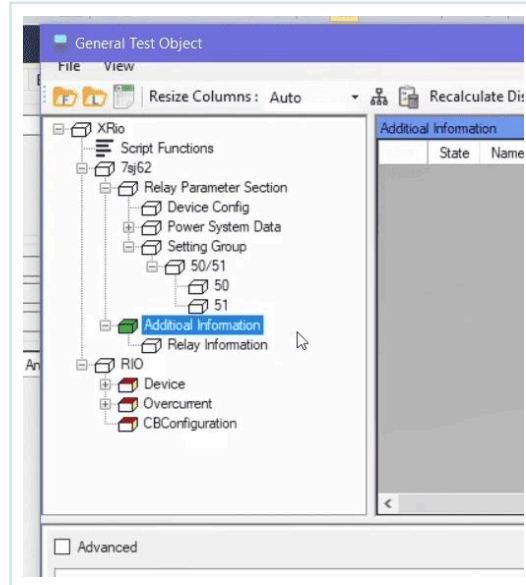


Figure 1

Enabling and disabling blocks: "50/51" block is located under the subcategory of "Setting Group". To associate the enabling of "50/51" block to the parameter measure of "50/51" in the "Device Config" block, double-click on "50/51" block and select "Formula" in "Enabled" section. Then, click on "..." icon to open "XRio Formula Editor" window. The parameter with which the enabling of "50/51" block is associated should be entered in "References" section.

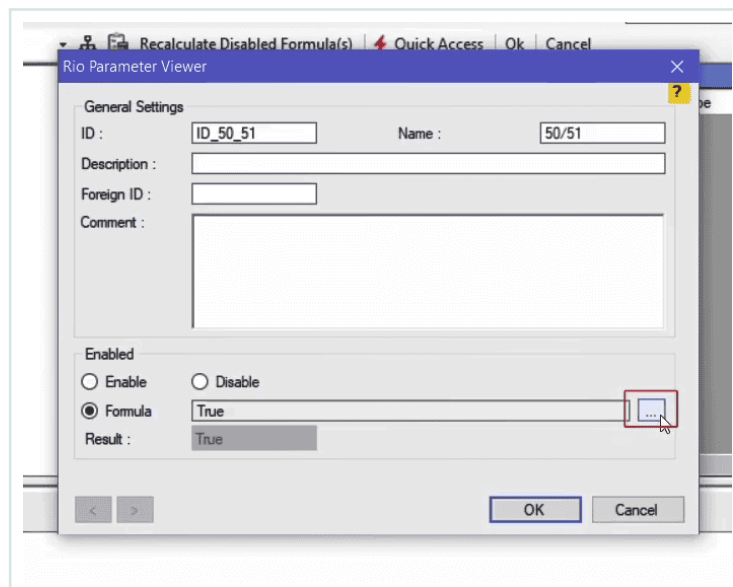


Figure 2

To enter the intended parameter, click on "+" to open "Add Ref.Param" window. From the box at the top of the page, select "50/51" parameter from the tree diagram of "XRio Converter" file in the "Device Config" block. After selecting this parameter, by clicking on "Add RefParam", "50/51" parameter is added to the "References" in the "Ref.Params" section. "Enumerations" of this parameter are listed at the bottom of the page in the form of a tree diagram. Select your intended "Enumeration" and click on "Add RefEnum" to add the enumeration to "Ref. Enums" section. "Enumeration=Disabled" with "ID=TX_T_1_101" is selected here. After closing this window, you can view the path to each parameter in the "Path" column. Paths are displayed by using the "ID" of each block. For example, "50/51" parameter with "ID=OC_101" is located along the path of "CUSTOM", "SETTING" and "ID" blocks. Also, for writing the formula, "ID" of these parameters is used.

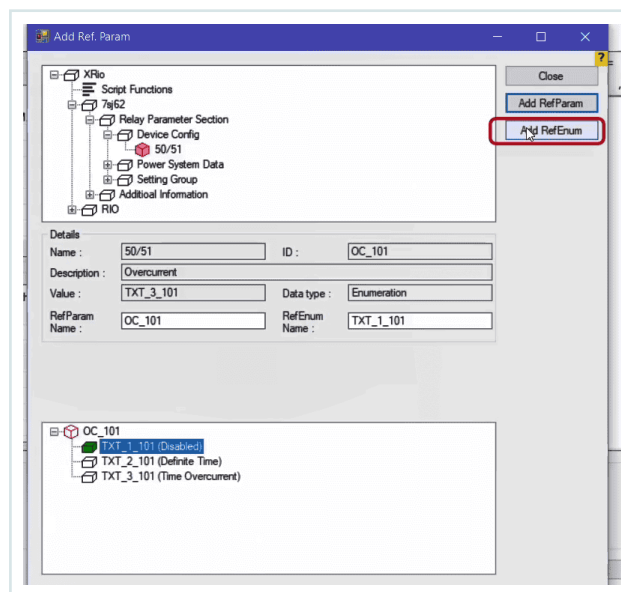


Figure 3

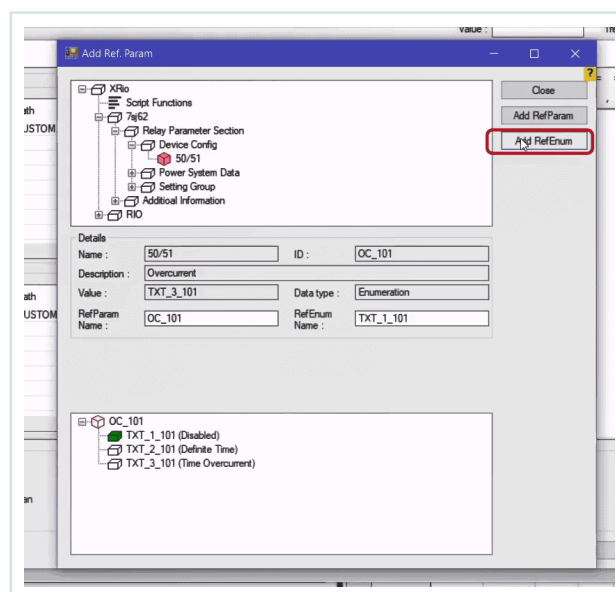


Figure 4

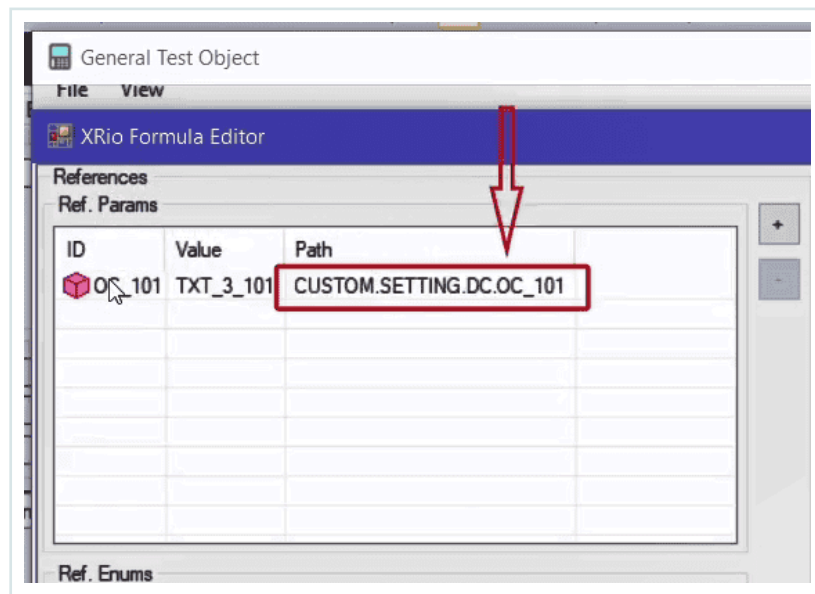


Figure 5

In the right box, it is specified that if there is a parameter with "ID=OC_101" and "Enumeration=Disabled", "50/51" block should be enabled. This formula is written as "NOT OC_101=TX1_1_101". After clicking on "Test", if a message saying "Test was successful" is displayed, the formula is correct and there is no problem. If a tiny change is made to the formula, for example the "ID" is changed, by clicking on "Test" a message saying that there is no parameter with "ID=TX1_2_101" will be displayed. Then, by clicking on "OK" two more messages will be displayed saying that the displayed formula is not correct and the last message says "Test was not successful". By correcting the formula and closing the "XRIO Formula Editor" window, you can see that the status of the block is "False" and this block, displayed with an "X" sign, is disabled. If the measure of "50/51" parameter is changed in the "Device Config" block, (Value=Definite Time), the "50/51" block is enabled and the "X" mark is removed.

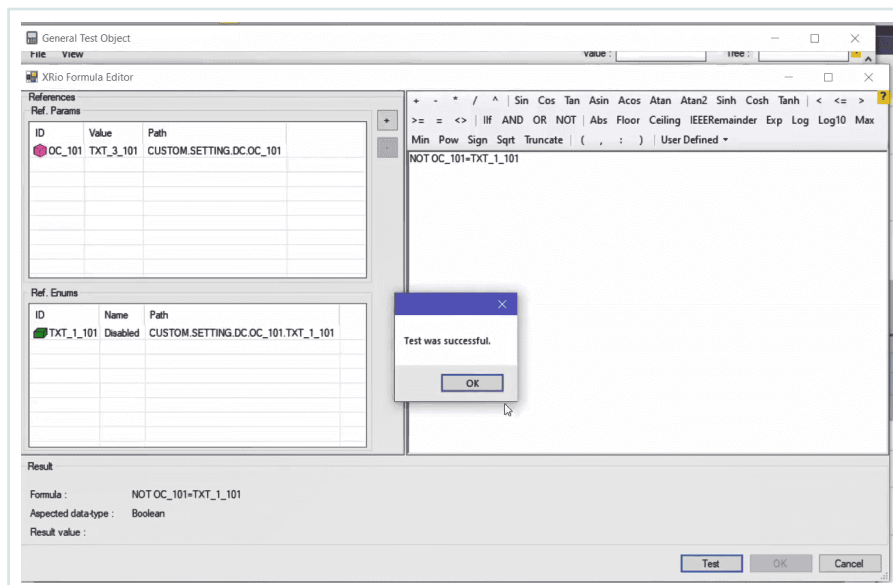


Figure 6

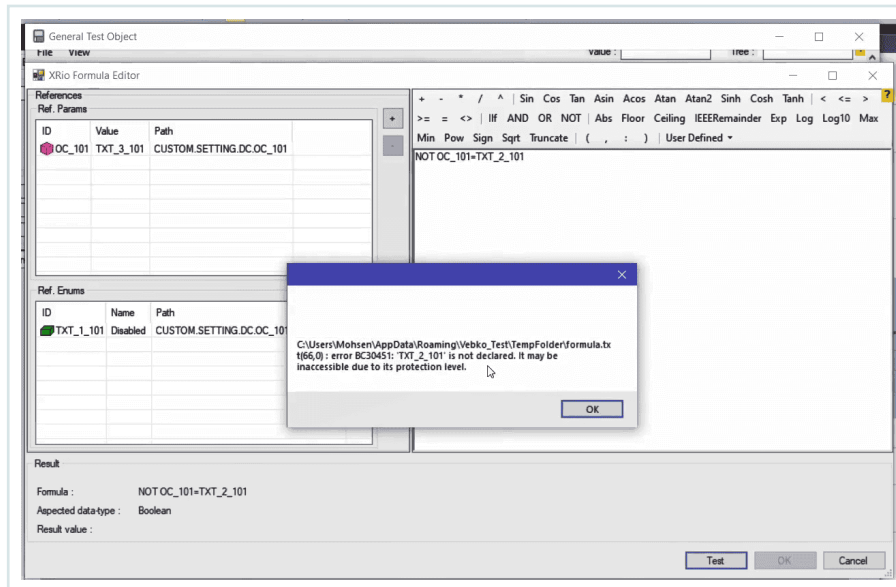


Figure 7

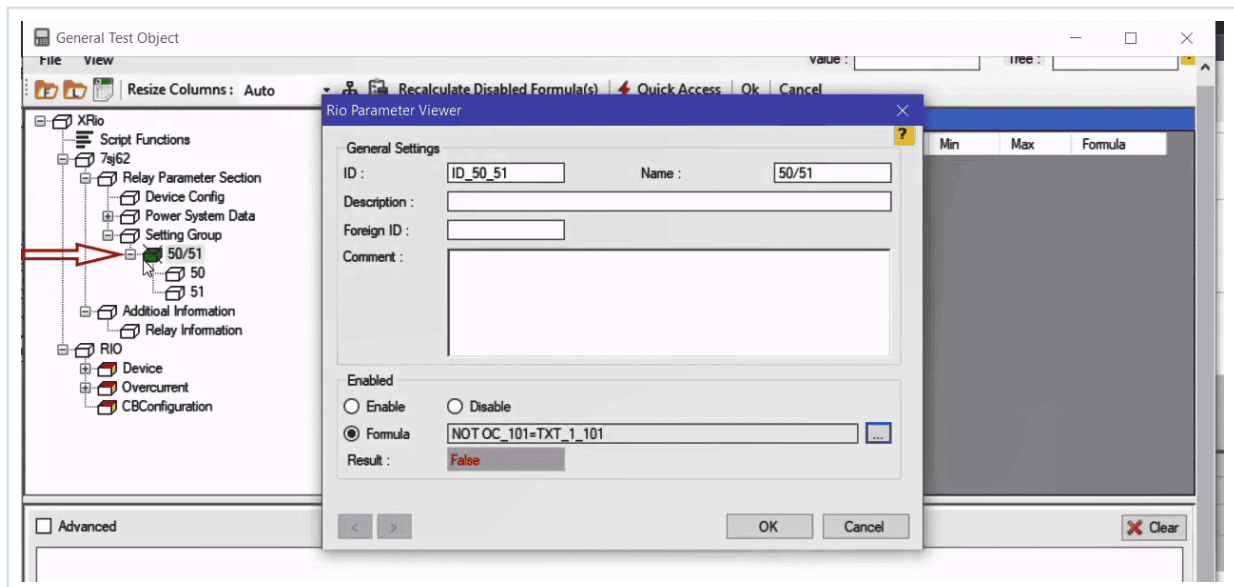


Figure 8

Likewise, it is possible to associate enabling or disabling of other blocks with one or several parameters. Like the previous situation, a formula should be written for "50" block. By repeating the previous stages and selecting "50/51" parameter and "Enumeration=Disabled" with "ID=TX1_1_101", a formula should be written for the activeness of this parameter on the "XRIO Formula Editor". This formula is written as "NOT OC_101=TX1_1_101". So, whenever "50/51" block is enable, this block should be enable as well. Click on "Test" to validate the written formula and in the end click on "OK".



Figure 9

For enabling of "51" block, double-click on it and select "Formula". After opening the "Add Ref.Param" window, select "50/51 parameter and "Enumerations" of "Disabled" and "Definite Time". In fact, "51" block is enabled when enumerations of "Disabled" and "Definite Time" are not selected. Then, the formula is written as "NOT OC_101=TX1_1_101_ AND NOT OC_101=TX1_2_101". Click on "Test" to validate the formula and finally click on "OK". If "Definite Time" is selected as the value of "50/51" parameter in the "Device Config" block, "50/51" and "50" blocks are enabled while "51" block is disabled. If "Time Overcurrent" is selected as the value of "50/51" parameter, all three blocks are enabled.

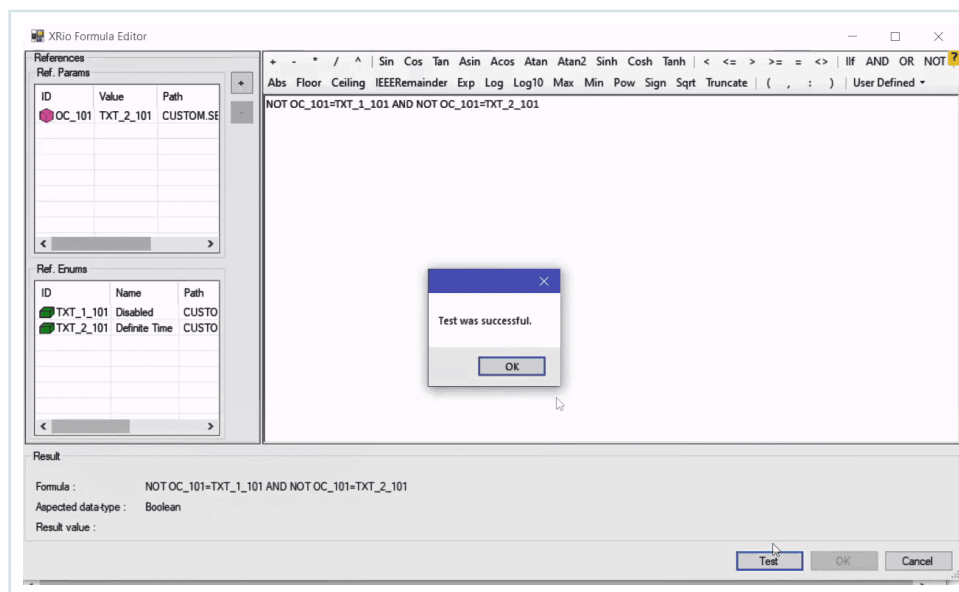


Figure 10

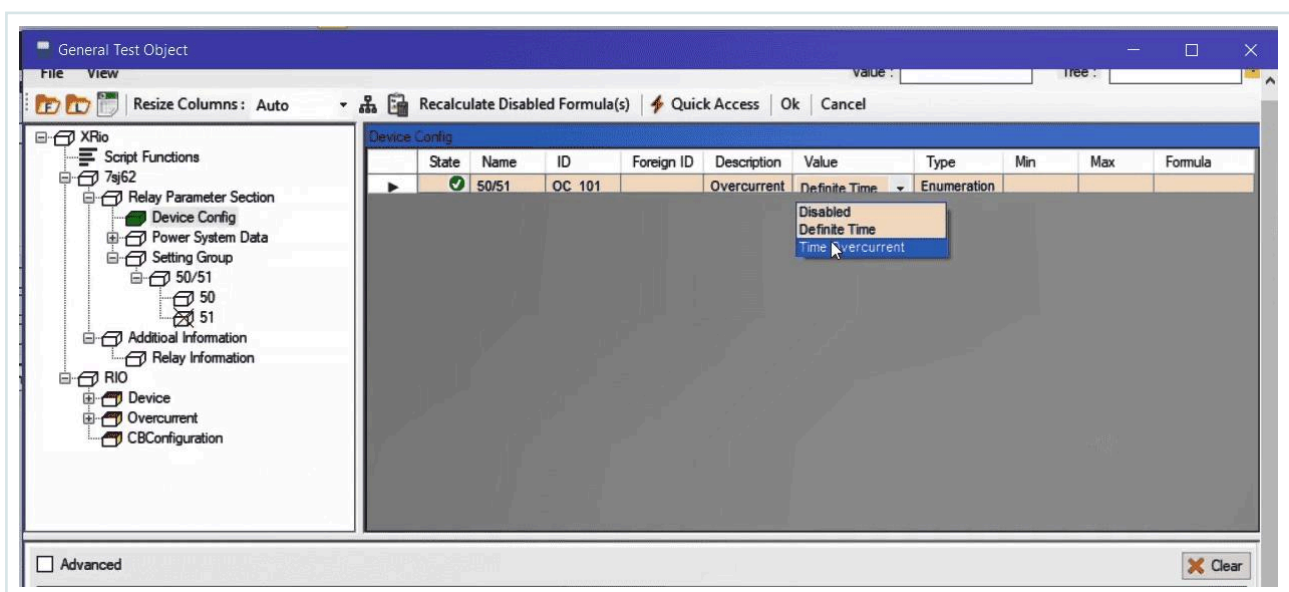


Figure 11

Enabling and disabling parameters: In each block, it is possible to associate Enabling of parameters with another parameter. For example, in "51" block, "IEC Curve" parameter is enable when "Time Overcurrent" is selected as the value of "50/51" parameter. To do this, double-click on "State" column and select "Formula" from the "Enabled" section. By clicking on "..."icon in the "XRio Formula Editor" window like the previous example, in the "Add Ref.Param" window "50/51" parameter and "Enumeration=Time Overcurrent" with "ID=TXt_3_101" are selected and added to the "References" section. The formula is written as "OC_101=TXt_3_101" at the right side and by clicking on "Test" the validity of the formula is examined and the "OK" is selected. If in "Device Config" block, "Time Overcurrent" is selected as the value of "50/51" parameter, "IEC Curve" parameter is enabled while if "Definite Time" is selected, "IEC Curve" parameter is disabled.

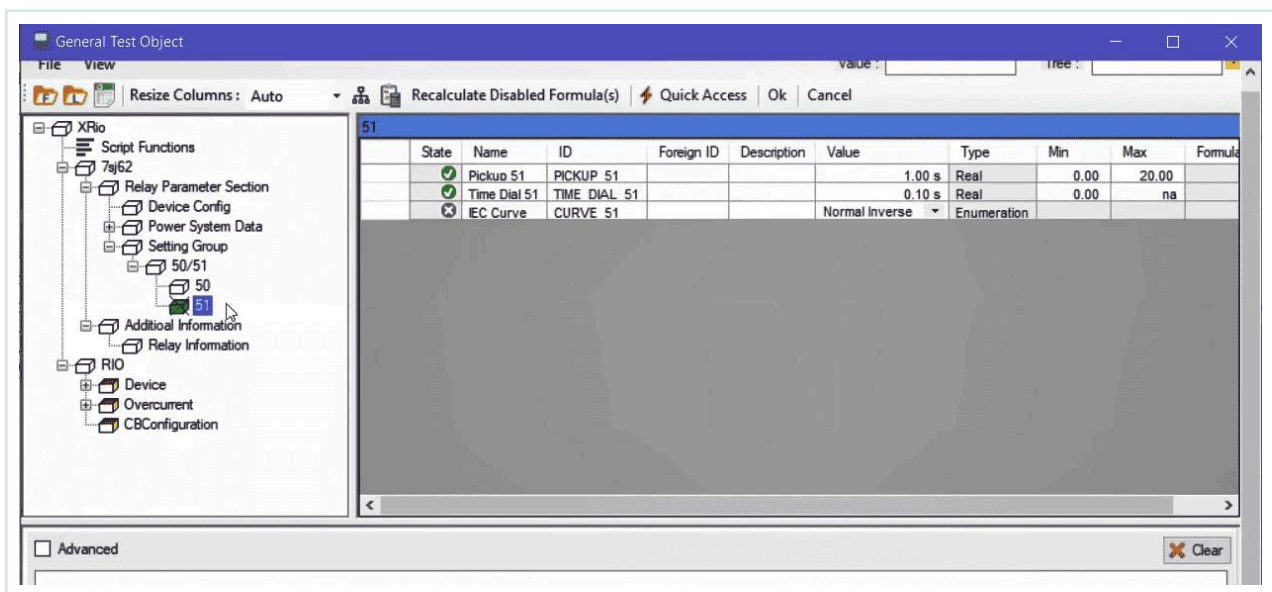


Figure 12

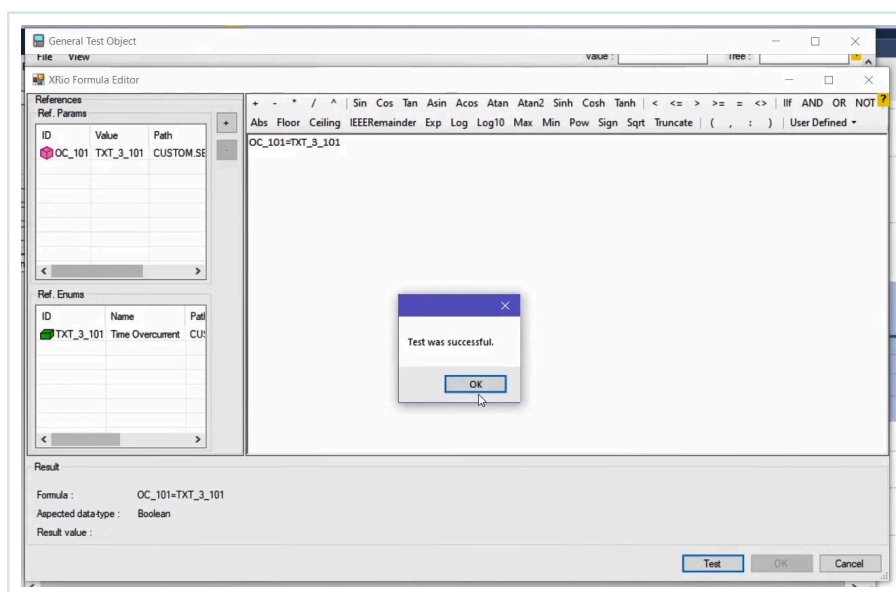


Figure 13



[jg1]Writing_formula_for_the_XRio_Converter3