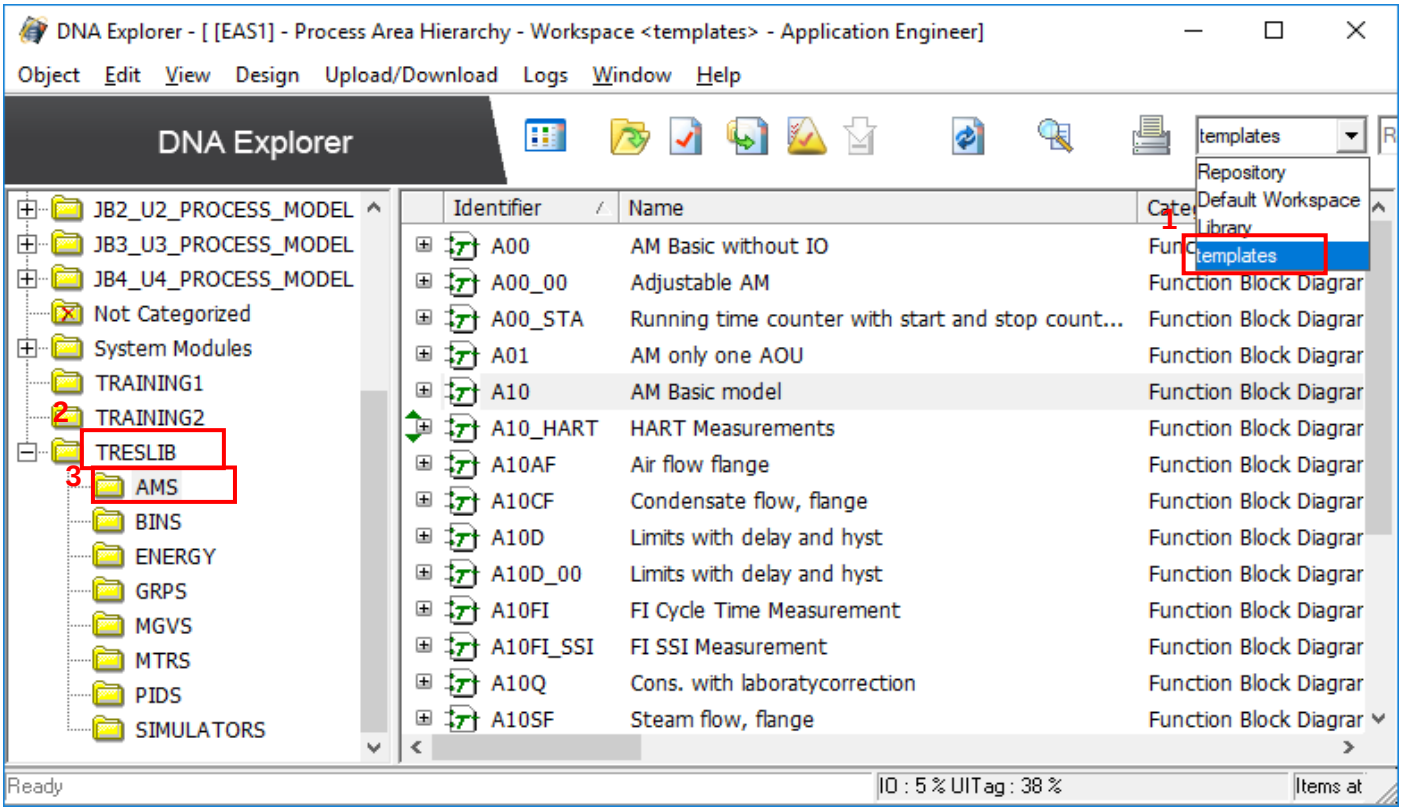
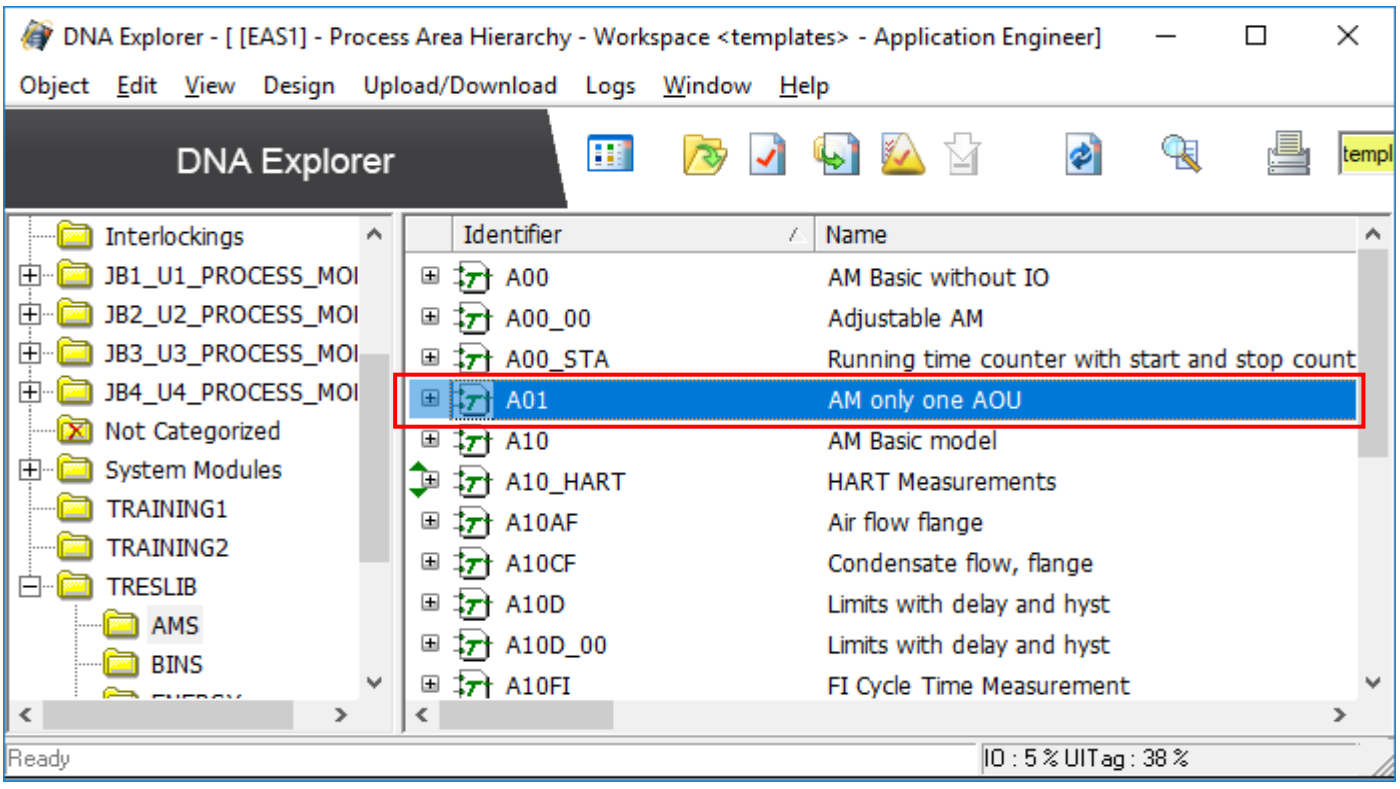
PROCESS CONTROL LAB MANUAL

TRAINING 1: Implement Valmet Template to generate I/Os system and logic (Analogue Output)

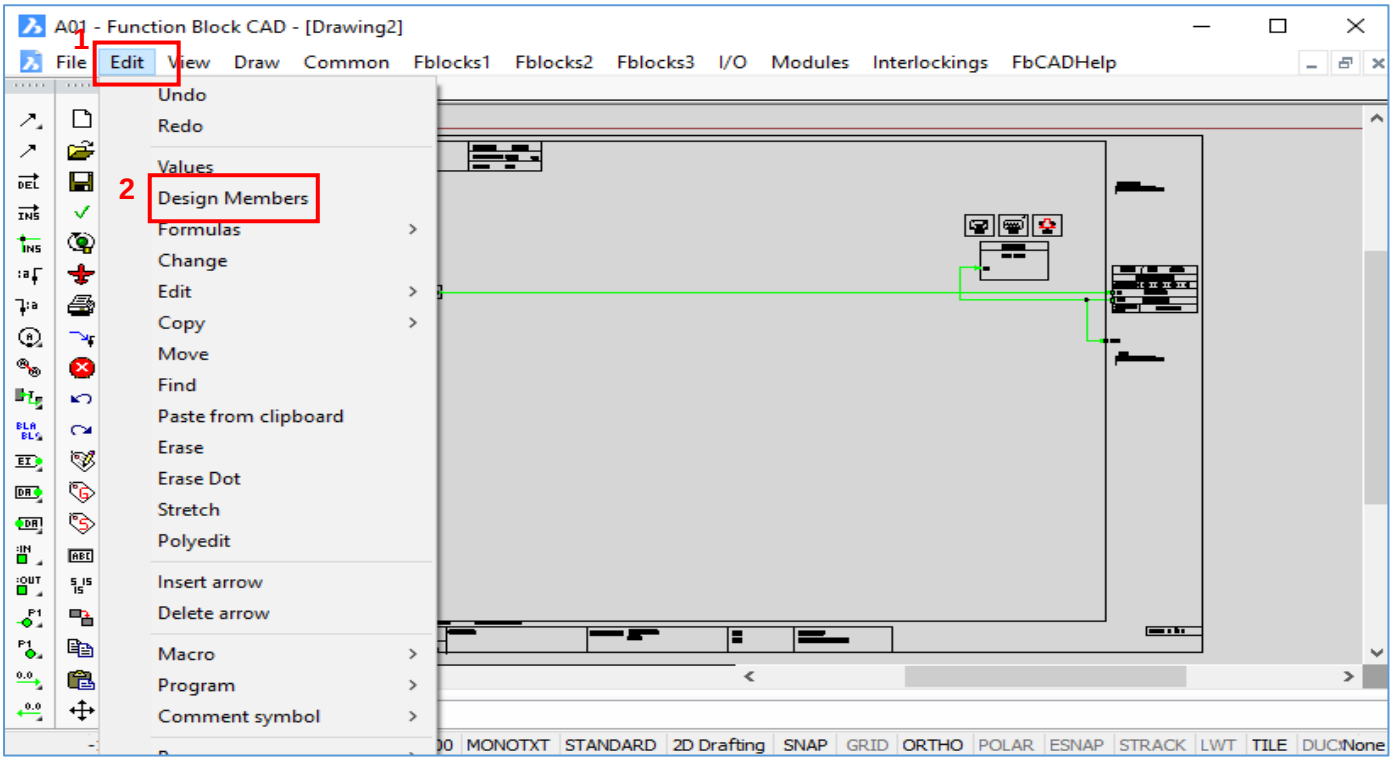
1. To open a template, change the workspace setting from repository to templates and browse to TRESLIB. Browse AMS for analogue output templates.



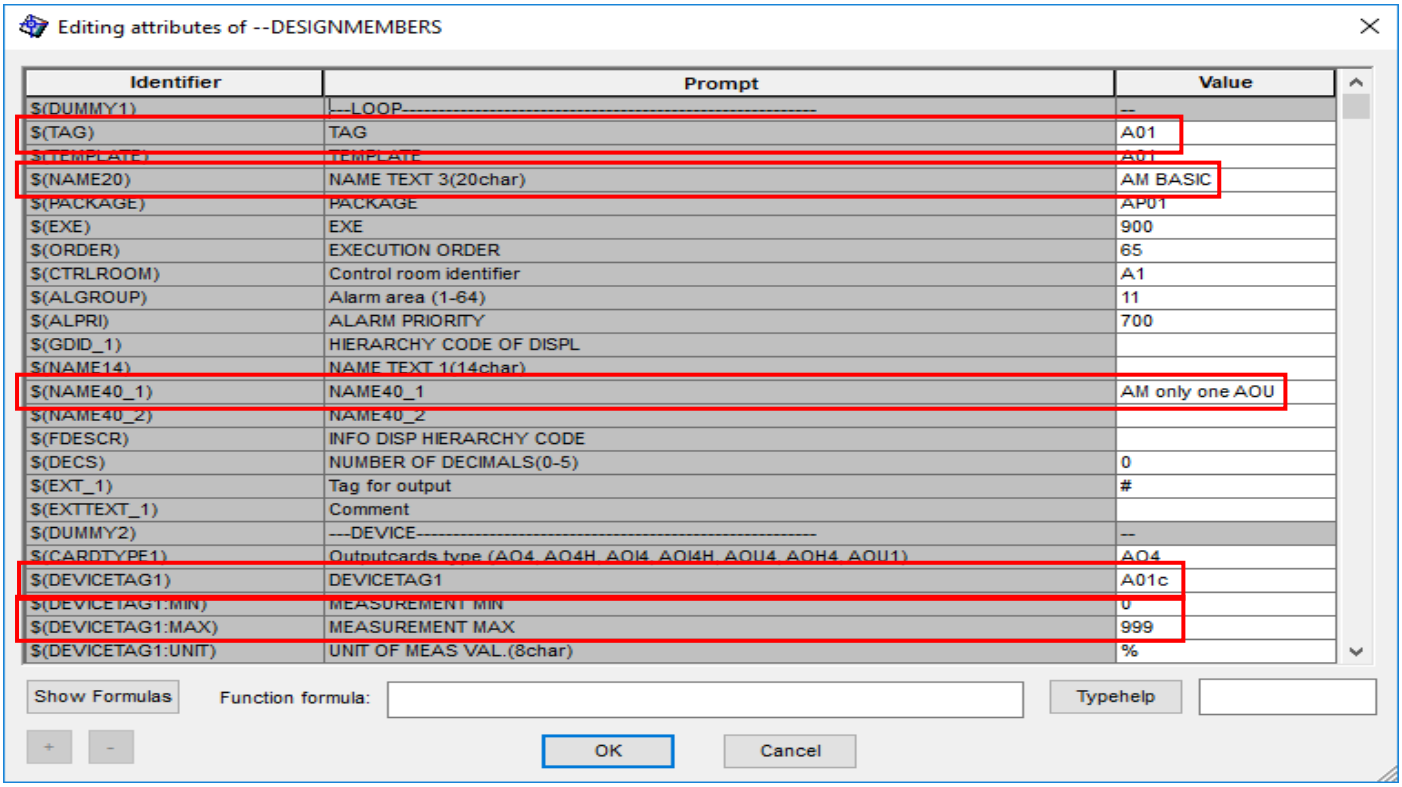
2. Select the analogue output (AO) templates with desired parameters. In this example, choose A01 template. Double click to open.



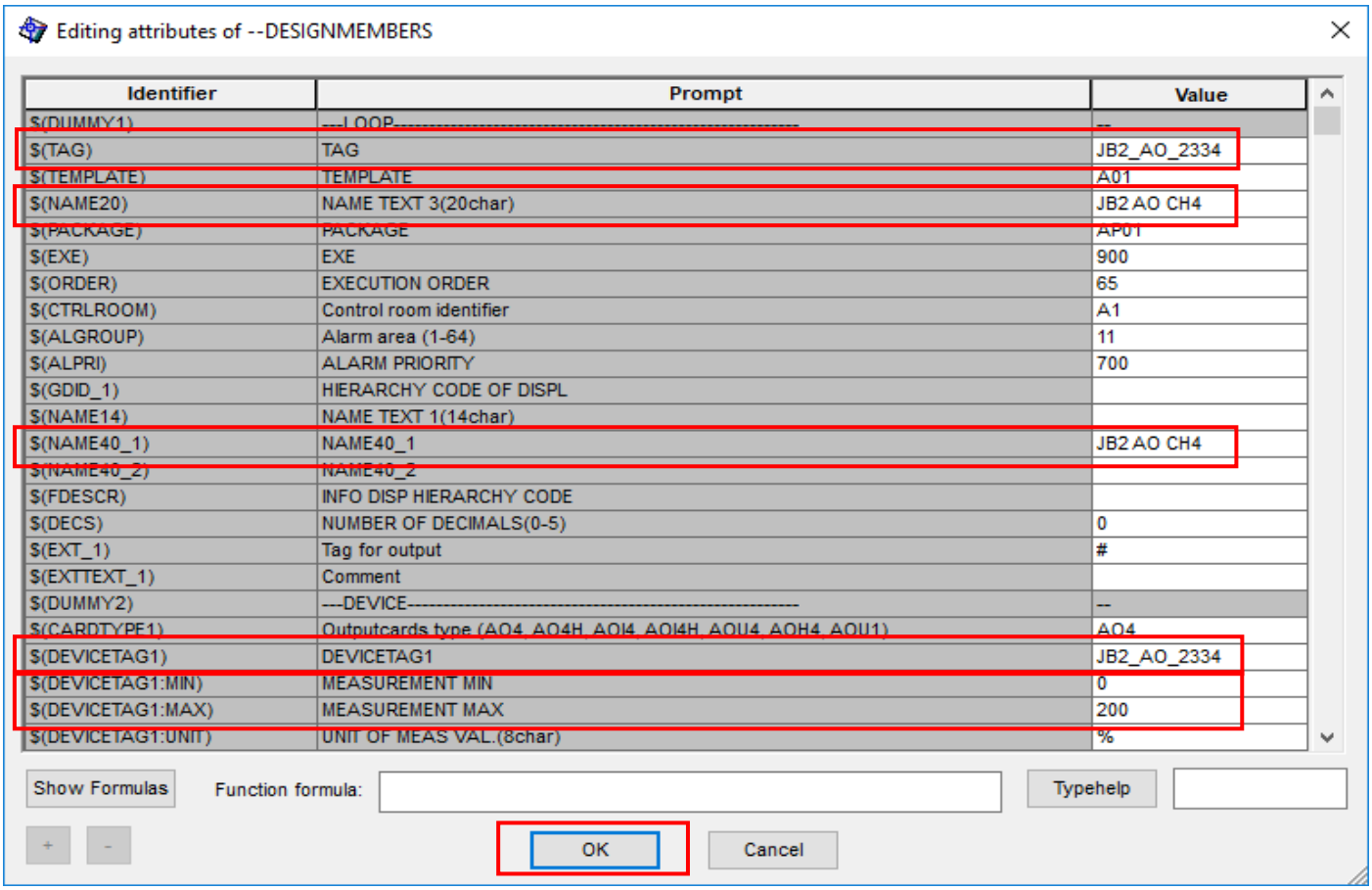
3. Create new AO application file. Template will be an application as soon as the template name changed. To change the parameter values, click Edit, then choose Design Members.



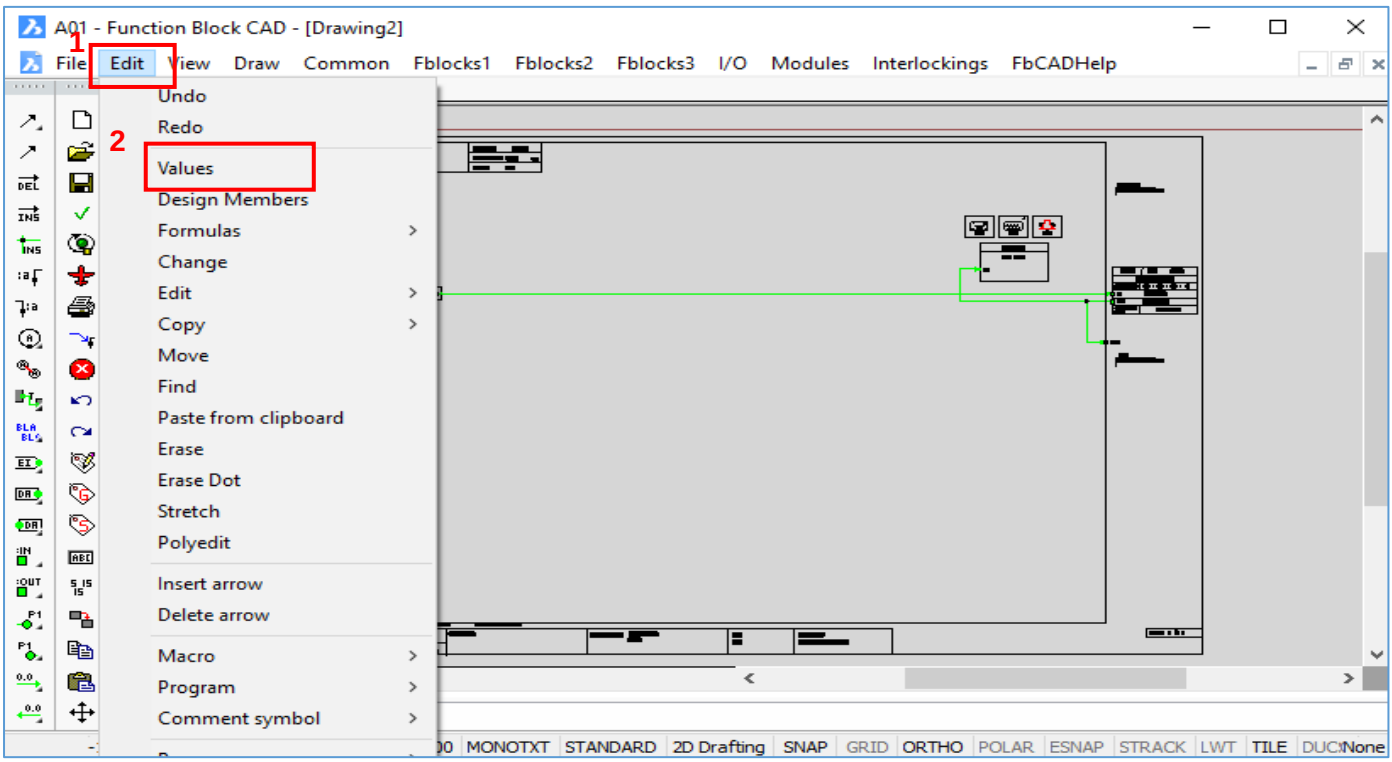
Parameters window will pop up. Default parameters are preferred except some that need to be changed according to the system requirement such as tag, I/O address and etc. For now, change the selected values to rename the template. Make sure that the changed values identify the respective I/O address.



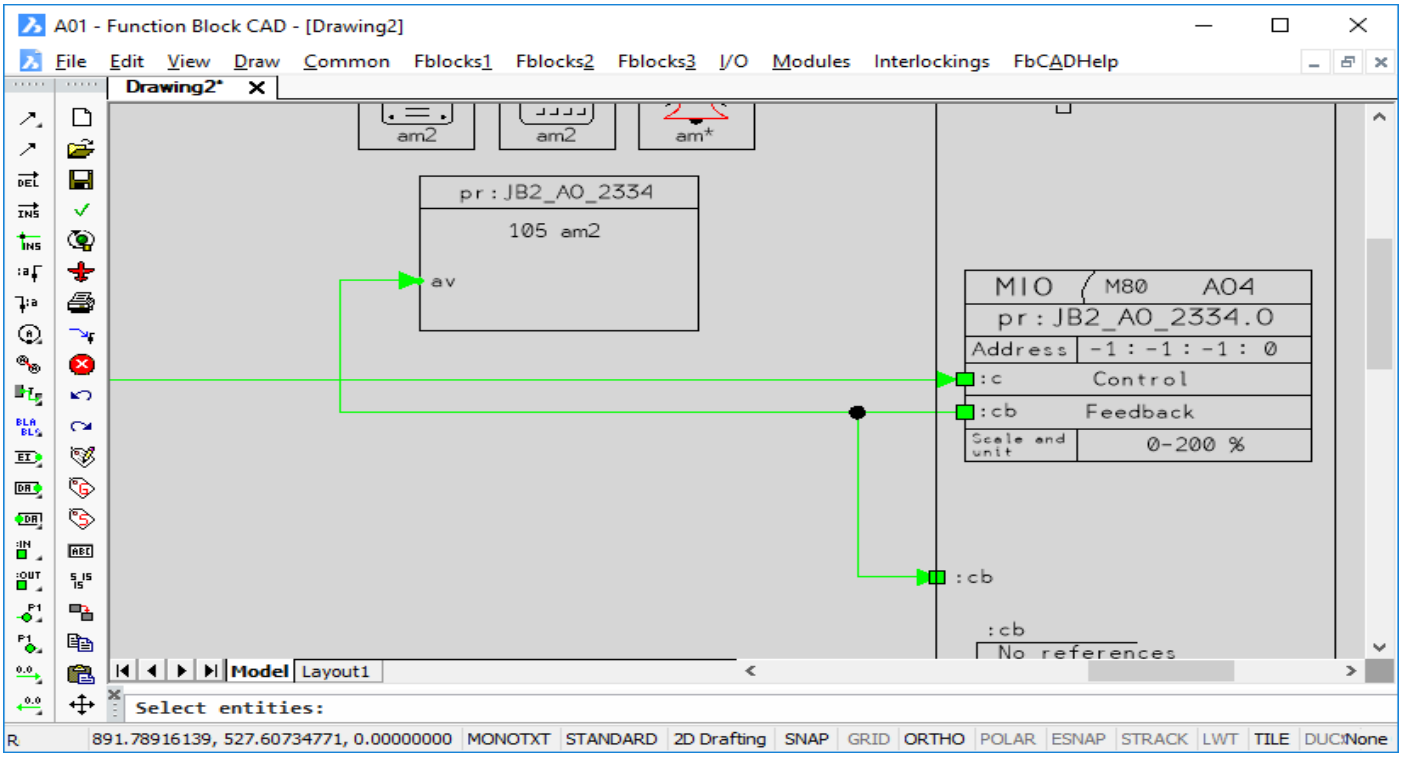
For example: analogue output at JB 2 using Channel 4. Software address = 2334. Then click OK.



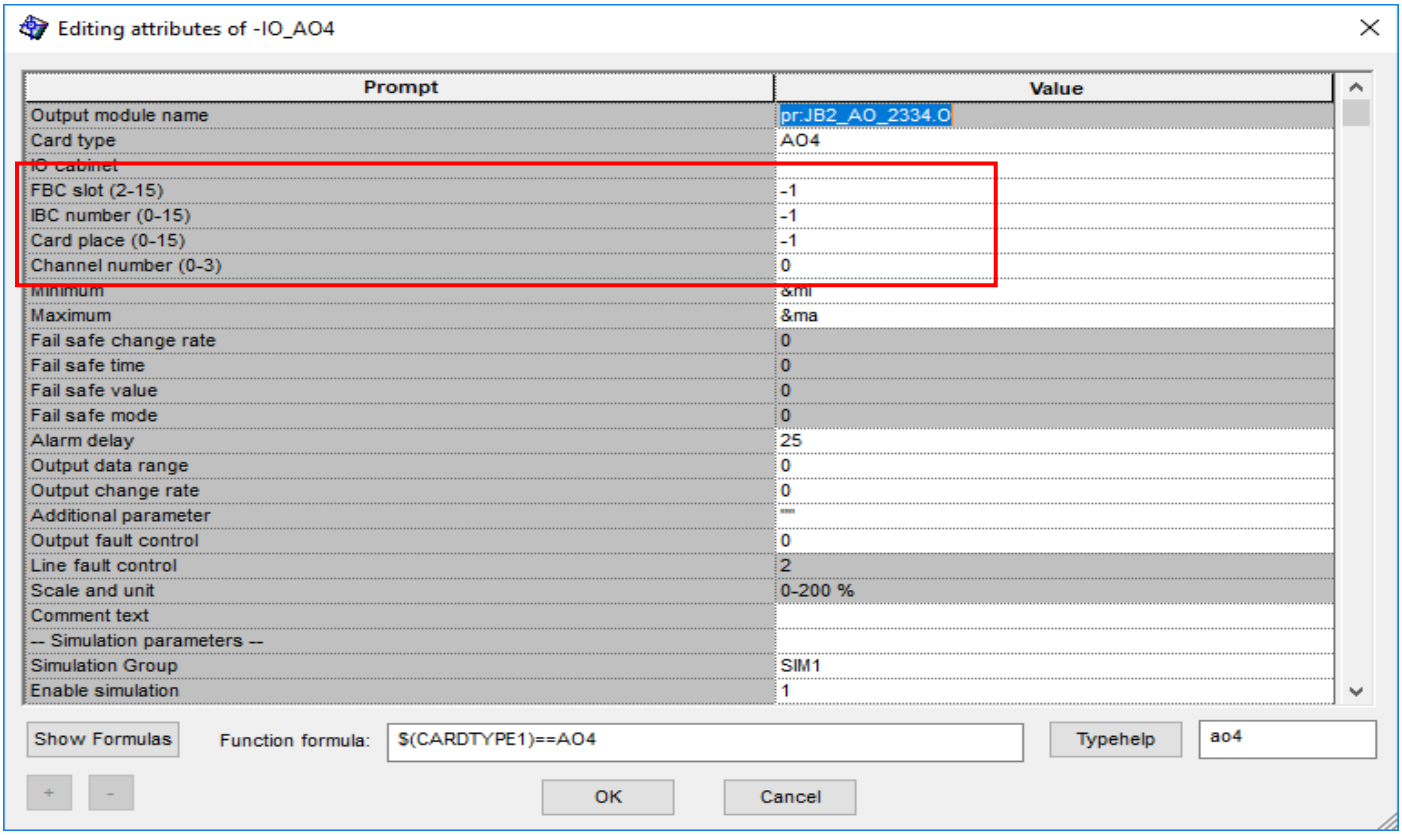
4. Change the new application file I/O address. To change the address, click Edit and choose Values.

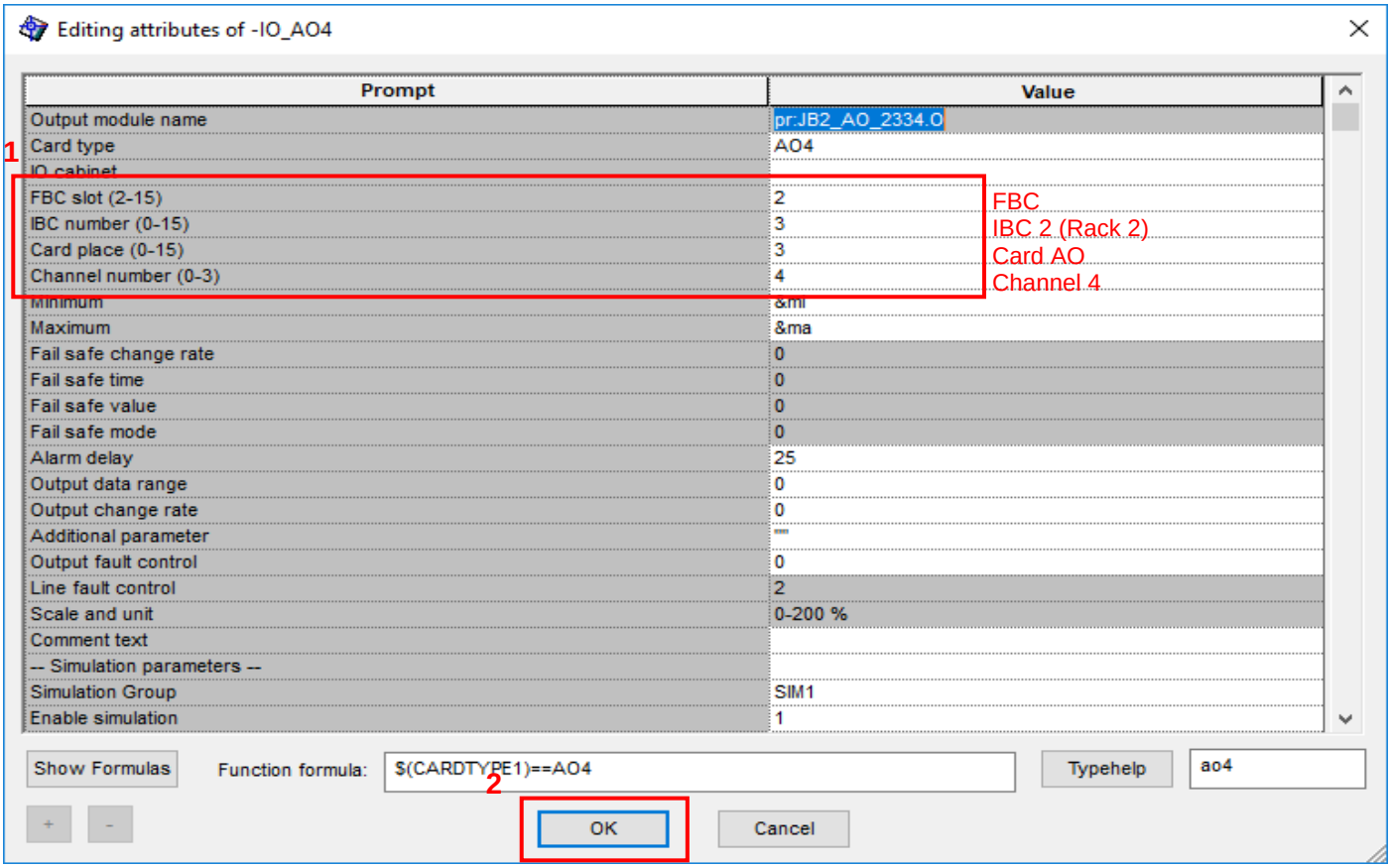


Then, click the I/O address box.

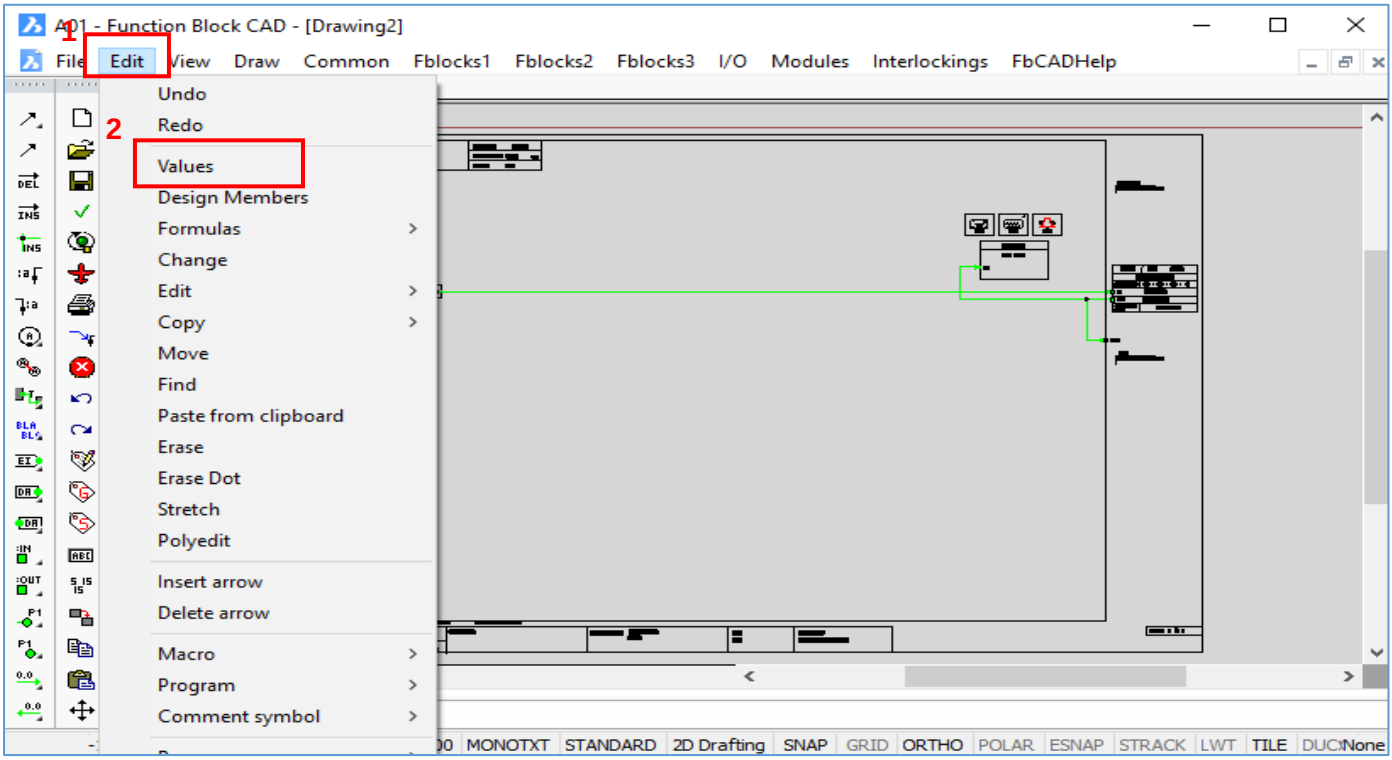


A parameter selection window will pop up. Default values are in preferred in the window. Only change values in the red box according to the respective I/O address. Then, click OK.

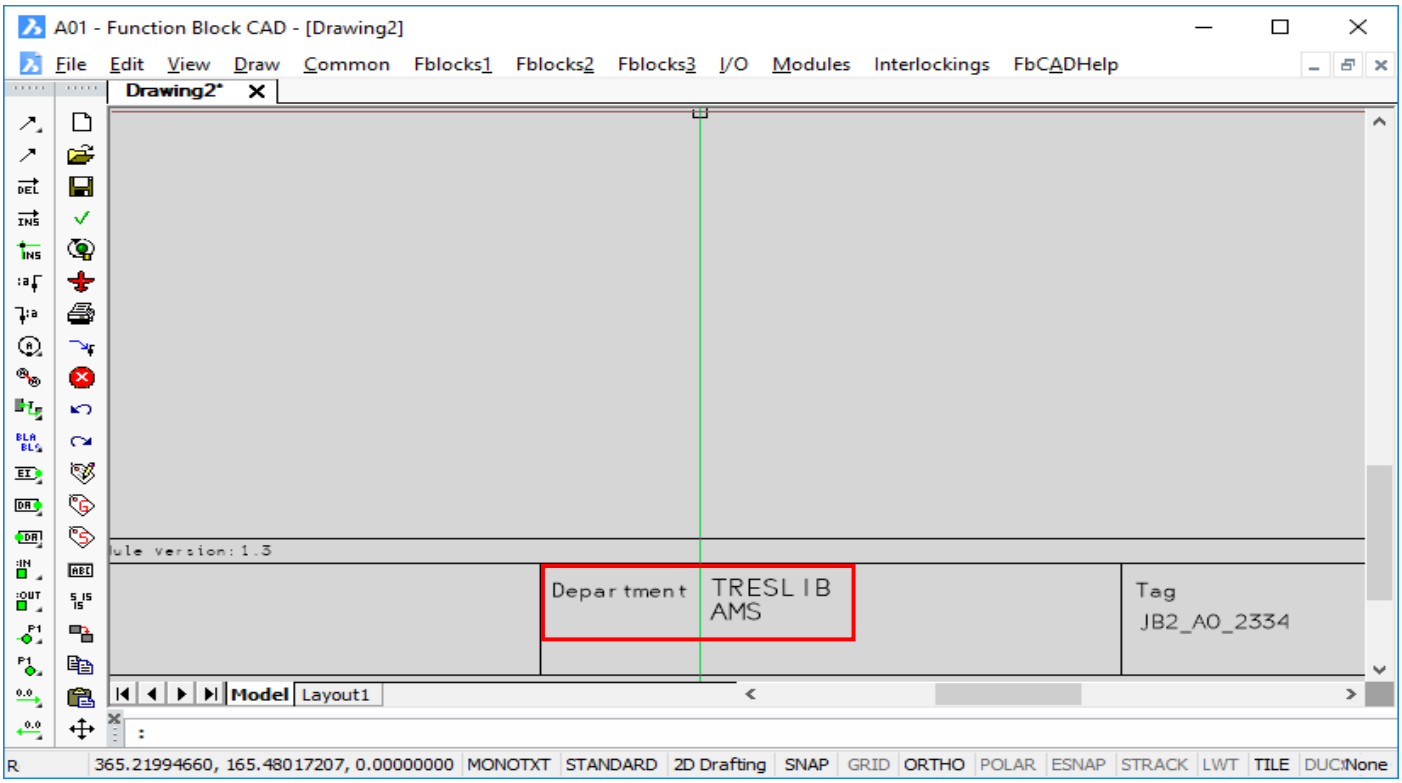




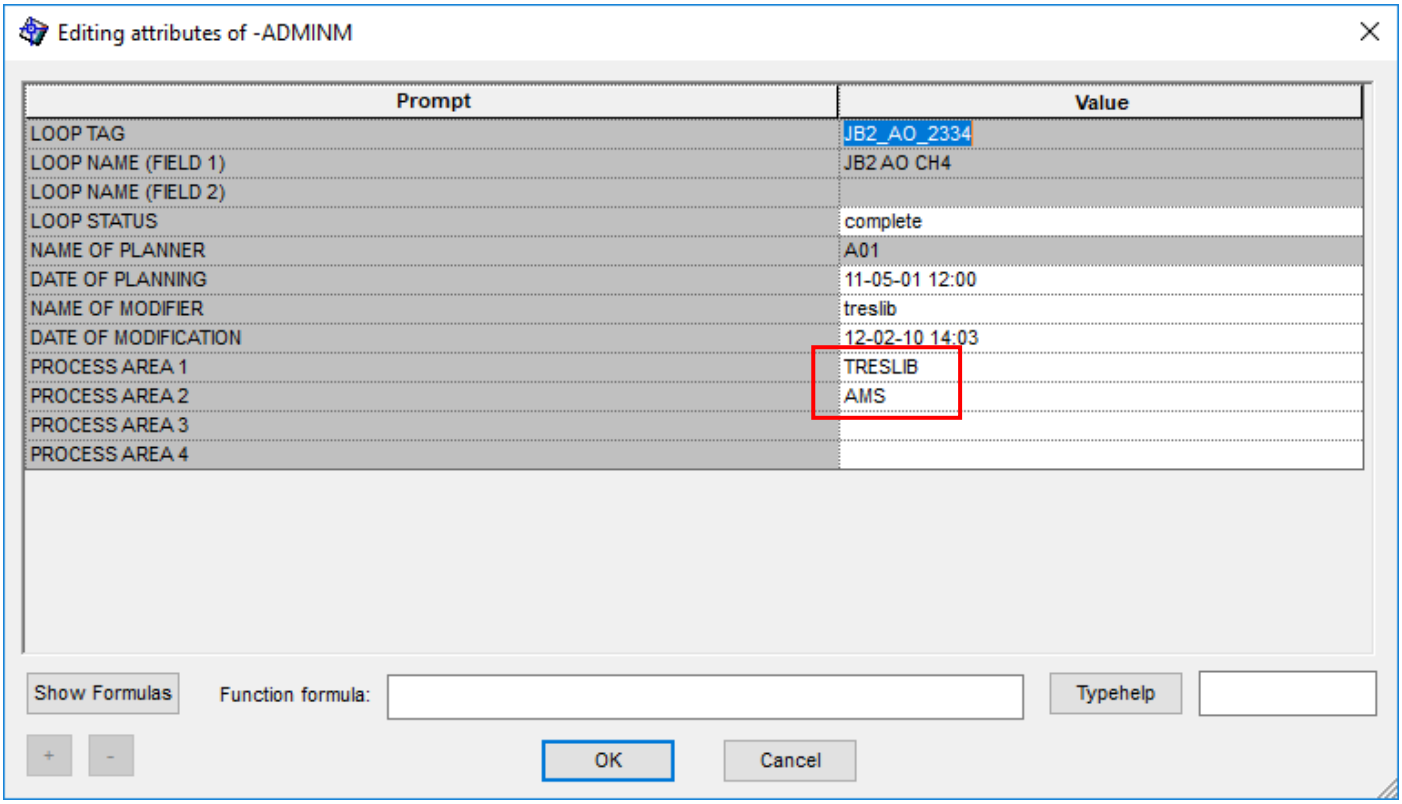
5. Change the new application file process area. To change the process area, click Edit and choose Values.

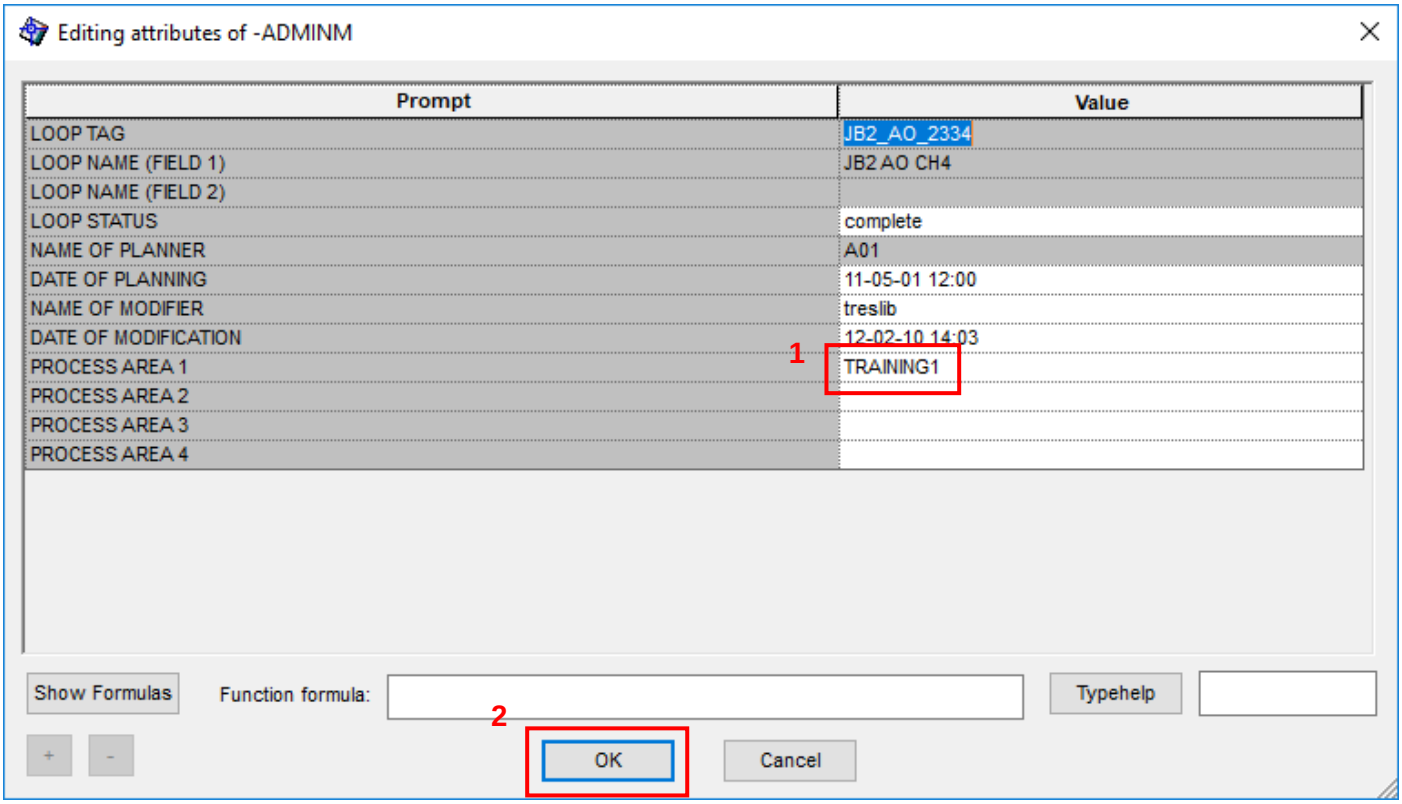


Then, click the department box.

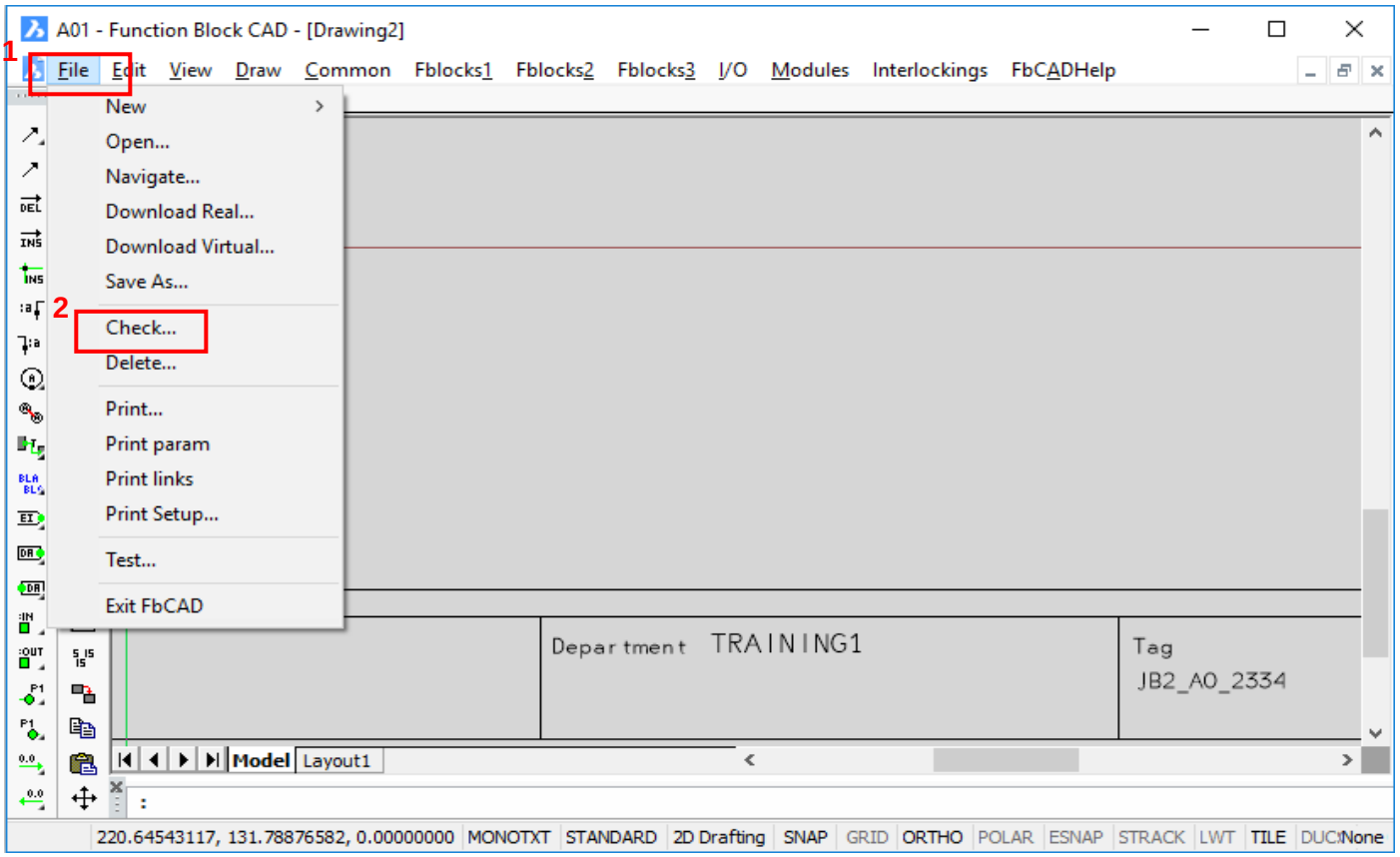


Parameters window will pop up. Change the process area from TRESLIB-BINS to TRAINING1. Then click OK.

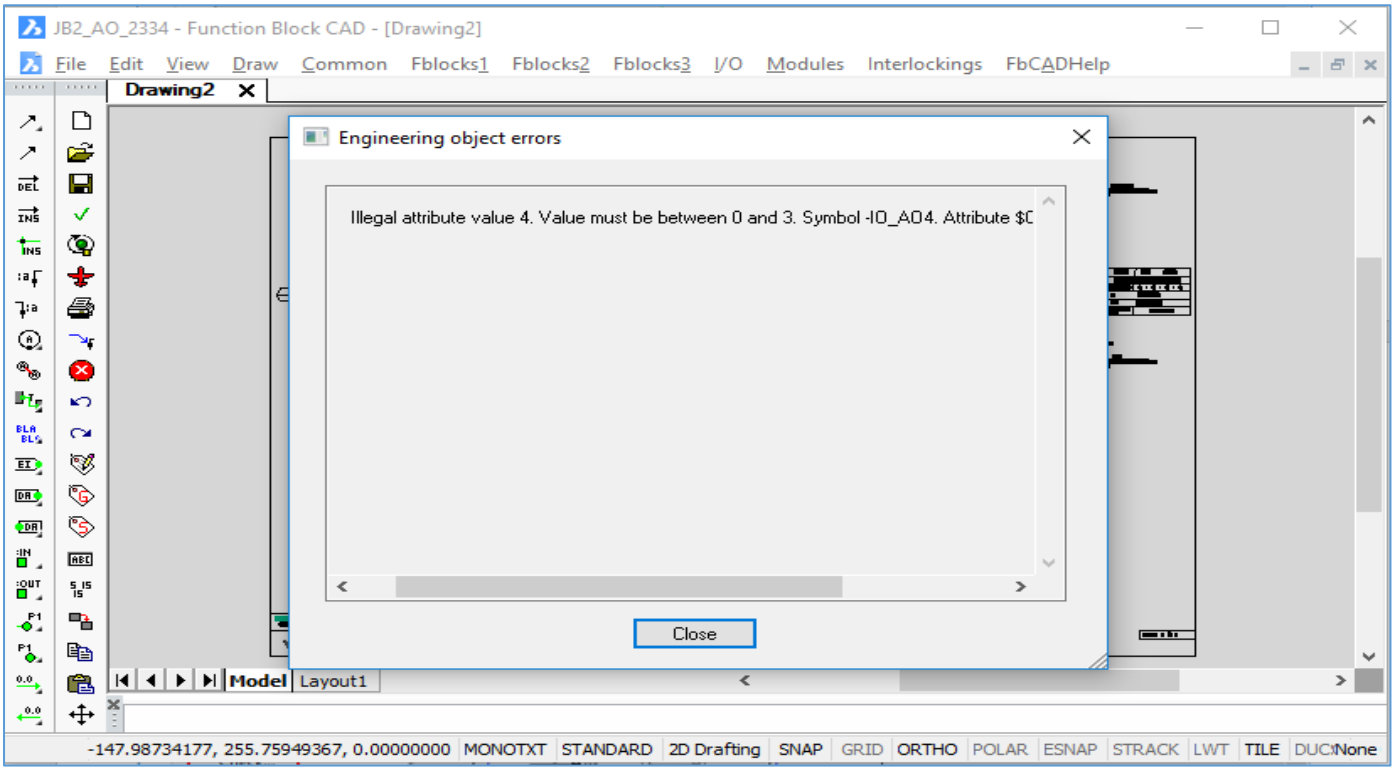




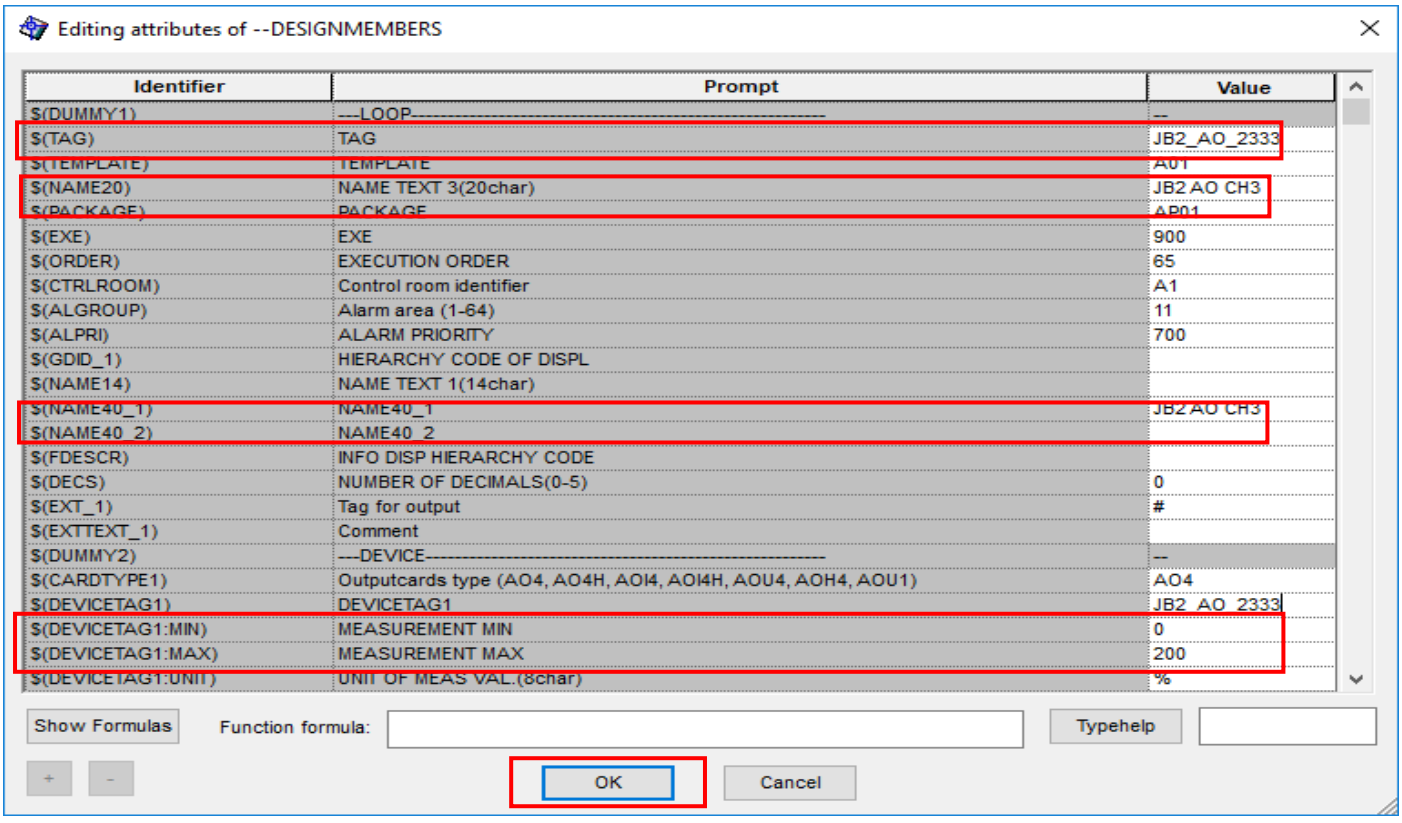
6. To save the new application, click File and choose Check. Created application must be check in repository before downloaded to avoid any error.



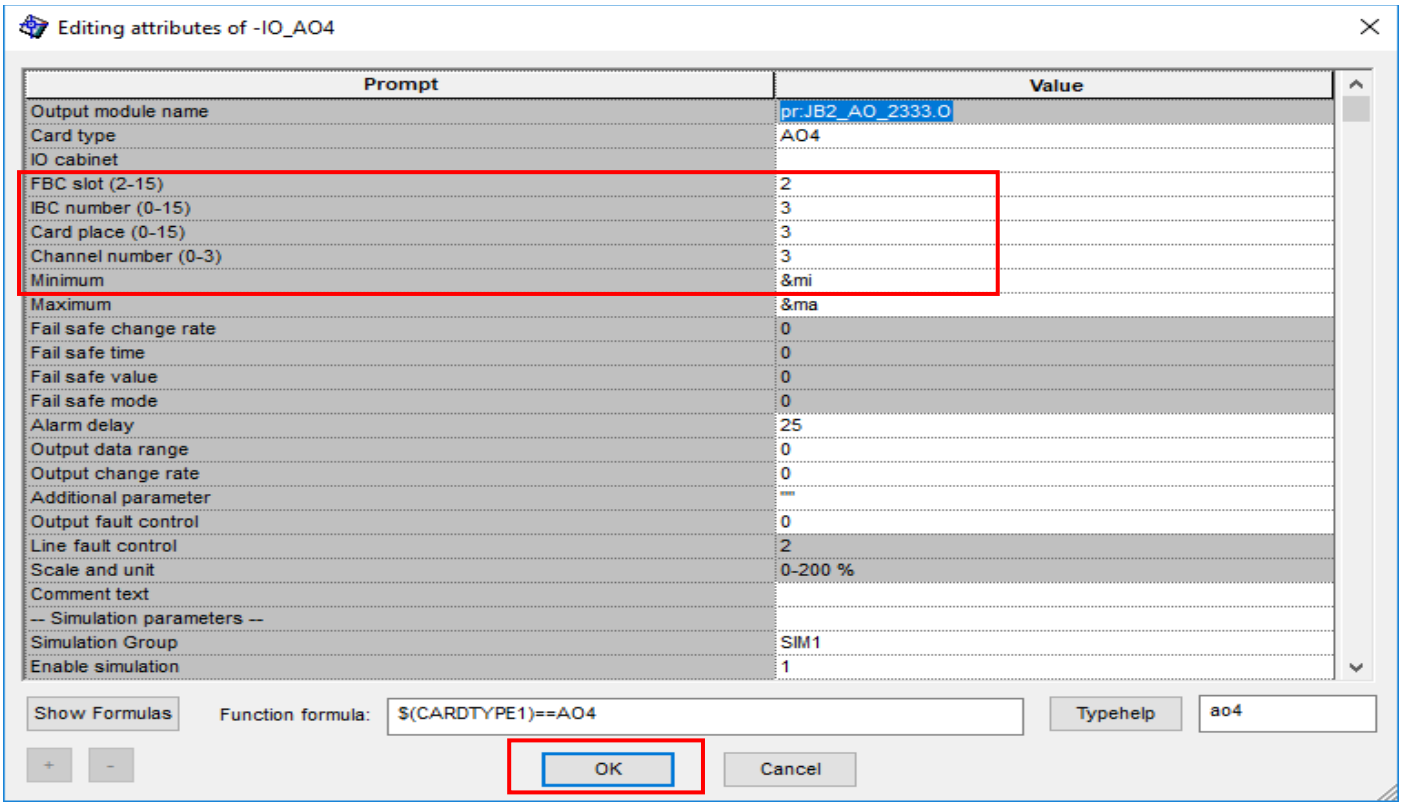
A message will appear as there is an error. The error occurs because Channel 4 to 7 are unavailable in the AO system. Refer to the schematic diagram.



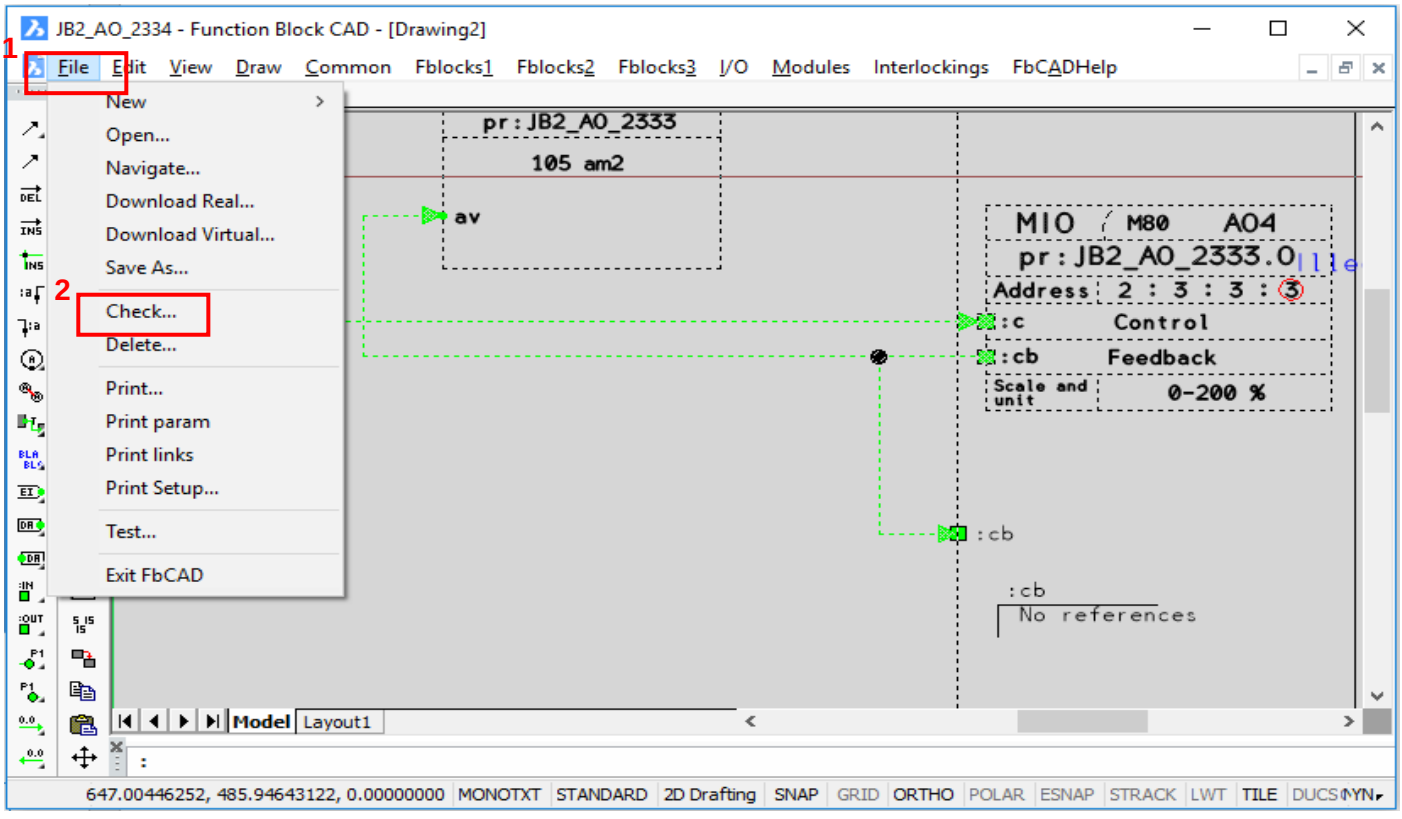
Start again using another example: Analogue output at JB 2 using channel 3. Software address = 2333. Then click OK.



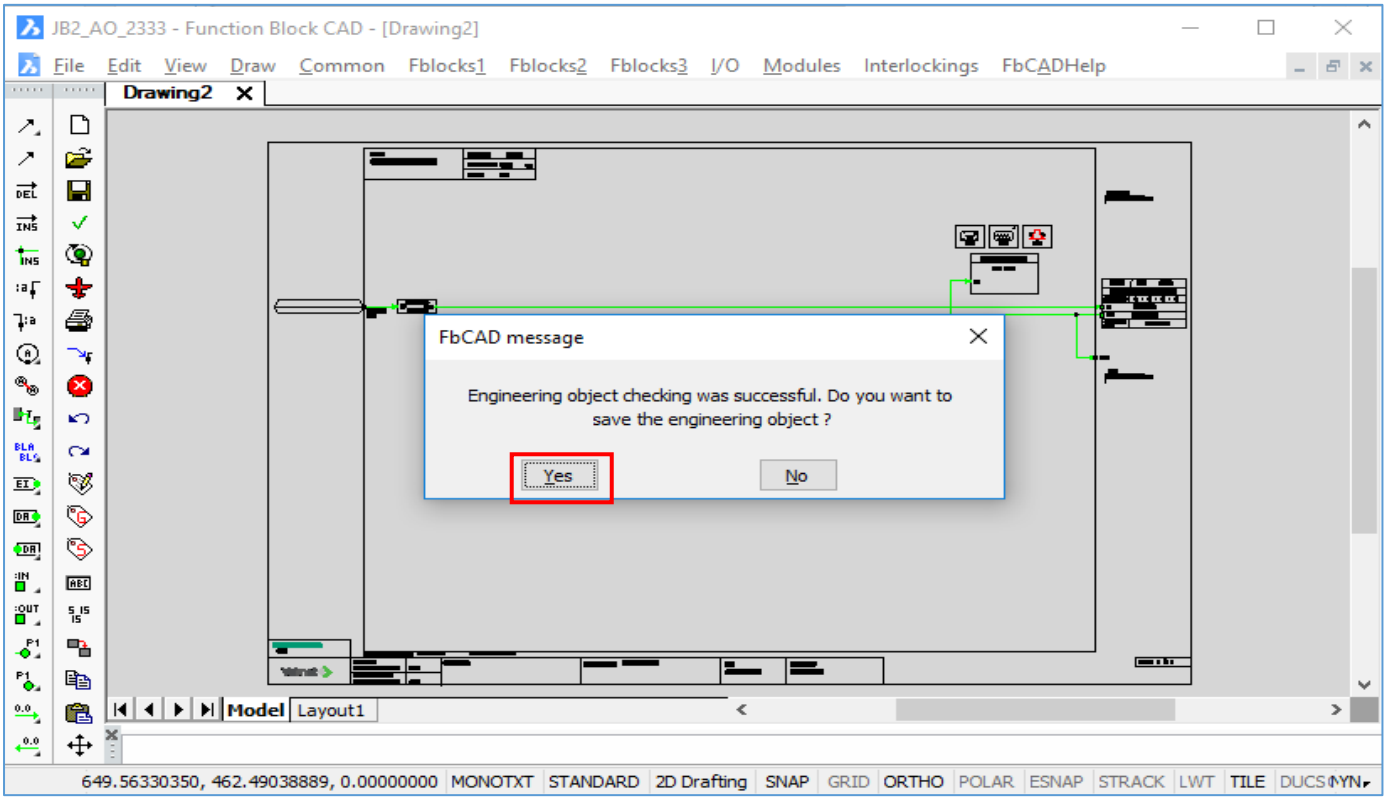
Change I/O address. Then, click OK.



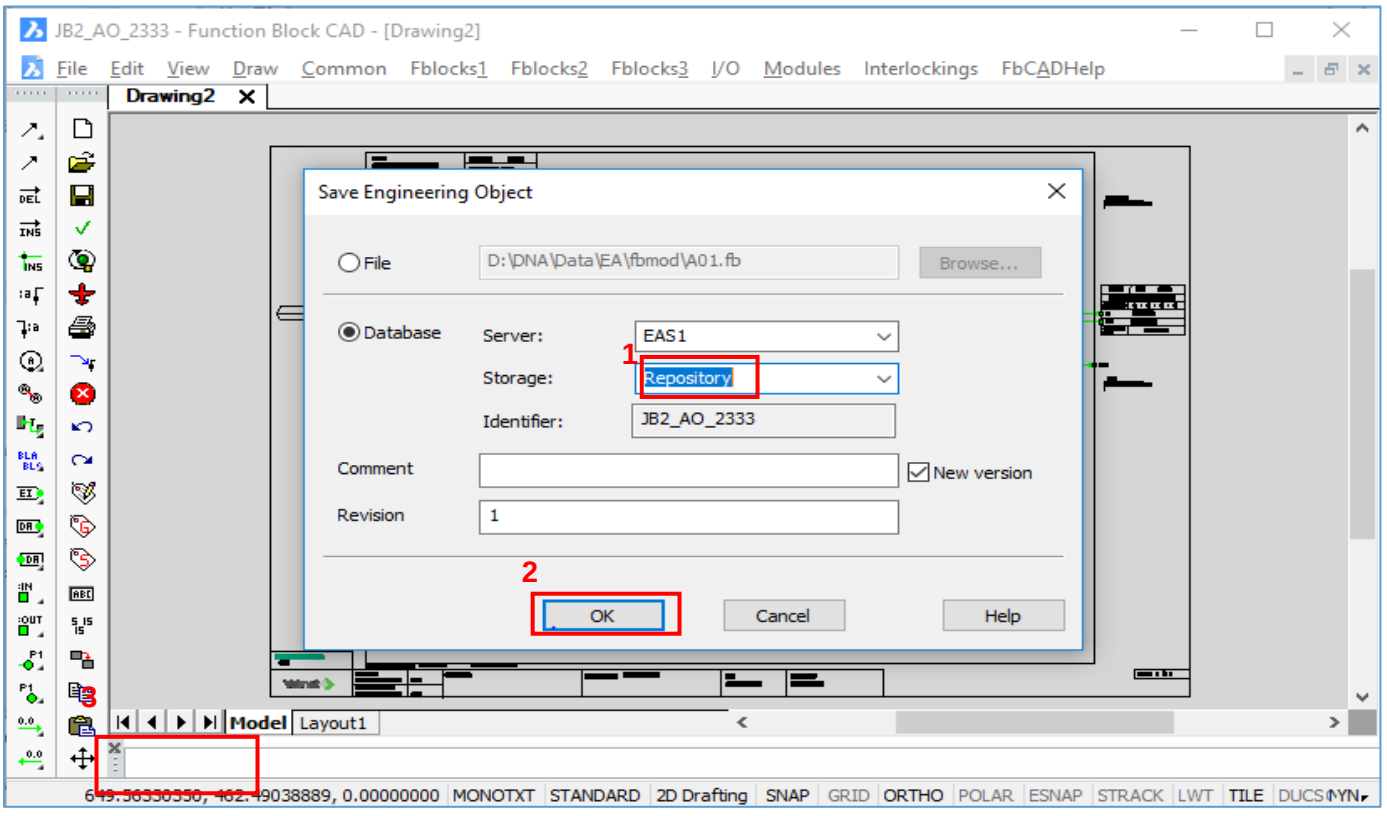
7. To save the new application with new address, click File and choose Check. Created application must be check every time there is a change to avoid any error.



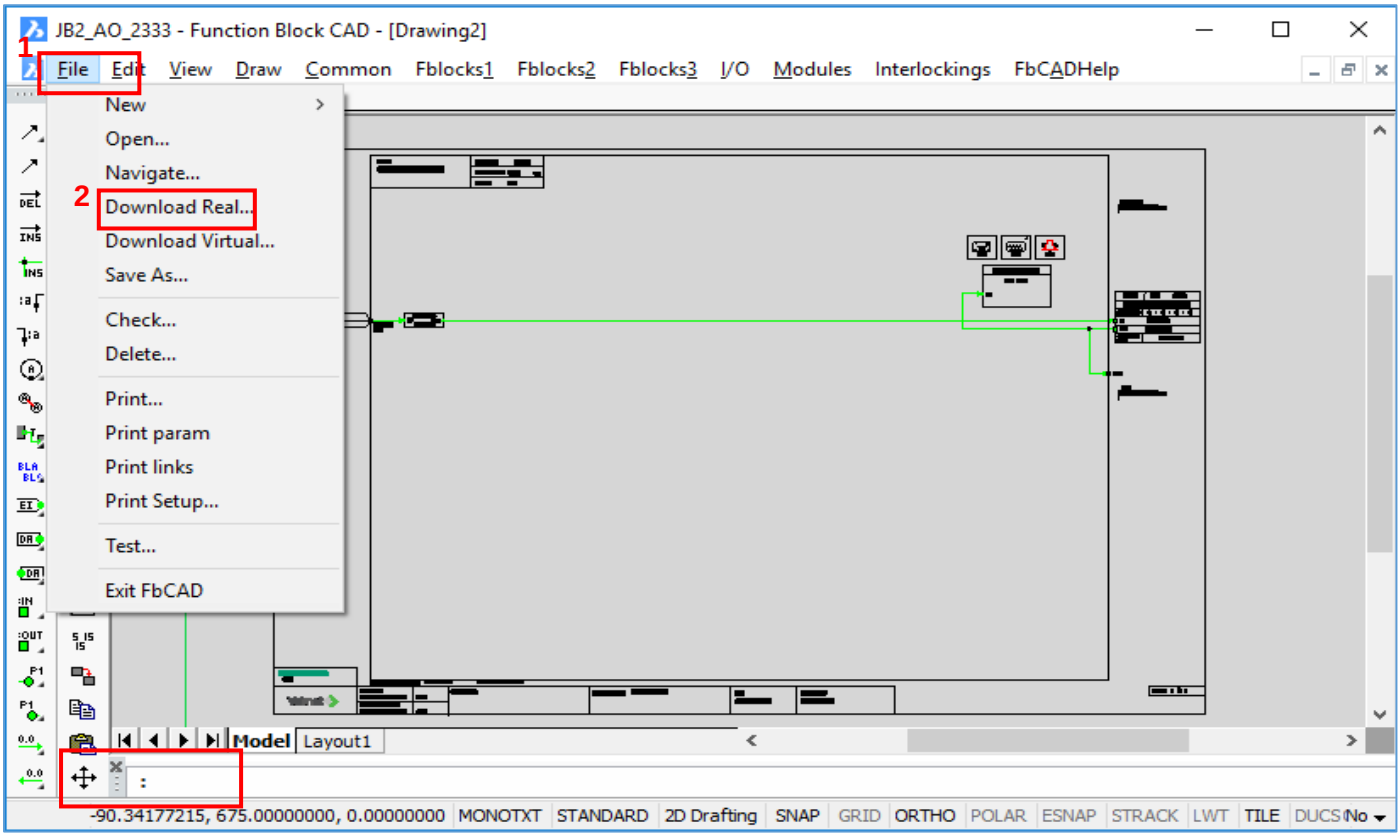
8. If there is no error occurs, message to save the engineering object will pop up. Click Yes.



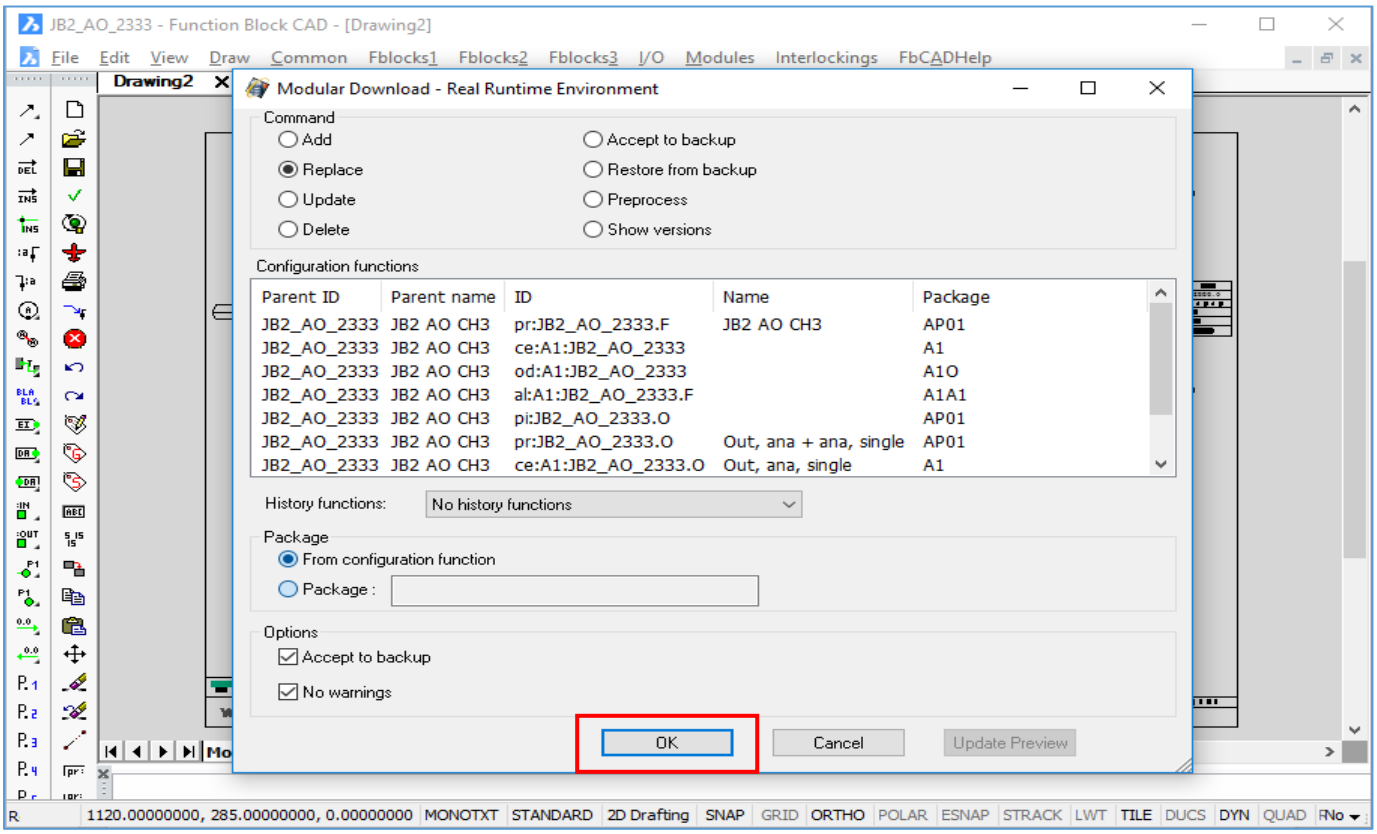
Another window will pop up. Change the storage location from templates to repository. Then, click OK. Wait until the colon symbol to reappear.



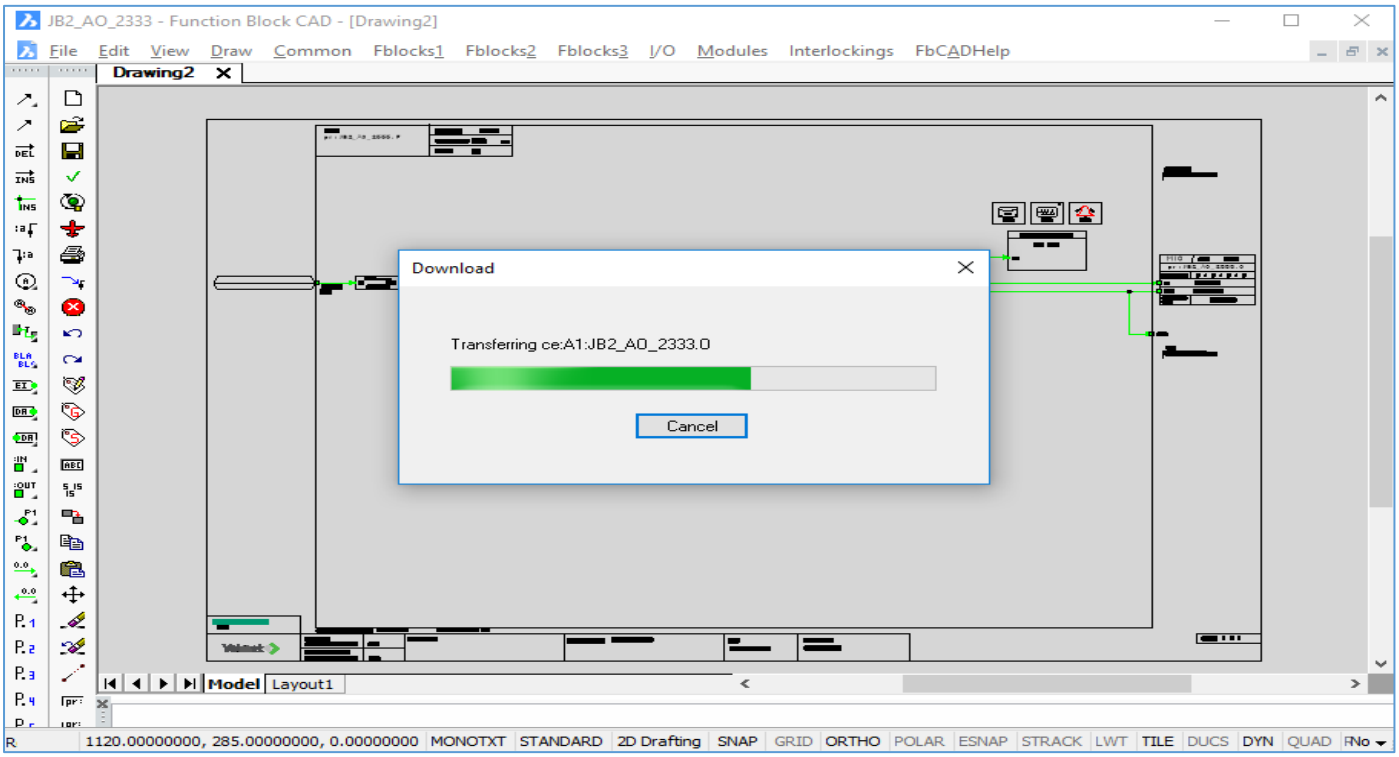
9. The colon symbol reappears to indicate that the saving process is completed. Then download the file.



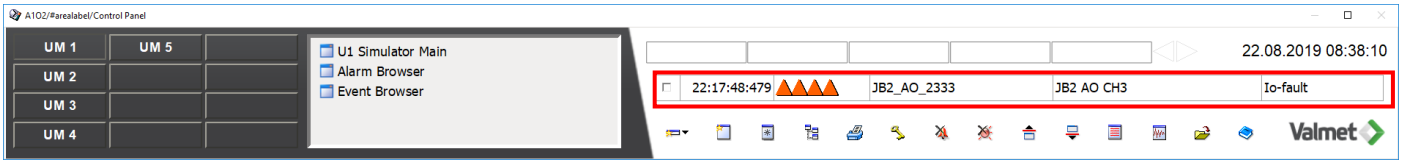
A download window will pop up. Click OK.

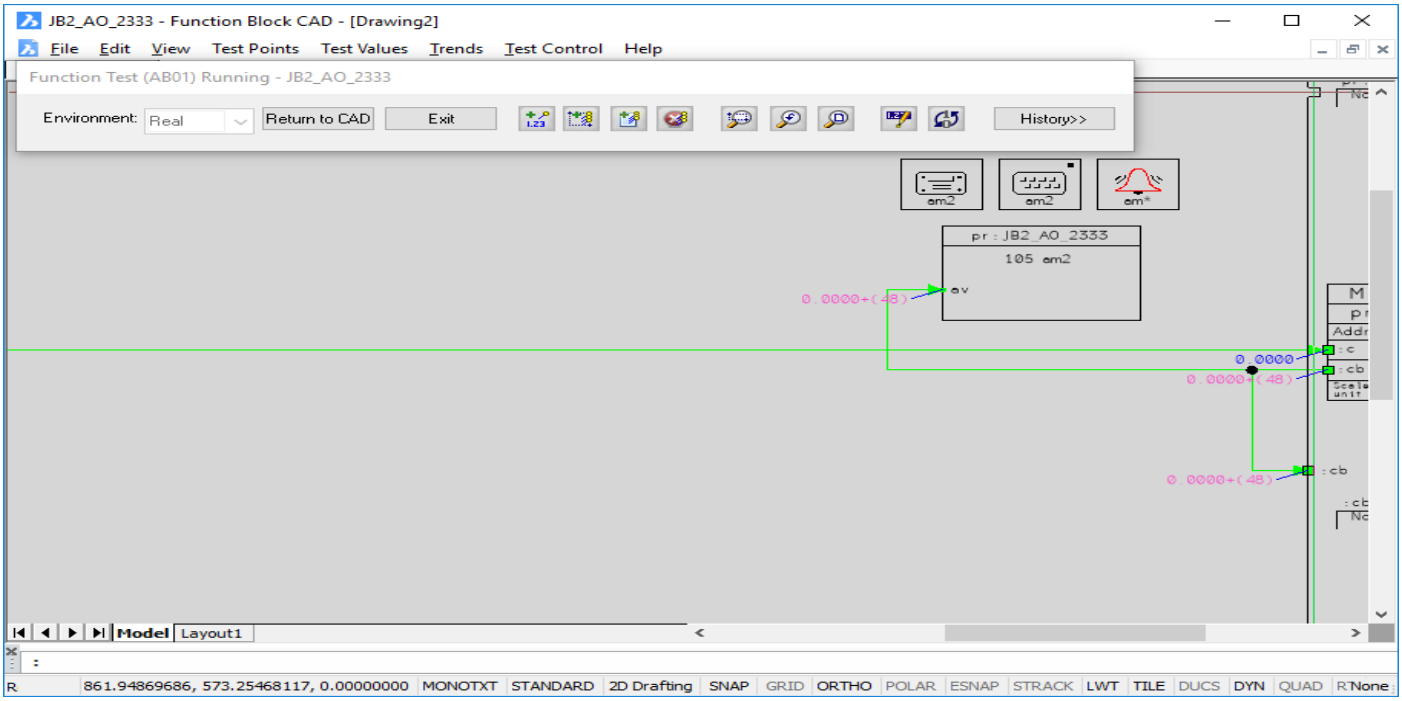


Download is processing. The colon symbol at the bottom will reappears when the process is completed.

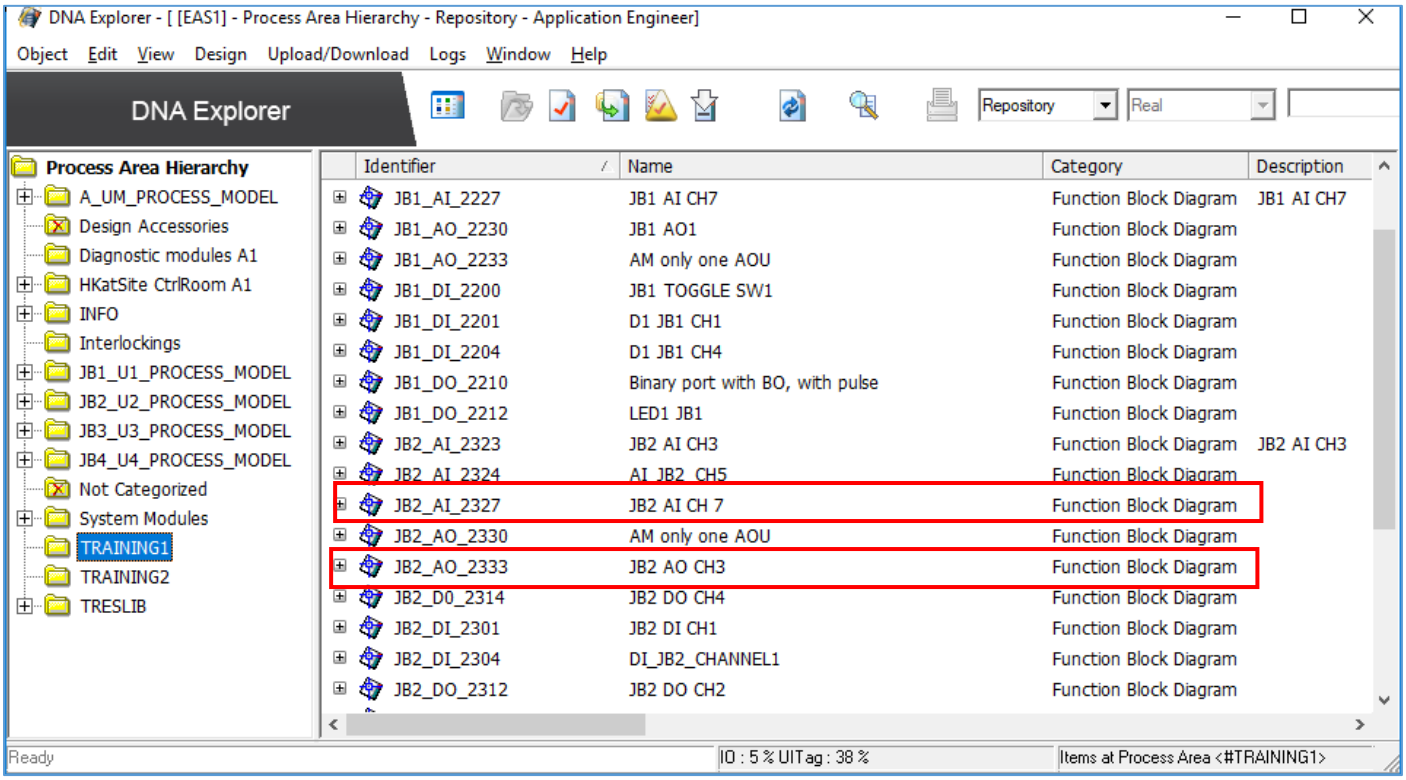


An error occurred because there is no AI file that linked to this AO file. So, create another AI that links with JB2_AO_2333 which is JB2_AI_2327. Please refer to the schematic drawing.

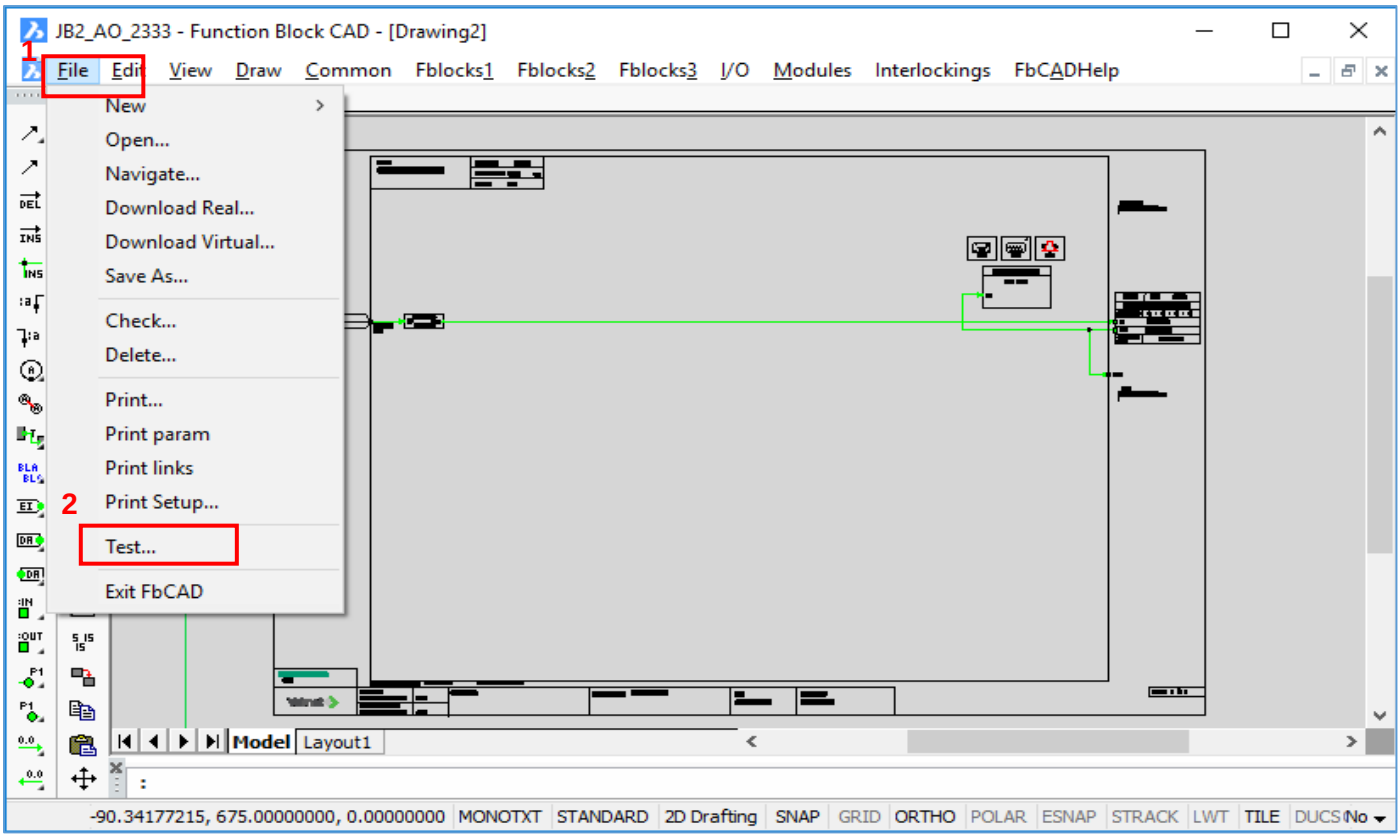


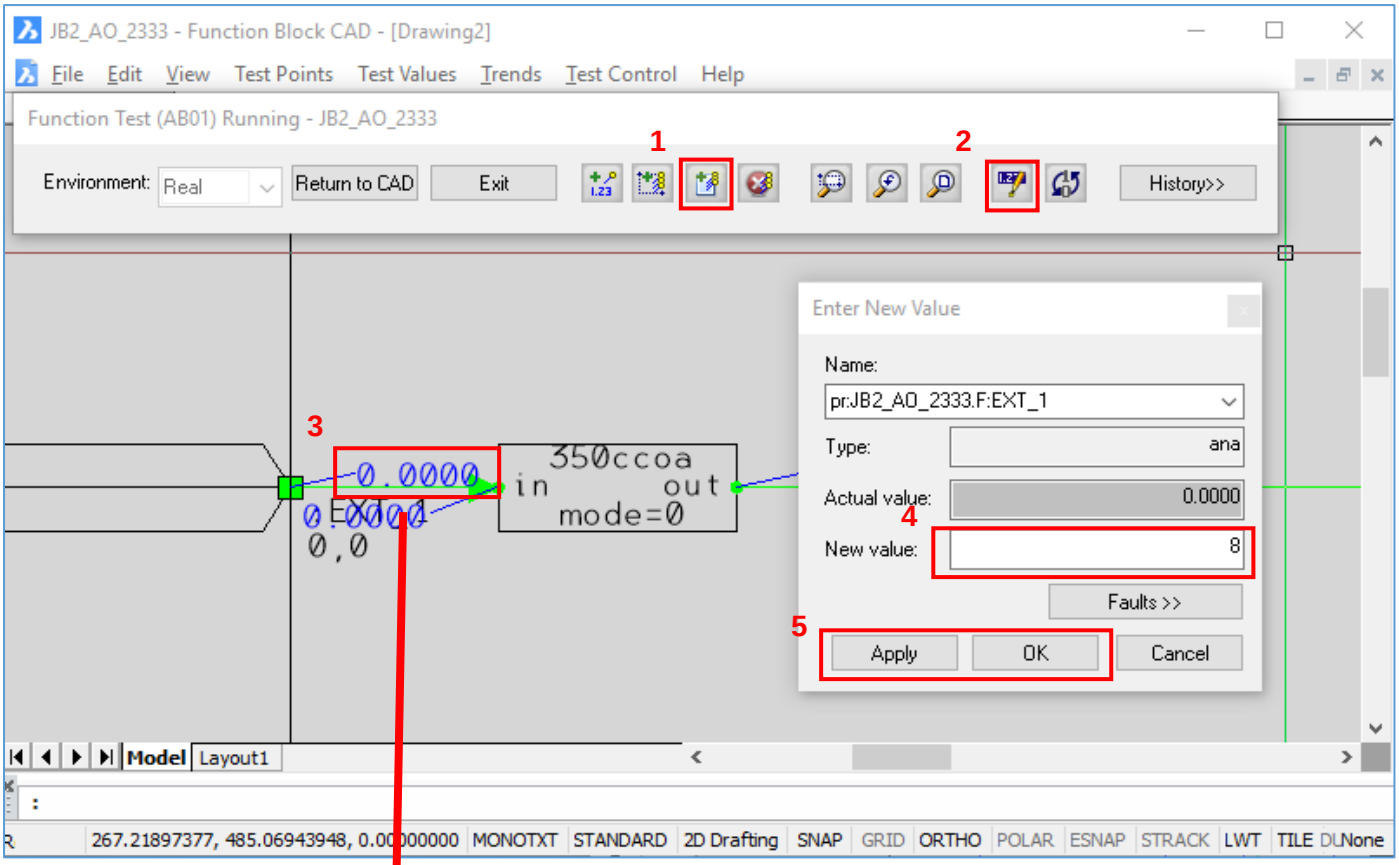


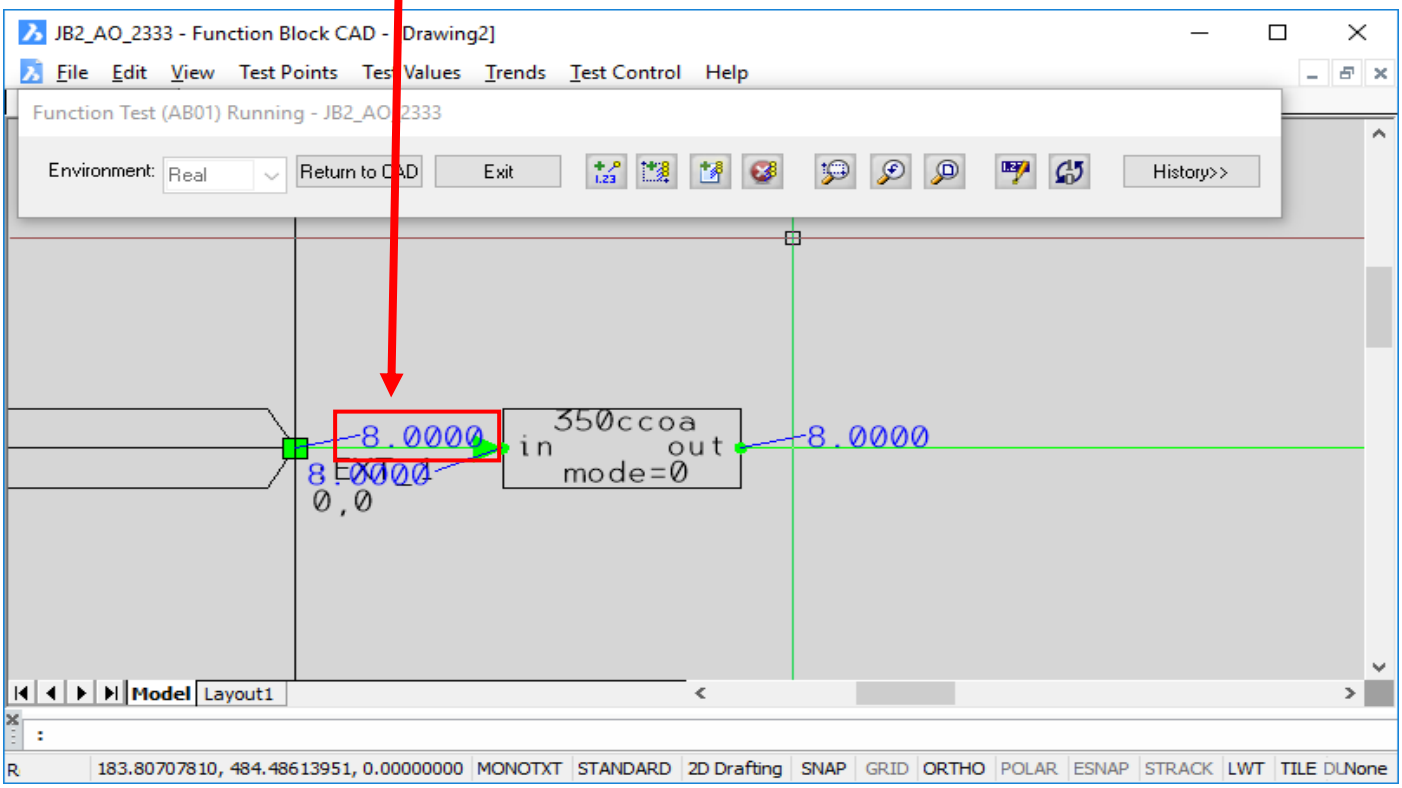
JB2_ AI 2327 application file is created.

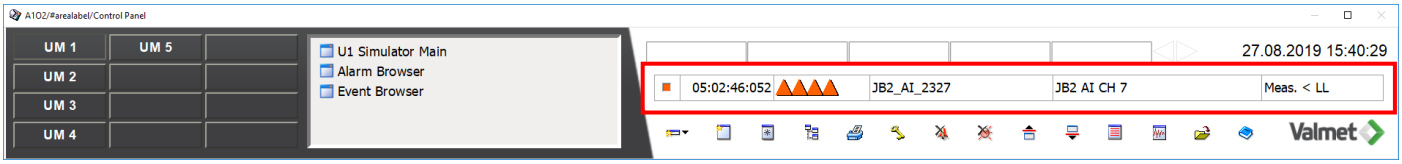


10. Test AO application.




JB2_AO_2333 - Function Block CAD - [Drawing2]
File Edit View Test Points Test Values Trends Test Control Help
Function Test (AB01) Running - JB2_AO_2333
Environment: Real
Return to CAD
Exit
History>>
1
2
3
0.0000
350ccoa
in out
mode=0
0,0
Enter New Value
Name:
pr:JB2_AO_2333.F:EXT_1
Type: ana
Actual value: 0.0000
4
New value: 8
Faults >>
5
Apply
OK
Cancel
Model
Layout1
267.21897377, 485.06943948, 0.00000000 MONOTXT STANDARD 2D Drafting SNAP GRID ORTHO POLAR ESNAP STRACK LWT TILE DUNone


JB2_AO_2333 - Function Block CAD - [Drawing2]
File Edit View Test Points Test Values Trends Test Control Help
Function Test (AB01) Running - JB2_AO_2333
Environment: Real
Return to CAD
Exit
History>>
8.0000
350ccoa
in out
mode=0
8.0000
0,0
Model
Layout1
183.80707810, 484.48613951, 0.00000000 MONOTXT STANDARD 2D Drafting SNAP GRID ORTHO POLAR ESNAP STRACK LWT TILE DUNone


UM 1
UM 5
UM 2
UM 3
UM 4
U1 Simulator Main
Alarm Browser
Event Browser
27.08.2019 15:40:29
05:02:46:052
JB2_AI_2327
JB2 AI CH 7
Meas. < LL
Valmet