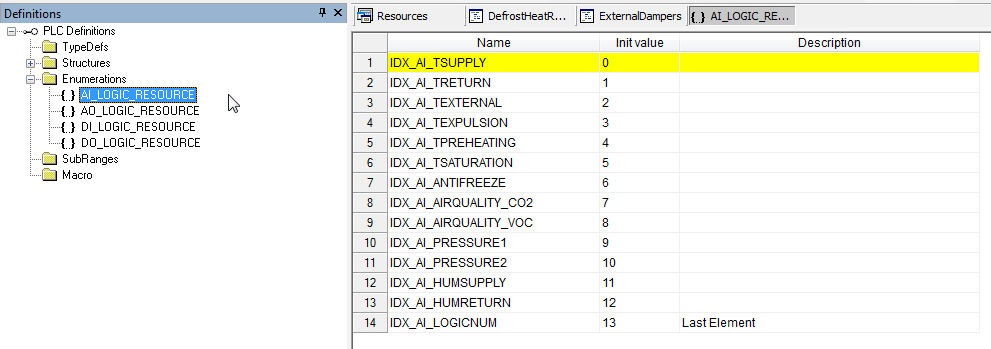
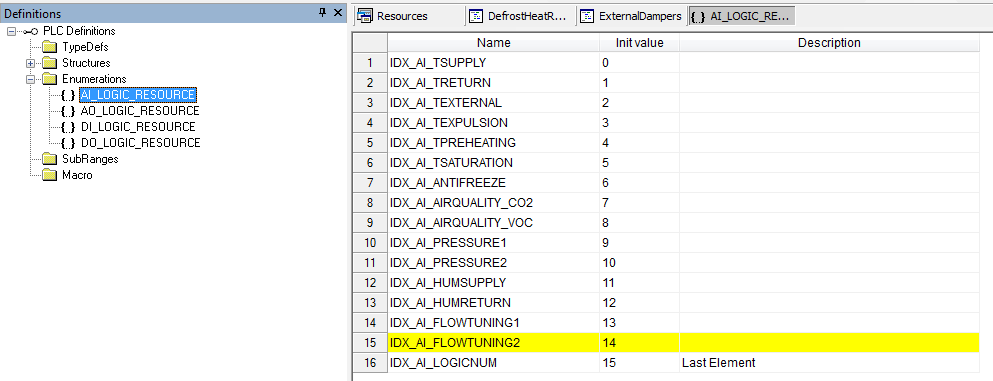
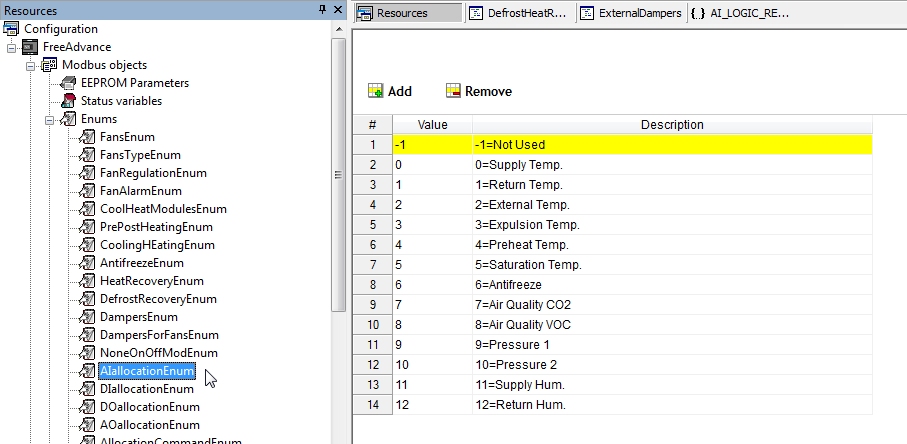
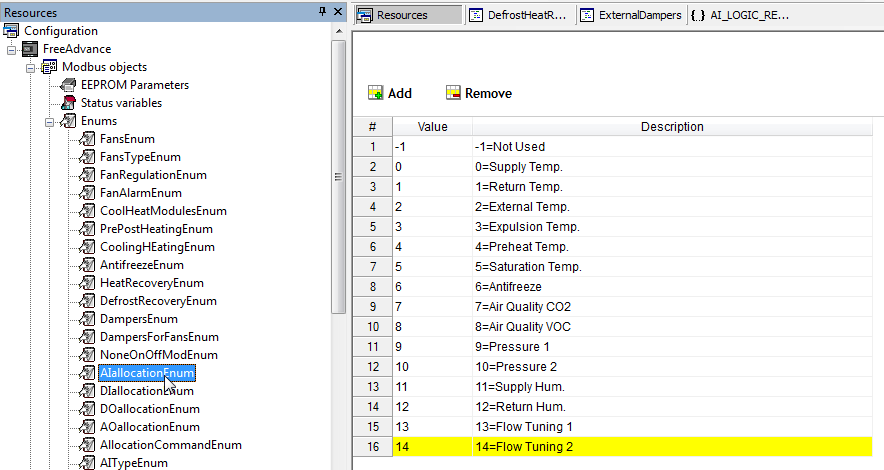
**How to add I/O to AHU baseline**

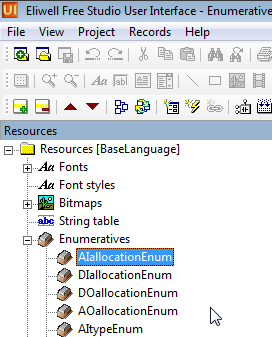
1. Add the enumerative related to the new resource:



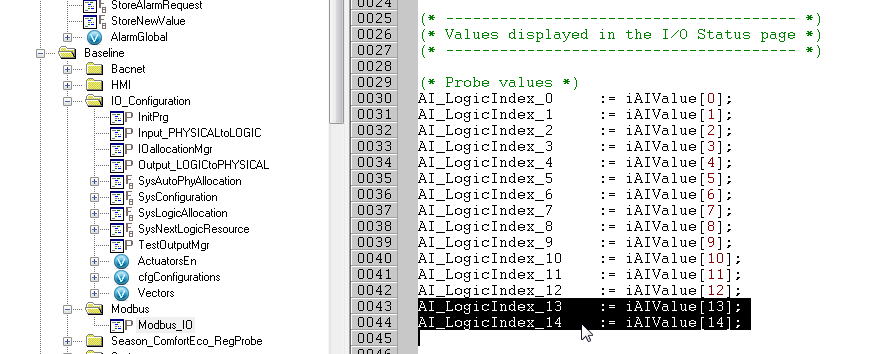


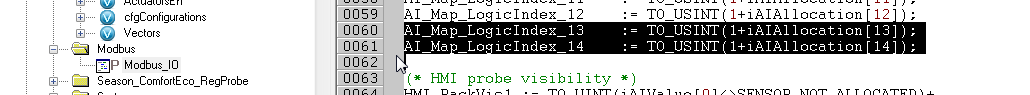
1. Align the related enumerative on the resources of both Ap and UI project:

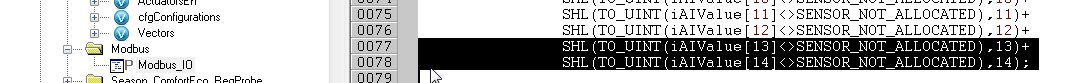


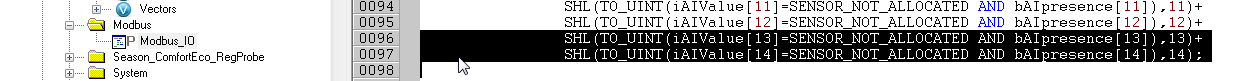
(remember to do it for each language)

1. Based on the I/O type update the dimension of the vectors defined in the Vectors group:
   1. bAIpresence, iAIAllocation, iAIAllocation\_Temp, iAIValue
   2. bAOpresence, iAOAllocation, iAOAllocation\_Temp, iAOValue, bAOEnTestValue, iAOTestValue, iAOCurrentValue
   3. bDIpresence, iDIAllocation, iDIAllocation\_Temp, bDIValue, usDIVoltage, bDIPolarity
   4. bDOpresence, iDOAllocation, iDOAllocation\_Temp, bDOValue, bDOEnTestValue, bDOTestValue, usDOCurrentValue, bDOPolarity,
2. Modify SysConfiguration:
   1. Update the declaration of the vectors defined as VAR\_EXTERNAL
   2. Add the enable condition of the new I/O
3. Modify SysLogicAllocation, SysAutoPhyAllocation, SysNextLogicResource:
   1. Update the declaration of the vectors defined as VAR\_EXTERNAL
4. Based on the I/O type add the following status variables:
   1. AI/AO/DI/DO\_LogicIndex\_x
   2. AI/AO/DI/DO\_Map\_LogicIndex\_x
   3. Update program Modbus\_IO adding the management of the new variables:

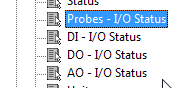




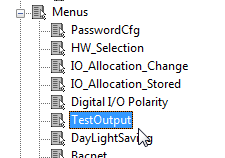




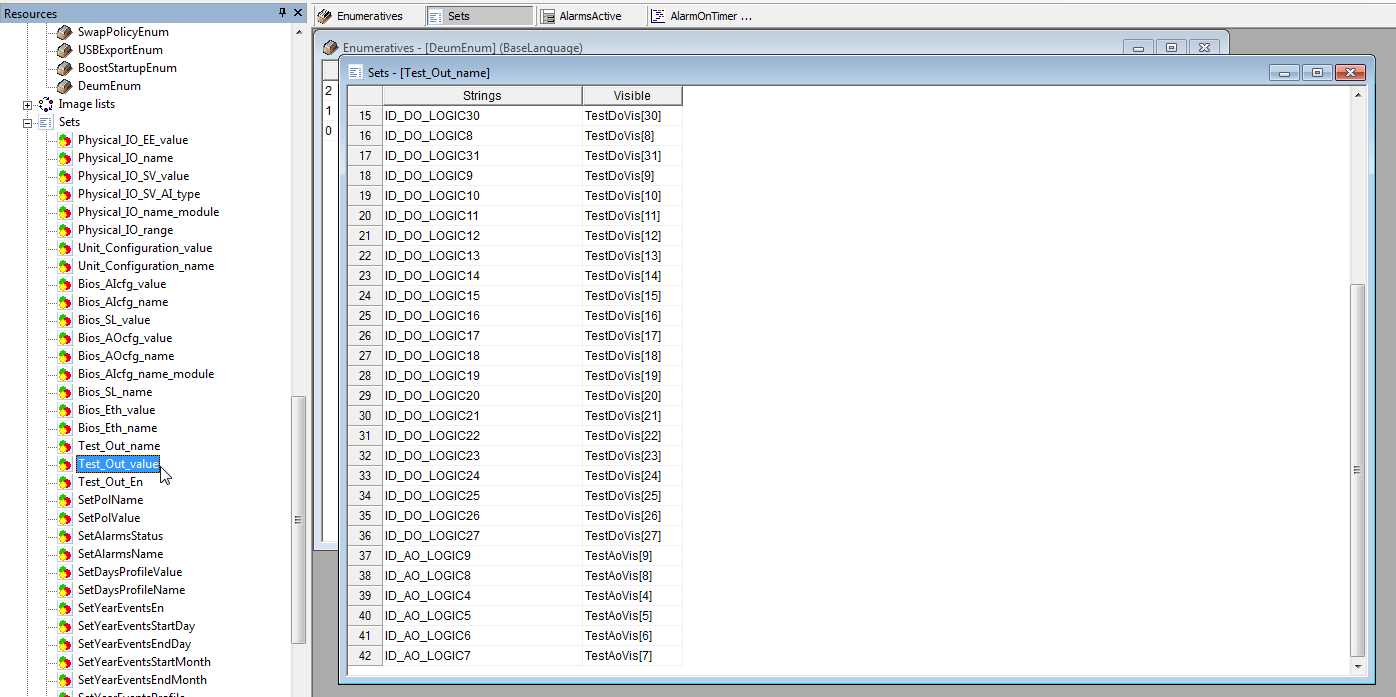
* 1. Add the variables AI/AO/DI/DO\_LogicIndex\_x to the related folder for Device:



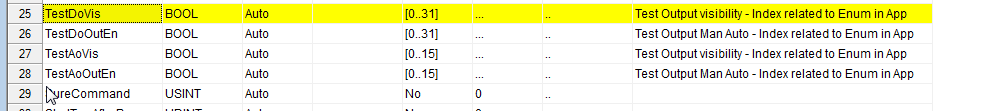
1. In the UI project update pages SetIOname SetIOvalues SetIOum SetIOPhyName SetIOPhyNumber
   1. Add a record for each new I/O
   2. Add a new record to the string table, eg: ID\_AI\_LOGIC13
2. In case of output:
   1. Add the new status variable aoTst\_LogicIndex\_x or doTst\_LogicIndex\_x
   2. Update the folder for Device:



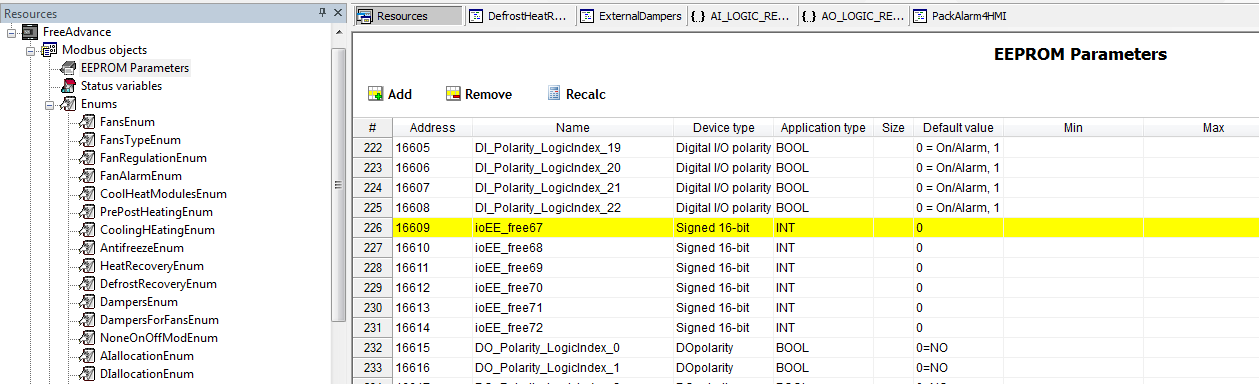
* 1. In the UI project update the set for the management of the output test Test\_out\_name/value/en e SetTestPhyName/Value:



* 1. Verify that the size of the following vectors is still enough:



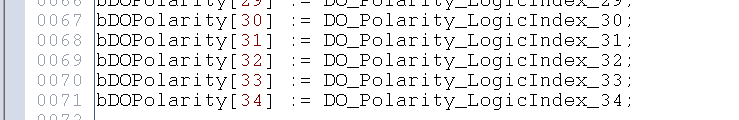
1. In case of digital I/O:
   1. Add the polarity parameter:



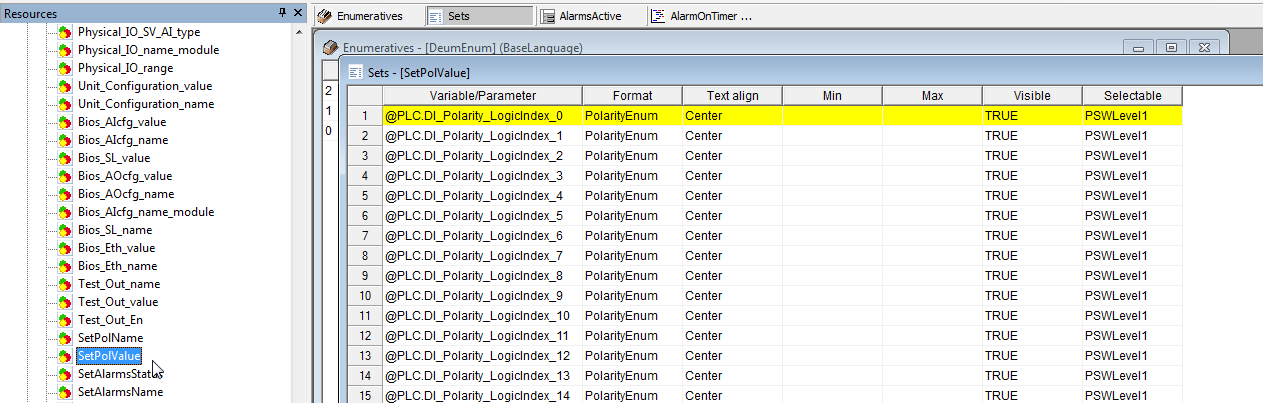
* 1. Update the folder for Device:

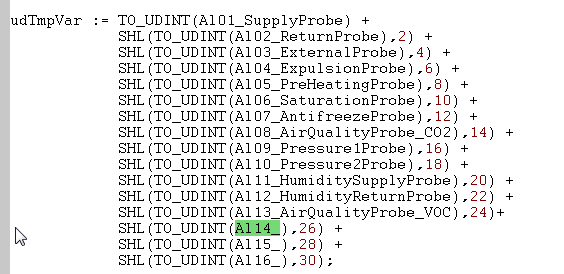


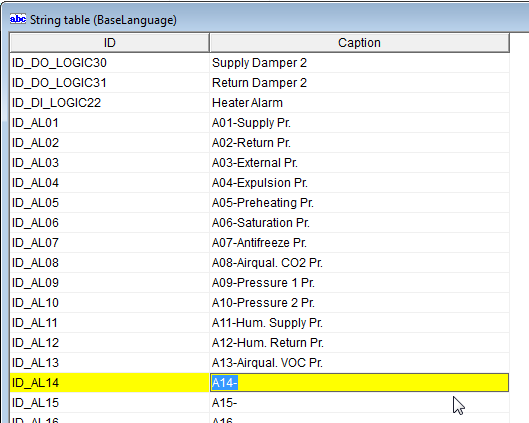
* 1. Update programs Output\_LogicResToLogicOut and Input\_PHYSICALtoLOGIC



* 1. In UI project update the set polarity management SetPolName/Value



1. In case of input evaluate if it is required the status variable related to the probe error::
   1. Add the alarm management in Alarms program
   2. Add the historical management in HistoricalDetectNewAlarm program
   3. Update folder Alarms for Device
   4. Add display visualization in PackAlarm4HMI program:
      1. 
      2. If some alarm are not yet allocated, e.g. Al14\_ rename it and assign an identification string of the alarm into the string table and in the HistoricalEnum enumerative of UI project:



* + 1. Update sets SetAlarmsStatus and SetAlarmsName
  1. If needed add the management of the related Bacnet object: Bacnet\_BAI