Unity Application Generator

How Can I…

Insert and manage Advantys island in Unity PLC based control system

Schneider Electric

Issue

- I want to insert a Advantys island in Unity PLC based control system.
- I should be able to assign variables to the IOs from Advantys island.

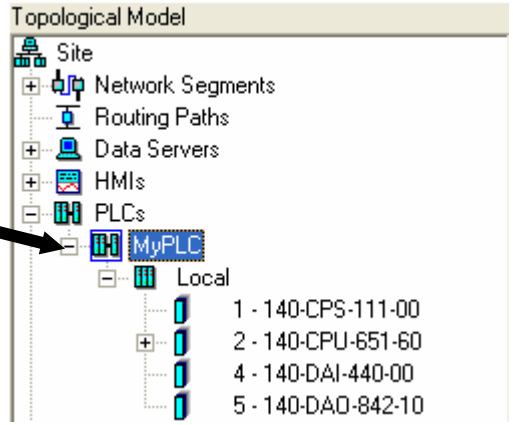
How to do..

Basic explanation

- UAG offers a possibility to include Advantys island over Modbus TCP /Profibus and made it available in architecture so that IOs can be used in control modules.
- Complete Advantys island configuration (developed with Advantys software) can be imported and viewed directly into UAG.
- Goal:
  - To import a Advantys island configuration file developed with Advantys software.
  - Assign addresses to each device.
  - Use IO variables from Advantys modules in control modules.
  - Generate application in Unity with Advantys island connected over IO Scanner.

How to do..
In UAG

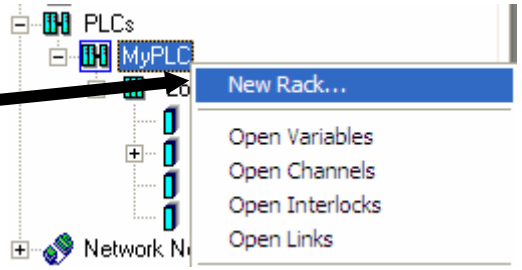
- In UAG, a PLC capable of handling Modbus TCP module should be configured.



How to do..

In UAG

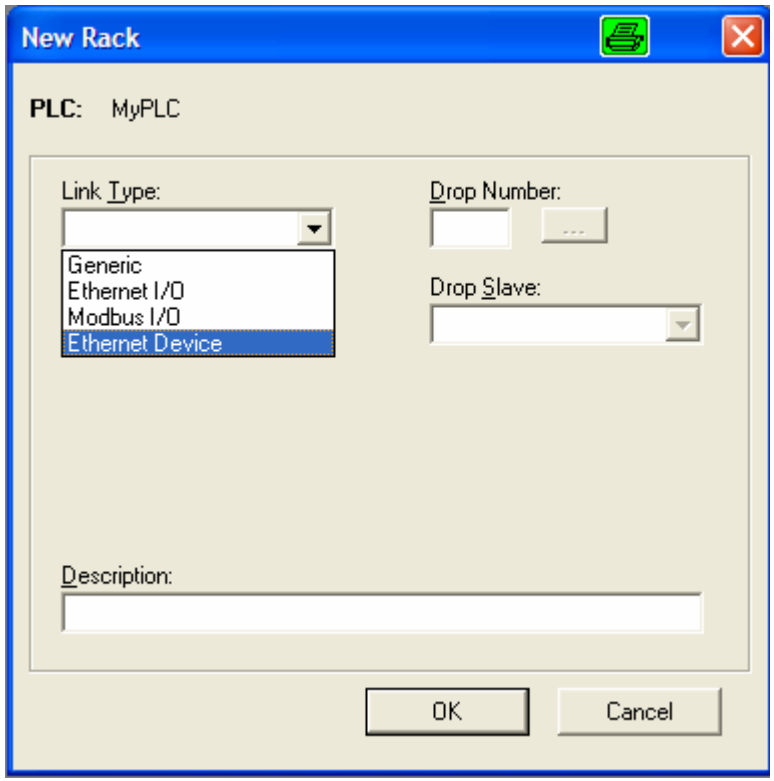
- By right-clicking on the PLC, a small menu with options of inserting new racks will be appeared.
- “NEW RACK” should be selected.



How to do..

In UAG

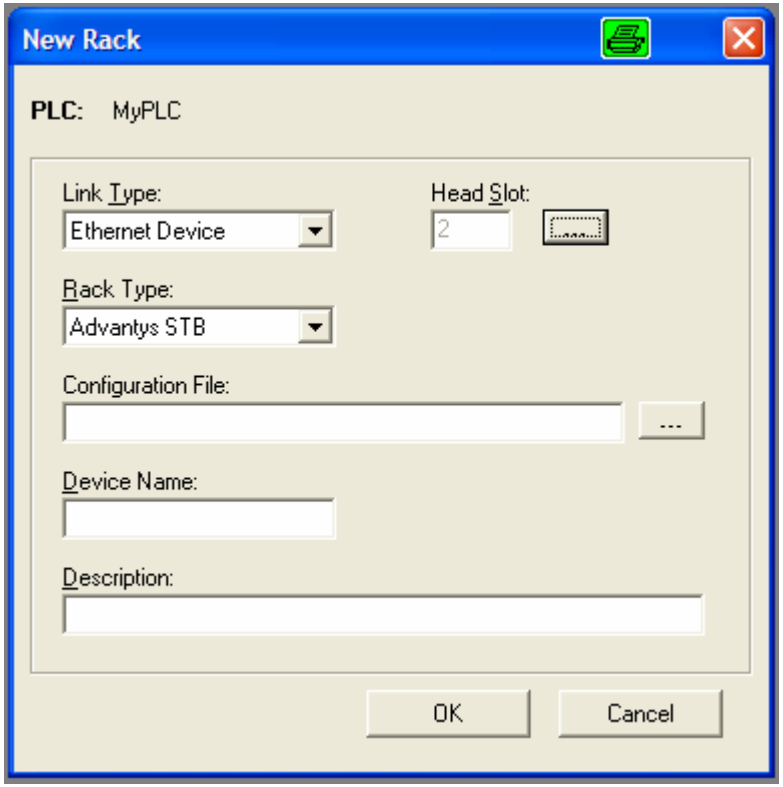
- Window for inserting new rack will be opened:



How to do..

In UAG

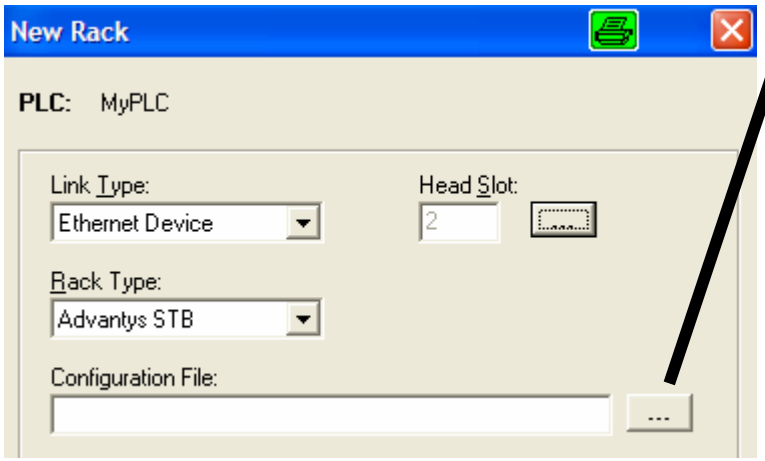
- In “Link Type”, Ethernet device and in “Rack type ” Advantys STB should be selected.

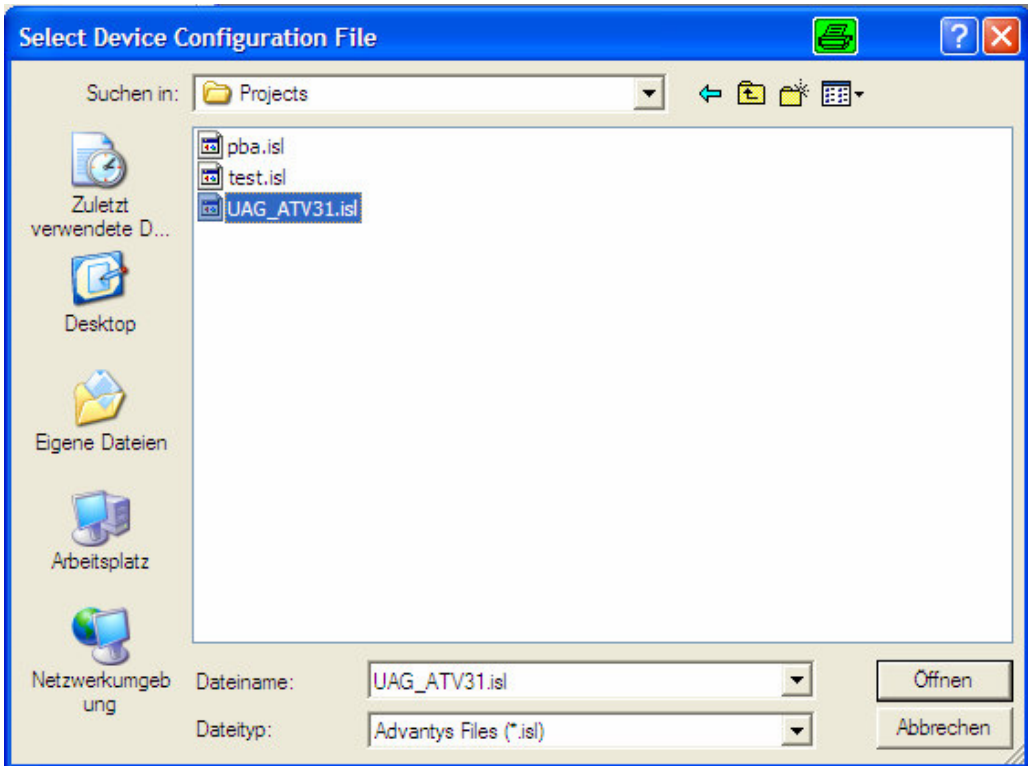


How to do..

In UAG

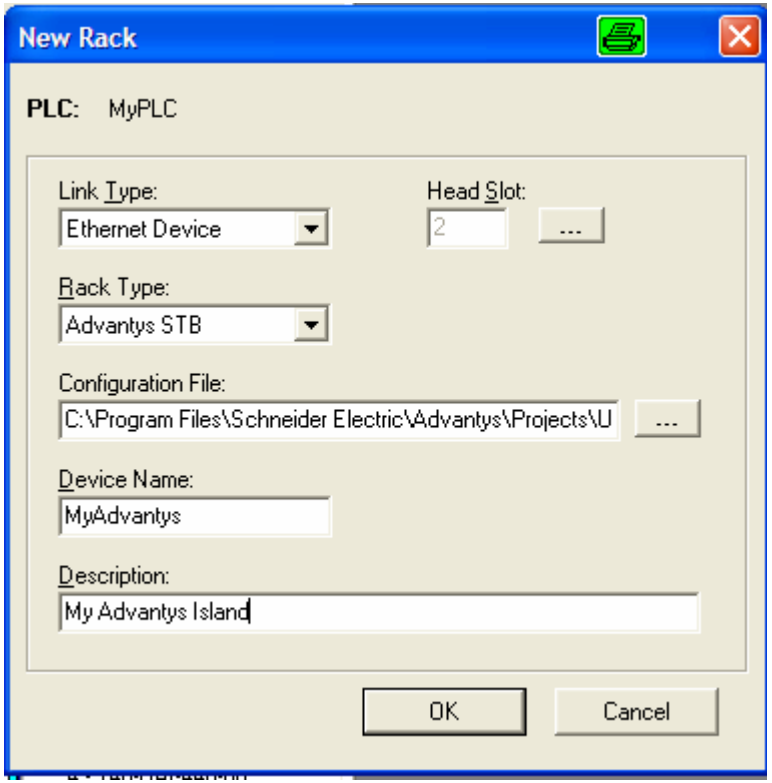
- "Configuration file" refers to *.isl file, a file generated with Advantys Software with configuration.





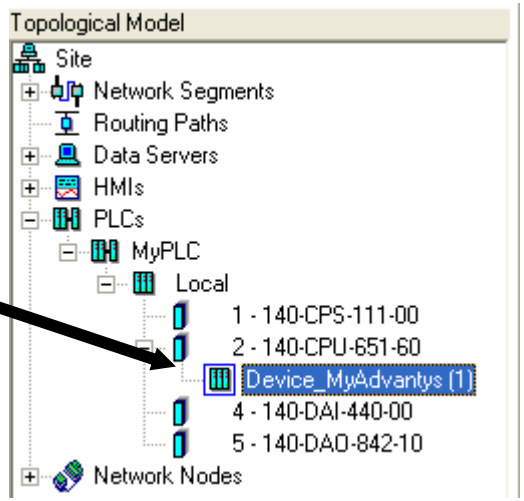
How to do..
In UAG

- After entering name and description, the window should look like this:



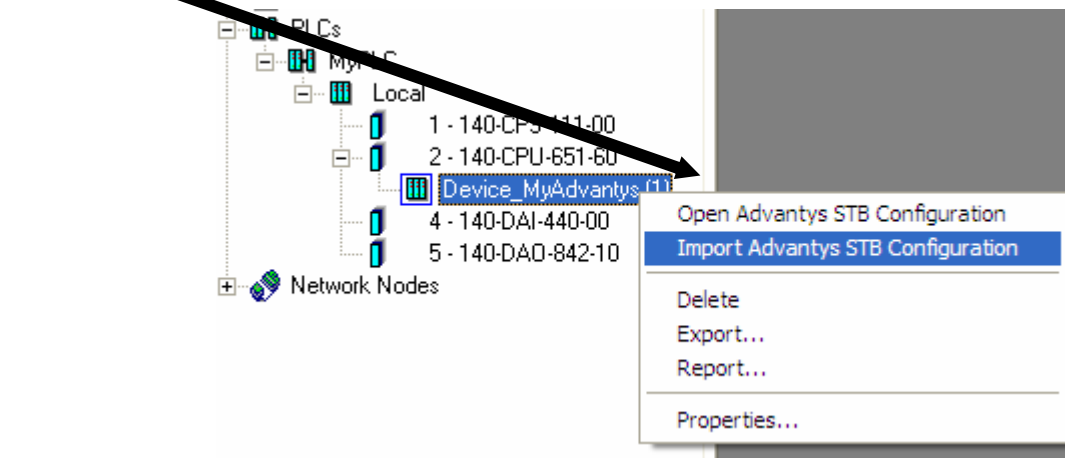
How to do..
In UAG

- The Advantys island will appear like this in the topological model under PLC.



How to do..
In UAG

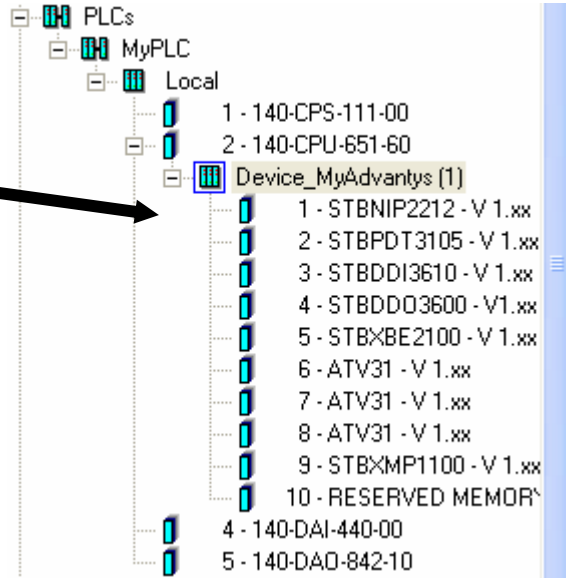
- Advantys configuration can be imported by right-clicking on the Advantys device and selecting “Import”.



How to do..

In UAG

- The Advantys island will be imported.
- User should ensure that no error message reported..



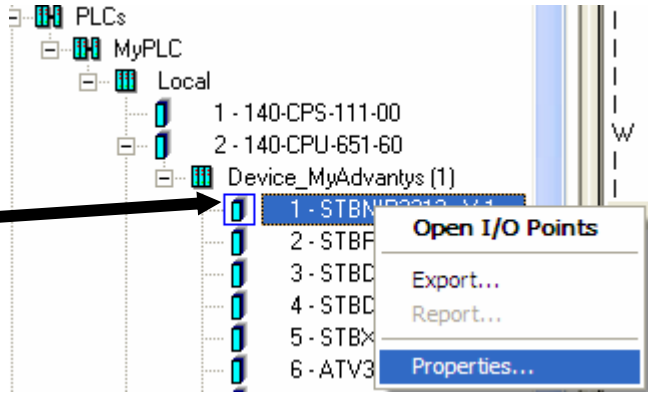
Import Configuration

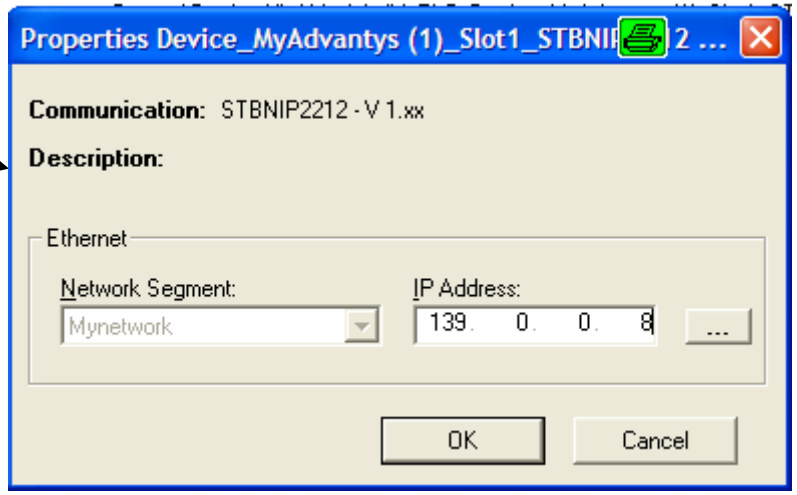
Type	Information
I	Start: 01/09/2009 12:03:14 +0100
I	Rack 'MyAdvantys': 'Type' was changed.
I	Rack 'MyAdvantys': HW module 'STBNIP2212 - V 1.xx' (Slot 1) was created.
I	Rack 'MyAdvantys': HW module 'STBPDT3105 - V 1.xx' (Slot 2) was created.
I	Rack 'MyAdvantys': HW module 'STBDDI3610 - V 1.xx' (Slot 3) was created.
I	Rack 'MyAdvantys': HW module 'STBDDO3600 - V1.xx' (Slot 4) was created.
I	Rack 'MyAdvantys': HW module 'STBXBE2100 - V 1.xx' (Slot 5) was created.
I	Rack 'MyAdvantys': HW module 'ATV31 - V 1.xx' (Slot 6) was created.
I	Rack 'MyAdvantys': HW module 'ATV31 - V 1.xx' (Slot 7) was created.
I	Rack 'MyAdvantys': HW module 'ATV31 - V 1.xx' (Slot 8) was created.
I	Rack 'MyAdvantys': HW module 'STBXMP1100 - V 1.xx' (Slot 9) was created.
I	Rack 'MyAdvantys': HW module 'RESERVED MEMORY' (Slot 10) was created.
I	Finished: warnings: 0 errors: 0
I	End: 01/09/2009 12:03:22 +0100
I	Elapsed time: 8 sec

How to do..

In UAG

- IP address should be assigned to the Advantys island by right clicking on the device head module.
- This window will appear:

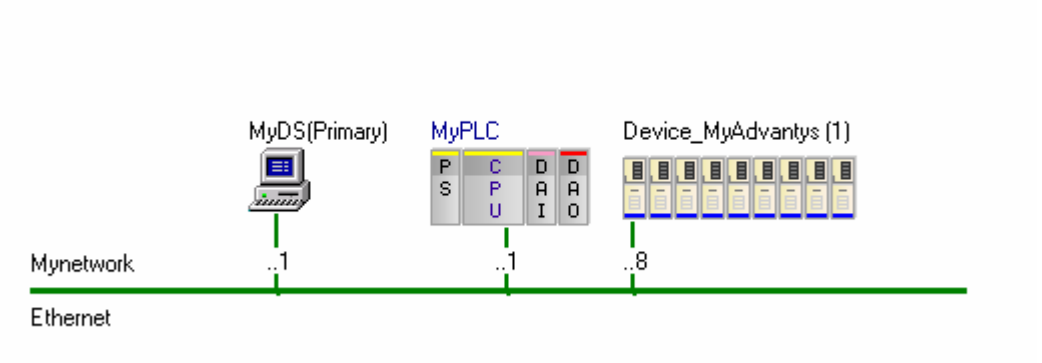




How to do..

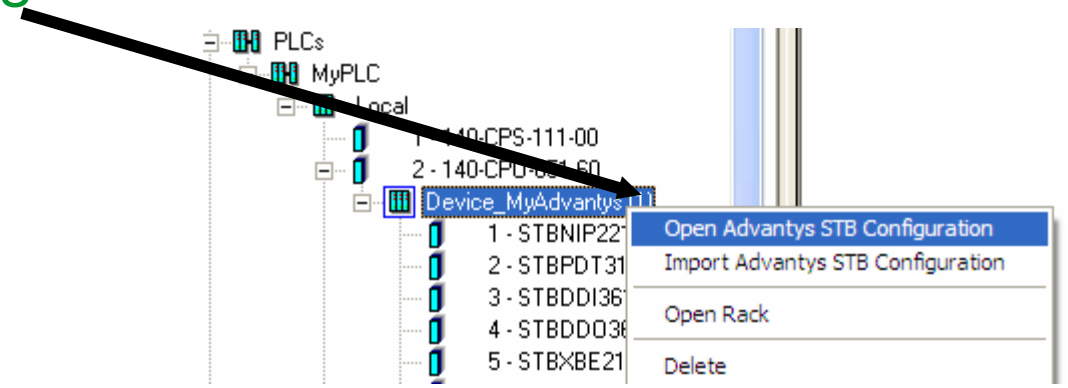
In UAG

- The new device will appear like this under UAG→ VIEW → Topological viewer



How to do..
In UAG

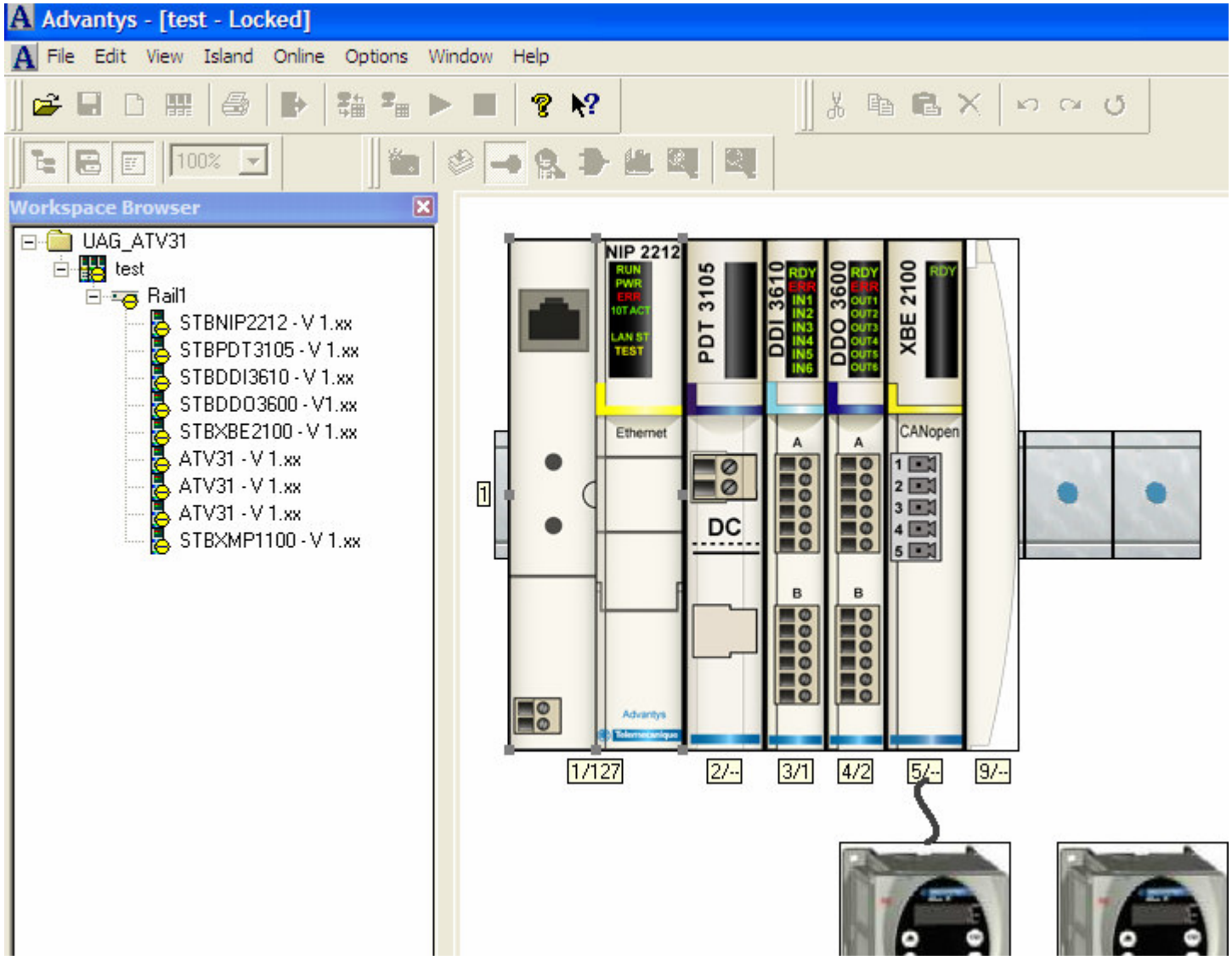
- The Advantys island can be opened by right clicking on the device.



How to do..

In UAG

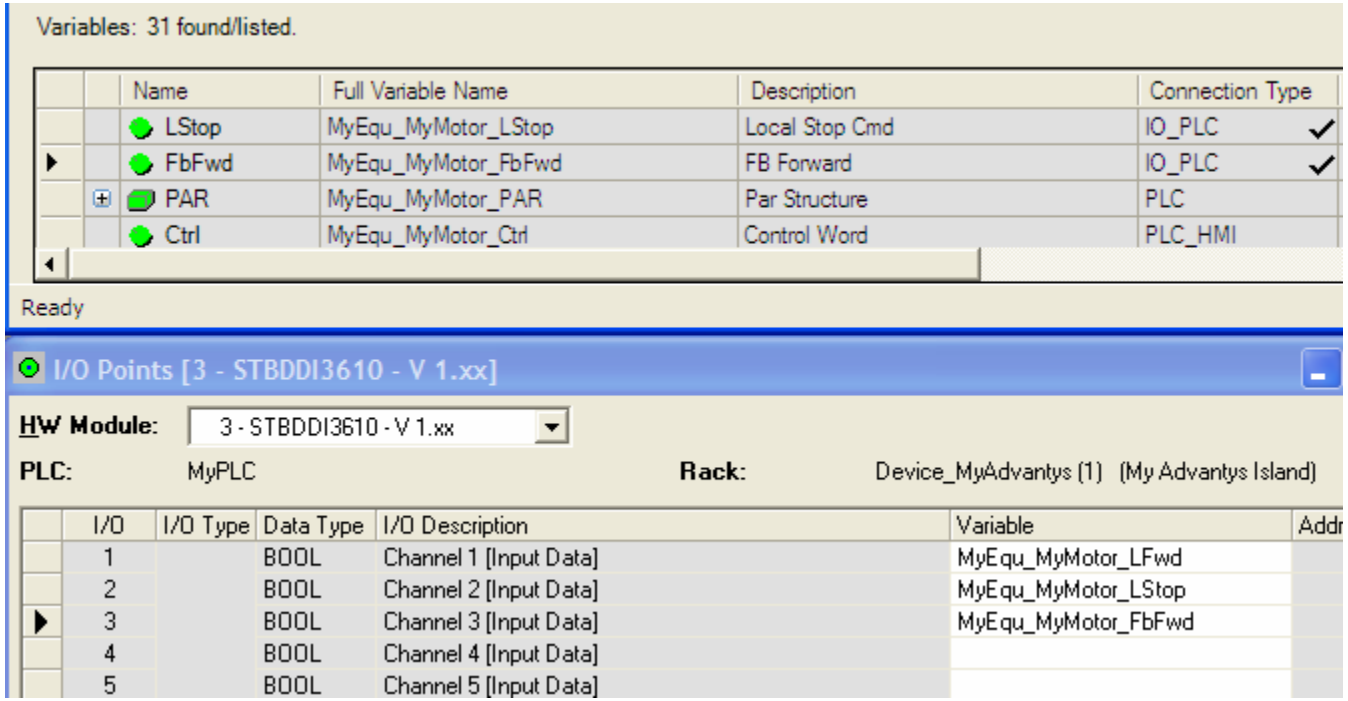
- Advantys configur-ation file will be opened:
- The file should be closed after viewing.



How to do..

In UAG

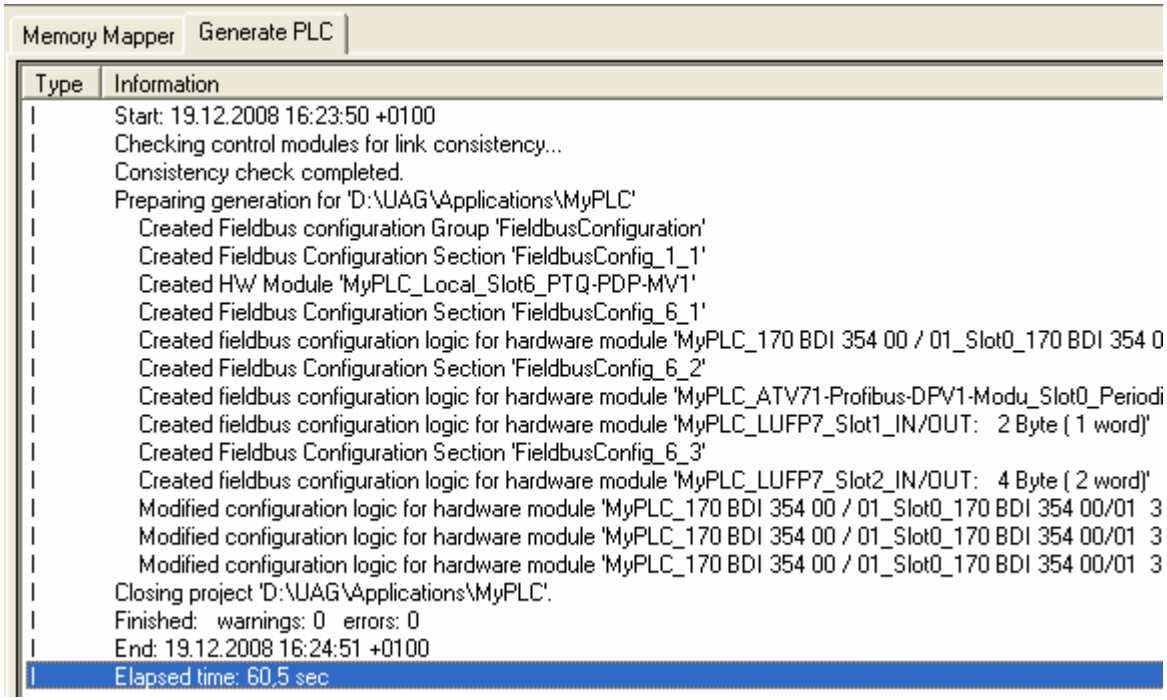
- IOs from the Advantys module can be opened by clicking on the module.
- Variable from any of the Control module should be connected to the Advantys module by drag-n-drop.



How to do..

In UAG

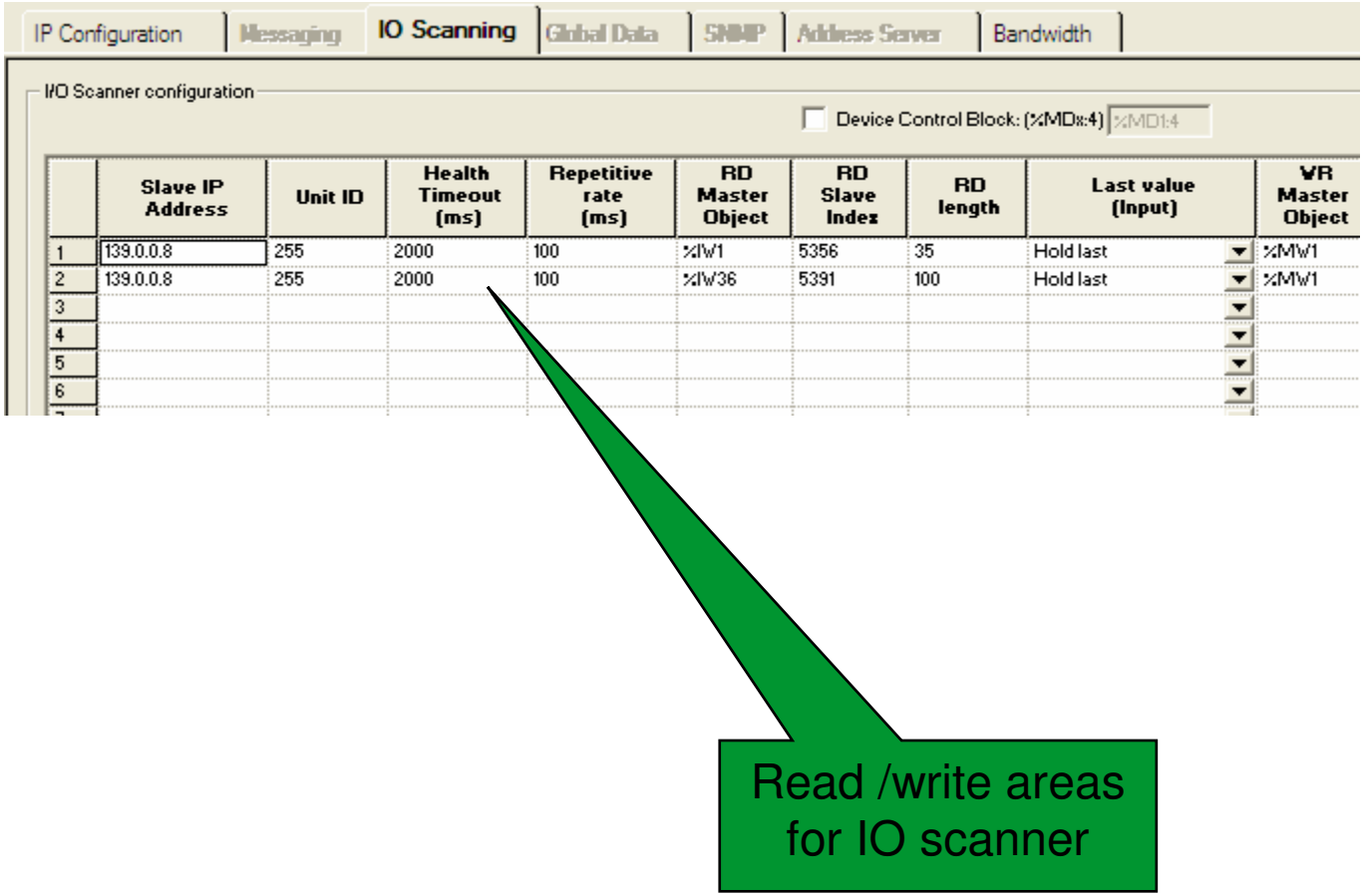
- Unity application can be generated by using “Generate PLC” function in UAG.



How to do..

In Unity

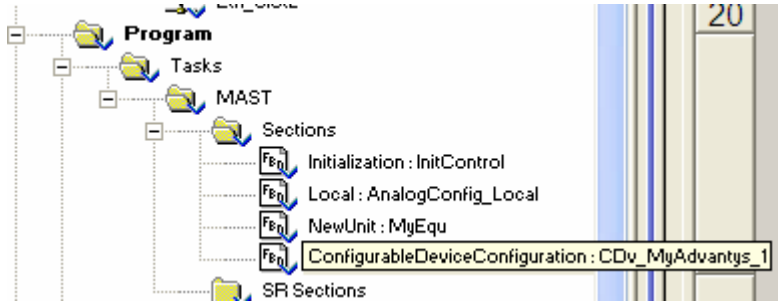
- UAG will generate Unity project with read /write area under IO Scanner

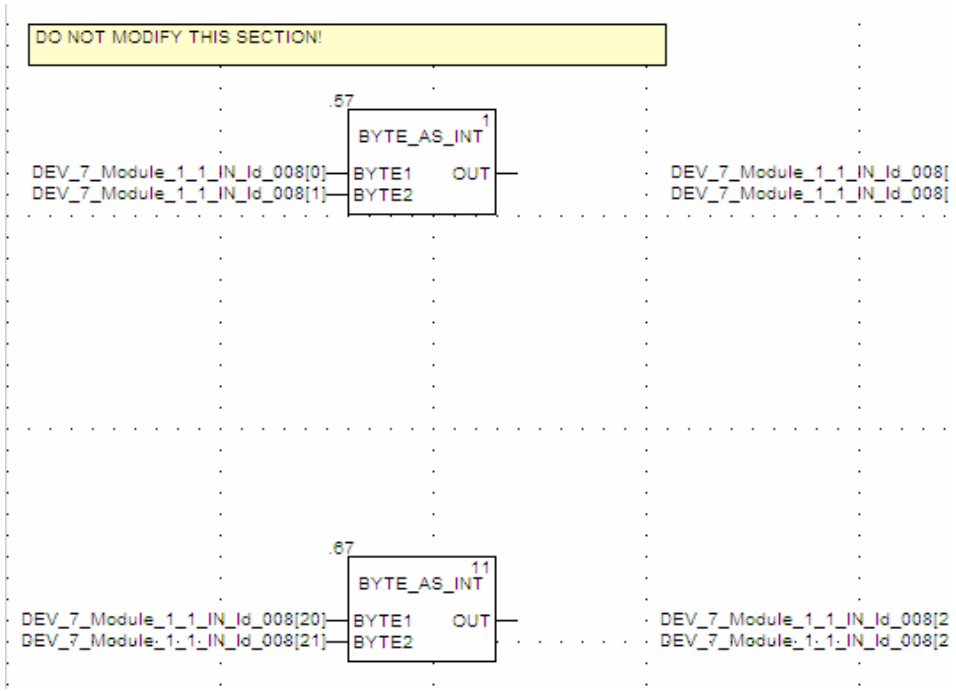


How to do..

In Unity

- UAG will generate sections for communication and the section will be containing the variables like this





How to do..

Recommendations /Notes

- Advantys island can be connected over Ethernet and Profibus.
- Devices over CANOPEN can be attached to Advantys island and then inserted in UAG. In slide 16, one can see ATV31s are connected to Advantys over CanOpen.

Conclusion

- Advantys island can be connected to Unity PLC based architecture using UAG.

Thanks for your attention!