



# Unity Pro

What's new in Unity Pro V12

# New Unity Pro V12 features at a glance

**Modernization to Modicon M580** Easy modernization path from Quantum and Premium to Modicon M580 :

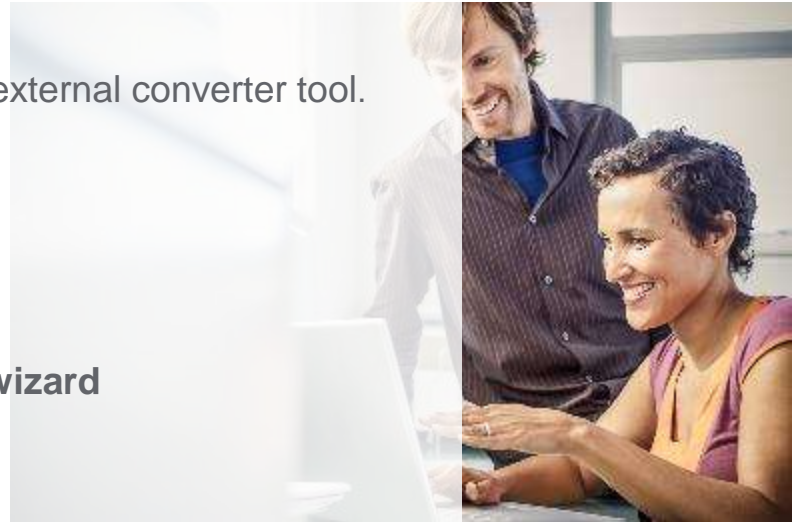
- **support S908 On M580** (New 140CRA31908)
- Support for **Premium / Quantum to M580 conversion** with external converter tool.

## Boost engineering productivity

- **Import / Export M580 configuration** (in-rack, EIO drops)
- More consistent **data structures for devices** on Modbus TCP
- **Time Stamping** limit, **Unity Translator** tool, improved **import wizard**

## Improved commissioning and maintenance

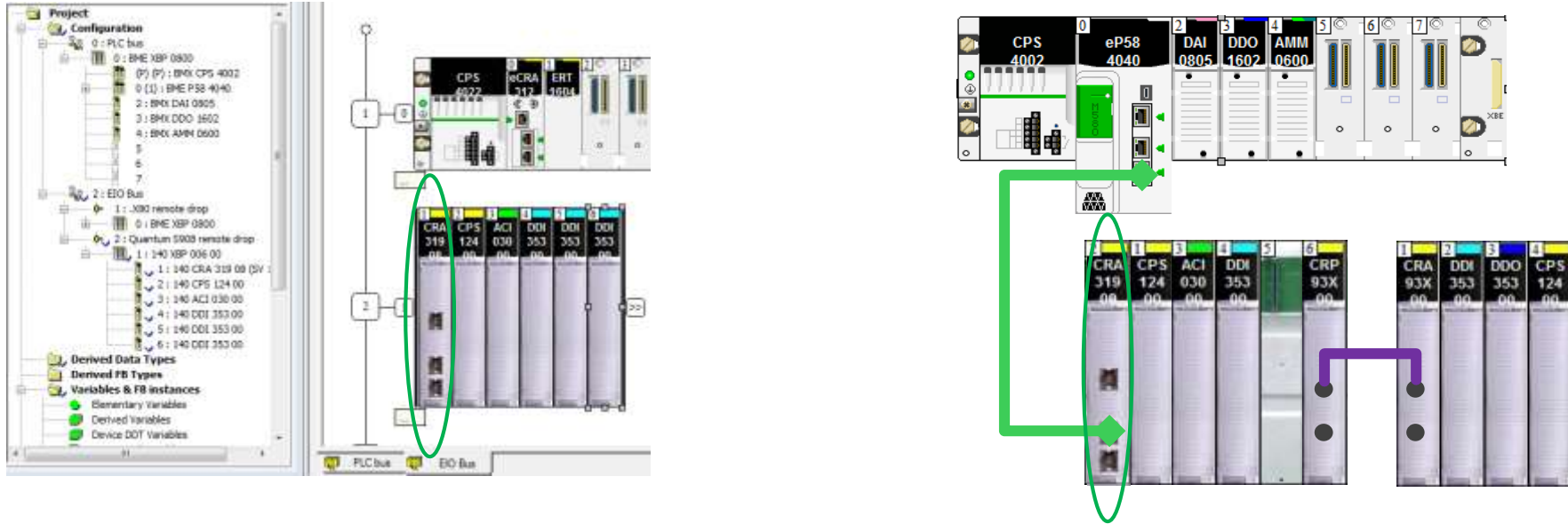
improved **On Line performance** , **Save/Restore Data** , new **HSBY\_BUILD\_OFFLINE** for offline build changes in M580 HSBY



# Modernization to M580 : S908 support

Easy upgrade from Quantum S908 project to M580

Unity Pro V12 support **S908** field bus on M580 : new module **140CRA31908**



Quantum S908 Unity Pro project converted to M580 thanks to UMAC tool (see next)

# Modernization to M580 : Unity M580 Application Converter

Easy upgrade from Quantum and Premium projects to Modicon M580

UMAC Lite (\*) : **Configuration** is retained .

UMAC Standard (\*) : Automatic **16 to 32 bits alignment**, Quantum 140NOE **IO Scan conversion** to M580 BME NOC, **mapping %MW to Device DDT**, DFB creation for **missing xxPL7 EFs**...

(\*) UMAC Lite is available for free on [Schneider-electric.com](http://Schneider-electric.com)

UMAC Standard is available through Services support and to SI Alliance Partners



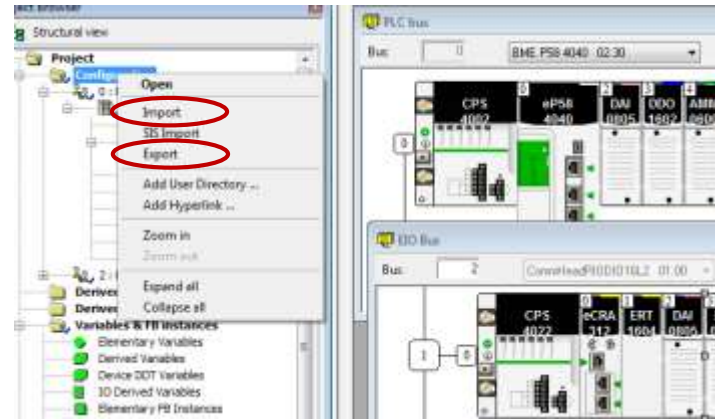
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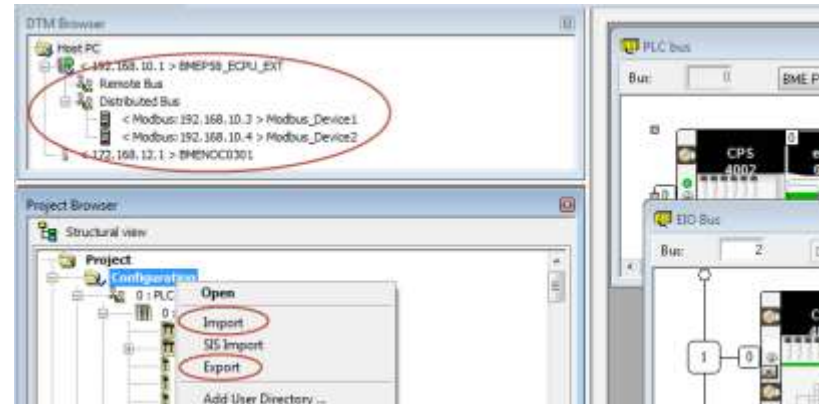
# Boost engineering productivity : Import/Export M580 Configuration

Use configuration templates in different Unity Pro projects

- **Configuration Import / export** (in Rack & EIO drops) is now available on M580 with **xhw** format.



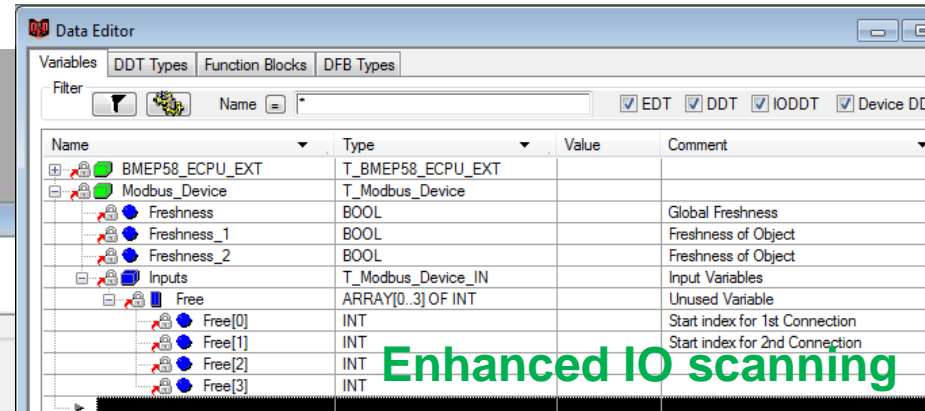
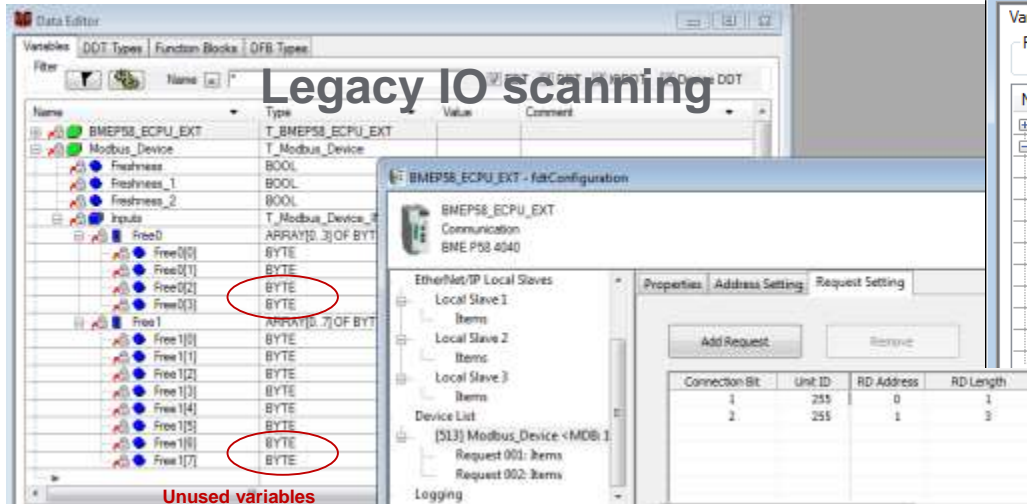
*Nota : Import / export of DIO M580 CPU or BME NOC DTM configuration in **new zhw** format (with in Rack & EIO drops) , and in **DTM export format**, is **planned in further release***



# Boost engineering productivity : Device integration

Simplified structures for Modbus TCP devices allows simplified project design

- new **IO scanning enhanced mode** on Modicon M580 (CPU & BME3x1)
  - Arrays of **INT** by default with **Modbus TCP**
  - More **consistent Data Alignment** : no more « unused variables »





# Boost Engineering productivity (Cont.)

Share Time Stamp information to SCADA has never been so easy

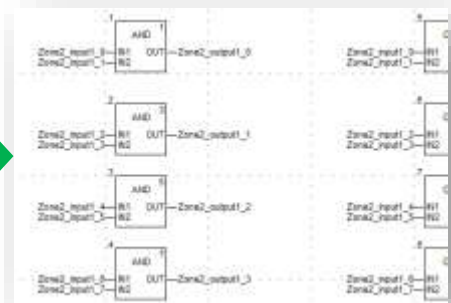
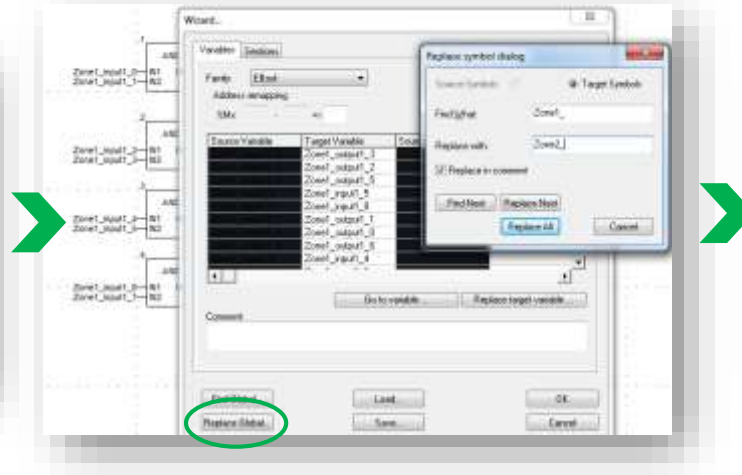
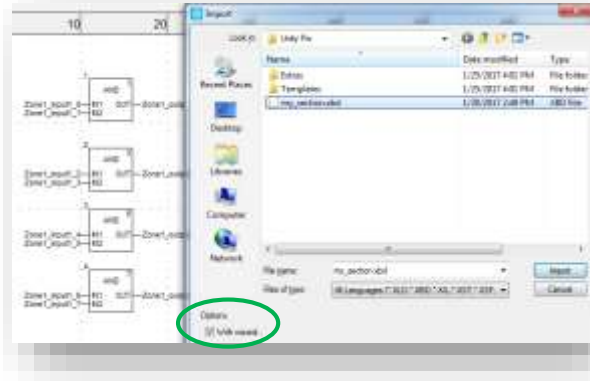
Easy duplication of code and variables for faster design

- Maximum number of internal **Time Stamped variables** is now 5000

(1000 previously)

- **“import with wizard”** is improved : replace symbol dialog allows to **replace all symbol** in one click (use case : duplicate part of code, with automatic variable duplication)

Name	Type	HMI variable	Time stamping
BMEP58_ECPU_EXT	T_BMEP58_E		
My_Array_1	ARRAY[0..999]	✓	
My_Array_1[0]	EBOOL		Both Edges
My_Array_1[1]	EBOOL		Both Edges
My_Array_1[2]	EBOOL		Both Edges
My_Array_1[3]	EBOOL		Both Edges



# Boost Engineering productivity (Cont.)

Switch easily to foreign languages

And misc.

- **Unity Translator** : a new **open source** tool allows to fasten the translation of comments (variables, sections...) from one language to another.

Unity Translator source code, binary and documentation is available on

<https://schneider-electric-unitypro.github.io/unityTranslator/>

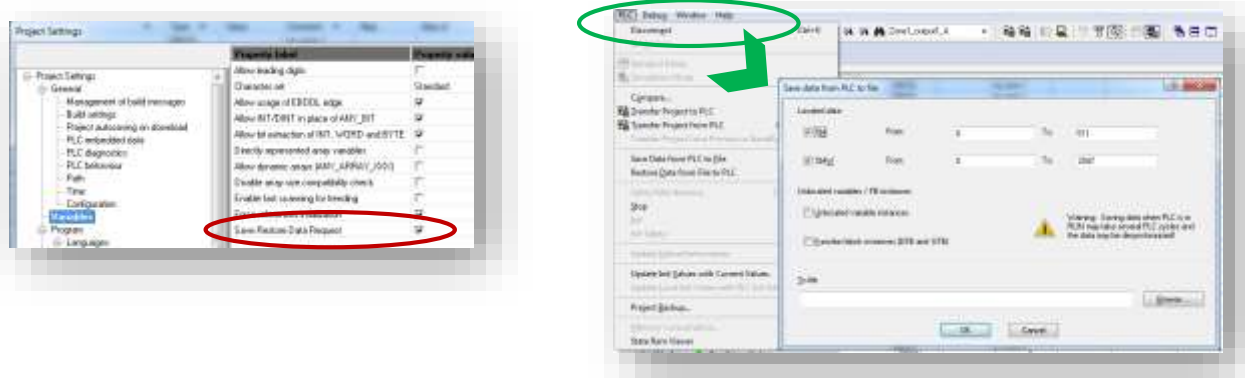
- As Quantum, **M580 support up to 65 Kb of %I , %M, %MW, %IW**
  - max value for %I is 65280 if %M is set to 0.
  - max value of %M is 65280, if %I is set to 0
- Unity Pro proposes automatically to update Catalog when new **EDS file** is imported as DTM.



# Improved commissioning and maintenance

Operator cannot forget to Save Data ....Update of M580 HSBY application has never been so easy...download / upload is faster

- New project setting “**Save Restore Data request**” allows to systematically propose to Save or Restore Data after update or disconnect /connect to controller



- New **HSBY\_BUILD\_OFFLINE** DFB allows enabling **offline build changes** in M580 Hot Standby application
- **Predictive Maintenance Library (for BMXCPS4002)** for enhanced diagnostic and pro-active maintenance is available for free on <http://www.schneider-electric.com/>
- Improved communication PC / M580 : **faster Download, Upload and Save / Restore Data**

# Unity Pro in brief

- Unity Pro boosts **engineering productivity**
- **object oriented design** and **PsX Libraries**
- integration of Field bus **devices** thanks to **FDT / DTM standard**



- **Unity Pro protects your Automation investment** : A Unique software platform to **configure Modicon controllers** with focus on **Installed base compatibility**



- A **high quality level, proven in the field** : 17 versions in the field with an Installed base of more than **100 000 computers**



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