How to Setup the PersistenceManager from scratch:

- 1. Generate new Project
- 2. Add in the POU Pool a library Manager and add the AC_Persistence



3. Activate Module View



4. Add Toplevel Module Instance

FromScratch.project* - CoDeSys					
<u>File E</u> dit <u>V</u> iew <u>P</u> roject Li	braries <u>B</u> uild <u>O</u> nline <u>D</u> ebug <u>C</u> o				
👔 🚔 🔚 🔮 🗠 🗠	x 🖻 🖻 🗙 🖊 🌿 🖷 🕻				
Modules	<u> </u>				
	Edit Object				
	Add Toplevel Module Instance				
	Add Submodule Instance				
	Reference Module Instance				
	Update Module Instance				
Hide empty optional Slot					
	Show hidden Slots				
<	Move up				
Devices	Move down				
FromScratch	Go to target				
Device (CoDeSys	Grapha Extension Madula				

5. Add Persistence Manager

• Add n	nodule instance
Name:	PersistenceManager
Action	
() Ad	d toplevel module 💫 Add submodule 🔷 Reference instance 🔷 Update instance
_Modul	e:
Name	з Туре
Inform	nation: Name: PersistenceManager Description: Module that takes care of saving and loading values of persistent variable Category: Persistence Source: ac_persistence, 3.5.0.0 (3s - smart software solutions gmbh) Version: 3.5.0.0 Provider: 35 - Smart Software Solutions GmbH
• ()	You can select another target node in the navigator while this window is open.)

6. Select the Application

FromScratch	Toplevel Persistence	e HMI	Information	
	Application:	Devi Devi POU	ce.Application ce.Application Pool	~
	Standard Tasks Generate			
	highest priority:	\checkmark	HIGH	*
	Task Medium:			~
FromScratch	low priority:	V	LOW	*
Application	Module specific Task	5:		
Library Manager DLC_PRG (PRG) Task Configuration Section MainTask				

7. Add Group

Topley	vel Persistence HMI Information	
Excl	uded groups	
New		Add
	Persistence1	5

Add Submodule Instance:





Setup the Persistence Parameter (how they are saved / cyclic / on change...)

Poules V 4 X	Persistence Parameters HMI Inform	er 🛛 😒	PersistenceManager	PersistenceManager.PersistenceChannel 🔹 🔹
Channels [AC_PERSIST.IPersistenceChannel]	Parameter	Type	Value	Description
B-PersistenceChannel	tPeriodicSaving	TIME	TIME#60m0s0ms	time after which the variables are stored (0: periodic saving off)
- Data Storage [AC_PERSIST.IDataStora	xSaveOnChange	BOOL	FALSE 🗸	TRUE: permanently compare old and actual values and save when different
	xReadVarsDuringInit	BOOL	FALSE	TRUE: read the persistent variables during initialization of application; FALSE: read variable value
	xCompressTags	BOOL	TRUE	TRUE: compress variable tags
	xConsistentCopyInHighPrioTask	BOOL	FALSE	TRUE: persistent variables are copied in high priority task
	xConvertVarsWithDifferentType	BOOL	TRUE	TRUE: if types of stored and actual variable are different, try to convert stored value
	xIntegrityCheckBeforeReading	BOOL	TRUE	TRUE: do an integrity check of data base
	xSeparateArchivePerToplevelInstance	BOOL	FALSE	TRUE: generate a seperate archive for each toplevel instance

Add Submodule Instance



Select which Storage you want to use: (ASCII or Binary)



Add the attribute in your project for your persistence variables:



Setup Configuration for the generator:



Visualization generator is option

Generator configuration	
Available generators Image: Standard generator Image: Persistence generator Image: Visualization generator	
The standard generator generates the basic application structure. To this end it creates function block instances, initialization code (par values and links betwenn instances), tasks and task entry points for toplevel instances, and the infrastructure for the RMP communication OK	rameter the on service. Cancel

Then "Generate" the code via application composer



Result:

Everthing is generated and ready for login.



Go online check if persistence file is written: (Path: plc runtime)