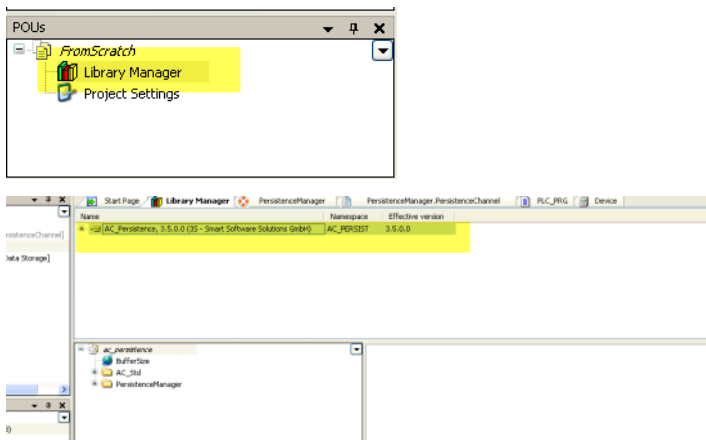# PersistenceManager from Scratch
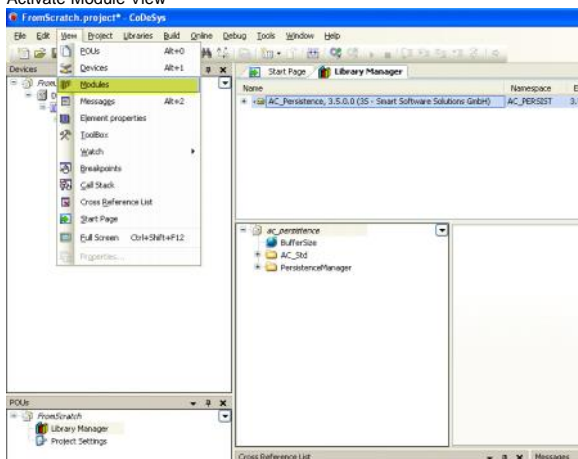
Mittwoch, 4. April 2012   05:26

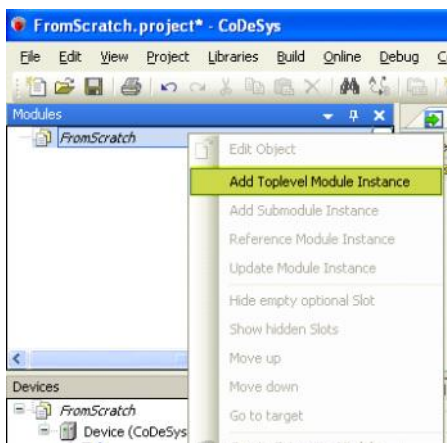**How to Setup the PersistenceManager from Scratch:**

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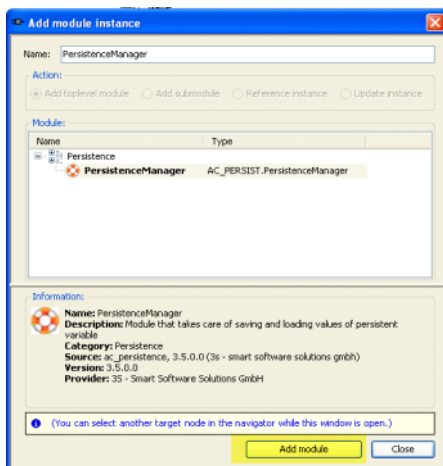2. Add in the POU Pool a library Manager and add the AC_Persistence
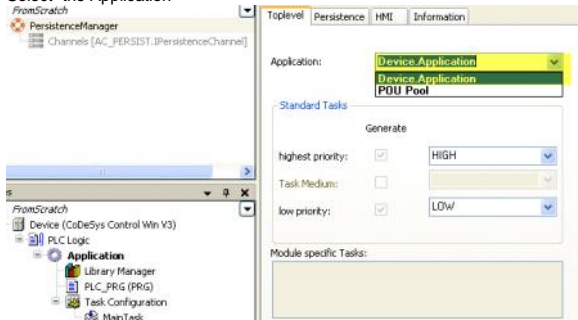

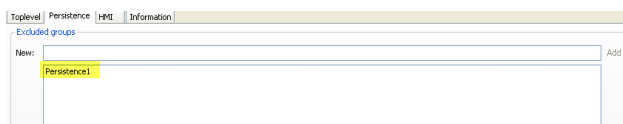
3. Activate Module View

4. Add Toplevel Module Instance
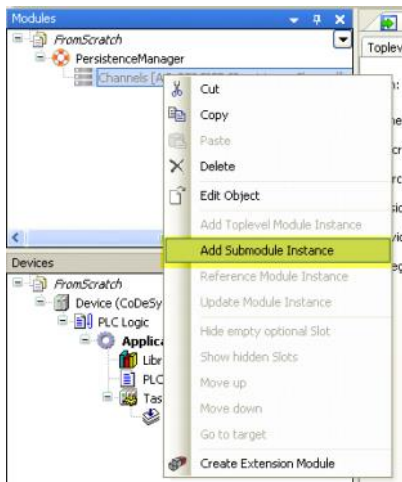

5. Add Persistence Manager
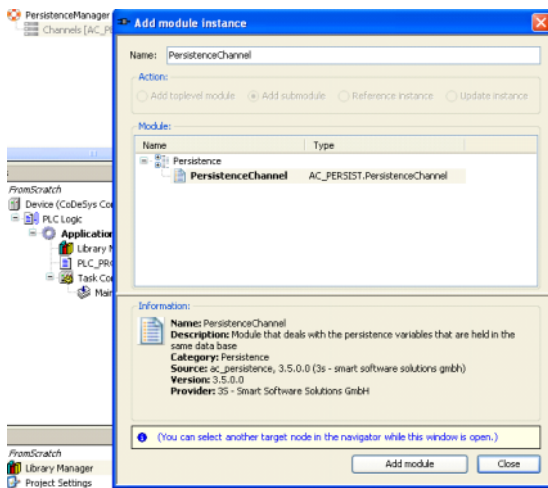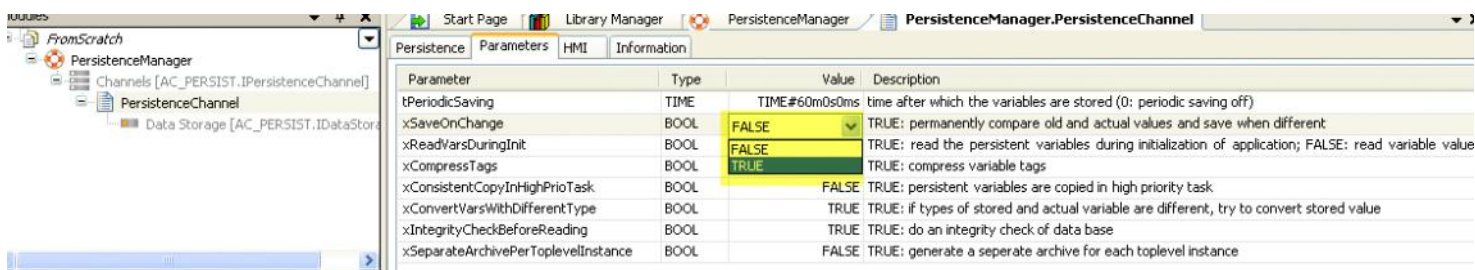
6. Select the Application
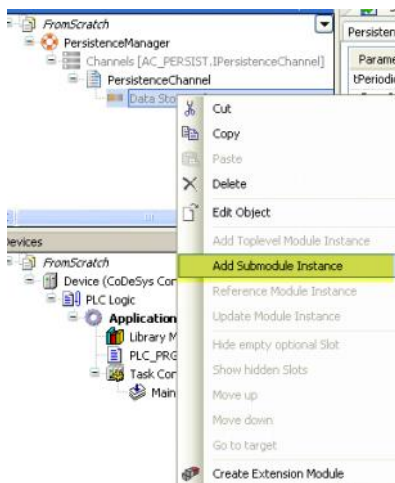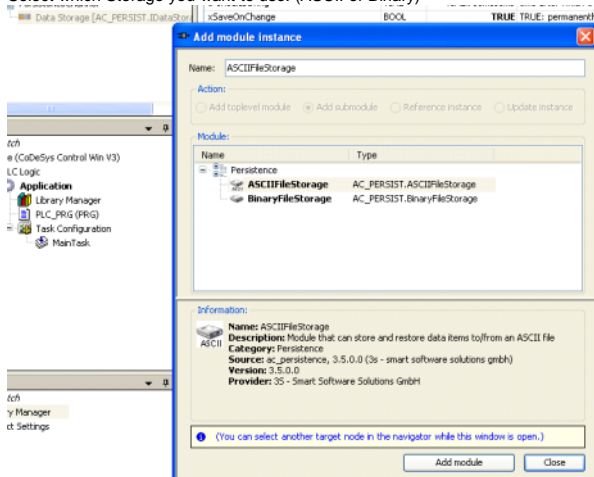

7. Add Group

Add Submodule Instance:

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

Add Submodule Instance

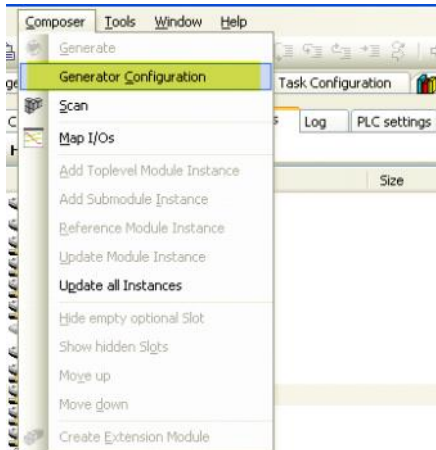Select which Storage you want to use: (ASCII or Binary)

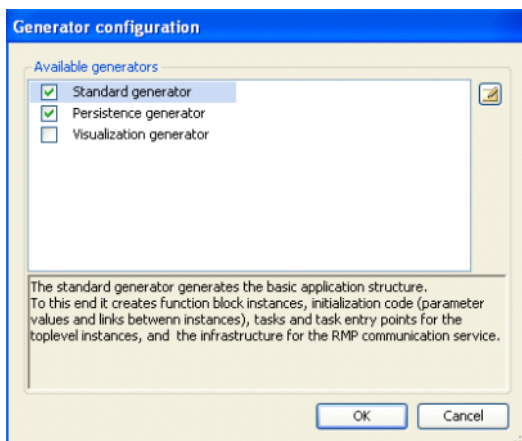Add the attribute in your project for your persistence variables:

```
PROGRAM PLC_PRG
VAR
    //some variables which you want to persist
    {attribute 'ac_persist':='PersistenceChannel'}
    iExample: INT := 7;
    {attribute 'ac_persist':='PersistenceChannel'}
    xExample2: BOOL := TRUE;
    {attribute 'ac_persist':='PersistenceChannel'}
    lrExample3: LREAL := 3.54;
    {attribute 'ac_persist':='PersistenceChannel'}
    strExample4: STRING := 'PersistenceManager!';

END_VAR
```
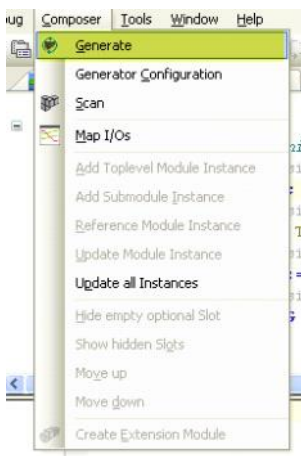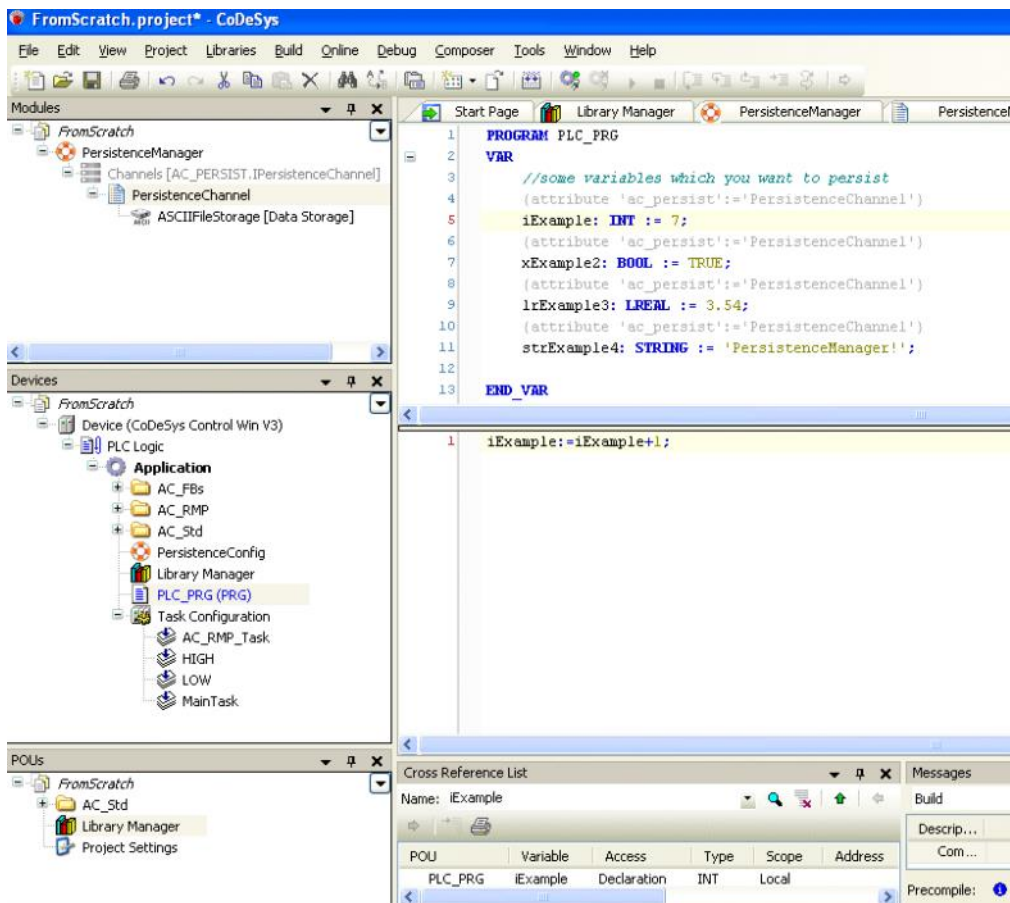
Setup Configuration for the generator:
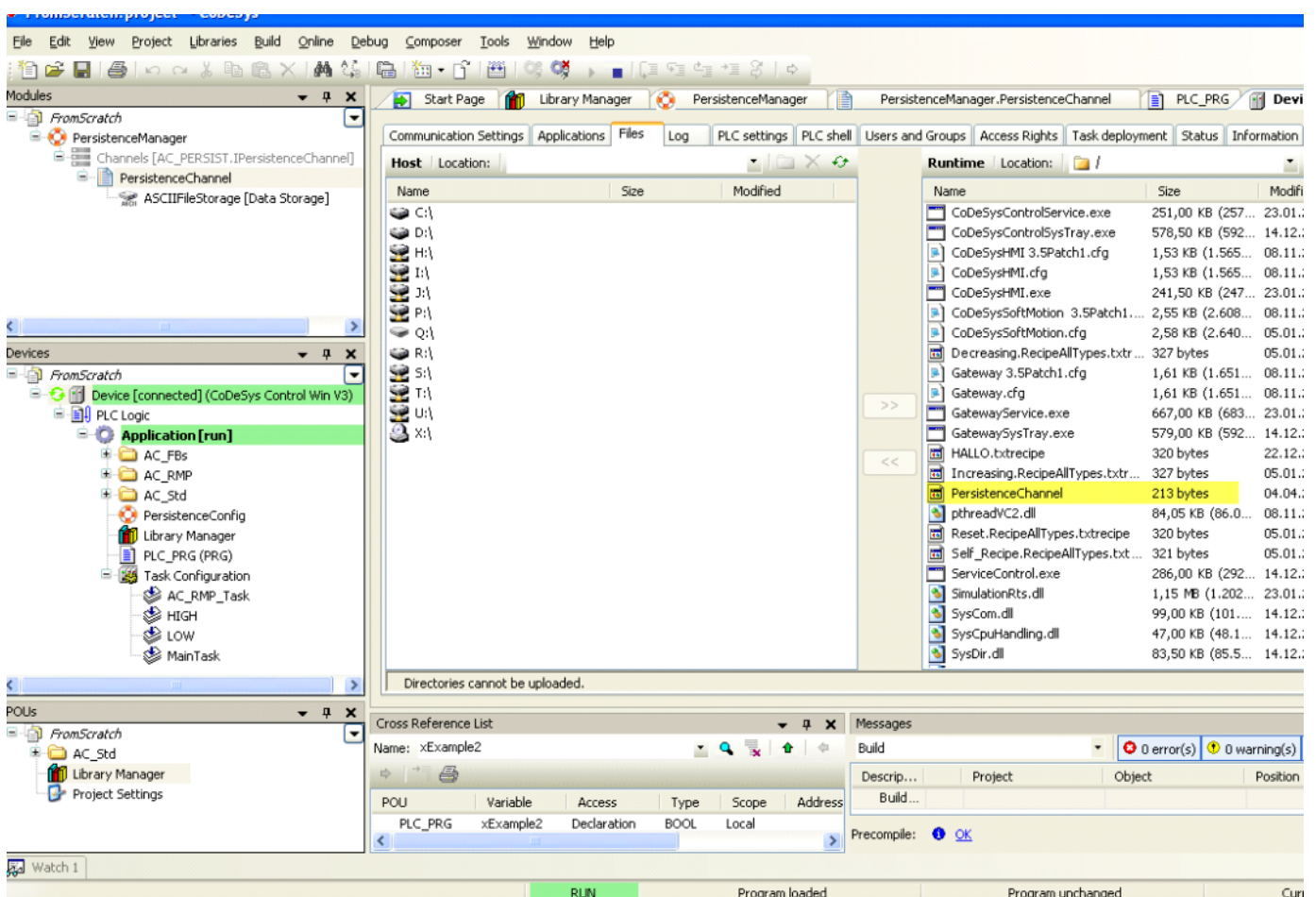

Visualization generator is optional

Then "Generate" the code via application composer

Result:
Everthing is generated and ready for login.

Go online check if persistence file is written:

You'll find the generated Persistence Files in the runtime directory (/Plclogic/)

Each file is finalized with an integrity entry. If this is missing, the system knows that the file has not been written completely and is invalid hence.
In case of double filing: if both files are valid we use the time and date included in the header of the file to decide which one is the newest.

Each channel has 1 or 2 files. The number of channels is only limited by the performance of your PLC.