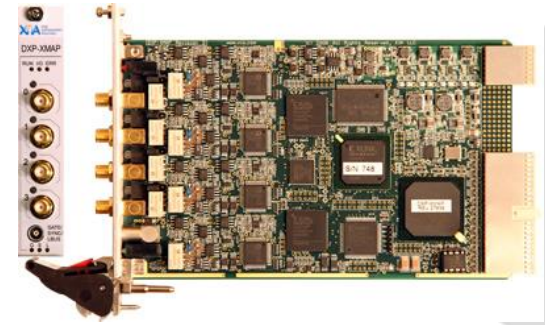# XIA device Version 2

- Interface XIA DXP-XMAP boards
    - Used for X-ray fluorescence measurements
    - At SOLEIL used on 11 beamlines
    - This boards acquires data in 2 modes : MCA (step by step) and mapping (continuous)
- DeviceServers history
    - V1.0 had been written by SOLEIL and gave access to MCA mode
    - V1.1 had been modified by ANKA (software Schnederei) to extend to mapping mode
- Motivations for refactoring to a 2.0 version
    - Tango interface weaknesses
        - V1.x gave access to too many configuration parameters
        - Tango interface was difficult to use to change configuration settings
    - Code design and stability were poor
        - Threading was not designed properly which lead to software instabilities
        - MCA and mapping mode were not clearly separated in the code
- Version 2.0 is in operation on 1 beamline at SOLEIL
    - After intense tests by SOLEIL detector group
    - Deployment on other 12 beamlines is on going (and should be finished by the end of summer)
- Code will be available on SVN SourceForge in the next weeks
    - Contact buteau@synchrotron-soleil.fr for further information

Siemens PLC V2

- Interface to all SIEMENS PLC flavors
  - PLC SIEMENS S7-300, S7-1500, S71200 et LOGO
  - Integrates the Snap7 library
- DeviceServers history
  - V1.0 is used at SOLEIL on hundreds of S7-300 PLC
  - V 1.0 uses the fetch/write protocol deprecatd by SIEMENS in new generations of their PLC
- Motivations for refactoring to a 2.0 version
  - Interface new (and potentially future) SIEMENS products
    - Thanks to the SNAP7 library
  - Introduce data caching mechanism
  - Integrate PLC "health monitoring figures" in the Tango interface
- Version 2.0 :
  - Is beeing tested in laboratory by PLC experts
  - Will be in commissioning on few PLC in September
  - Large deployment is expected before end of year
- Code will be available on SVN SourceForge in the next weeks
  - Contact buteau@synchrotron-soleil.fr for further information

- Note : The PLCDataViewer is the "perfect PLC DeviceServer companion"
  - As it allows the PLC specialist to map I/O PLC DataBlocks to Tango dynamic attributes
  - With the PLCServer/PLCDataViewer potentially any PLC application can be interface to Tango without writing any single line of code