

# Pyexp - Python for Experiments

*TACO-TANGO Workshop 14-15 November 2001*

*Laurent Pointal - LURE/SIE*

## **Abstract**

Pyexp is a software project started from a reflection based on previous developments for experiments at LURE, which also include the installation of TACO and Spec on some beamlines. To be able to give quick answers to our users requests, we would like to have a modern tool which contains recent computing possibilities. Using Python, we are writing such a tool in three levels.

At the bottom level, device controllers can talk to any devices or device controlling systems as TACO or TANGO device servers.

In intermediate level, physical elements present a standard abstraction to programmers, they transmit requests to groups - managers of complex equipments - and to device controllers, they hide parallel processing for users. On top of physical elements, macro-scripts build experiment logic and give tools to interfere during processing.

The (optional) top level is the graphical user interface (GUI), where we distinguish between parameters and status/control dialogs in one side, and data plot on the other side.