



Mirrored



Tau(RUS)

Sardana

SCADA

Supervision

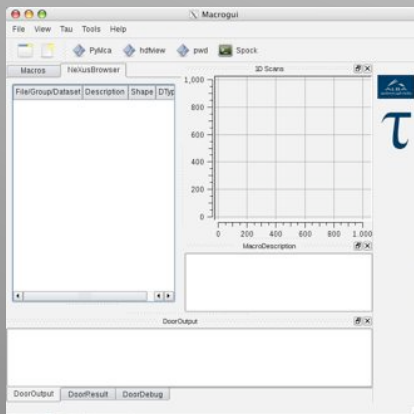
Control

And

Data

Acquisition

Installation & Configuration brain?(STORM)ing



DFC. Tango meeting
October, 25th 2010



Update Manager

Software updates are available for this computer

Important security updates

- libpoppler-glib4
- libpoppler5
- libwebkit-1.0-2

Download size: 64.5 MB
32 selected

Changes for the versions:

Version 0.12.4-0ubuntu5.1:

* SECURITY UPDATE: possible arbitrary code execution via malformed PDF

Install

Available Software

you wish to install.

Find more software by working with the 'Available Software Sites' pref

Version
Java EE 5 and Java EE 6 supp
Java EE 5, Java EE 6 1.0.42

Bliss Installer 4.0

claudius - sure111_64

Installed Packages

- claudius
 - Admin
 - Appicabom
 - Blissadm
 - Drivers
 - Libraries
 - Tango
 - Core
 - astorALBA
 - log4j
 - MatlabBinding
 - TangoAlba
 - TangoC++
 - TangoJava
 - TangoPy
 - DS
 - MacroServer
 - Modbus-ALBA
 - PyRLC
 - Serial

Available Packages

- cernHobby
- cernHobby-dev
- cernORB
- cernORB-dev
- OpenCV
- physcon
- PoolController_AdinkAdcTicserCounterController
- PoolController_AdinkDacMotorController
- PoolController_AppleII
- PoolController_Abanusator
- PoolController_BL04_MSPD_M1_pseudoMotorControler
- PoolController_BL05_PseudoMotorsLib
- PoolController_BL22_CLAES_VCM_pseudoMotorCont
- PoolController_Communication
- PoolController_Diffractionmeter
- PoolController_Dummies
- PoolController_EIConst
- PoolController_IBA
- PoolController_IcePAP
- PoolController_Keithley2611Motor
- PoolController_MACH_xbda
- PoolController_Ni660CounterTimer
- PoolController_Ni660CounterTimer_python

Install dependencies
 Install compat OS Install incompat OS

Merci Laurent!



Grazie, Frederic and Alessio

Installation. And if we had ...

- **A central repository of (also) compiled modules**
 - Tango core libraries and tools. Default hardware controllers
 - **Device servers** (Standard interfaces back to abstract classes?. Out of scope of the presentation!!)
 - **Controllers (available for the different hardware)**
 - Device servers and controllers available from a common repository
 - www.tango-controls.org like?
- **Categories by hardware and hardware types...**
 - Motors
 - Counter/Timers.
 - ADC/DAC DIO...
 - Synchronization
 - Cameras and other detectors.... (MCA...)
 - Experiments (Detector's data acquisition)
 - Data analysis (online and offline)



In the world of far far away...

- I know there is many things to do (more urgent)
 - » “Tango States guidelines”
 - » Sequencing...
 - » Documentation...
 - » Code generation...
- But we are not talking about this here...



•Configuration

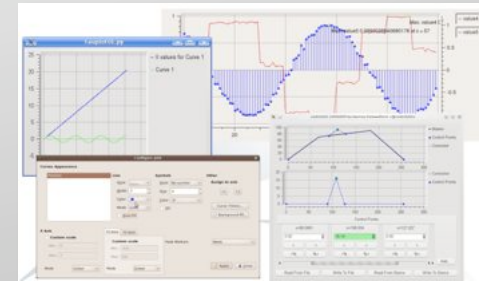
- General configuration file. I.e one per machine
 - Tango database, mysql users and passwords
 - Tango settings.
 - Events, etc...
 - Paths, Envs variables
 - Startup (starter config)
 - Archiver databases
 - Save/Restore
 - Alarms and log databases
- Private configuration files.
 - GUI settings.
 - Panel location, panel types
 - Generic plots,
 - Experimental channels
 - Plot
 - Save
 - Acquire
 - Master channels for sync
- Local Save/Restore (if we don't setup a save/restore)



Installation. Compiled packages (deb, rpm...)

•Only certain platforms for starting...

- Suse111
- Ubuntu100
- DebianXXX
- RedhatYYY
- Windows setup files



•We talk about a Wizard...

- An “TANGO Update Manager” Combined
 - apt-get behavior
 - Custom configuration for Tango
 - A local configuration file to be able to copy/edit deploy.
 - “Memorized”
- A configuration tool (...Teresa’s requirements and more...)
 - Admin tools (already existing... Astor, Jive)
 - License-free issues (ideally GPL)
- Click Next...



How far we can get...

Hardware supported Catalog

Data base access?

Save and Restore?

Real time?

Remote access?

<http://sourceforge.net/>

<http://freshmeat.net/>

This has actually been discussed a lot in the tango mailing list. And there is a great work done!

I repeat... many many thanks to:

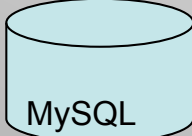


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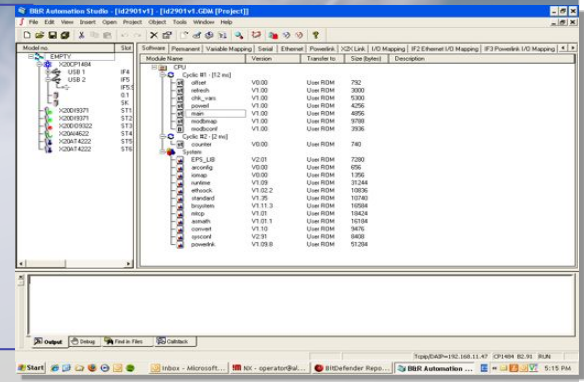
ALBA Equipment and Cabling DB



(MySQL)

Programmer Inputs

- PLC Common INIT file:
- Coms. Libraries (Modbus, EPL)
 - Data structures
 - Common variables
 - Common SW tasks



PLC Programming SW (B&R Automation Studio)



Modbus/TCP

Modbus Device Server

AlbaPLC Device Server



XLS files

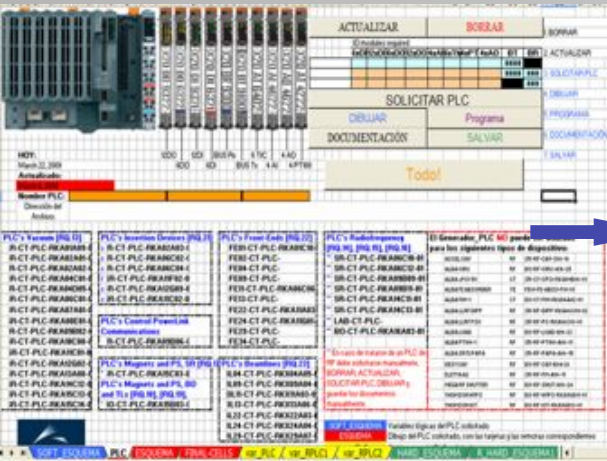
PLC documentation: I/F with devices, I/O channels assignation, etc.

PLC code generation:

PLC variables declaration

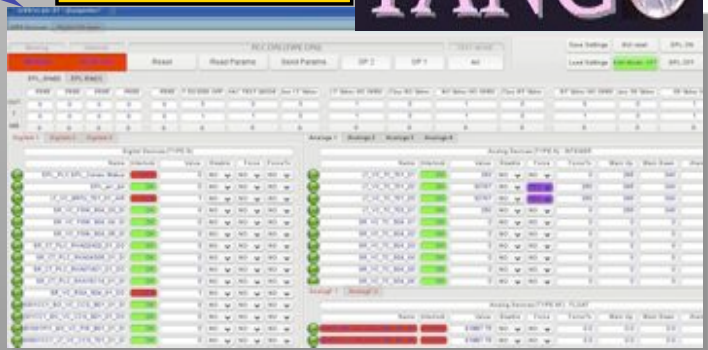
PLC modbus mapping and variables allocation.

PLC standard services: disable and force variables, alarm/warning thresholds checking, permanent memory storage, etc.

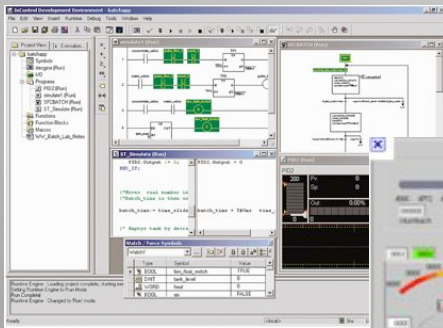


XLS - VBasic script

VBasic



- Let's keep it tight for the moment...
 - Only installation
- Next
 - Configuration
- Very long term 😊, development environment...
 - Keywords. Labview, WinCC, Wonderware, EPICS, SPEC, matlab



TANGO

EPICS



THANKS