PLT User Interface Proposal

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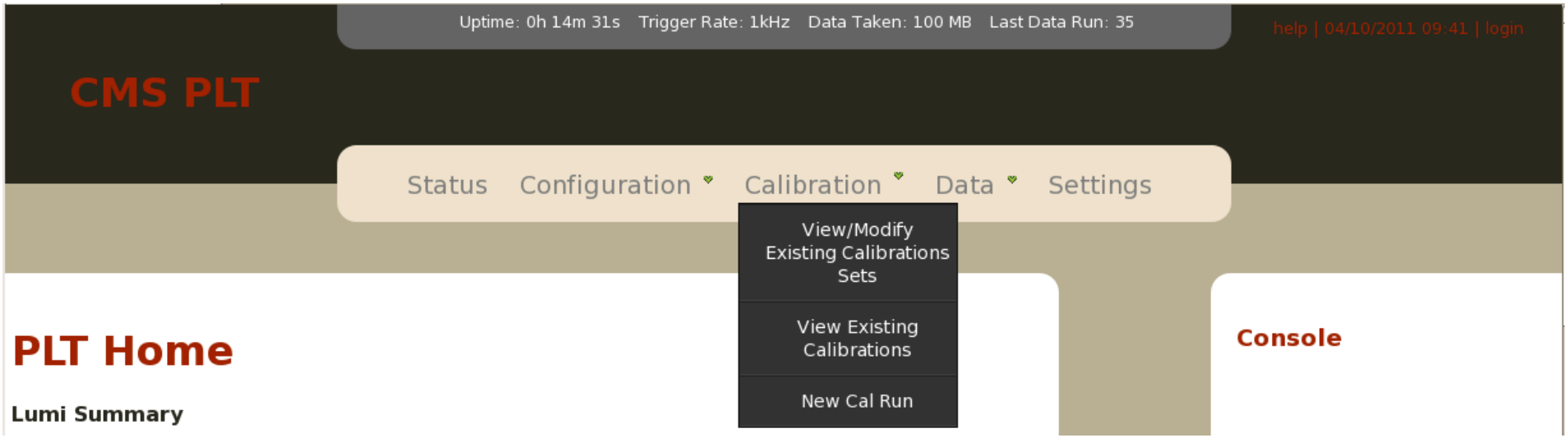
Python-Based Web GUI

- Core functionality
  - All functionality of startup scripts (Pulls DACs from DB)
  - Run calibrations
  - Start data runs
  - Tie all of the above together in the DB
- Utilizes plt python library for doing the work
  - Wrapper over existing C++ code
  - All functionality can have a corresponding command line utility as well
- Runs calibrations as a collection in a given sequence
  - Run, validate, run, validate…
- State machine integrated
  - Global run in “Configuring” state shows configuration panel, in “Calibrating” state shows calibration panel etc.
  - One global run allowed at a time (all others in DB must be in “stopped” state)
- Later features
  - Dynamic feedback/DQM for calibrations
  - Monitoring of data runs
  - Plots
  - Etc.



- Much of the core functionality exists already but hasn't been tested
- Need working test stand with someone around to power cycle and a way to get scope traces for development

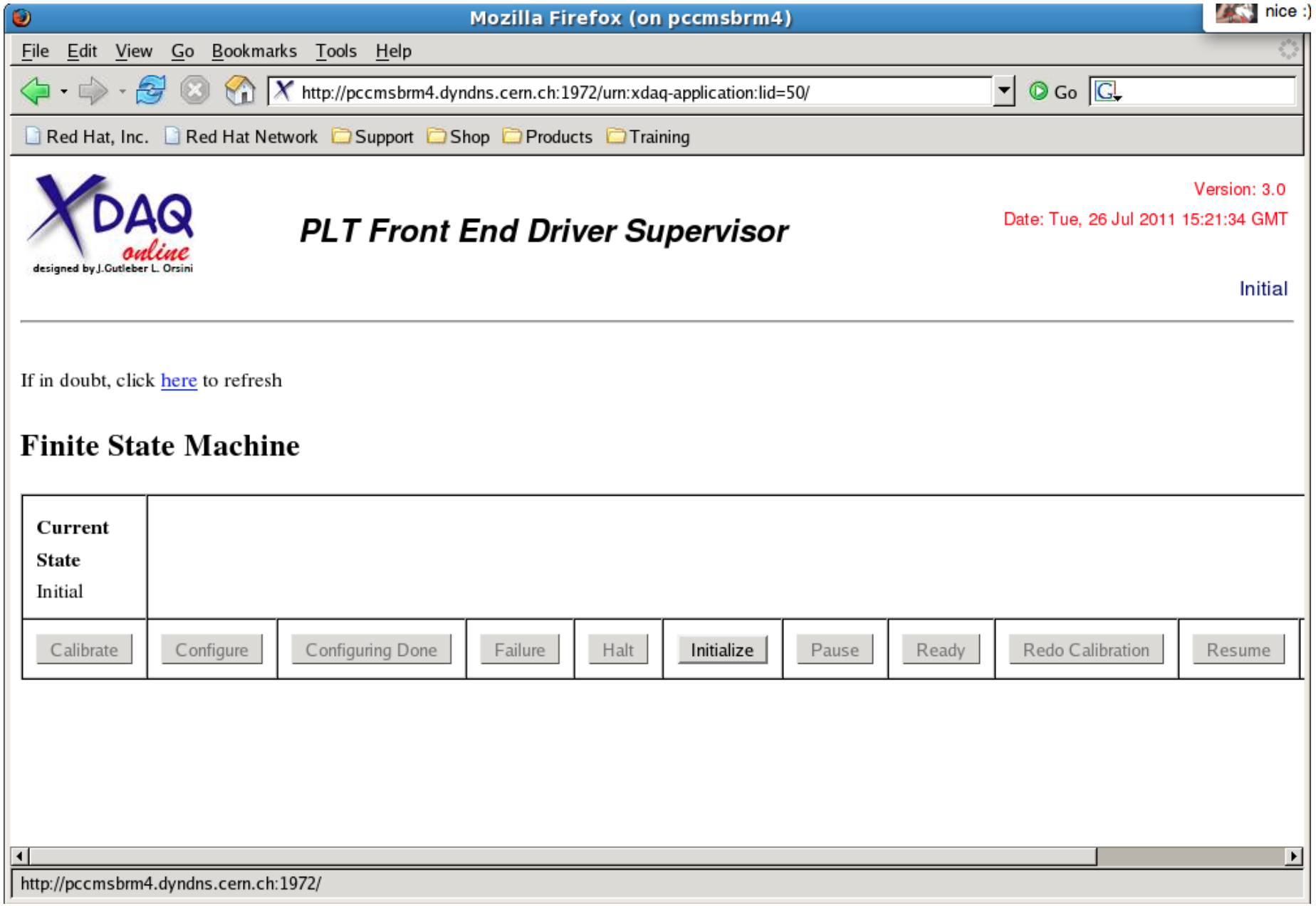
Database

- Use ORM so that db backend is flexible (starts off with sqlite3, can switch to oracle or MySQL later)
- DB can be populated from files (each import is associated with a configuration ID)
- Calibration runs are collected together into a CalibrationSet
- CalibrationSets are associated with data runs
- Raw calibration results saved into root files
- Root files versioned with Anthony's framework
- High level results (fit coefficients, etc) saved directly into DB

XDAQ Proxy

- If deemed necessary, we can develop an xdaq proxy to the system
- Communicates with the primary system via SOAP messages
- Contains basic state machine, leaving the main work to the core server process

XDAQ Proxy


Mozilla Firefox (on pccmsbrm4)
nice :)
File Edit View Go Bookmarks Tools Help
http://pccmsbrm4.dyndns.cern.ch:1972/urn:xdaq-application:lid=50/
Go
Red Hat, Inc. Red Hat Network Support Shop Products Training
XDAQ online
designed by J.Gutleber L. Orsini
PLT Front End Driver Supervisor
Version: 3.0
Date: Tue, 26 Jul 2011 15:21:34 GMT
Initial
If in doubt, click here to refresh
Finite State Machine
Current State
Initial
Calibrate
Configure
Configuring Done
Failure
Halt
Initialize
Pause
Ready
Redo Calibration
Resume
http://pccmsbrm4.dyndns.cern.ch:1972/