

Software Status

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`http://www.hep.ph.qmul.ac.uk/~landon/talks`

Overview

- Introduction
- Progress since Heidelberg
- Whats missing
- Priorities and worries
- Summary

Recent Developments (1)

Module related

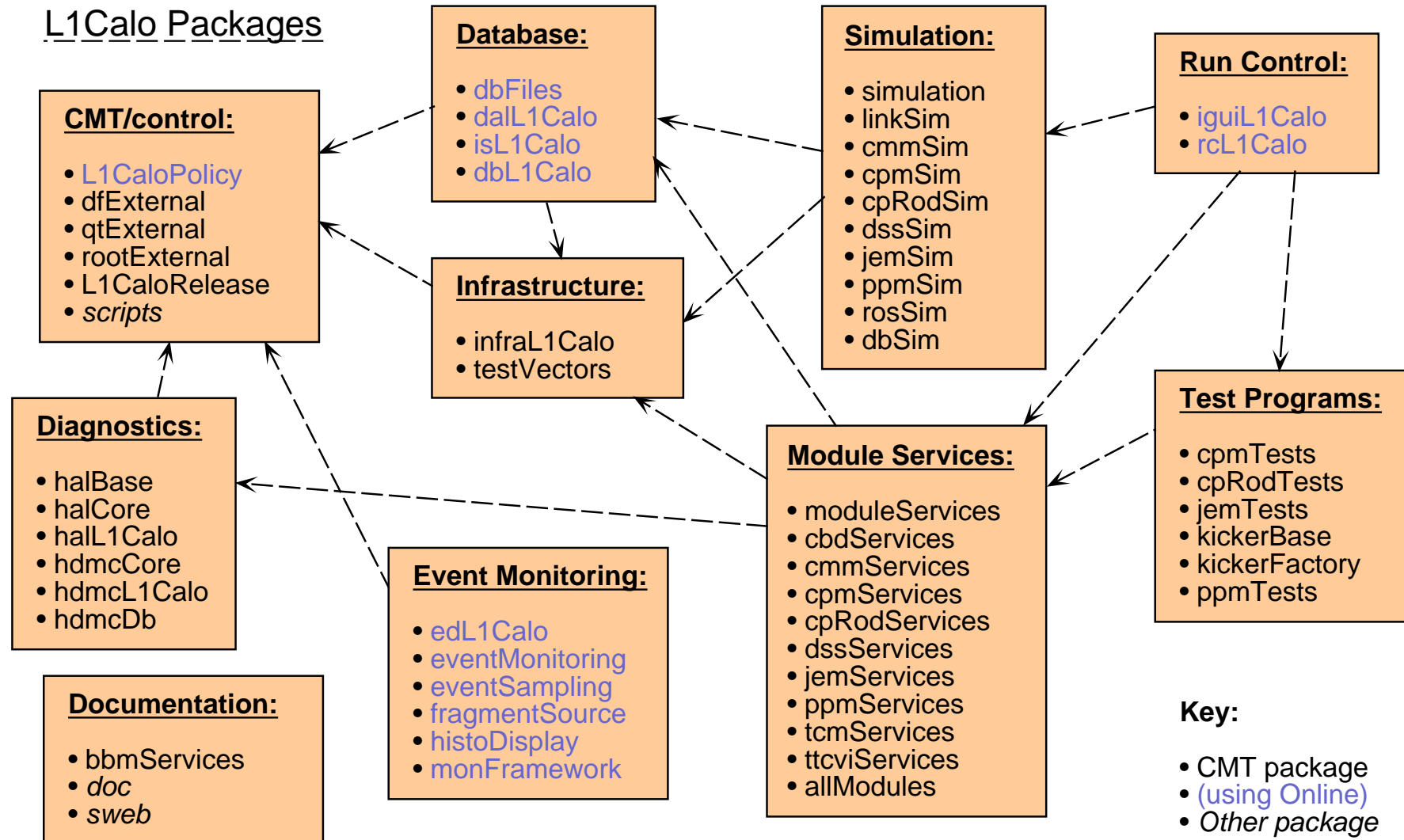
- Significant developments of PPM software: VMEBus, register access model, module services, simulation, XML database, test vectors, local rate meter and histogram readout, etc
- JEM services updated for JEM1 (old JEM0 services was preserved in case we needed to run them both for a while - hopefully this is now unlikely)
- Some improvements for other module services: DSS, 6U ROD, CMM (new LUT filling)
- Various updates to the simulation and test vector generation: JEM, CMM (eg CTP outputs), ROS

Recent Developments (2)

System related

- CVS server moved to common TDAQ repository at CERN
- Moved to “testbeam” online/dataflow release (and several rereleases)
- Converted to latest run state model (and online database)
(but not yet to ROD crate DAQ run controller)
- Regular and reliable use of the ROS and its monitoring facilities
- New histogram display program and online monitoring framework

L1Calo Components and Packages



Missing/Incomplete Software (1)

Module specific

- PreProcessor:
 - Debugging module services and simulation with a real module
 - Test vector generators?
 - Test programs?
 - Calibration procedures
- JEM and CMM: jet related code not fully tested
- CPM, JEM and CMM: input timing setup procedures
- 9U ROD: reimplement module services and simulation
- New CERN module types: LTP, BUSY (via ROD crate DAQ controller?)

Missing/Incomplete Software (2)

System related software

- Byte stream decoding online and in ATHENA
- Histogramming (of online monitored events)
- Offline: using ATHENA for analysis/monitoring/calibration
- Calibration:
 - Is multistep run infrastructure OK?
 - Control: pulsing, setting parameters, LTP
 - Analysis, conditions DB?
- Generating test vectors (for larger scale systems?)
- Event dump: new/modified formats
- DCS

Priorities and Worries (1)

Test beam

- PreProcessor:
 - Integrate with the rest of the system
 - Doubtless many things still to be sorted out
- Monitoring:
 - Online monitoring (byte stream decoding and histogram filling)
 - Offline analysis (and monitoring?) for the test beam
 - Better hardware monitoring
- ROD crate DAQ controller:
 - Need to (successfully) try the new paradigm
 - Provide feedback for its final development
 - LTP and BUSY modules will use ROD crate DAQ controller

Priorities and Worries (2)

Slice test and afterwards

- Multistep runs:
 - Get it working properly for soak tests
 - Use in integrated calibration
- Databases:
 - Conditions database (eg calibrations)
 - Offline access to configuration (eg cabling)

Summary

Progress

- As usual we make some good progress... but never as much as we hope
- Many critical areas still need a lot of work

Future

- After the test beam and slice test crisis is over, we still need some review of the software before focussing on production testing and installation