Software Status

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

Overview

- Overall status
- Package Details
- Schedule and next steps

Whats done and whats missing

Activity	ROD	CP	JEP	PP	Slice
Configuration	90%	80%	70%	50%	60%
Test vector gen	90%	70%	50%	30%	40%
Simulation	90%	70%	40%	20%	50%
Load hardware	90%	70%	30%	0%	40%
Run control	90%	80%	70%	50%	50%
Read out data	90%	50%	50%	50%	50%
Display results	90%	80%	70%	50%	50%
Diagnose	90%	80%	50%	40%	50%
Monitor h/w	20%	20%	10%	10%	10%
Calibration	20%	20%	10%	10%	10%
Event dump/disp	0%	0%	0%	0%	0%

Packages (1)

HDMC: done recently

- New parts (TTCrx, flash RAM). Bug fixes (remove_part)

HDMC: to be done

- Integrate in CMT environment
- Move to pure STL (no Qt dependence for hardware parts)?

Module Services: done recently

- Smooth operation under run control. DSS, CPROD, CPM improvements

Module Services: to be done

- CMM module services to be completed
- CPM module services to use the database
- Documentation is still required

Packages (2)

Databases: done recently

- Add test descriptor (“Bill file”)
- More settings can be overridden interactively
- Utility to create (empty) calibration databases

Databases: to be done

- Support for JEM and PP system
- More work required for calibration datasets
- Use trigger menu configuration from CTP group
- Evolve with external changes (eg Conditions database)
- Documentation!

Packages (3)

Run Control and IGUI: done recently

- More robust interaction with HDMC and module services
- Better exception handling and error reporting
- Integration of DSS “kicker” for CPROD tests
- IGUI panel to display CPROD test status

Run Control and IGUI: to be done

- Sequencer program for multistep tests (or calibrations)
- Update/provide documentation
- Hardware monitoring status (simple display may already be supported by Dataflow panel?)

Packages (4)

Simulation: done recently

- L1A handling implemented. Integration with database completed

Simulation: to be done

- CMM, JEM, PPM simulation to be completed
- Also CPROD firmware variants

Test Vector Generation: done recently

- Comprehensive CPROD tests. Special test vectors for CPM tests

Test Vectors: to be done

- Test vectors for CMM and PPM
- Integrate JEM test vectors into the framework
- CP subsystem, other subsystems, slice test system (we need to specify in detail what we want to do)

Packages (5)

Calibration: to be done

- Calibration and setup procedures required (some database infrastructure exists)

Hardware monitoring: to be done

- Read hardware status (eg links) and report to IGUI (some IGUI infrastructure exists for this)

Readout (via ROS): to be done

- Install latest ROS software, read events via Online Monitoring framework

Event dump and display: to be done

- Customise event dump (when this is possible)
- Develop graphical event display?

DCS: to be done

- Hmmmm

Evolutionary Delivery

CP System (as at Stockholm)

- Complete integration of CPROD tests: module services, database, run control, test vectors interface.
- Be able to successfully run a single test via the run control. [July?].
  DONE August/September
- Add CMM and/or CPM with their test vector generators and simulation. Include L1A generation via a DSS. Still under development
- Be able to run a single test including simulation of the selected configuration. Event readout still via DSS? [August?].
- Integrate the ROS, implement event monitoring and comparison via the ROS.
  Not started
- Expand to whole CP system. [September?]. November?
- Implement sets of tests and test sequences.

Evolutionary Delivery

- Develop timing calibration procedures (CPM and CMM inputs).
- Add hardware monitoring and reporting via the IGUI.

Near Future

CPROD Test Release

- Freeze (tag) working CPROD test software
- Build first release of the software
- Use this to test RODs and DSSes and get feedback
- Meanwhile development continues on including CPM and CMM etc