Software Status

Murrough Landon – 19 May 2003

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

Contents

DRAFT IN PROGRESS!

- Overall status
- Current and recent activities
- Next steps

Status summary

Overview

- Steady progress on integration of modules into slice tests
  - CPM testing (including loading firmware) is now done via run control (Gilles, Steve)
  - Integration of JEM tests with run control is fairly close (Cano)
- Migration to latest RedHat/Online software versions (Bruce)
- CMM module services updated and simulation being debugged (Norman)
- Integration and development of jemSim package (Juergen)
- Development of event dump package started (Dave)

Current and recent activities (1)

HDMC update for Qt3

- Aim: bring HDMC up to date with the latest version of Qt
- RedHat 7.3 provides Qt 3.1 by default, we were using 2.3, while HDMC still used some obsolete features from Qt 1.4
- Many minor (backwards compatible) changes made
- Memory display window completely rewritten [done, one bug recently reported]
- New “allModules” HDMC provides module services support for all our modules
- NB still want to move HDMC into the CMT environment

Current and recent activities (2)

Multistep runs

- Aim: implement multistep runs for (a) loading a succession of test vector files or (b) stepping through calibration parameters
- Support within module services and run control was done some time ago
- Database to support stepping through calibration parameters [done, but not tested]
- Database/run control to support loading new test vectors [done, but not tested]

Broadcast TTCrx commands

- Aim: some run types require special TTC commands to be broadcast
- Database and module services changes [done, but not tested]

Current and recent activities (3)

Run types

- Aim: allow sets of parameters to be chosen as a group
- Database changes to support this [done some time ago]
- But its all a bit complicated and hard to change quickly...

“Kicker”/run control evolution

- Aim: better convergence of the standalone “kicker” programs with run control and database
- Common initialisation of HDMC infrastructure between module services standalone programs and the run control [not yet done]
- Convert some “kicker” programs to monitoring tasks using event data [not yet done]

Current and recent activities (4)

Module status

- Aim: read and report module status (links, errors, etc) during a run
- Changes to (some) module services, run controllers, IGUI [done]
- Not all module services use the new facility yet
- More customisable IGUI display would be desirable...

Databases

- Continual updates to support new features
- Greater use of databases and run control for the slice tests highlights needs for better tools to edit/merge databases quickly

To Do List

NB little change since this talk in February!

- Calibration and setup procedures: collect data from (single or) multistep runs to produce calibration files
- Use DSS/GIO card to generate L1A/TTC patterns
- Use Online Monitoring framework
- Use (some of) the ROS software?
  NB after useful discussions with CERN mean we now have a clear idea of what we should do