Documents and Software Process

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

Overview

- Status of software documents
- Missing software documents
- Other documents
- Software Process and Quality Assurance

Software Documents (1)

Requirements Document

- Status: unfinished (1999)
- Ought to form the basis of the whole software project
- Needs a major rewrite in the light to developments over the past couple of years
- Procedure: rewrite, circulate, discuss, amend, (iterate?), review, update, publish in EDMS
- Priority: high

Run Control

- Status: draft, fairly complete?
- Informal description of the requirements and scope of the L1Calo run control package
- Detailed set of actions for each module at each run control state transition
- Needs discussion and review
- Priority: medium

Software Documents (2)

Databases

- Status: draft, incomplete
- Summarises first thoughts on areas of the configuration database, but other areas not yet addressed
- Needs more thought and more work
- Priority: medium

Calibration

- Status: draft
- Attempt to cover all calibration and verification procedures
- Needs checking for holes and then expansion to provide more details
- Potential overlap with documentation for test/simulation packages
- Priority: medium?

Missing Software Documents (1)

Readout/DAQ

- Status: not yet written
- Should set out our requirements in the readout/DAQ area for the slice test (and the final system)
- Should define interface between ROD crate DAQ and hardware access library
- Priority: high?

Testing and Simulation

- Status: still in Steves head?
- Should describe the scope of the package under development and how it will meet the requirements of the various module and (sub)system test plans [which also need writing!]
- Priority: medium

Monitoring

- Status: not yet written
- Should set out our requirements in the readout/DAQ area for the slice test (and the final system)
- Should define interface between ROD crate DAQ and hardware access library
- Priority: medium?

Missing Software Documents (2)

HDMC/Hardware Access Library

- Status: much of HDMC source code is documented with Doxygen and there are some general talks referred to on the HDMC website
- However the Hardware Access Library component of HDMC (when implemented according to the proposed changes) will be widely used by other packages
- A single document setting out the philosophy and APIs of the main classes which will form the Hardware Access Library would be very useful
- Priority: medium?

ROD Test Report

- Status: not yet written
- Not strictly a software document
- But still needs to be done...
- Priority: get it out of the way asap?

Others?

Other Documents

TTC and BUSY

- Status: stable draft?
- Circulate again for any further changes, review(?) and enter into EMDS?
- Priority: get it out of the way asap?

Labelling

- Status: unfinished draft from Paul BT
- Find someone to finish it? Is it OK in PP area?

VME

- Status: draft, fairly complete?
- Review and enter in EDMS?

Data formats

- Status: in preparation (Norman)
- Eagerly awaited...

System overview

- Status: some people have voiced calls for such a document to exist
- Volunteer author/editor eagerly awaited!

Document Bureaucracy

Authorship

- Existing draft software and technical information notes (and some notes already in EDMS) generally have a single named author
- Clearly all these documents, however drafty, have benefitted from input from other people
- Usual contentious issue of authorship
- We should define some, not too rigid, procedure for progressing a document from draft towards general approval and entry into EDMS

Just for reference...

- Software notes are at:
`http://hepwww.ph.qmw.ac.uk/l1calo/sweb/documents/doclist.html`
- Technical information notes (only one so far!) are at:
`http://hepwww.rl.ac.uk/Atlas-L1/TIN/TIN.htm`

Software Process and QA

Developments within TDAQ Community

- New TDAQ group set up to discuss QA
- Aim to produce recommendations for everyone in the TDAQ community to follow
- Documents, reviews, etc
- Level 1 representative is Ralf Spiwoks

What should we do?

- Israeli example prompted draft Calibrations document
- Recent discussions around software context diagram have been useful in clearly establishing areas of common understanding and agreement and identifying differences which need to be resolved
- Documenting this kind of understanding is additional work but is very useful for future reference
- We will almost cetainly benefit from paying more attention to “software process” and QA
- We think we dont want to go overboard and get too formal about it