CERN Trajectory Measurement System



Project Status

Project	CERN-TMS
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Reference	Cern-tms/status-2
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1. Overview

Work on the PUPE hardware, the PUPE FPGA Firmware and TMS Software continues and some of the basic system components has arrived.

2. Work Done

The following work has been performed:

- The Linux system for the Network boot Module Controllers and System controller's has now been finalised and is fairly complete. We need to test the Module Controllers OS on the actual hardware when available and document the installation of the system.
- RPM packages of all of the system software and TMS software have been produced. These are incomplete at the moment but will form the basis of the packaged software.
- We have been working on the TMS software API, the tmsControl application and the tmsPuControl applications. These applications now have basic functionality in simulation mode.
- We have tested and setup the System Controllers for operation and are now using these within the Software development process.
- We have been working on the software interface to the PUPE FPGA API.
- The PUPE board is placed and is routing as we speak. It should pop out of layout early next week and we will have to get it fabricated. This will mean the end of March for assembly or the first week in April. We'll expedite as much as possible.
- The PUPE FPGA design is progressing well. It has now been built for the target Virtex-4 FPGA for test purposes.

3. Parts Arrived

The following TMS hardware has arrived from vendors:

- 1 x Compact PCI Module controller. Further cards will arrive shortly.
- 3 x System Controllers.

The additional PCI Module controller's should be delivered by the end of the second week in March. The cPCI racks have been delayed until around March 30th due to availability of the backplanes. The vendor is looking to see if they can provide a 4 slot backplane for initial test purposes in case there is a further delay.

4. Current Schedule

The project schedule is on track based on the updated schedule stated last month. The detailed project schedule is at: https://portal.beam.ltd.uk/support/cern/schedule.php.

Document: cern-tms/status-2 Page 1 of 2

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The basic schedule information is:

Major TMS components arrive	March 9th
CPIC racks arrive	March 30th
PUPE Hardware prototype boards working	March 30th
PUPE FPGA firmware Alpha level	April 6th
PUPE Software Alpha level	April 6th
Pre-Series Unit Complete	April 20th (Likely to be delayed until May 4th)