

Minutes UFO Meeting

Date of Meeting
10th November 2011
Matthias Balzer

Participants

D. Haas, T. d. S. Rolo (ISS)
D. Karpov (TPU)
M. Balzer, S. Chilingaryan, M. Vogelgesang, H. Pasic
M. Caselle, U. Stevanovic, D. Hillenbrand, C. Brugger (IPE)

Topics

Introduction

Dmitry Karpov master student from Tomsk is commissioning control system and hardware in the detector lab.

1. Minutes of Last Meeting

The minutes of the previous meeting (27.10.11) are available on the TRAC system.

2. ACTION

- Tomas Farago reports that there was no further information by Vladimir Reznichenko about the control algorithm. Matthias Balzer will organize a meeting next week with Tomas, Tomy and Michele to decide the next steps.
 - In this meeting was decided to use the results of Vladimir's SPEC interface (Motor Control). The algorithms for object tracking have to be developed. M. Vogelgesang has started this action. Tomas Farago works on algorithm for the optical flow. In a further meeting the activities of M. Vogelgesang and Tomas Farago should be synchronized. Meeting date (23.11.11).
- David Haas will ask Tomy about the status of the optical cable for the pco.edge camera.
 - T. Rolo has sent the cable to PCO.EDGE for test and has gotten it back. He will test the new cable next week.
- The EMC test of UFO camera in the TopoTomo hutch is still not made. Matthias Balzer will ask Patrik Vagovic (ISS) to find a solution for this problem.
 - In a meeting next week with T. Rolo and M. Caselle and M. Balzer a solution should be found for test and beamtime proposal.
- Uros Stevanovic will make a short report about the requirements and the possibilities for the 5kfps camera system.
 - U. Stevanovic presents the requirements of the 5fps sensor. A evaluation hardware is found which satisfy the requirement very well.(TRAC) This HW should be ordered. Offers are required. (U. Stevanovic).
- The fast reject algorithm FPGA implementation should be completed next week. (U. Stevanovic).
 - This work is still pending.
- Tomas Farago and Uros Stevanovic will make a literature research about the reject algorithm and benchmarks for reject algorithm. At the next meeting the results should be presented.

- Mainly sum of absolute differences (SAD) is used for comparison of similarities frames (TRAC).
- Suren Chilingaryan should complete the driver for streaming mode of UFO camera.
 - This work is not finished.
- Review investment plan 2011 (Matthias Balzer, Tomy dos Santos Rolo).
 - The remaining CN investment money should be transferred to 2012. The CS invest money will be spend this year.
- Wolfgang Mexner could not prepare his talk.
 - The new date is in CW 48.
- The temperature control for the UFO camera is still opened. The work is not on critical path for further steps. (Michele Caselle).

3. “Micro Engine Part 2” (Brugger)

Christian Brugger reports mainly in his talk about a general architecture for realization of filters into FPGA. Additionally he explains shortly the differences between “old” HDLs like VHDL and Verilog and the new approach with BlueSpec (TRAC).

4. Misc

- Due of the continuous increasing of pixel count and frame rate Suren Chilingaryan emphasises that it has to be defined which bandwidth the server should be able to handle. If the requirements are increasing a new concept with several PCs has to be developed.
- The optical PCIe cable was send to Bressner. The test by Bressner has the same negative result as in IPE lab. Bressner checks if new external PCIe hardware components cover this malfunction.
- Dmitry Karpov presents in his slides the status and the next steps for the commissioning of the detector lab. The lab could be available at the end of this year (TRAC).

5. Main Topic and Date of Next Meeting

M. Caselle “Proposal for Embedded Camera”

Next Meeting Friday 2nd December 14:00 IPE 242 Room 114