

First Workshop on SP3 *Advanced 3D Geometry in Hybrid Computing*
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This short report summarizes the first workshop on the sub project 3 (SP3) of the ANR MEDIAGPU project.

Date: Tuesday March 9th, 2010

Location: Room C06, Building C Ground Level, Telecom ParisTech, 46 rue Barrault

Attendees:

- Telecom ParisTech Partner (4)
- Telecom SubParis Partner (4)
- LaBRI-INRIA Partner (1)
- PlayAll Partner (1)

Schedule:

1. Overall objectives of SP3
2. Scientific and Technical Challenges in SP3
3. PLAYALL Engine Integration
4. Interaction with SP1 *Platform Architecture, Prototyping Environment, Tools, Standards and Industry roadmaps*

This first workshop was articulated around several presentations made by the different partners:

- Geometry Maps on GPU (Telecom ParisTech)
- Geometry Decompression on GPU (Telecom SudParis)
- StarPU for Hybrid Computing (LaBRI – INRIA)
- The PlayAll Engine Architecture (PLAYALL)

These presentations have been followed by a round table on the interactions between SP1 and SP3. As a conclusion, it appears that SP1 needs specific application scenarios stemming from SP3 to design coherent libraries supporting them with hybrid computing.

All partners agreed on the fact that the MEDIAGPU website (or more precisely its internal wiki) could be used to post such descriptions.

The collaboration with PLAYALL was also penciled, in particular around the integration work required to transpose labs demos to the PLAYALL engine. All partners agreed on the fact that researchers should come to PLAYALL spending some time to help PLAYALL developers generating such demos. As a first action point, PLAYALL is requested to provide an up to date version of the PLAYALL Engine to SP3 partners, so that they can experiment the engine themselves. The StarPU library has finally motivated an open discussion on its use within the project and appears as an interesting environment to experiment with SP3 basic algorithms, maybe to prototype some of SP1 modules or to port existing GPU kernels to hybrid computation.

Future Workshops

On top of the regular MEDIAGPU workshops, SP3 leader proposes to set up specialized workshop around GPU, 3D Graphics and Hybrid 3D Computing whenever it is necessary.

First deliverables are planned for M6, so the next SP3 meeting should happen after. Finally, a specialized workshop around StarPU and its applications to 3D computing is planned to happen in Bordeaux (LaBRI INRIA) before the end of the year.