1. Goal of the meeting

2. Attendees
Emmanuelle Encrenaz LIP6
Abdelrezzak Bara LIP6
Pirouz Bazargan-Sabet LIP6
Dominique Ledu LIP6
Laurent Fribourg LIP6
Etienne André LSV
Ulrich Kühne LSV
Remy Chevallier ST

3. Summary of the meeting
Ulrich joined LSV team to continue the work started by Etienne. Welcome to him!

3.1. LIP6: VHDL2TA: Automated translation of VHDL with timings into timed automaton format (HyTech/Uppaal)
- Accuracy improve by the new algorithm for Taa: [258, 298] → [270, 278] (target is 276)
- Good improvement but need manual work
  - Indeed, a part of the constraint is saved in the latch: the signal is precharged at the end of the previous cycle. This data cannot be caught by the tool.
- Setup optimistic compared with the simulation data → To be studied with Pirouz

3.2. LIP6: Temporal extraction integration
- First file generated Friday
- Generate the first simulation with a first configuration which is injected again in the tool until the timings remain stable
- The RTL is far to the spice netlist. The next step is to refine the RTL description → This flow should help VHDL2TA to improve the boundaries

3.3. LSV: Parameterize model: From IMITATOR to IMITATOR2
IMITATOR2 is improving the performances by replacing external libraries (Apron → PPL)
No result provided with simplified SPSMALL (62 parameters). But results provided with 12 parameters. The next step is to run with the complete memory (~200 parameters) simplified with fewer parameters.
Algorithm improvement planned to regroup part of the states generated. It can improve the memory performances.

4. Publication
- Conference FDL2010: Paper accepted. The reviewers request comparison with industrial circuit (deadline for the final paper is 15th July)
• Conference RP2010: Paper accepted. Improvement of inverse methodology
• Working model for DATE (deadline 5 September) proposal:
  o Patricia/Remy: introduction
  o Pirouz: Abstraction
  o Etienne: Formal methods
  o Draft planned the 23rd July

5. Visit at ST
A visit could be planned to discuss:
• ST design flow presentation (JA/Remy)
• Presentation of CIFRE proposals

6. Actions
• Administrative
  o Follow-up the ‘Accord de consortium’ story (All) [asap]
• Embed the temporal extraction methods inside the tool (LIP6/Temoral extraction)
• Cross-check the setup/hold timings (LIP6/VHDL2TA)
• IMITATOR2 improvement with tool to decrease the memory consumption. Run the tool on complete SPSMALL (LSV)
• Build the final release for FDL conference
• Submit paper to DATE
• Prepare the visit of LIP6 in Crolles

7. Next meeting
The next meeting is planned the 2nd September at 2pm CET time.

8. Deliverable overview

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Deliv.</th>
<th>Resp.</th>
<th>Target</th>
<th>status</th>
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<tbody>
<tr>
<td>D1.1</td>
<td>State of Art in eSRAM conception</td>
<td>R</td>
<td>ST</td>
<td>0→6</td>
<td>Done</td>
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<tr>
<td>D1.2</td>
<td>Build web site for the project</td>
<td>R</td>
<td>LIP6</td>
<td>0→6</td>
<td>Done</td>
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</tbody>
</table>
| D1.3  | Description of the conception flow applied on a study | R      | ST    | 6→12   | Study 1 done  
|       |                                                   |        |       |        | Study 2 done  
|       |                                                   |        |       |        | Study 3 not started  
|       |                                                   |        |       |        | Run time of conception flow done  |
| D2.1  | State of art in memory verification methodologies  | R      | LIP6  | 0→6    | Done       |
| D2.2  | Definition of a new functional and timed model     | R      | LIP6  | 0→6    | Done       |
| D2.3  | Mixing of abstraction methods and temporal characterization | R      | LIP6  | 6→12   | Done       |
| D2.4  | Abstraction tool prototype                         | P      | LIP6  | 12→48  | ongoing    |
| D3.1  | Temporal automaton modeling adapted to memory      | R      | LSV   | 6→12   | Done       |
| D3.2  | Temporal automaton model checking adapted to memory| R      | LSV   | 12→18  | Done       |
| D3.3  | Verification tool prototype                        | P      | LSV   | 12→24  | Done       |
### VALMEM meeting (ANR project)  

**Meeting minutes**  
29/06/2010

<table>
<thead>
<tr>
<th>D4.1</th>
<th>Description of the conception flow applied on other studies</th>
<th>R</th>
<th>ST</th>
<th>12→18</th>
<th>Not started</th>
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<tr>
<td>D4.2</td>
<td>Experimentation of prototypes on real study</td>
<td>R &amp; D</td>
<td>ST</td>
<td>18→48</td>
<td>ongoing</td>
</tr>
<tr>
<td>D4.3</td>
<td>Comparison of results from current verification methods and new methods</td>
<td>R</td>
<td>ST</td>
<td>30→48</td>
<td>ongoing</td>
</tr>
</tbody>
</table>

The targets are described in months.  
Delivery naming: (R: report / P: prototype / D: demonstrator)  
wk: week number  
Q: quarter