

MIXED-SIGNAL/RF SUBCOMMITTEE MINUTES PDK CHECKLIST WORKING GROUP

Date: November 4, 2008

Location: Teleconference Only

Time: 10:00AM PDT

Attendees:

- Thomas Moerth – Austriamicrosystems
- Chelsea Boone – GSA
- Sabine Perko – X-FAB
- Ted Paone – Cadence Design Systems
- Soumya Dey – Agilent
- K-Chan Basha – Agilent
- Chris Moeth – Agilent
- Jingwen Yuan – Synopsys

Summary:

- Discussed our proposal for the next version of the PDK Checklist and Users Guide.
- Current PDK and Model Checklist Components are available at:
<http://www.gsaglobal.org/subcommittees/msrf/index.asp>.

Discussion Items:

The following questions were asked to the EDA vendors on the call to get an overview of the portability of a PDK and get an idea of what they think should be included in the Checklist.

Q1: Which callback languages do you support?

Agilent: AEL. AEL is the build-in language of Agilent's ADS. Other languages are not supported.

Cadence: Skill is supported natively. Other languages through wrappers doing IPC calls.

Mentor: AMPLE. Potentially, other languages through IPC.

Synopsys: All OA-supported languages (TCL, Python, C++, etc.). IPL standardizes on TCL callbacks.

Q2: Which pcell languages do you support?

Agilent: AEL.

Cadence: Skill natively. TCL, Python, C++ via plug-ins.

Mentor: Build-in device generators and AMPLE.

Synopsys: Python (IPL standard), TCL and C++ (all open languages that are working with OA).

Q3: Which IC transfer layout formats do you support?

Agilent: GDS2.

Cadence: GDS2, LEF, DEF and EDIF (all OA native translators). OASIS to come.

Mentor: GDS2, OASIS, LEF and DEF.
Synopsys: All native OA translators.

Q4: How can a PDK be ported to third-party tools?

Agilent: IFF, Dynamic Link and netlist export.

Cadence: Would read an IPL PDK without problems; outbound Express pcells (frozen version of pcell) can be used for layout.

Mentor: Designkit Builder: a software that creates a Mentor PDK out of a Cadence PDK. Software not yet finished.

Synopsys: Through the IPL standard, a PDK is portable by definition.

Q5: What should be in the PDK Details section?

Database (if OA, always list the data model used)

Pcell language

Callback language

Layout transfer format

Thomas will now create a new version of the PDK Checklist and Users Guide, which will incorporate the changes above, and will forward to the Working Group for feedback. We hope to release the next version of the PDK Checklist around the time of GSA's Awards Dinner.

Next Meeting for PDK Checklist Working Group:

The next meeting is scheduled for December 2, 2008 at 10:00AM PDT.