



Dataflow Working Group Update

**Stuart Swan - Cadence Design Systems
Chair, OSCI Dataflow Working Group**

Dataflow Working Group Charter

- Provide standardized modeling style and reference library on top of SystemC core language that supports:
 - Kahn Process Networks
 - Static Dataflow
 - Possibly other models of computation in future

Dataflow Working Group Charter

■ Some goals

- Easy interoperability between KPN, SDF, and other MOCs.
- High performance (e.g., enable static scheduling)
- Ease design exploration (e.g., make it easy to move modules between different MOCs or between SW & HW.)
- Enable annotation of time delays to model implementation delays

Dataflow Working Group Members

- Stuart Swan, Cadence Design Systems
- Bob Shur, Cadence Design Systems
- Erwin de Kock, Philips
- Thorsten Groetker, Synopsys
- Martin Janssen, Synopsys
- Adam Rose, Motorola
- Karsten Einwich, Fraunhofer Institute

Working Group Current Activities

- Cadence has distributed a static dataflow prototype built on SystemC 2.0
- Philips has integrated the SDF prototype into their KPN prototype running on SystemC 2.0. (Philips work is based on their YAPI experience.)
- Currently reviewing code.

Working Group Next Steps

- Continue to review and test prototypes.
- Investigate modeling styles that do not require specialized ports and channels – this may ease design exploration.
- Work closely with mixed signal working group to insure a consistent modeling style.