Panel on OO-VHDL

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OO-VHDL — The Question

3) Is there a crisp statement of the problem that OOVHDL is trying to solve?

- Yes, several!
- *cf* experience in the software engineering world
  - key problem: **managing complexity**
- Improved expressiveness for modeling
  - at all levels of abstraction, not just high-level
  - ADTs: data abstraction, encapsulation
- Reusability
  - of ADTs and components
  - inheritance with polymorphism, genericity

OO-VHDL and VHDL-200X

2) Is OOVHDL really separate from VHDL-200X?

- No, must be cleanly and seamlessly integrated
  - But no penalty imposed if OO/genericity not used
- Divergence would hurt everyone
  - confusion about what VHDL is
  - dissipation of effort

OO-VHDL Market

1) What is the market for OOVHDL, separate from that of VHDL in general?

- not separate!
- system-level modeling
  - behavioral modeling early in the design flow
- behavioral synthesis
- hardware/software codesign

SUAVE

- Adopt Ada-95 features for OO and genericity
  - see papers
- Working on system-level behavioral modeling
  - generalizing concurrency and communication