Easy uvm_config_db use
A simplified and reusable uvm_config_db methodology for environment developers and test writers
Bob Oden, UVM Field Specialist, Mentor Graphics, bob_oden@mentor.com

Motivation
- Provide a mechanism for sharing resources within a simulation that provides features needed by architects and simplicity needed by test writers.
- Architects need a mechanism that can allow resource access by hierarchy and general scope.
- Test writers need access to simulation resources while treating environment as a black box.

The Resource Table
- Contains all information required by test writers to access environment resources.
- Independent of environment implementation. The environment is a black box to test writers.
- Creates a clear association between an interface, its virtual interface handle, and the sequencer used to place traffic on the interface.
- Control waveform viewing of transactions on interfaces in the table without recompilation

The Resource Table
- Provides a mechanism for sharing resources within a simulation that provides features needed by architects and simplicity needed by test writers.
- Architects need a mechanism that can allow resource access by hierarchy and general scope.
- Test writers need access to simulation resources while treating environment as a black box.

Results
- Architects have needed features
  - Pass resources by hierarchy or generic scope
  - Supports component and environment reuse
  - Supports simulation and emulation
  - Use uvm_resource_db if desired
- Test writers have needed simplicity
  - All necessary information is in Resource Table
  - Environment is a black box
  - No time invested learning environment implementation
  - Focus on writing tests