CPF 1.2 Roadmap
Sept/17/2008

Approved by LPC Format Working Group

Approved

- **Interoperability with P1801 (which see: Interoperability with P1801)**

- **Simulation and Implementation semantics – consolidation in standard**
  - Formalize default models for Level shifters, isolation, and retention
  - Ability to associate models as an override for the default

- **Improve IP modeling and representation.**
  - IOs, Repeated blocks

- **Query commands to access database**
  - Objects in power domain, Signals crossing domains

Interoperability with P1801: Goals

- **Identify a set of commands and options that can be used in P1801 and CPF**
  - ◆ To be able to consistently describe a design to drive verification and implementation
  - ◆ To provide semantics enabling Bi-directional translation between CPF+design and P1801+design without loss of intent and supporting verification of the translation

- **Resolve ambiguities between the compatible subsets**

- **Provide name mapping between CPF and P1801 objects, including modes and states, supply sets, supply functions, rules and strategies.**

- **Provide guidance for commands outside of the translatable subset**
  - ◆ May define additional CPF capability to close the un-translatable commands and options gap

- **The identified "compatible subsets" of commands and options to include at least the capabilities for:**

  - Definition of power domains and their associated logic

  - Buffer insertion power supply semantics

    - A buffer may be powered by an "equivalent" supply which is "always on" relative to the source (*maybe*: , and "always off" relative to the sink.)

  - Power mode/state mapping including corruption semantics mapping

    - Clock Speed based corruption in a power mode

  - Retention behavior extensions to include bias and frequency conditions

  - Definition of low power specific cells – library definition, recognition in a design, specification of use.

  - Power down simulation

  - Voltage aware simulation

  - Formal verification

  - ESL level simulation

  - Mapping of supply set connection semantics

- **This version has been approved by the Format Working Group.**

Date : 8/28/2008

Attended by:

   Gary Delp, Anuj Singhania, Anmol Mathur, Steve Urish, Qi Wang, Sumit Dasgupta, Stacy Doss

All Voted Yes on the requirements.

Approved