



# Power-Aware RTL Verification

Alan Ma

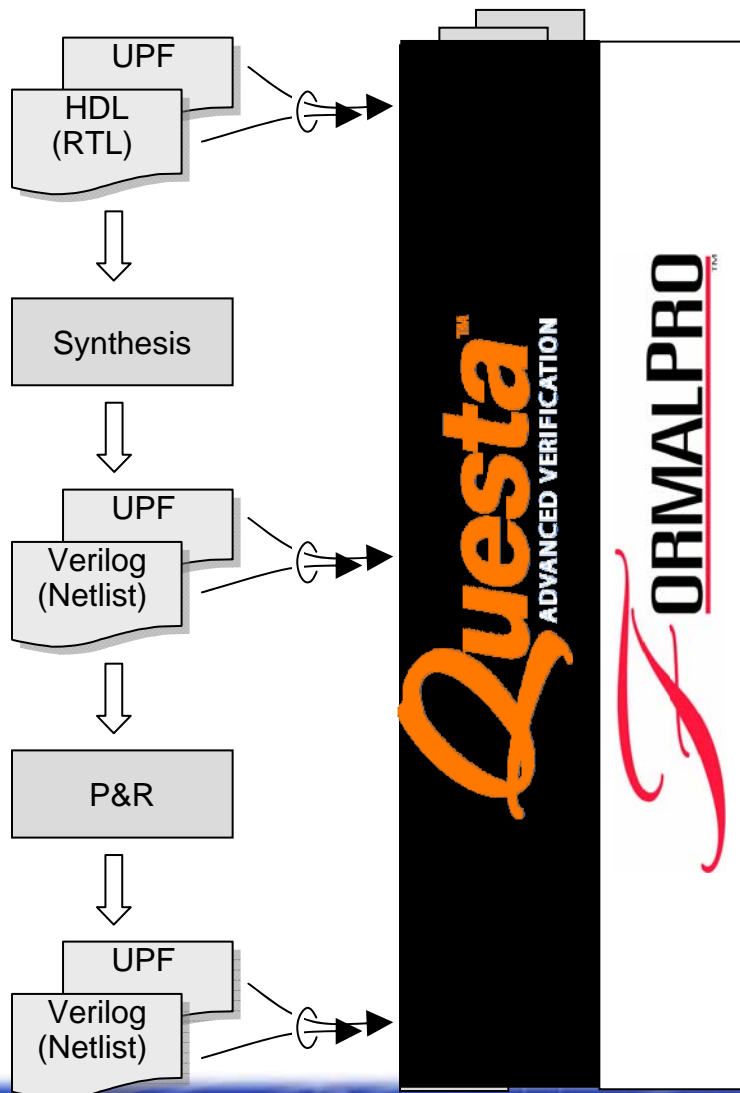
Technical Marketing Engineer  
Functional Verification



# Unified Power Format

- **UPF provides the ability for power network functionality to be verified early in the design process**
- **UPF allows power design functionality to be captured in a separate file**
  - **No impact to existing design flows**
- **UPF is an industry standard approved by Accellera**
  - **Enables portability and collaboration**

# Mentor's UPF Low Power Design Verification Solutions



- **Questa Simulation**

- **RTL & gate verification of low power design intent**

- **Power gating**
- **Retention**
- **Isolation**

- **FormalPro**

- **Is the implementation equivalent to what was verified?**

# Going Forward

- **More tools will be integrated into UPF-based flows**
- **Contact Mentor Graphics for collaboration opportunities**
  - **Dennis Brophy (dennis\_brophy@mentor.com)**
  - **Questa Vanguard Program**
    - [http://www.mentor.com/products/fv/partners/vanguard\\_program.cfm](http://www.mentor.com/products/fv/partners/vanguard_program.cfm)
    - [qvp\\_partner@mentor.com](mailto:qvp_partner@mentor.com)

The background is a vibrant blue with a complex pattern of white and light blue lines. These lines form various geometric shapes, including rectangles, circles, and spirals, reminiscent of a circuit board or a data visualization. The overall aesthetic is high-tech and digital.

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