

PANEL SESSION – Caution Ahead: The Road to Design and Manufacturing at 32 and 22 nm

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At 32 and 22 nm, which manufacturing technology changes will be so revolutionary as to cause upheavals in the semiconductor supply chain and on design practices?

- Will there be economic fallout from the higher mask cost associated with dual patterning? How will designers deal with place-and-route restrictions?
- How likely is “direct write”? What design and OPC tool changes will be required?
- When dealing with stress and CMP, will we need to replace DRC with a new breed of tools?
- How will designers “sign off” on a design at 32 nm?

These are just some of the challenges ahead. For every solution, collateral adjustments must be made to design technologies and methodologies. Everyone from designer to foundry equipment manufacturer would do well to look ahead at these potential hazards on the road to 32 and 22 nm.