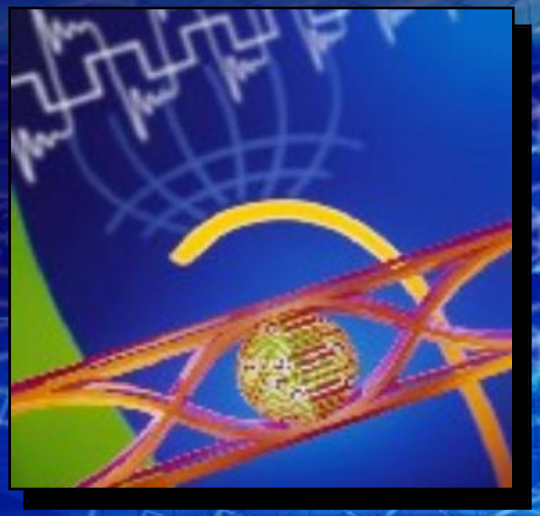
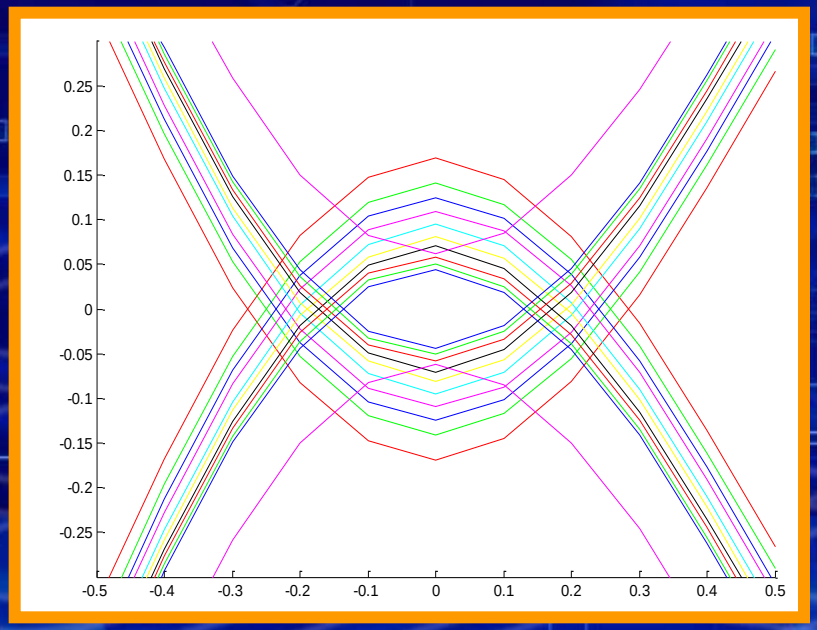
# Package Modeling in IBIS



## IBIS Interconnect Teleconference
## October 31, 2012

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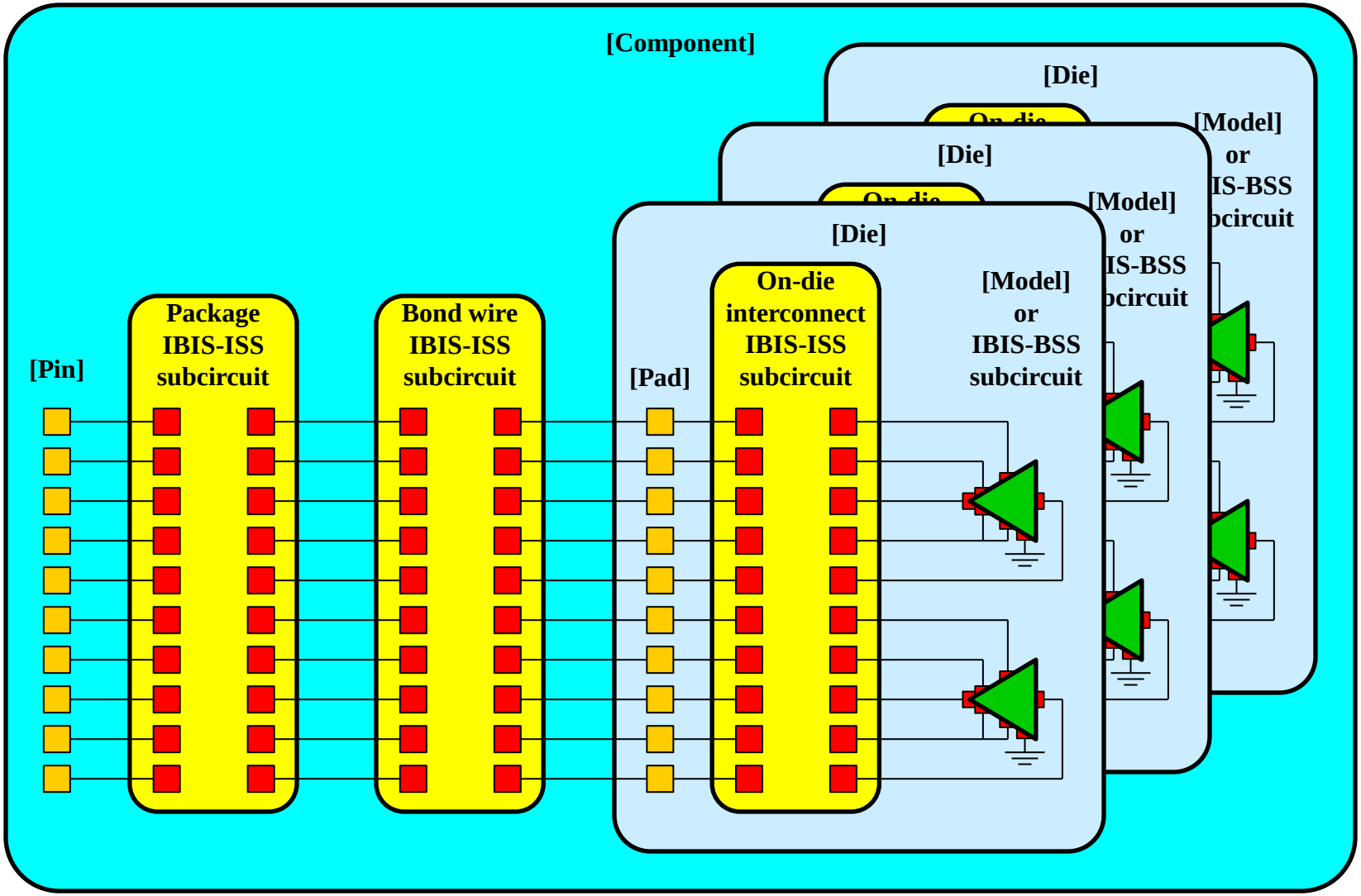
# Block diagram of a “component”

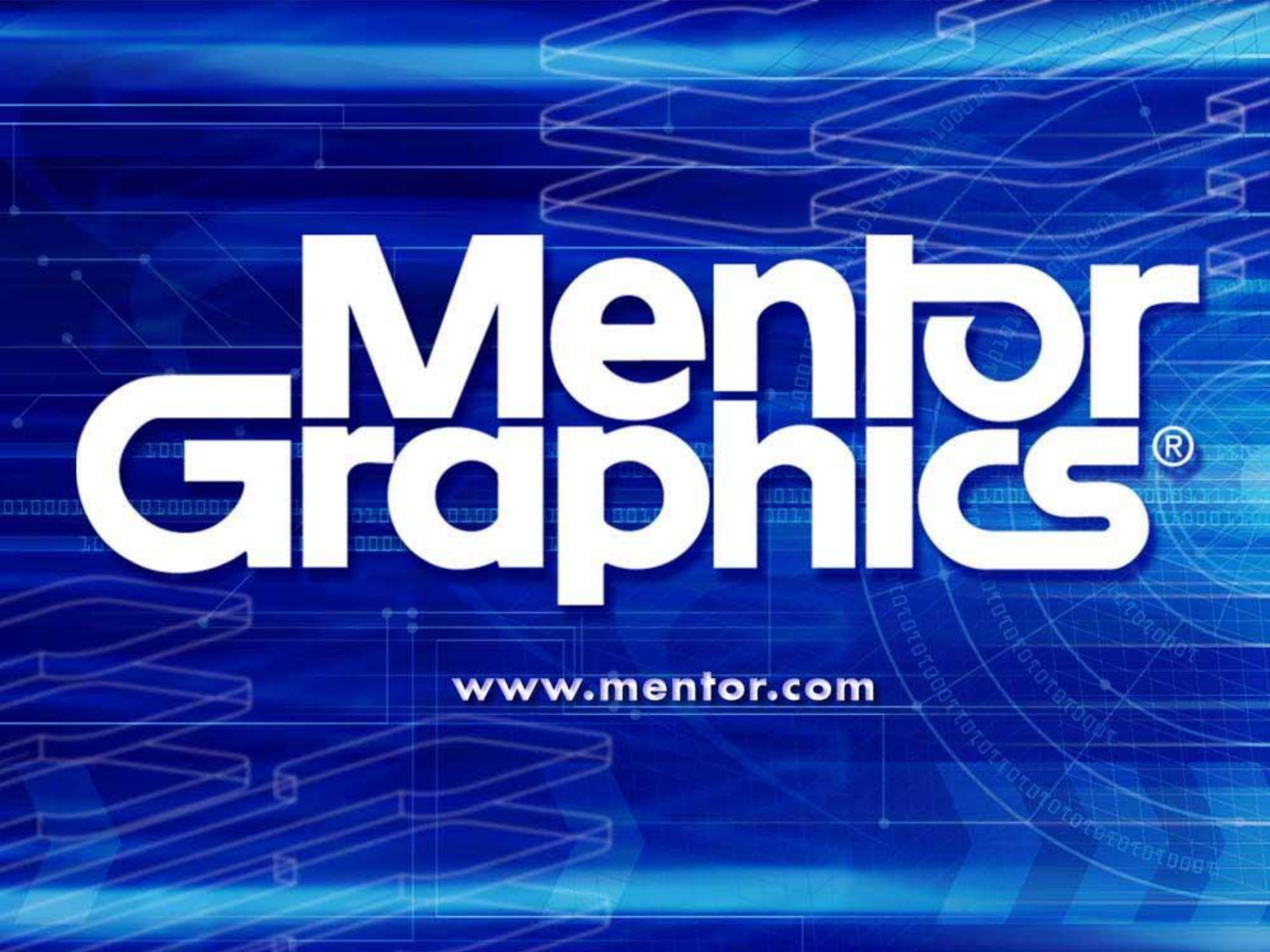


# The hierarchy of a “component”

- A component has pins and one or more instances of package, bond wire and die “blocks”
- A die has pads and one or more instances of on-die interconnect and buffer model “blocks”
- Notice the similarity:
  - pins/pads
  - blocks of interconnects
  - blocks of dice/buffers
- This similarity lends itself to pattern nesting
- All we need is a syntax that
  - defines pins/pads (i.e. connection points)
  - instantiates blocks which can contain package, interconnect, die, and buffer models
  - defines how all these are connected together

# Future work

- The exact syntax is yet to be determined, but let's try to group items based on where they are physically located
  - [Model] and [On-die Interconnect] from the [Die]
  - [Package] and [Bond Wire] from the [Component]
- The syntax should allow for pre and post layout flows and full or partial [Component], [Package], [Bond Wire], [On-die Interconnect] or [Die] descriptions
- Let's not invent special syntax for special circumstances
  - differential/single ended
  - coupled/uncoupled
  - signal/power
- Note: The block diagram shows single blocks for the package, bond wire and on-die interconnect subcircuits, but the intent is not to limit them to be single blocks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