

# PHILIPS

## ICSE WADS 2004 Panel

How to Guarantee at the Architectural Level the  
Dependability Requirements of a System?

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# Dependability technologies (1/2)



- Are architectural assumptions any different from designing assumptions?
  - Architecture is high level design!
    - Low level design is guided by the architecture
    - The architect designs for dependability
- What is the coverage of test cases generated from architectural specifications?
  - Only the technical solutions part can be covered
    - Dependability is derived from this

## Dependability technologies (2/2)



- Does it make sense to talk about fault tolerance at the architectural level?
  - The architecture can provide solutions to deal with this
    - Exception handling, interface inquiry, automatic recovery, ...
- Does it make sense to talk about the compositionality of dependability attributes?
  - Only of their technical solutions



# System development

- Can dependable systems be generated directly from architectural representations?
  - Presently no, but we have to wait what MDA brings us
    - It is all guided by domain knowledge!
- What about the wrappers?
  - Wrappers can be generated automatically
- What are the guarantees that dependable architectures result in dependable systems?
  - It all depends on the architects' right selection of the right technical solutions

