

ePtolemy: Distributed Modeling and Design in Ptolemy II

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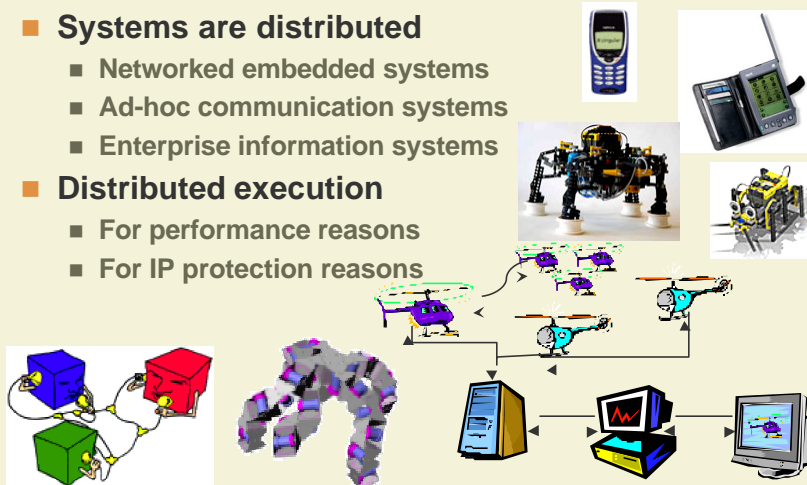
Ptolemy Group
EECS, UC Berkeley

Ptolemy Miniconference
Berkeley, CA, March 22-23, 2001



Why distributed?

- **Systems are distributed**
 - Networked embedded systems
 - Ad-hoc communication systems
 - Enterprise information systems
- **Distributed execution**
 - For performance reasons
 - For IP protection reasons



Three Approaches

■ Publish and subscribe approach

- Data sharing
- Joining and leaving a federation

Persistent Spaces

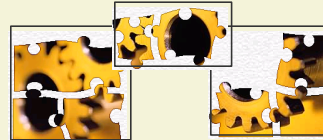
■ Remote Actor Proxy (RAP) approach

- Distributed execution mediated by wrappers
- IP protection



■ Distributed hierarchical heterogeneity

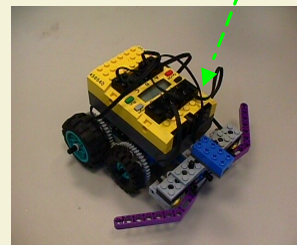
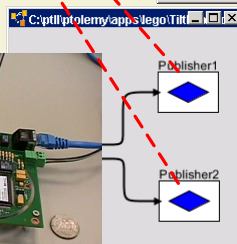
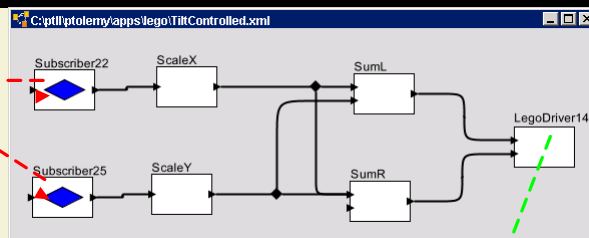
- Distributed infrastructure that preserves MoC
- Services for MoC
 - Receivers
 - Directors
 - Composite Actors



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Publish and Subscribe

JSpaces



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