Code Generation in Ptolemy II

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Motivation

- **Limitations of Ptolemy Classic code generation**
  - **Separate domains for code generation**
  - **Separate actor source code**
  - **Inefficient inter-actor communication**
- **Analysis of component internals for improved compilation, and translation to multiple target languages**
  - **Explored in El Greco (Buck/Vaidyanathan)**
- **Reduce run-time overhead of type-polymorphic actors**
- **'Shallow' code generation mode to construct Ptolemy-dependent Java class definitions of Ptolemy models**
  - **Automate the construction of applets from Ptolemy models**

Deep Code Generation Example