Formal Composition for TTA – SRI International

Objective: Speed development of reliable embedded systems by providing formally-assured path from industry-standard modeling methods to time-triggered implementation frameworks (TTA)

Approach:

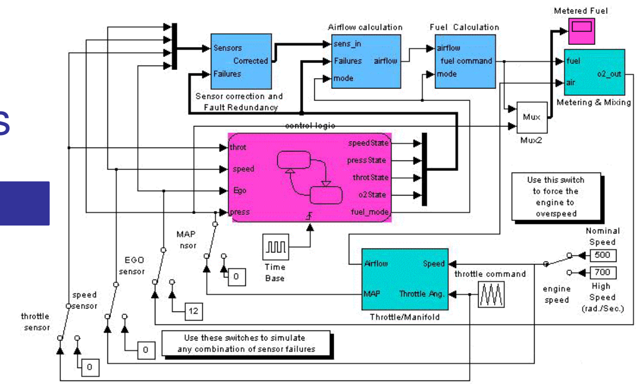
- Formal characterizations of popular modeling, design, and implementation frameworks (using PVS and SAL)
- Analysis and verification tools for those frameworks
- Formally-assured mappings between models, designs, and implementations

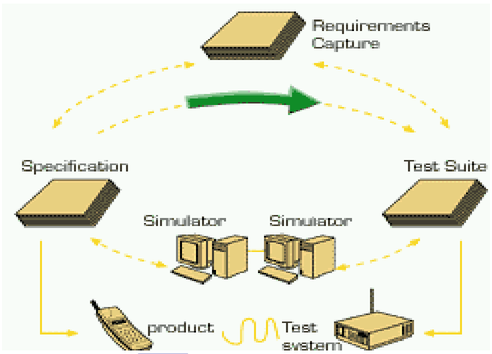
Expected Results:

Effective tools for analysis, verification, and transformations between

- Stateflow/Matlab/Simulink models
- Reactive/synchronous designs
- Time-Triggered implementations

From models





Through designs

To Time-Triggered implementations

TTP
As Predictable as Time