EOFM Tutorial Material

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Example

A human operator is trying to turn on a light (Light4 in Examples).

The human operator must repeatedly press a switch until the light turns on.

One press of the switch will turn the light off.

Step 1: Model the Human Task Behavior

Create an EOFM xml file using the EOFM.rng schema:

http://fhsl.eng.buffalo.edu/EOFM/
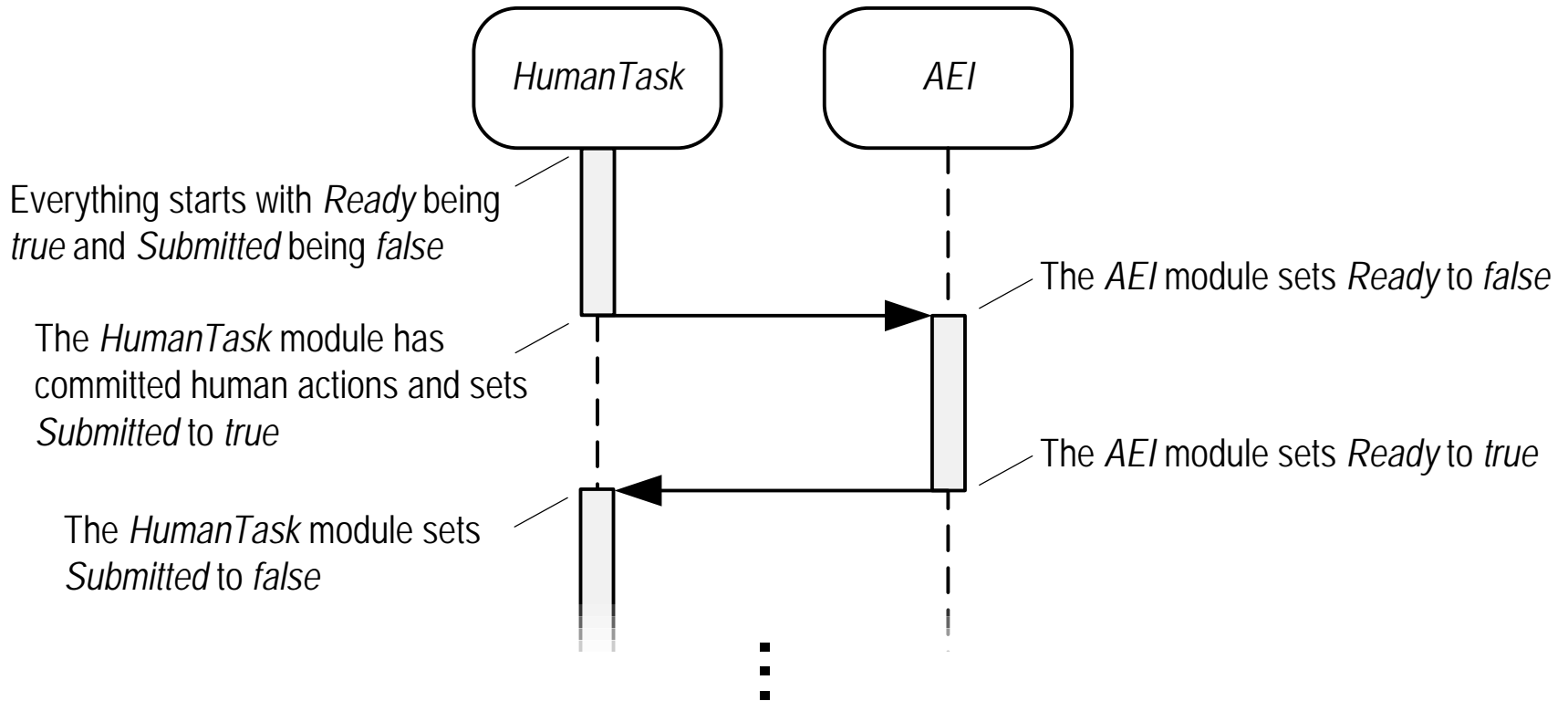
Step 1a: Visualization

- View the model structure using the visualizer

Step 2: Run the Translator

- Select no errors
- Use the xml file as input
- Two outputs are produced:
  - A SAL file
  - An xml file (for use in visualization)

Step 2: Run the Translator

Model coordination:

Step3: Modify / Finish the SAL Model

The behavior of the mission, interface, automation, and environment elements of the model (as required) should be constructed

- Create a mission module
- Add the necessary transition to the AEI (*interface*) module
- Compose all of the modules into a single system module
- Add any additional specification properties

Step 4: Perform Formal Verification

To output to console:

```
sal-smc ModelName PropertyName --verbose=3
```

To output to file:

```
sal-smc ModelName PropertyName --verbose=3
  >ModelName.out 2>ModelName.err
```

Counterexample

Other output statistics

Step 5: Visualize the Counter Example

- Use the outputed XML file
- Use the .out file with the counter example