

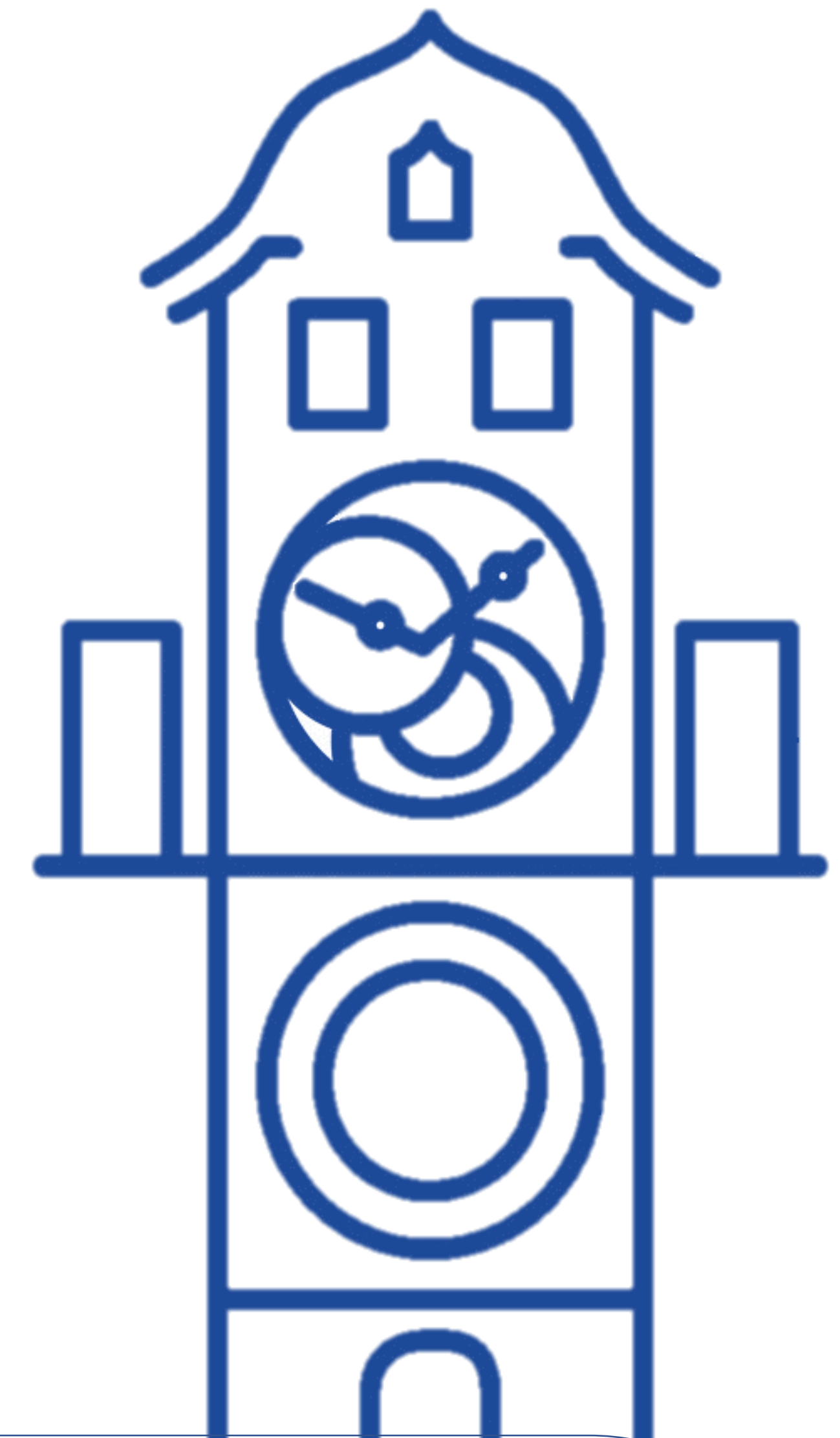


MegaM@Rt²

Code generation for the PauWare API from UML state machine models

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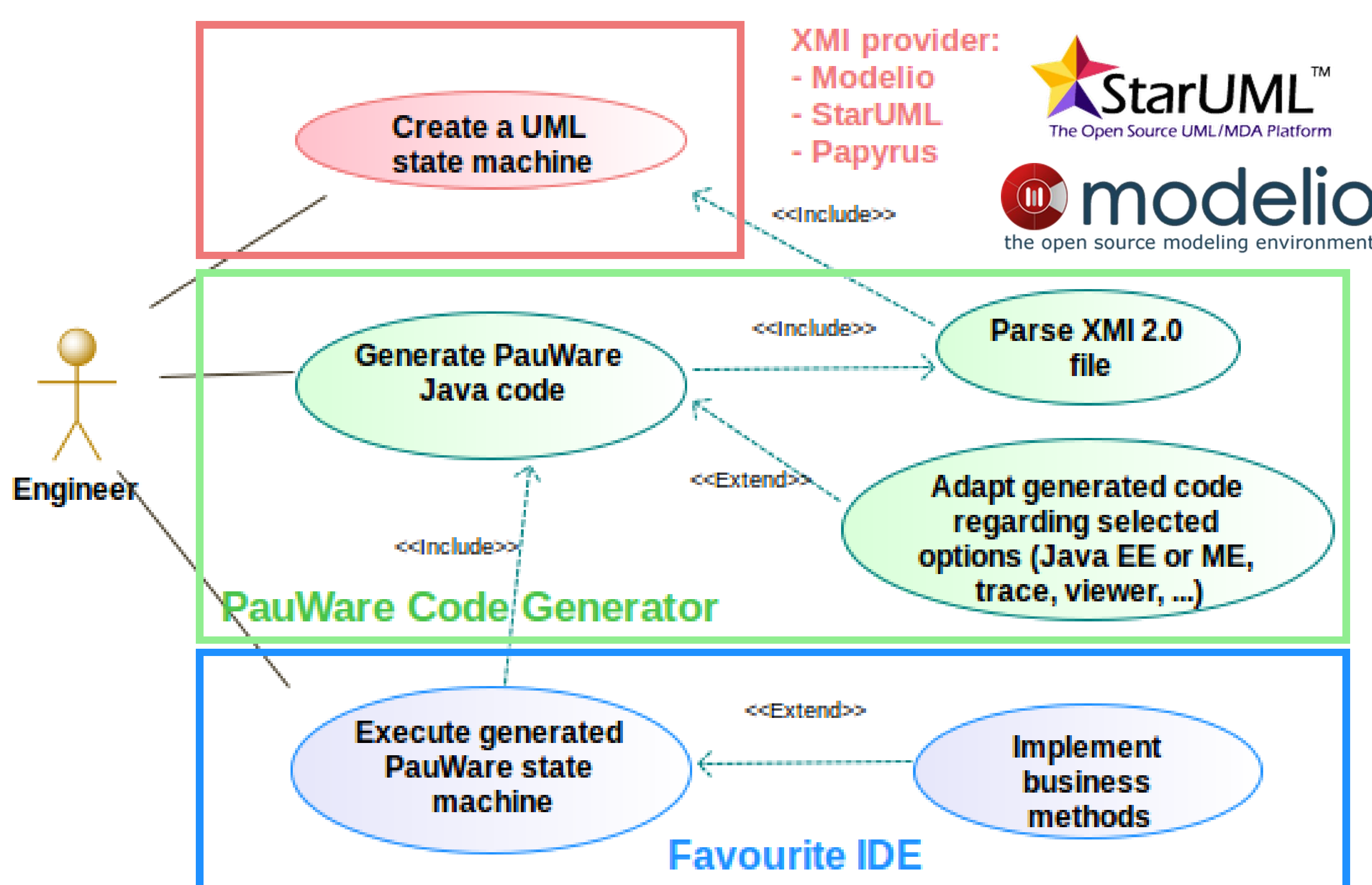
Contact: firstname.name@univ-pau.fr



Context

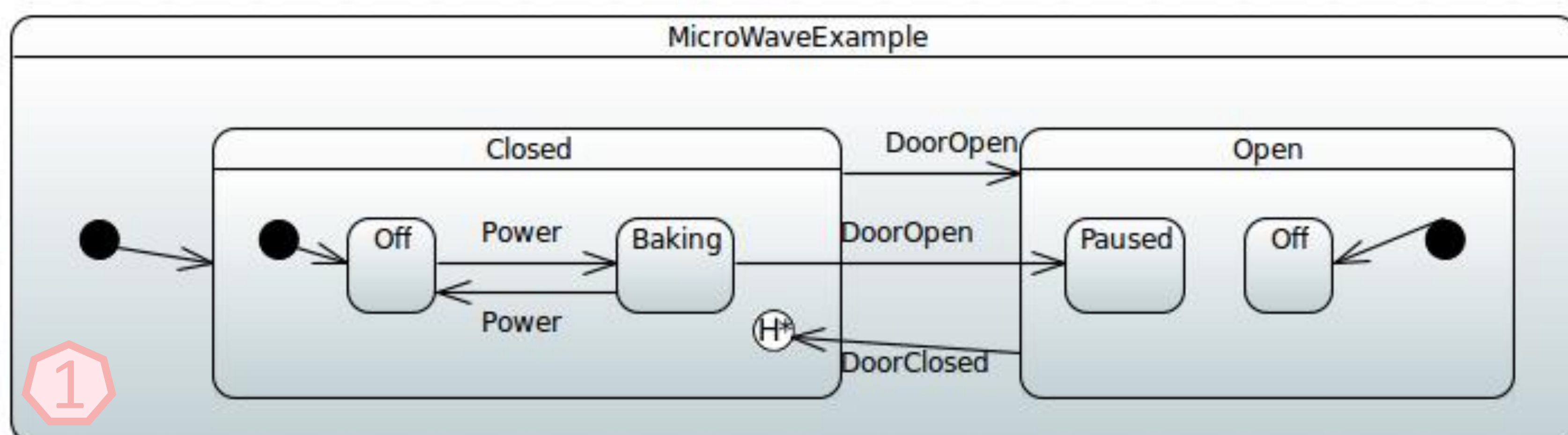
- ❖ PauWare is a Java API that permits to implement state machines.
- ❖ PauWare also provides an execution engine that fires transitions through events and deals with the notion of business methods.

Tool



- ❖ Once the user has created his/her UML state machine, he/she doesn't need to recreate it in Java
 - Productivity and time gain
 - Generated execution engine
- ❖ Continuous development:
 - Code generation implies design = runtime

Results



```
<?xml version="1.0" encoding="UTF-8"?>
<uml:Model xmi:version="20131001" xmlns:xmi="http://www.omg.org/spec/UML/20131001/Model" xmlns:ecore="http://www.eclipse.org/emf/2002/Ecore" xmlns:uml="http://www.omg.org/spec/UML/20131001/UML" xmi:id="_vbwBkHceEem2tp5P8fGLJw" name="PragueDemo">
  <packageImport xmi:type="uml:PackageImport" xmi:id="_vkJw" href="pathmap:/...>
  <importedPackage xmi:type="uml:Model" href="pathmap:/...>
  </packageImport>
  <packagedElement xmi:type="uml:StateMachine" xmi:id="_vE80HceEem2tp5P8fGLJw">
    <region xmi:type="uml:Region" xmi:id="_veE80HceEem2tp5P8fGLJw">
      <transition xmi:type="uml:Transition" xmi:id="_uJSA" source="_x5B8UHceEem2tp5P8fGLJw" target="_zbzWoHceEem2tp5P8fGLJw">

```

```
public class MicrowaveExample {

    // State Machine
    protected AbstractStatechart_monitor _MicrowaveExample;

    // States
    protected AbstractStatechart _Closed;
    protected AbstractStatechart _Off_in_Region1_in_Closed;
    protected AbstractStatechart _Baking_in_Region1_in_Closed;
    protected AbstractStatechart _Open;
    protected AbstractStatechart _Paused_in_Region1_in_Open;
    protected AbstractStatechart _Off_in_Region1_in_Open;

    private void initialize_SM() throws Statechart_exception {
        _Off_in_Region1_in_Closed = new Statechart("Off_in_Region1_in_Closed")
        _Off_in_Region1_in_Closed.inputState();
    }
}
```

