Function Module:

GUI

**Model generator**

Uppaal command line execution

User input information

Model.xml

Model.q

Result.trace

Satisfied?

**Show counter-example trace**

Show result

no

yes

**Figure 1 Framework**

1. GUI & input information collecting function
2. model generator
3. control uppaal to execute in command line way and save result into result file
4. explain result : satisfied or unsatisfied(show counterexample trace)

User input information including the follows:

**Application**: Task, and its running period, offset

**Dependency**: dependency between tasks

**Platform**: processing elements and its schedule strategy, bus and its strategy

**Mapping:** which task run on which processing element

**Characteristic**: best case execute time and worst case execute time of each mapping

**Property:** Schedule?