1.2.1 The Model-Checking Process

In applying model checking to a design the following different phases can be distinguished:

- *Modeling* phase:

    - model the system under consideration using the model description language of the model description language of the model checker at hand;
    - as a first sanity check and quick assessment of the model perform some simulations;
    - formalize the property to be checked using the property specification language.

- *Running* phase: run the model checker to check the validity of the property in the system model.

- *Analysis* phase:

    - property satisfied? → check next property(if any)
    - property violated? →
        1. analyze generated counterexample by simulation;
        2. refine the model, design, or property;
        3. repear the entire procedure.
    - out of memory? → try to reduce the model and try again.