

CSSE3002

The Software Process

Tutorial Week 7

Goals:

To provide students with experience developing UML analysis models.

Strategy:

Work through a requirements scenario and represent the problem as UML analysis models.

Preparation:

Review UML notation, UML lectures and texts.

Procedure:

1. In groups of two, take the following requirements statement and develop a UML State machine describing the behaviour of the Controller class in the sample solution of Week 6 tutorial.
2. Present your diagrams to another group of two and compare your solution with theirs. Try to understand the differences between the two sets of models. Are they
 - a. alternative ways of expressing the same idea? or
 - b. essential differences caused by ambiguous or incomplete requirements?

Functional Requirements Statement for security alarm:

1. The security alarm is activated by pressing the Set button.
2. The set button is illuminated when the security alarm is activated.
3. The security alarm has a detector that sends a trip signal when motion is detected.
4. The detector is enabled when the security alarm is activated.
5. If the trip signal occurs while the security alarm is set, a high-pitched tone (alarm) is emitted.
6. A three digit code must be entered to turn off the alarm tone.
7. Correct entry of the code deactivates the security alarm.
8. If a mistake is made when entering the code, the user must press the Clear button before the code can be re-entered.