

**Name:** Run Code in Simulator

**Identifier:** UC 01

**Initiator:** User

**Goal:** Simulate the execution of the code supplied in the code editor.

**Preconditions:** The user has entered some code in the code editor.

**Main Success Scenario:**

1. User clicks the "Run" button in the code editor.
2. Include use case *Parse Code*.
3. Include use case *Run Simulation*
4. System informs user that the execution has finished.

**Extension:**

1. Another simulation is running
  1. System asks user if they want to cancel the current simulation.
  2. User selects yes.
  3. Resume 2.
- 1.1. User doesn't cancel the running simulation
  1. Fail.
2. Use case *Parse Code* fails
  1. System informs user that the code wasn't able to be parsed, and gives information about the line number where the error occurred.
  2. Fail.
3. Use case *Run Simulation* fails
  1. System informs user that an error occurred while executing the code, and displays any relevant information about the error.
  2. Fail
3. User cancels execution
  1. Resume 4.

**Name:** Load Code from File

**Identifier:** UC 02

**Initiator:** User

**Goal:** Extract the text from the specified file and place it in the code editor.

**Preconditions:** The user has entered some code in the code editor.

**Main Success Scenario:**

1. User opens the code editor.
2. User clicks the "Load from File" button in the code editor.
3. System presents user with a file chooser dialog.
4. User selects a ".s" file and confirms their choice.
5. System copies text from file into code editor.

**Extension:**

4. User clicks "Cancel" button
  1. Fail.
5. System could not read from file
  1. System informs user about the error, e.g. the file has special permissions.
  2. Fail.

**Name:** Save Code to File

**Identifier:** UC 03

**Initiator:** User

**Goal:** Save the text in the code editor to file

**Main Success Scenario:**

1. User clicks the "Save to File" button.
2. System presents user with a file saving dialog.
3. User selects the destination directory and types a name for the file.
4. System saves the file to the specified destination.

**Extension:**

2. System already knows file destination
  1. Resume 4.
3. User clicks cancel button
  1. Fail.
4. System could not write the file to the specified destination
  1. System informs user about the error, e.g. the directory is read-only
  2. Fail.

**Name:** User Changes Preferences

**Identifier:** UC 04

**Initiator:** User

**Goal:** Update the system preferences based on user input

**Main Success Scenario:**

1. User requests to view a dialog box of preferences
2. Editor retrieves preferences and displays them in a dialog box.
3. User edits preferences
4. User saves changes.

**Extension:**

2. Editor could not retrieve system preferences
  1. Fail.
4. User closes window before saving changes
  1. Editor confirms user's choice to close without saving changes.
- 4.1. User closes window without saving changes.
  1. Stop
- 4.1. User cancels closing window.
  1. Resume 3.