



Software Testing

Design Test Scenarios and Test Cases

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Test Preparation

Test Preparation

Test Scenario, Test Case, Test Run?

Test Cases are tests, which are designed to test the *requirements*

Test Scenarios are designed to test *functions* (functional testing)

Positive Test = Testing the normal flow through the application or code.

Negative Test = Testing an error (alternative/exceptional) situation.

Test Runs are sets of selected Test Scenarios, executed in a sequence without interrupting the system operation (shutdown, startup).

Test Cases

Example Requirement:

SOF_FUN_NCG_TTS_13_0

The TTS shall log all received events on debug level.

Created/updated by: J Janvier, Role: software engineer, Date: 28-03-2007

Example Test Case:

SOF_FUN_NCG_TTS_13_0

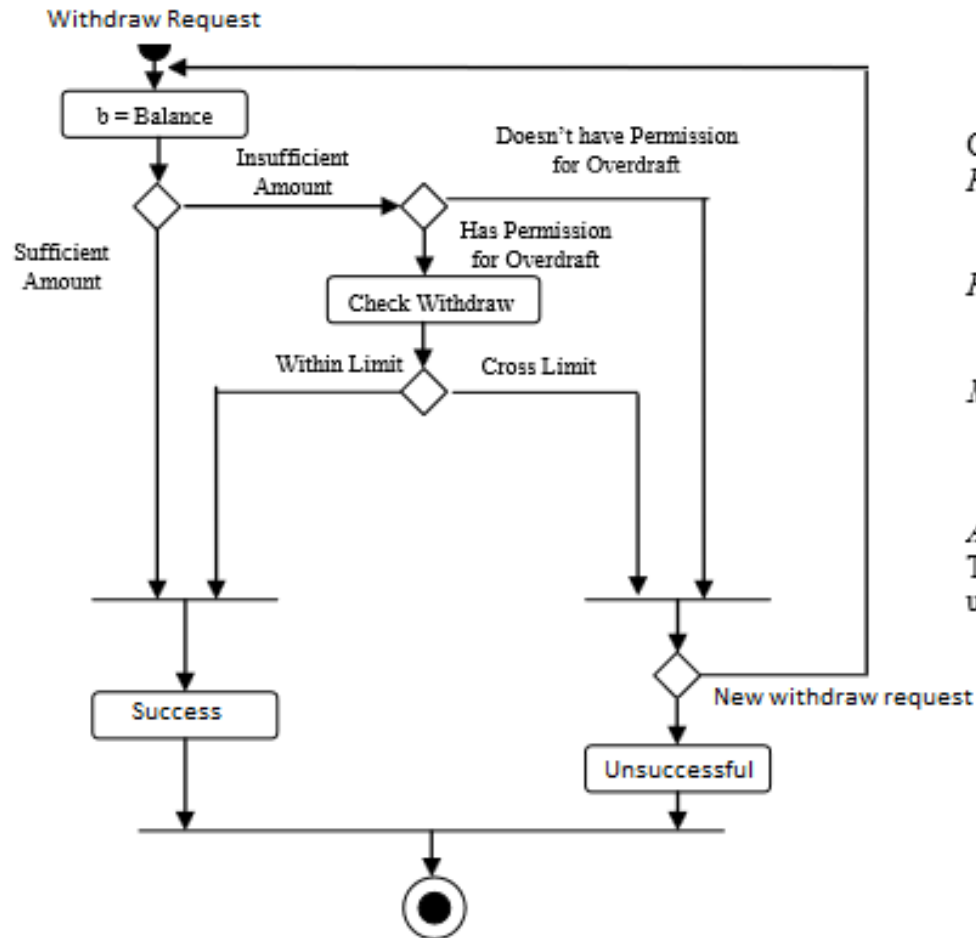
Test type: MT. (2nd Iteration)

Test plan: The system shall be started in debug mode. One bag shall be send to the system and when the bag leaves the system (dies), the log file shall be checked to see if all events to HLC are logged.

Created/updated by: J Janvier, Role: software engineer, Date: 29-03-2007

Test Scenarios

How to extract Test Scenario(s) from Designs?



Conditions for accounts withdraw method are:

Pre Condition:

- 1) Account does have some minimum balance.
- 2) Amount entered should be a valid amount.

Post Condition

- 1) Withdraw successful.
- 2) Withdraw unsuccessful.

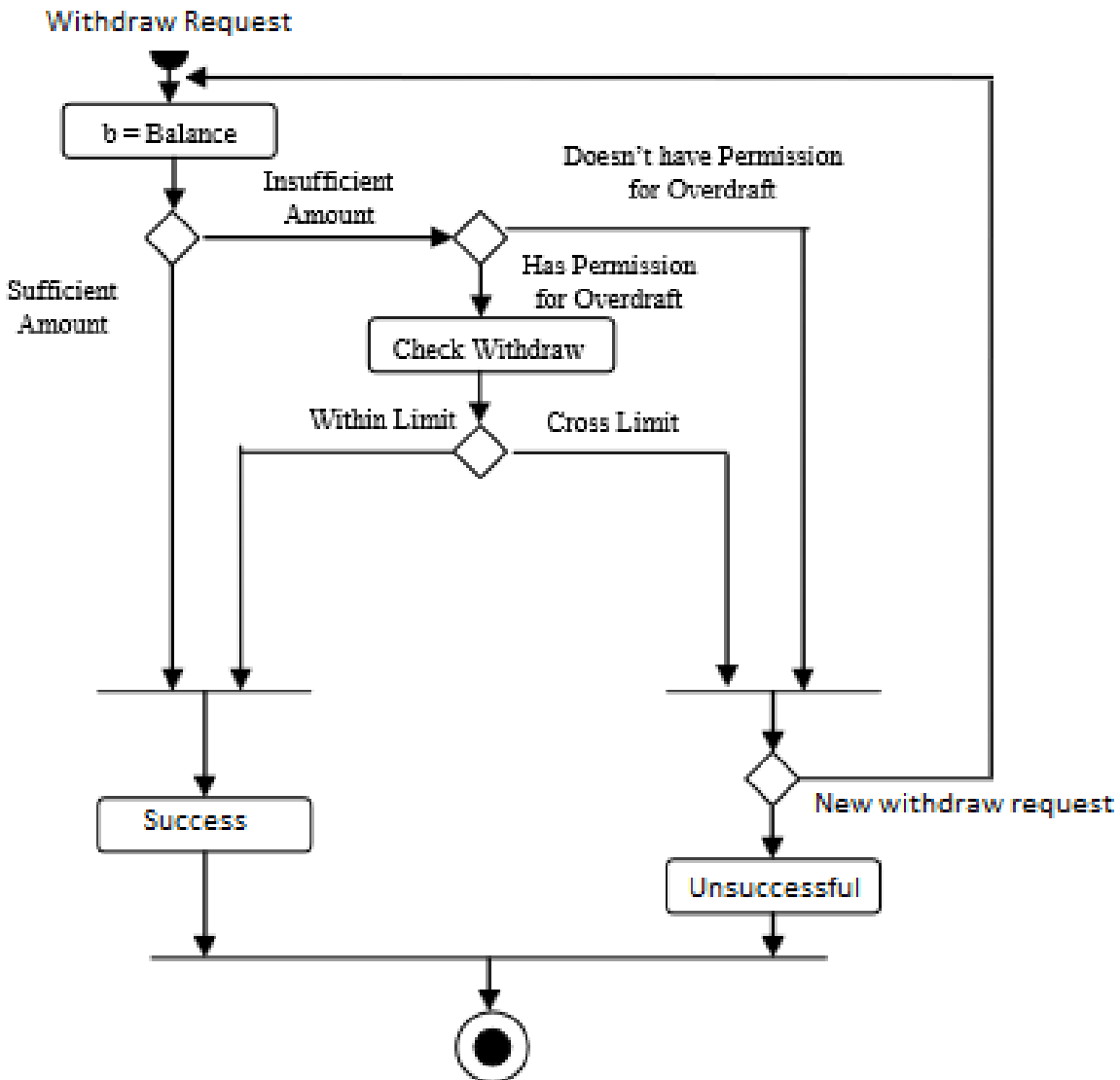
Main Scenario

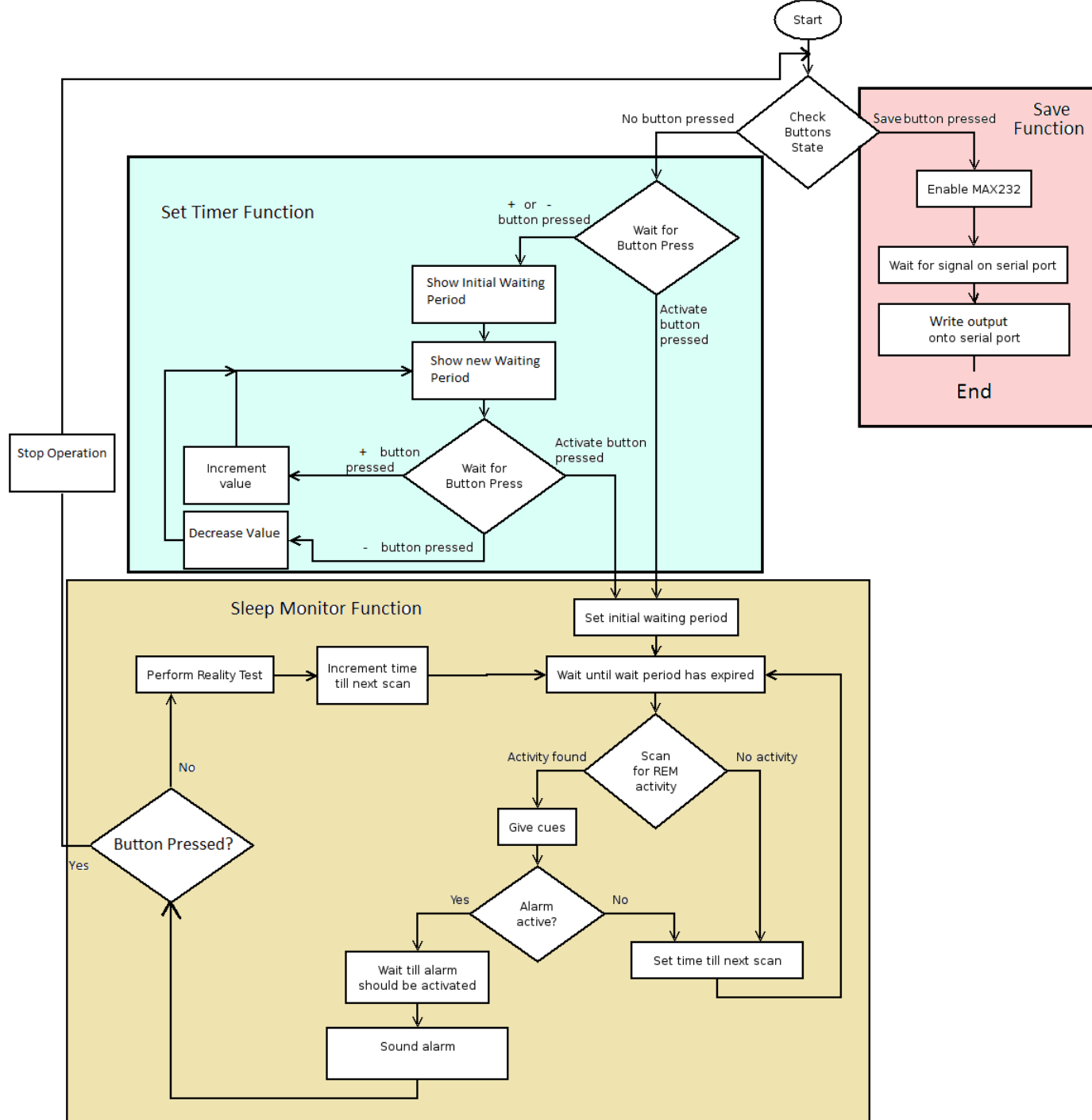
- 1) The user invokes the withdraw method.
- 2) The user enter amount to be drawn.
- 3) The user successfully withdraw from the ATM.

Alternate course of action

The user can not withdraw the enter amount. The system notifies the user.

Test Scenarios





Static Testing Overview

Aims to prevent software bugs in the early phases of the project, while solving them is cheapest.

Static Testing Methods:

- Review Requirements
- Static Code Analysis

Other Activities during Verification

- Writing Test (Management) Plans
- Defining Test Scenarios and Test Cases
- Defining Test Runs

Questions?