

IET – Manual testing of Java Swing application

– by Vakanet

Summary

We created three separated test scenarios with their own purposes. The program itself is in a stable condition, but was never tested with the intent to reveal errors occurring during edge-cases, so the program is a perfect subject of manual testing.

Annotation

Action supposed to work and DO work

Action supposed to work and DO NOT work

Action supposed to not work and DO NOT work

Action supposed to not work and work

Other errors

End turn and the next user starts its turn: “-<user name>”

No.1

Quick review

Complex test-case with 3 users. The goal is to run several rounds and test basic functionalities like moving, stealing, as well as more complex tasks like killing another virologist.

Scenario:

Create user: "apple"

Create user: "peach"

Create user: "banana"

Start game

-apple

Collect item(AminoAcid62)

View Inventory

Move to Shelter#22

-peach

Move to Shelter#22

Steal item AminoAcid62 from apple

Collect item Gloves#20

-banana

Move to Shelter#22

Move to Laboratory#8

Collect item Chorea recipe#6

Craft agent -> Fail (not enough ingredients)

-apple

No AminoAcid62 in inventory

Steal Gloves#20 from peach

Move to laboratory#8

Steal item(cant, recipe is learnt and cant be stolen)

Move to Shelter#22

Move to Warehouse#27

-peach

Move to Field#71

Move to Warehouse#39

-banana

Move to Warehouse#56

Collect item Nucleotide16

-apple

Move to Shelter#22

Move to Warehouse#25

Collect item Axe#12

-peach

Move to Warehouse#25

-banana

Move to Warehouse#25

Kill peach -> Fail (No axe in hand)

-apple

Kill peach

No.2

Quick review

Complex test-case with 2 users, similar to the first test, but with a more simple version and focusing on edge-cases.

Scenario:

Create user: "monkey"

Create user: "tiger"

Start game

--ui error -> window resize not working on background

Move to Warehouse#30

Collect item AminoAcid34

Move to Warehouse#58

-tiger

Move to Warehouse#58

Collect item nucleotide57

Steal item Amino from monkey

-monkey

Move to Field#72

Move to Warehouse#62

Move to Laboratory#11

Move to Warehouse#62 -> not possible(no remaining step)

-tiger

Move to Field#72

Move to Warehouse#62

Move to Laboratory#11

-monkey

Collect item Amnesia recipe#9

-tiger

Check inventory: Amino34 Nucleo57

Collect item Amnesia rec#9

Move to Warehouse#65

-monkey

Move to Warehouse#65

Kill tiger -> not possible(no axe in hand)

Collect item Nucleo24

-tiger

Craft item Amnesia agents

use Amnesia agents on monkey

-monkey

Check recipes -> empty

No.3

Quick review

Complex test-case with 4 users. Combining the goal of the first 2 tests.

Scenario:

Create user: "adam"

Create user: "bob"

Create user: "cili"

Create user: "vakan"

Start game

-adam

Steal item -> not possible(no stealable item)

Use agent-> np(no agent in hand)

Move field#70

View inventory -> empty

-bob

Collect item Nucleo71

View inventory -> 71 nucleo in hand

Craft agent-> np(no recipe learned)

Move Field#70

-Cili

Collect item -> np(no collectable item left)

Move Field#70

-vakan

Move Field#70

Steal item Nucleo71 from bob

View inventory -> Nucleo71 acquired

-adam

-bob

View inventory -> empty(item was stolen)

Use axe -> np(no axe in hand)

-cili

-vakan

-adam

Move to Warehouse#46

Collect item Nucleo46

Move to Shelter#13

Steal item -> np(no steps left)

-bob

Move to Warehouse#46

Move to Shelter#13

-cili

Move to Warehouse#46

Move to Shelter#13

Steal item Nucleo46 from adam

-vakan

Move to Warehouse#46

Move to Shelter#13

Collect item Axe#12

-adam

Collect item -> np(no collectable item left)

Move to Warehouse#35

Move to Shelter#13

-bob

-cili

-vakan

Use axe on bob

Use axe on vakan -> np(cant suicide)

Use axe on bob -> np(virologist already dead)

Use axe on cili

Results of testing:

During manual testing no behavioral malfunction was revealed. The only error was a UI related one, where the background image did not resize when the window was resized.