

# TouchDeck: Test report

## Test environment

### Test devices

- Asus nexus 7 - Android 4.3
- Sony ericsson Xperia Arc S - Android 4.0.4
- Samsung Galaxy S - Android 4.3
- HTC Incredible S - Android 4.0.4
- Emulator - Android 4.0.3

### Software environment

- Eclipse Kepler Release
- Android SDK - Target API 15
- Robotium Solo 4.3

### Application version

TouchDeck v0.2

**Automatic tests****\* Unit tests**

Unit test cases are used for testing models and game logic

**\* Gui tests**

Robotium is used for testing the gui by simulating a user

All tests must be run individually, not in sequence

Testfile	Type	Test	Result
GameControllerTest	Unit	Create	Pass
GameControllerTest	Unit	Flip	Pass
GameControllerTest	Unit	Move	Pass
PileViewTest	Gui	FlipCard	Pass
PileViewTest	Gui	SendCard	Pass
TableViewTest	Gui	CreatePile	Pass
CardTest	Unit	Constructors	Pass
CardTest	Unit	Equals	Pass
CardTest	Unit	FlipFace	Pass
CardTest	Unit	GetFaceState	Pass
CardTest	Unit	FaceDown	Pass
CardTest	Unit	FaceUp	Pass
PileTest	Unit	AddTakeGet	Pass
PileTest	Unit	Create	Pass

**Manual Tests**

Test ID	Result	Comment
1	Pass	
2	Pass	A simple check to assure that the GUI responds.
3	Pass	
4	Pass	
5	Pass	
6	Pass	
7	Pass	
8	Pass	
9	Pass	
10	Pass	
11	Pass	
12	Pass	
13	Pass	
14	Pass	
15	Pass	
16	Pass	
17	Pass	
18	Pass	
19	Pass	
20	Pass	
21	Pass	
22	Pass	
23	Pass	
24	Pass	
25	Pass	

**Test Id:**

1

**User Story Title:**

“... have a graphical user interface in order to control the game”

**PreCon:**

Ensure that a new session has been started and a pile showing a deck of cards is shown.

**PostCon:**

N/A.

**Test Sequence:**

1. Tap the pile and verify that the tapping was recognized (that something on the screen changes). Ignore any following actions and events.

**Test Id:**

2

**User Story Title:**

“... start a game session to play a game locally”

**PreCon:**

Touchdeck is not running.

**PostCon:**

A game session is running.

The TableView is shown.

One pile, containing a predefined quantity of full deck of cards, exists and is shown in the TableView.

No other pile exists in the TableView.

**Test Sequence:**

1. Start Touchdeck.
2. Verify that there is a start screen with the text "Create Game".
3. Tap on the text "Create Game".
4. Verify that you get a table overview with exactly one pile of cards.

**Test Id:**

3

**User Story Title:**

“... have access to a deck of cards to be able to play card games”

**PreCon:**

A new session has been started and that at least one pile is shown.

**PostCon:**

The moved card is on top of the target pile.

**Test Sequence:**

1. Click on a pile of your choice.
2. Verify that a detailed view of the cards in the pile is shown.
3. Tap on a card of your choice.
4. Tap on "Flip card".
5. Verify that the face state of the card has changed.
6. Tap the same card again.
7. Tap on "Flip card".
8. Verify that the face state of the card has changed again.
9. Tap the same card again.
10. Tap on "Move card".
11. Choose target pile.

**Test Id:**

4

**User Story Title:**

“... create piles to hold cards”

**PreCon:**

A new session has been started and that exactly one pile, showing a deck of cards, is shown.

**PostCon:**

There exist two new piles:

One with the name entered and one with a default name.

**Test Sequence:**

1. Click on the TableView, outside the pile.
2. A dialogue for naming a new pile is shown.
3. Enter a unique name and click OK.
4. Click on the Table View, outside the two piles.
5. A dialogue for naming a new pile is shown.
6. Leave the text field empty and click OK.

**Test Id:**

5

**User Story Title:**

“...be able to see the name of a pile.”

**PreCon:**

Have a game session running

**PostCon:**

Have a pile, that in an apparent manner displays the first six characters of its name on all devices.

**Test Sequence:**

1. Press on an empty pile position.
2. Enter a name that is longer than 20 characters.
3. Verify that you are prompted to enter a shorter name.
4. Enter a name between 7 and 20 characters.



**Test Id:**

6

**User Story Title:**

“... have a graphical interface to display cards in a pile”

**PreCon:**

A session is running and that the TableView is shown.

**PostCon:**

The TableView looks exactly as before inspecting the pile.

**Test Sequence:**

1. Make a mental note of what is shown on the TableView.
2. Tap a pile.
3. Verify that the cards in the selected pile are shown in their current face state.
4. Click the back button.

**Test Id:**

7

**User Story Title:**

“... move a card from one pile to another”

**PreCon:**

A session is running, the TableView is shown containing at least two piles.  
At least one pile is non-empty.

**PostCon:**

The card you moved is now placed on top of the target pile.

**Test Sequence:**

1. Click on a non-empty pile of your choice.
2. Click on one of the cards in the detailed view.
3. Click on the option to "Move Card".
4. Click on the name of the desired target pile.
5. Click the back-button.

**Test Id:**

8

**User Story Title:**

“... be able to flip a card, after inspecting a pile, to show or hide its value”

**PreCon:**

A new session has been started and that at least one pile is shown.

**PostCon:**

N/A.

**Test Sequence:**

1. Click on a pile of your choice.
2. Verify that a detailed view of the cards in the pile is shown.
3. Tap on a card of your choice.
4. Tap on "Flip card".
5. Verify that the face state of the card has changed.
6. Tap the same card again.
7. Tap on "Flip card".
8. Verify that the face state of the card has changed again.

**Test Id:**

9

**User Story Title:**

“...delete an empty pile to make room for new ones”

**PreCon:**

Have an empty pile at position p that a player on another device is currently viewing

**PostCon:**

Pile position p shouldn't contain a pile for either device and neither device should have experienced an application crash.

**Test Sequence:**

1. Long press on the empty pile.
2. Press the delete option in the context menu that appears.

**Test Id:**

10

**User Story Title:**

“...see how many cards are in a pile”

**PreCon:**

Have a game session with two devices

**PostCon:**

The deck card counter shows 50 and the new pile shows 2 on both devices.

**Test Sequence:**

1. Create a new pile.
2. Verify that the deck card counter shows 52 and the new pile shows 0 on both devices.
3. Move a card from the deck to the new pile.
4. Verify that the deck card counter shows 51 and the new pile shows 1 on both devices.
5. Move another card from the deck to the new pile.

**Test Id:**

11

**User Story Title:**

“...be able to have a pile of cards automatically shuffled so I don't have to do it myself.”

**PreCon:**

Have a game session running on a device with a deck on the table

**PostCon:**

The deck is arranged in another way than before

**Test Sequence:**

1. Click the deck and flip some cards to see how they are ordered
2. Go back to the tableView
3. Longclick the deck and press 'shuffle'
4. Click the deck and flip some cards to see they are not in the same order (The probability that they are exactly the same is minimal  $1/(52!)$ )

**Test Id:**

12

**User Story Title:**

“...set an entire pile to either face up or down.”

**PreCon:**

Have a game session running on a device, where there is a pile with cards on the table.

**PostCon:**

All cards in said pile now face down.

**Test Sequence:**

1. Press and hold on a pile with cards that has at least one card facing down
2. Select the option to face all cards up
3. Enter the pile and inspect if all cards were faced up
4. Go back to the table view and choose the option to face all cards down

**Test Id:**

13

**User Story Title:**

“...be able to send all cards in a pile to another pile.”

**PreCon:**

Have a game session running on a device with two piles on the table, one of which has cards.

**PostCon:**

The pile that the cards were transferred from is now empty, and all cards has ended up in the other pile.

**Test Sequence:**

1. Press and hold on a pile with cards
2. Select the option to move all cards to another pile
3. Make sure the list that comes up displays all piles currently on the table
4. Select the other pile



**Test Id:**

14

**User Story Title:**

“...see the table when moving cards”

**PreCon:**

Have a game session running with one pile containing cards, pile A, and one empty pile, pile B, on the table.

**PostCon:**

Pile A is now empty and Pile B contains all cards initially held in Pile A.

**Test Sequence:**

1. Open pile A, click on a card and select the “Move Card” option.
2. Click on pile B in the table view.
3. Click on another card and select the “Move Card” option.
4. After reaching the table view, press the “Back” button on the device.
5. Exit the pile view and open pile B.
6. Verify that the moved card is in pile B.
7. Exit the pile view and long press pile A.
8. Select the “Move all cards” option.
9. Press the “Back” button on the device.
10. Long press pile A.
11. Select the “Move all cards” option.
12. Click on pile B in the table view.

**Test Id:**  
15

**User Story Title:**  
“...be able to deal cards from a pile easily”

**PreCon:**  
Have a game session running with two piles on the table, Pile A and Pile B, where Pile A contains atleast two cards.

**PostCon:**  
Pile A is now empty and Pile B contains all cards initially held in Pile A.

**Test Sequence:**

1. Open the pile context menu for Pile A by tapping and holding it down.
2. Select the “Deal cards from pile” menu entry
3. Tap on Pile B, verify that the top card was indeed moved (visual feedback).
4. Press the Back-button and verify that the deal mode was exited correctly. Start the test from the beginning, but skip this step.
5. Repeat Step 3 until Pile A is empty, whereas the deal mode exits automatically.

**Test Id:**

16

**User Story Title:**

“... be able to peek at a card that is face down when having inspected a pile”

**PreCon:**

Have a game session running on two devices with a pile containing face down cards.

**PostCon:**

On device A the peek preview matches the peeked card and device B shows only a face up card.

**Test Sequence:**

1. Open the pile on both devices
2. Peek a card on device A
3. Verify that device A shows a small representation of the card's face and that device B only sees the back of the card
4. Flip the peeked card

**Test Id:**

17

**User Story Title:**

“... peek at all the cards in a pile at once”

**PreCon:**

Have a game session running on two devices with a pile containing face down cards.

**PostCon:**

On device A the peek previews matches the peeked cards and device B shows only face up cards.

**Test Sequence:**

1. Open the pile on both devices
2. Peek all cards on device A
3. Verify that device A shows a small representation of the cards face and that device B only sees the back of the cards
4. Flip the peeked cards

**Test Id:**  
18

**User Story Title:**  
“...be able to move an entire pile”

**PreCon:**  
Have a game session running with two piles on the table, Pile A and Pile B, where Pile A contains any number of cards and Pile B is empty.

**PostCon:**  
Pile A and all of its cards have been moved to the chosen destination. Pile B have been moved to the chosen destination.

**Test Sequence:**

1. Press and hold on Pile A.
2. Select the option “move this pile” and choose an empty spot as destination.
3. Verify that Pile A was indeed moved, along with its cards.
4. Press and hold on Pile B.
5. Select the option “move this pile” and choose Pile A as the destination.
6. Verify that Pile B was **not** moved.
7. Select “move this pile” for Pile B once again and choose an empty spot as destination.

**Test Id:**

19

**User Story Title:**

“...restart the game”

**PreCon:**

Have a game session running where the state of the game is significantly different from the initial state (one pile containing all cards).

**PostCon:**

The game state is identical to that of a freshly started game

**Test Sequence:**

1. Press the "Menu" button on the device
2. Choose the "Restart game" option in the menu that appears

**Test Id:**

20

**User Story Title:**

“...terminate a session”

**PreCon:**

Have a game session running on two devices (host device A and client device B) where the game state is noticeably different from the default state.

**PostCon:**

Device A is on the start screen. The state of the game on device B should remain as it was when device B terminated its session.

**Test Sequence:**

1. Press the "Menu" button on device A
2. Choose the "Terminate Session" option in the menu that appears
3. Verify that both devices show the start screen
4. Create a new game on device B and join said game on device A
5. Verify that both devices show the default game state and can perform operations
6. Use the "Terminate Session" option on device A

**Test Id:**

21

**User Story Title:**

“...rename a pile”

**PreCon:**

Have a game session running on two devices (host device A and client device B).

**PostCon:**

The tableView shows two piles, one called “Name” and the other “Pile 2”

**Test Sequence:**

1. Create a new pile on device A, call it “hej”
2. Rename pile “hej” on device B, call it “hej” again.
3. Make sure another prompt is shown to enter a unique name and choose a new name, “Pile 1”
4. Create a new pile, enter no name.
5. Rename “Pile 1” to “Name”.



**Test Id:**

22

**User Story Title:**

“...be able to protect a pile so that other users can't access it”

**PreCon:**

Have a game session with two devices and two piles, one of which is empty (Pile B).

**PostCon:**

Pile B is displayed as a face down card in the table view and is only accessible, to open and via context menu, by the user who chose to protect it. Pile B is unprotected and displayed as a face up card.

**Test Sequence:**

1. Chose to protect Pile A via its context menu from the table view.
2. Open Pile A, flip the first card and move it to the empty pile.
3. Flip the first of the remaining cards in the deck.
4. Go back to the table view and verify that the image for Pile A is that of a face down card and Pile B a face up card.
5. Open the context menu for Pile A to make sure that the option to 'Unprotect pile' is available and 'Protect pile' is not.
6. On Device B, click Pile A and make sure that the pile view is not opened and the user is notified that the pile has been protected by another user.
7. On Device B, long press the deck to bring up the context menu and make sure that no context menu is shown and instead a notification that the pile has been protected is displayed.
8. Bring up the decks context menu on Device A and chose to unprotect.
9. Make sure that Pile A is displayed as face up.
10. Bring up the context menu for Pile B and chose to protect.

**Test Id:**

23

**User Story Title:**

“...play with other users on multiple devices.”

**PreCon:**

Have a game session running on one of two devices. This device is called the host.

**PostCon:**

N/A

**Test Sequence:**

1. The second user starts the app on the second device and click join game
2. Enter the ip address of the host.
3. Make sure there is a deck on the table on both devices
4. Perform all other tests on both devices
5. Make sure the state updates correctly for all the tests on both devices

**Test Id:**

24

**User Story Title:**

“...see the table state in the tableView.”

**PreCon:**

Have a freshly started game session running, the textbar should not show any state.

**PostCon:**

N/A

**Test Sequence:**

1. Start dealing cards from a pile.
2. Verify that the textbar shows “Dealing from PILE\_NAME”.
3. Exit deal mode, verify that the textbar shows nothing.
4. Choose the “Move all cards” option for a pile.
5. Verify that the textbar shows “Moving all from PILE\_NAME”.
6. Exit move all mode, verify that the textbar shows nothing.
7. Choose “Move this pile” option for a pile.
8. Verify that the textbar shows “Moving PILE\_NAME”.
9. Exit pile move mode, verify that the textbar shows nothing.
10. Enter the pileview and move a card.
11. Verify that you are in the tableview and that the textbar shows “Moving from PILE\_NAME”.
12. Exit move mode and verify that the textbar shows nothing.

**Test Id:**

25

**User Story Title:**

“...be able to see my IP in order to have other users on other devices join me”

**PreCon:**

Have the app running on the start screen, find the device IP address in the system settings.

**PostCon:**

The tableview is displayed and the IP address of the device is shown.

**Test Sequence:**

1. Click on the “Create Game” option.