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Tundra Test Notes (20151009)

1. Preparation

1. Required hardware

1. At least two BLE beacons (helpful if batteries can be removed)
2. At least two barcodes (almost any format is OK)
3. At least one Android devices. API 18 (4.3) or later
 1. Emulator will not work, requires radios and camera

2. Android device preparation

1. Delete previous Tundra installation
2. Disable bluetooth radios (via Settings)
3. Install fresh Tundra APK
4. Select one device for initial testing, power off extra "Tundra" devices for now

2. Application Start

1. Validate start and page transition

1. Start application (by pressing Tundra icon)
2. Observe LoginActivity

3. Application Login/Logout

1. Missing functionality

1. Not yet test password (tundra issue 82)
2. Not yet support "forgot your password" (tundra issue 81)

2. Validate Empty Login

1. Press "Authorize" without updating login form
 1. Observe "Missing Account Name" toast

3. Validate Bad Login

1. Update "User Name" w/a random character, press "Authorize"
 1. Observe "Sign In Failure" toast

4. Validate Successful Login

1. Update "User Name" w/"allan" and press "Authorize"
 1. Observe "Sign In Success" toast
 1. Note: user names enjoy a case insensitive evaluation
 2. Observe LoginActivity transition to MainActivity (jobs "Today")
2. Press "back" key to exit application

5. Validate Restart Behavior

1. Start application (by pressing Tundra icon)
2. Observe automatic transition to MainActivity w/a "Sign In Success" toast

6. Validate Logout Behavior

1. View option menu by pressing three horizontal lines (top left)
 1. Select "Sign Out"
2. Application should immediately exit
3. Restarting the application should return to LoginActivity
 1. See step 3.4 to return

4. Navigation Drawer

1. Three horizontal lines (top left)

1. This icon always implies the navigation drawer is available
2. Pressing this icon causes the NavDrawer to expand
3. Close NavDrawer by dragging to left or selecting option

2. Drag navigation drawer from left side

1. Observe NavDrawer header:
 1. User image (if available)
 2. User email address of allan@go-factory.com
2. Observe NavDrawer menu options:
 1. Today, Week, My Inventory, Chats, Setting, Help, Sign Out

3. Select option “Today”

1. Navigation drawer retracts
2. Observe ToolBar
 1. Three horizontal bars top left.
 2. “Today” label
 3. “pin” icon navigates to map which illustrates job site (return via NavDrawer)
 4. “tool” icon navigates to inventory (return via left arrow icon on top left)
 5. “search” icon placeholder
3. Observe scrollable list of “jobs”
 1. Bogus blue icon which is placeholder in anticipation of real artwork
 2. Name/asset/job site
4. Navigate away using three horizontal lines (top left)

4. Select option “Week”

1. Navigation drawer retracts
2. Observe ToolBar
 1. Three horizontal bars top left
 2. “Stub” label
 3. Search icon as placeholder
3. “Stub Fragment” as placeholder in body
4. Navigate away using three horizontal lines (top left)

5. Select option “My Inventory”

1. Navigation drawer retracts
2. Observe ToolBar
 1. Left arrow top left
 2. “My Inventory” label
 3. Search icon as placeholder
 4. Overflow icon (three vertical dots)
 1. Do not press overflow icon (issue 95)
3. Three tabs in body
 1. Parts
 2. Tools
 3. Vehicles
4. Floating Action Button
 1. Pressing FAB reveals two menu options
 1. Add by beacon

2. Add by barcode
5. Navigate away using three horizontal lines (top left)

6. Select option “Chats”

1. Navigation drawer retracts
2. Observe ToolBar
 1. Three horizontal bars top left (for navigation bar)
 2. “Chats” label
 3. Search icon as placeholder
 4. Two Chat conversations
 1. Big Lebowski
 2. Technicians
3. Floating Action Button placeholder
 1. Toast for “create new chat”

7. Select option “Setting”

1. Navigation drawer retracts
2. Observe ToolBar
 1. Three horizontal bars top left
 2. “Setting” label
 3. Search icon as placeholder
3. “Stub Fragment” as placeholder in body

8. Select option “Help”

1. Navigation drawer retracts
2. Observe ToolBar
 1. Three horizontal bars top left
 2. “Help” label
 3. Search icon as placeholder
3. “Stub Fragment” as placeholder in body

5. Toolbar for Job “Today”

1. Map view from Job “Today”

1. Drag navigation drawer from left side
 1. Select “Today”, NavDrawer retracts
2. Select “map pin” icon (left toolbar icon)
3. Google MapView appears centered on San Francisco.
4. Pressing a map icon produces navigation directions to job.
 1. Return navigation broken (issue 96, three horizontal lines unresponsive).

2. Inventory view from Job “Today”

1. Drag navigation drawer from left side
 1. Select “Today”, NavDrawer retracts
2. Select “inventory” icon (middle toolbar icon of a wrench)
3. “Today’s Inventory” is displayed
4. Return to Job “Today” by pressing “left arrow” (top left corner)

3. Search Icon from Job “Today”

1. Placeholder

6. Job Detail for Job “Today”

1. Drag navigation drawer from left side

1. Select “Today”, NavDrawer retracts
2. Select first “Job” (Inspect Diesel #1) w/a short press on a job row
 1. Observe Toolbar
 1. Left arrow icon top left
 2. “Job” label
 3. Two icon placeholder
 4. Job detail contains all data elements specified by wireframe
 5. Floating action button placeholder
 6. Tasks enumerated at tail of scrolling list
 7. Pressing map pin reveals chart
 1. Return navigation confused (issue 98)
 8. Return to Job list by pressing top left arrow
 9. Pressing a task navigates to that task
 1. Swipe between tasks
 2. Observe another gratuitous floating action button (placeholder)
 3. Return to Job detail by pressing top left arrow

7. Toolbar for “My Inventory”

1. Search placeholder

8. Detail for “My Inventory”

1. Parts Tab

1. Short press for detail form
2. Toolbar icons are broken (issue 102)
3. FAB Menu/Replace Beacon not yet implemented
4. FAB Menu/Replace Barcode invokes barcode reader
5. FAB Recycle button awaits server connectivity
6. Left arrow (top left) to return

2. Tools Tab

1. Short press for detail form
2. Toolbar icons are broken (issue 102)
3. FAB Menu/Replace Beacon not yet implemented
4. FAB Menu/Replace Barcode invokes barcode reader
5. FAB Recycle button awaits server connectivity
6. Left arrow (top left) to return

3. Vehicles Tab

1. Placeholder

4. Floating Action Button (Menu)

1. Add by beacon (display, not yet implemented)
2. Add by barcode invokes barcode reader

9. Toolbar for “Chats”

1. Search placeholder

10. ListView for “Chats”

1. Add new chat “Floating Action Button”

1. Toast “Create new chat conversation”

2. Select “Big Lebowski” chat

1. Telephone icon inoperative (issue 103)
2. “Write a message” awaiting server connectivity

11. — — — — End of 20151009 — — — —

12. Bluetooth Radio Testing

1. Disabled Bluetooth Radio Test

1. Section 1.2.2 mandated bluetooth radio disabled. Tundra will (very soon) discover this condition and generate an alarm. BLE is mandatory for Tundra and the application will complain until bluetooth radios are enabled.
 1. If vibrator not occur, check “Sound & Notification” in Settings to ensure vibrator enabled.
2. The vibrator will generate two quick buzzes approximately every 30 seconds as it attempts to discover BLE beacons (and fails because radios are disabled).
3. Select “Alert” via the NavigationDrawer, there should be a single row which says “BleDisabled” - each time the vibrator buzzes, the counter should increment.
 1. Short press the “Alert” row for “Alert Detail”. Inspect “Alert Detail” to ensure it says reasonable thing (i.e. times look recent, etc). Press “OK” to dismiss.
4. Observe a white box in the NotificationManager.
 1. Drag down the NotificationManager window, there should be a box saying “Tundra Alert” “Tap to enable bluetooth”
 2. Touching the “Tundra Alert” box yields “Bluetooth permission request”
 3. Press “No” to dismiss without starting radios.
 4. Wait a few seconds for next vibrator alert (to verify that radios are still disabled).
 5. Drag down from NotificationManager to restore “Tundra Alert”
 6. Touching the “Tundra Alert” box yields “Bluetooth permission request”
 7. Press “Yes” to enable bluetooth.
 8. NOTE: Application might still invoke vibrator (once), because there is an additional problem. Then vibrator should be silent after the first alert.
5. Navigate to “Alert” page where there are now (or will shortly be) two rows.
6. Touch “BleDisabled” row for “Alert Detail”
 1. “Active” = false
 2. “Last Update” more recent than “Start Time”
 3. Press “OK” to dismiss

2. Missing BLE Beacon Test

1. There is one “Thing” in custody (Generator 2) which deliberately has a bad BLE beacon. Tundra will soon discover this problem now that the radios are enabled.
 1. For missing BLE beacon, the application will only invoke the vibrator once (first time). Application continues to poll for BLE beacons approximately every 30 seconds, but after the first alert merely logs missing beacons.
2. Navigate to “Alert” page where there are now two rows.
 1. The row w/the red square is an active alert.
 1. Name = Generator #2
 2. Alert = BleMissing
 3. Counter (should be increment approximately every 30 seconds)
3. You should see a white box in the NotificationManager.
 1. Drag down the NotificationManager window, there should be a box saying “Tundra Alert” - “Missing BLE Beacon”.

2. Tapping on “Tundra Alert” navigates back to Alert ListView

3. Remove BLE Beacon Test

1. If a BLE Beacon has been damaged, the association between beacon and “Thing” can be deleted.
2. Navigate to “Inventory” or “Custody” (using three horizontal lines [top left])
3. Long press “Generator #2”
4. Select “Remove BLE”
5. Observe Toast “Beacon Deleted”
6. White box in Navigation Manager should disappear
 1. Dragging down Navigation window should not reveal any “Tundra Alert”
7. Vibrator remains silent
8. Visiting the “Alert” ListView should reveal two rows (both w/blue squares)

4. Discovery Test

1. (use case of zero known BLE beacons)
2. Press the three vertical dots (top right) for option menu
3. Select “Discover Thing BLE”
4. “Discover Thing BLE” fragment appears
5. “No Rows” because discovery only works w/known BLE beacons and there are none.

5. Replace Beacon Test

1. Long press on Inventory row of any custody item
2. Select “Replace BLE”
3. “Replace BLE” fragment appears w/populated beacon rows
4. Short press on beacon row to associate BLE beacon w/“thing”
5. Observe “success” Toast and return to previous view
6. Repeat test 5.4 to see selected item discovered by BLE beacon

6. Electronic Leash Test

1. Remove the battery from the BLE beacon known to the application
2. Within 30 seconds, the vibrator will be invoked to signal alert detection.
3. Drag down Notification window for “Tundra Alert” “Missing BLE Beacon”
4. Touch “Tundra Alert” for navigation to “Alert” ListView
 1. Counter should increment approximately every 30 seconds
 2. Vibrator should remain silent (only alerts first time)
5. Replace battery
6. Within 30 seconds, the Alert box row should turn blue
 1. Touching Alert row should display “Alert Detail”
 1. Active = false
 2. Press OK to dismiss
7. NotificationManager should clear alert

13. Barcode Testing

1. Replace Barcode to a Thing

1. Long press on Inventory row of any custody item
2. Select “Replace Barcode”
3. Barcode view appears, place target barcode in center window
4. When barcode is detected, device will beep and barcode view will be removed

2. Discover Thing via Barcode

1. Press the three vertical dots (top right) for option menu
2. Press “Discover Thing Barcode”
3. Barcode view appears, place target barcode in center window
 1. Use the same barcode from test 6.1
4. When barcode is detected, device will beep and “View Thing” form appears
 1. Should display the same item from test 6.1
5. “Back” key to return

3. Remove Barcode from a Thing

1. Long press on fresh Barcode Thing
2. Press “Remove Barcode”
3. Observe success toast
4. Repeat step 6.2 except after beep (6.2.4), should display “Unknown Barcode” toast

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