

Manual uia test cases

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Last reviewed on 12 May 2015

- Info:
 - IntelliJ/ua_manual_test_cases is here: C:\my\local\repos\chair\droidmate\dev\ua_manual_test_cases
 - IntelliJ/droidmate is here: C:\my\local\repos\chair\droidmate\dev\droidmate
- Prerequisites:
 - monitor.apk is present in /data/local/tmp
 - Just run DroidMate (intelliJ/droidmate), it will put it there and leave it.
 - Data staging dir is empty, i.e. this one: C:\my\local\repos\chair\droidmate\dev\droidmate\dataStaging
- Get the run data from given apk from T:\extdata\my\droidmate_ext\resources\usenix_security_2015_results\2014 Feb 23 0350 2h 12 apps PAPER to C:\my\local\repos\chair\droidmate\dev\droidmate\dataStaging
- Install the app on the device from C:\my\local\repos\chair\droidmate\dev\droidmate\apks\inlined with the command: adb install -r <filename>
- Manually see the launch icon name, so you know the proper constant for the test case for step below.
- Create a test case in intelliJ/ua_manual_test_cases, set the package name (take from apk file name) and app launch icon name.
- Create a uia tc run cfg in intelliJ/ua_manual_test_cases, e.g.:

Name:	build_push_reset_run.sh ComEstrongsAndroidTaskmanager killTask
Script:	C:\my\local\repos\chair\droidmate\dev\ua_manual_test_cases\build_push_reset_run.sh
Interpreter path:	C:\Program Files (x86)\Git\bin\sh.exe
Interpreter options:	
Program arguments:	ComEstrongsAndroidTaskmanager killTask com.estrongs.android.taskmanager
Working directory:	

- Create use cases steps (CUSS), see section beside
- Update the use case in intelliJ/ua_manual_test_cases to have proper number of steps
- Test-Run the script run config in intelliJ/ua_manual_test_cases
- Run the "save uia tc" script: C:\my\local\repos\chair\droidmate\dev\droidmate\scripts\save_dm_uia_tc_logs.sh <enter here: app.package.name_testCaseName>
- Run the uia tc run cfg from before in intelliJ/ua_manual_test_cases
- The save_dm_uia_tc_logs.sh script should stop by itself when the test case finishes. Observe the script output to see if it worked.
 - Look into C:\my\local\repos\chair\droidmate\dev\droidmate\ua_test_cases_logs
 - Manually fix the saved test case: sometimes too much monitored API calls are made at the start or the end (delete them) and sometimes monitor gets initialized multiple times (delete all but first initialization)
 - After fixing the file should start and end with:
02-10 15:05:24.440 I/UiaTestCase(13822): Test case started. Name: <use_case_name>
...
02-10 15:06:14.480 I/UiaTestCase(13822): Test case finished.

- Run data staging from intelliJ/droidmate

Name:	-processUiaLogs dataStaging	
Configuration	Code Coverage	Logs
Main class:	org.droidmate.frontend.DroidmateFrontend	
VM options:	-ea -DlogsDir="dataStaging/logs"	
Program arguments:	-processUiaLogs -droidmateOutputDirPath="/dataStaging" -splitCharts=true	
Working directory:	C:\my\local\repos\chair\droidmate\dev\droidmate	

- Archive the result in T:\extdata\my\droidmate_ext\resources
 - Both the dataStaging result AND the recorded uia test case file in ua_test_cases_logs
- Clean C:\my\local\repos\chair\droidmate\dev\droidmate\dataStaging

Create use cases steps (substep of the process on the left marked with CUSS)

- Open monitor with vis_dump_gui.sh in C:\my\local\repos\chair\droidmate\dev\droidmate\scripts
- Dump the gui xml and screenshot with dump_gui.sh <enter_here_app_package_name_and_screen_desc>
 - This will dump GUIs to C:\my\local\repos\chair\droidmate\dev\droidmate\gui_dumps
- Add the "droidmate=<spec>" attribute to the relevant nodes. Search existing GUI dumps for examples. The engine interpreting it lives in C:\my\local\repos\chair\droidmate\dev\ua_manual_test_cases
 - To make your life easier, format the .xml file with the dump by opening it in intelliJ/droidmate and hitting "Reformat Code..." shortcut.
- Push all the GUI dumps annotated with "droidmate=<spec>" to device using script push_gui_dumps.sh