



MobileXPRT 2015

User manual

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Introduction

MobileXPRT is a benchmark to evaluate the performance of Android devices. MobileXPRT tests are based on real-world user scenarios and produce user-relevant metrics and results.

Test and score details

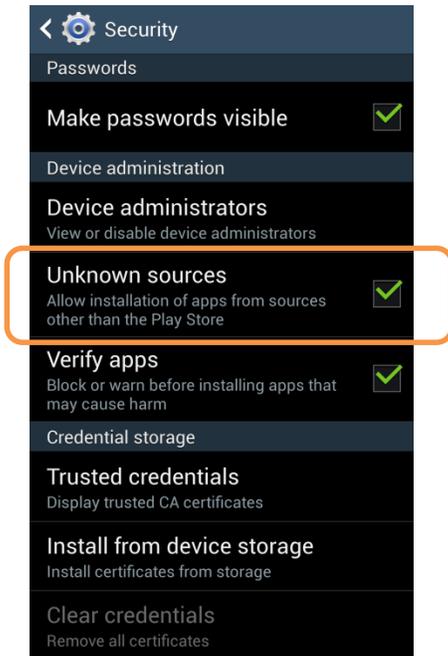
MobileXPRT consists of following five tests.

- **Apply Photo Effects.** This test measures total time to apply photo effects (Sepia, Vignette, Grayscale, and Sharpen) to 20 photos (8 Mega-Pixels). Each effect is applied to a set of five photos.
- **Create Photo Collages.** This test measures total time to create five photo collages with four photos in each collage. Effects are added to each photo before including in the collage.
- **Create Slideshow.** This test measures total time to create a slideshow video (H.264, 720p) from a photo album.
- **Encrypt Personal Content.** This test measures total time to encrypt (AES 256-bit) 12 files (162MB total size).
- **Detect Faces to Organize Photos.** This test measures total time to check a set of 7 photos for faces.

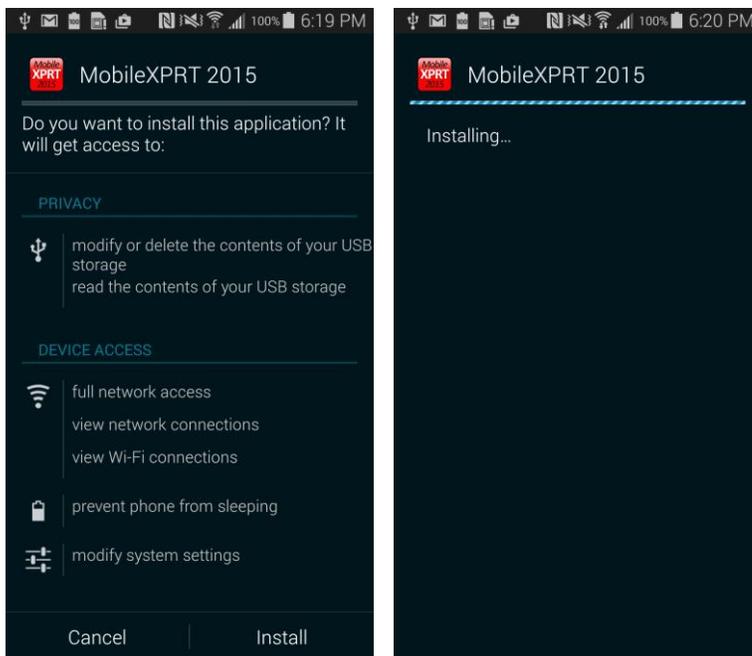
The metric for the five individual performance tests is time in seconds. The overall Performance Tests score is calculated by taking a geometric mean of the five ratios between individual measured times from a calibration machine (Motorola* DROID RAZR* M) and the test device.

Setup

1. Configure the test device to allow installation of apps from local storage.



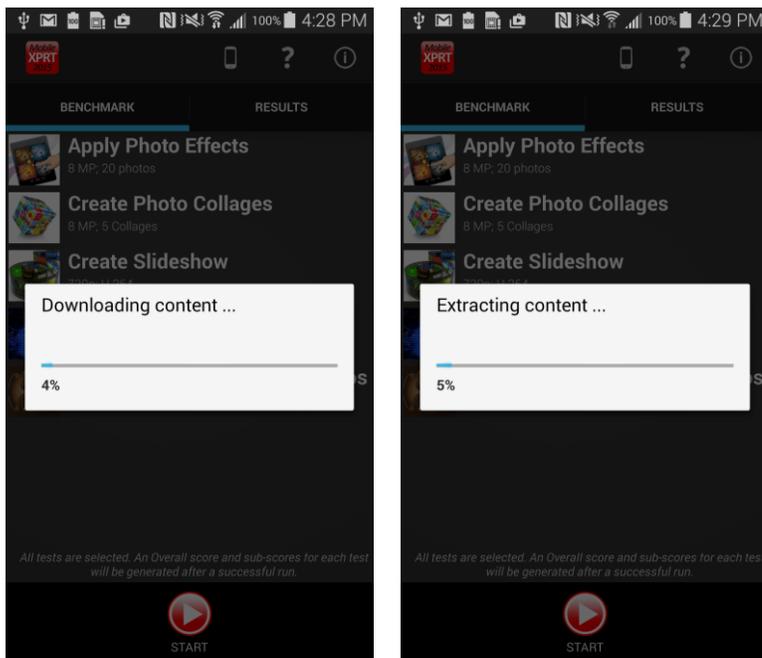
2. Copy the MobileXPRT2015.apk file to /phone or /sdcard on the Android device.
3. Double-click the APK. Note: If the test device does not have a default file explorer, you may need to install a file explorer application. You may also use Android Debug Bridge (ADB) to copy and install MobileXPRT by connecting the test device to a PC.
4. Click Install to start installation.



5. After completing the installation, you will see a prompt to open the App. Click Open.



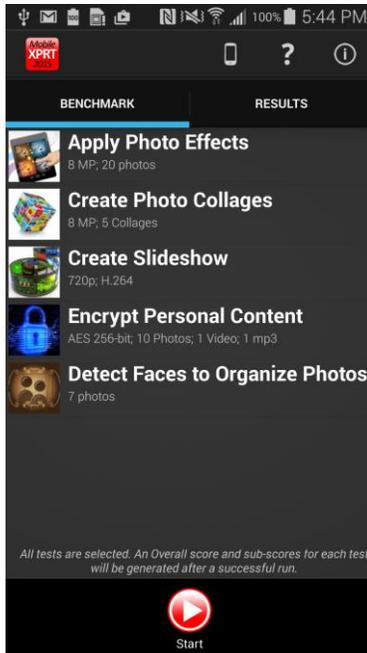
6. Once the App is open for the first time, it will then copy workload data files to the required folders.



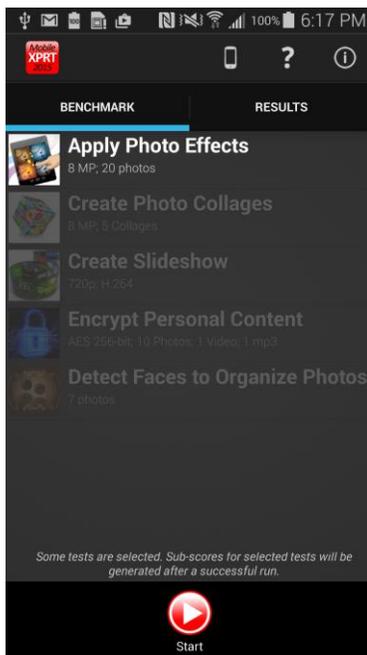
7. MobileXPRT Setup is complete.

Testing instructions

Click the start button to begin the test run. All tests are selected to run by default. The test takes approximately 10 minutes to complete.

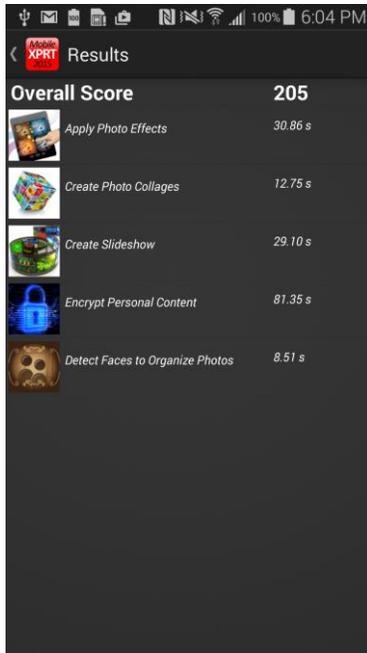


To run individual or a custom selection of tests, deselect the tests that you do not wish to run. Tests that are deselected are greyed out. Click Start button to run selected tests.

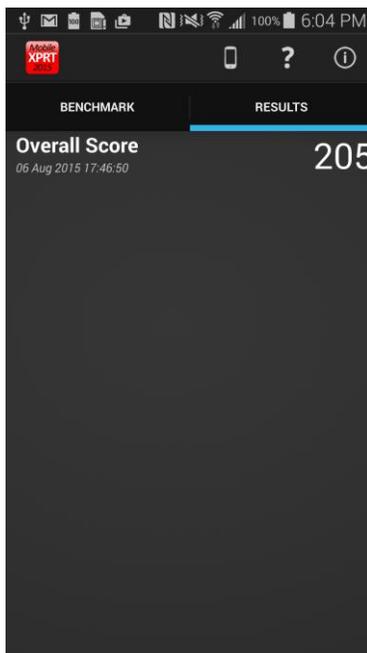


Results

At the end of a successful test, the overall score and individual workload scores are automatically displayed.



Results for all successful previous tests are archived on the test device and can be accessed by clicking the Results tab in the main screen.



Test device configuration

The following test device configuration steps are recommended for reliable testing of MobileXPRT:

- Set the device to Airplane mode. Automatic system updates or alerts, if triggered during the test, could cause test failures and/or impact test results.
- Set the display screen timeout (“Settings | Display | Sleep”) to the longest time interval allowed by the device.

Guidelines for reliable testing

We recommend the following test device configuration steps for reliable testing of MobileXPRT:

- Set the device to Airplane mode. Automatic system updates or alerts, if triggered during the test, could cause test failures and/or impact test results.
- Set the display screen timeout (“sleep option is set to the longest time possible. You will find this setting at Settings | Display | Sleep”) to the longest time interval allowed by the device. Also set the option to stay awake by checking Developer Option | Stay awake.

Uninstall

MobileXPRT can be uninstalled from the device’s Application Manager. To remove MobileXPRT results and all benchmark files completely, delete the MobileXPRT folder in /SDCARD or /Phone.

Support

If you need technical support or have any questions, please send a message to BenchmarkXPRTsupport@principledtechnologies.com.