Guideline on Testing Gear applications using the Emulator

Testing the SAP Server for the Emulator

(including Rich Notification)

Version 0.1.7

Overview

This document describes how to connect host device to Gear Emulator to test SAP and Rich Notification. This will help if developer has no Gear device.

To connect host device to Gear Emulator, Gear Manager needs to be uninstalled if it is installed in host device already.

1. Uninstalling the Gear Manager

Note: If the Gear Manager is not installed in the host device, skip this section and proceed to Preparing the SAP Server Test Environment.

To test the SAP server in the Emulator, the Gear Manager must be uninstalled:

Caution : Uninstalling the Gear Manager includes uninstalling Gear Applications as well. This means You need to reinstall Gear Applications when recovering the Gear Manager. You can see and reinstall your Gear Applications via purchased list of the Samsung Apps in the Gear Manager.

1. In the host that installed the Gear Manager, go to **Settings > Application manager**. The following table lists the applications are related with the Gear Manager.

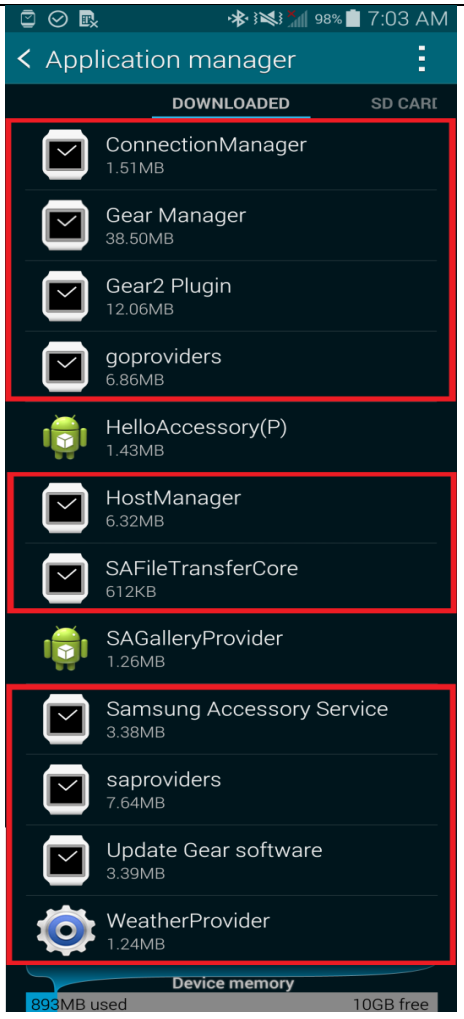
ConnectionManager Gear Manager Gear Plugin goproviders HostManager SAFileTransferCore Samsung Accessory Service saproviders Update Gear software WeatherProvider	

Table 1 Gear manager -related applications

2. Select **Gear Manager** and uninstall the application.

3. After a successful uninstallation, check that all the Gear manager –related applications listed in the table are removed from the host device.

2. Preparing the SAP Server Test Environment

To prepare the SAP server test environment, you must acquire the required files and install the Host Manager for the Emulator:

1. For setting up the SAP server test environment, you must get the following .apk files:

   - HostManagerForEmul.apk
   - SAccessoryService_Emul.apk
   - SAFTCore_Emul.apk

   Download **Applications_for_Emulator.zip** which includes the needed files. Extract the files and copy them to the host.

2. To install the Host manager for the Emulator, installing the .apk files in the following order:

   a) SAccessoryService_Emul.apk
   b) SAFTCore_Emul.apk
   c) HostManagerForEmul.apk

3. After the installation, run the HostManagerForEmul application in the host device.
   The 'Disconnected' text is displayed.

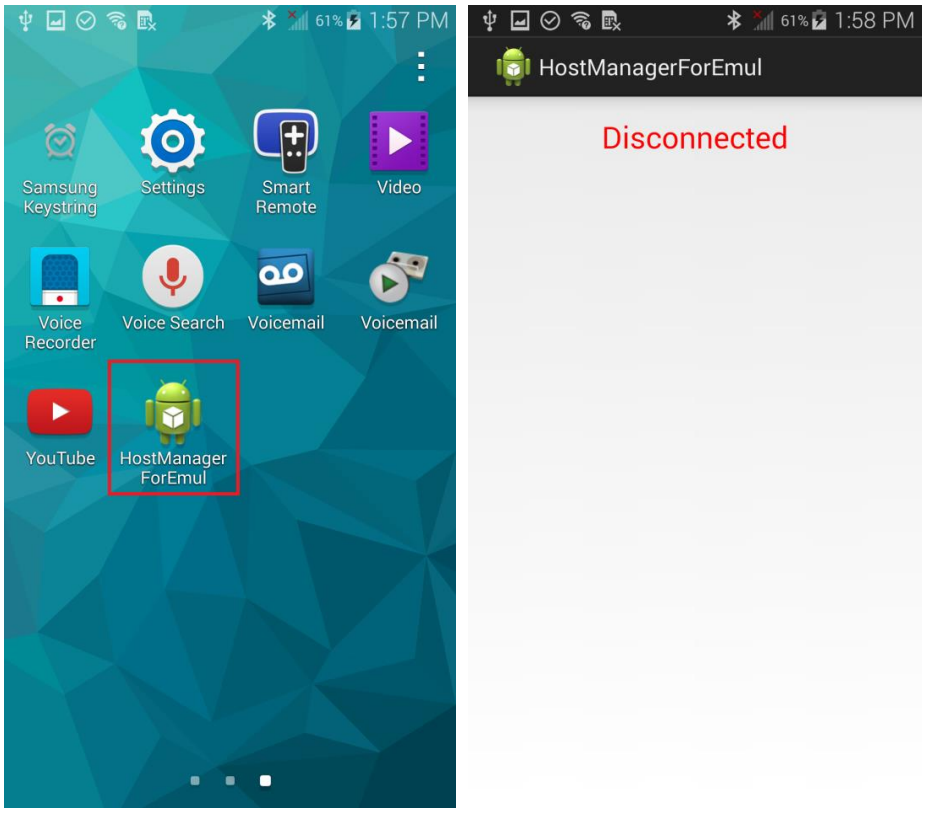


Figure 1 Running HostManagerForEmul in the host device

3. Connecting the Emulator and Host through the SAP Server

Before you attempt the connection, make sure the following prerequisites are met:

- Install Android Debug Bridge (adb) and set the path to use adb.
- Install and run the Tizen SDK for Wearable.

To set up the connection:

1. Connect the host and PC using the USB connection.
2. Open the terminal (or the command window in Windows®).
3. Enter the command:
   “adb –d forward tcp:8230 tcp:8230”
4. Run HostManagerForEmul in the host device.
5. In the SDK, run the Emulator Manager and create a new virtual machine.
6. Run the virtual machine.
   HostManagerForEmul’s ‘Disconnected’ text is changed to ‘Connected’, showing that the connection through the SAP server has succeeded. If the ‘Disconnected’ text does not change, enter the “killall sap-server” command in the emulator’s sdb shell (the command requires root authority).

Trouble shooting:

1. Rich Notification from my application is not displayed in the emulator
   - Make sure HostManager for Emul shows "Connected"
   - If the problem is not solved, then restart the SAP connection by executing the following commands and try sending the notification again.

   ```
   # sdb -e shell
   # su
   # killall sap-server
   # vconftool set -t int memory/wms/wmanager_connected 1 -f
   ```

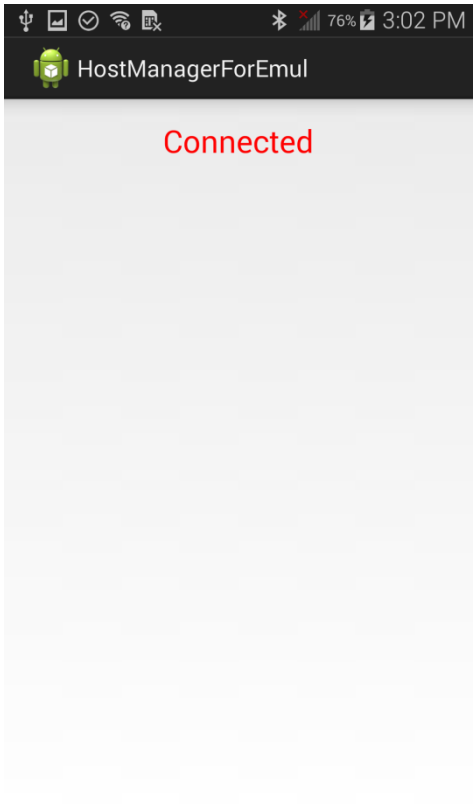


Figure 2 Successful connection

4. Running Sample Applications

You can use the HelloAccessory, SAGallery, and FTSample sample applications to test out the connection functionality.

4.1. HelloAccessory

Before running the HelloAccessory application, make sure the following prerequisites are met:

- Install HelloAccessoryProvider.apk in the host device.
- Install HelloAccessoryConsumer.wgt in the emulator.
- Check the 'Connected' text in the HostManagerForEmul application.

To test the application:

1. In the emulator, select HelloAccessoryConsumer and launch it.
   Expected result: The HelloAccessoryConsumer is launched, and the **Connect** and **Fetch** buttons are displayed.
2. Click **Connect**.
   Expected result: The alert pop-up displays a "HelloAccessory Connection established with RemotePeer" message, and the toast displays a "HelloAccessory Connection established with RemotePeer" message in the host device.
3. Click **OK** in the alert pop-up.
   Expected result: The main screen opens and displays a "startConnection" message.
4. Click **Fetch**.
   Expected result: The screen displays a "Hello Accessory! xx:xx" message.
5. Click **Disconnect**.
   Expected result: The screen displays a "closeConnection" message.

4.2. SAGallery

Before running the SAGallery application, make sure the following prerequisites are met:

- Install SAGalleryProvider.apk in the host device.
- Install SAGalleryConsumer.wgt in the emulator.
- Check the 'Connected' text in the HostManagerForEmul application.
- Make sure the host has one or more image files.

To test the application:

1. Select SAGalleryConsumer and launch it.
   Expected result: The SAGalleryConsumer is launched, and an image file list of the host device appears on the emulator screen.

2. Select one image file.
   Expected result: The downloaded image appears on the screen.

3. Select the displayed image.
   Expected result: The main screen opens.

4. Click **More…**.
   Expected result: 3 additional image files appear on the screen.

4.3. FTSample

Before running the FTSample application, make sure the following prerequisites are met:

- Install FTSampleProvider.apk in the host device.
- Install FTSampleConsumer.wgt in the emulator.
- Make sure that the emulator has one or more files in '/opt/usr/media/'.
  To push files to the emulator, use the 'sdb push' command in the terminal (or the command window in Windows®).
- Check the 'Connected' text in the HostManagerForEmul application.

To test the application:

1. Select FTSampleConsumer and launch it.
   Expected result: The FTSampleConsumer is launched, and a media file list appears on the emulator screen.

2. Click **Connect**.
   Expected result: The alert pop-up displays a "Succeed to connect" message.

3. Click **OK** in the alert pop-up.
   Expected result: The main screen opens.

4. Select one media file.
   Expected result: The sender page appears on the screen in the gear device. The pop-up displays a "Do you want to receive file : /opt/usr/media/(filename) ?" message on the FTSampleProvider application in the host device.

5. Click **Accept** on the FTSampleProvider application in the host device.
   Expected result: The selected file is sent to the host device. The pop-up displays a "send Completed!! id : {transferId} localPath : {originalPath}" message in the emulator, and the toast displays a "receive Completed!!" message in the host device.

6. Click **OK** in the alert pop-up.
   Expected result: The main screen opens.

5. Running Rich Notification Application

5.1. Rich Notification

Before testing your own Rich Notification application, make sure the following prerequisites are met:

- Check the 'Connected' text in the HostManagerForEmul application at first.
- Install **goproviders_Emulator.apk** in the host device.
  (goproviders_Emulator.apk is included in **Applications_for_Emulator.zip**)
- Install your Rich Notification Application in the host device and test it.

6. Recovering the Gear Manager

To connect with the host and gear device, you must install the Gear Manager. To avoid collision between the Gear Manager and HostManagerForEmul, remove the “Samsung Accessory Service” application in **Settings > Application manager** before installing the Gear Manager.

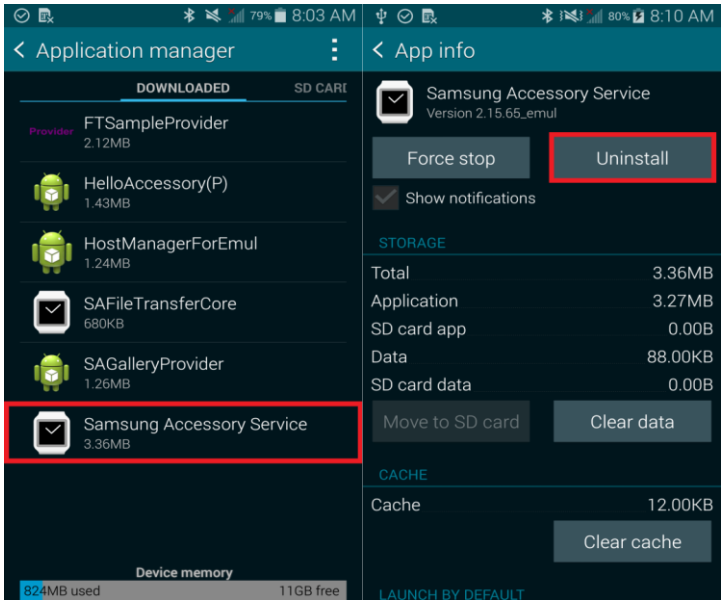


Figure 3 Uninstalling the Samsung Accessory Service

After installing the Gear Manager, you can see and reinstall your Gear Applications easily via purchased list of the Samsung Apps in the Gear Manager as below.

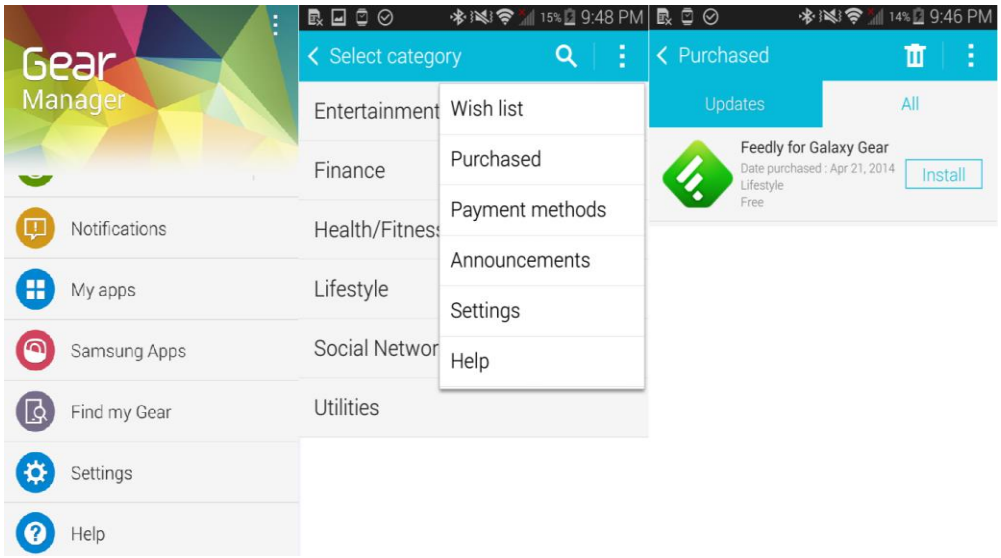


Figure 4 Reinstalling Gear Applications via purchased list

7. FAQ

Q1. How can I access the emulator's sdb shell?

A1. Right-click the emulator screen and select **Shell**.

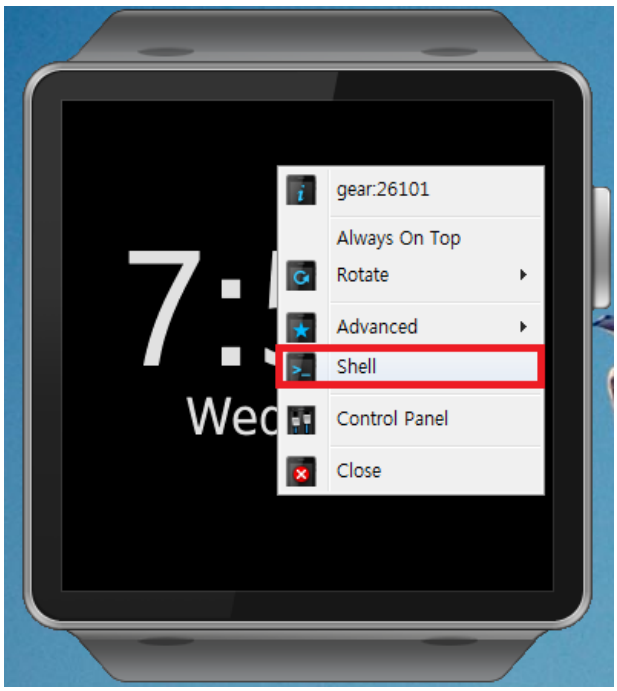


Figure 4 Accessing the emulator's sdb shell

Q2. I type "killall sap-server" in the sdb shell, and the "sap-server: no process found" message appears.

A2. Type "su" command in the sdb shell to get root authority.

Q3. How can I install .wgt files to the emulator?

A3. To install the files:

1. In the terminal (or the command window in Windows®), move to the directory that contains the .wgt file.

2. Enter the command:
   "sdb install (.wgt file's name)"
   For example, enter: "sdb install SAGalleryConsumer.wgt"

Q4. How can I push files to the emulator?

A4. To push files:

1. In the terminal (or the command window in Windows®), move to the directory that contains the file you want to push.

2. Enter the command:
   “sdb push (filename) (destination)”
   For example, enter: “sdb install sample.mp3 /opt/usr/media/”