

Tizen Debugging and Testing Tools

Important concepts

All Tizen application developed with Titanium really are Web Applications(widgets)

Developer may run widget in one of the following environments:

- **Simulator** - The Tizen Web simulator allows you to run widgets that use the Tizen Web APIs.
- **Emulator** - The device Emulator, provided with the Tizen SDK, imitates the target environment running Tizen Web applications. Using this replicated environment, you can test your widget before deploying it to the real target device.
- **Target Device** - Running your widget on a target device allows you to debug and test your widget in a real-time environment.

Required Software and Documentation

It is required to have Tizen SDK installed to use Tizen tools. Emulator, Simulator and Emulator Manager applications comes with Tizen SDK.

The Tizen Web Simulator runs on the Google Chrome browser. To use the Tizen Web Simulator you must first download and install Google Chrome on your development platform: <http://www.google.com/chrome/>

All Tizen specific documentation for these tools available on Tizen web site in Dev Guide document in [Running and Debugging Applications](#) Section.

Installing Tizen development Environment

Download Tizen SDK 2.0

Download Install Manager and Image at: <https://developer.tizen.org/sdk>

For Windows 32bit

<http://download.tizen.org/sdk/InstallManager/tizen-sdk-2.0-windows32.exe>

<http://download.tizen.org/sdk/sdk-images/tizen-sdk-image-2.0.0a-windows32.zip>

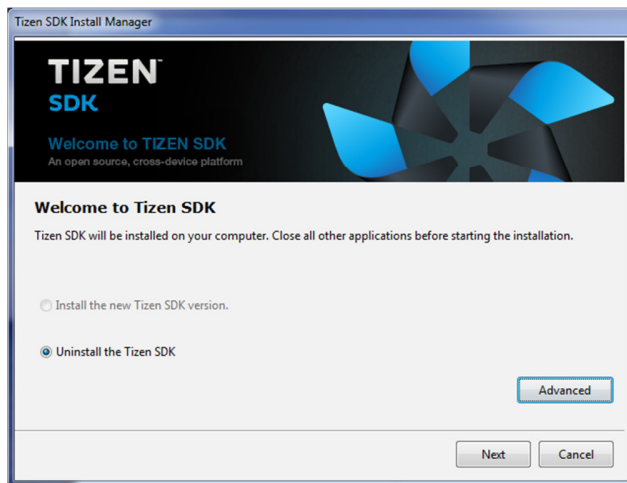
For Windows 64bit

<http://download.tizen.org/sdk/InstallManager/tizen-sdk-2.0-windows64.exe>

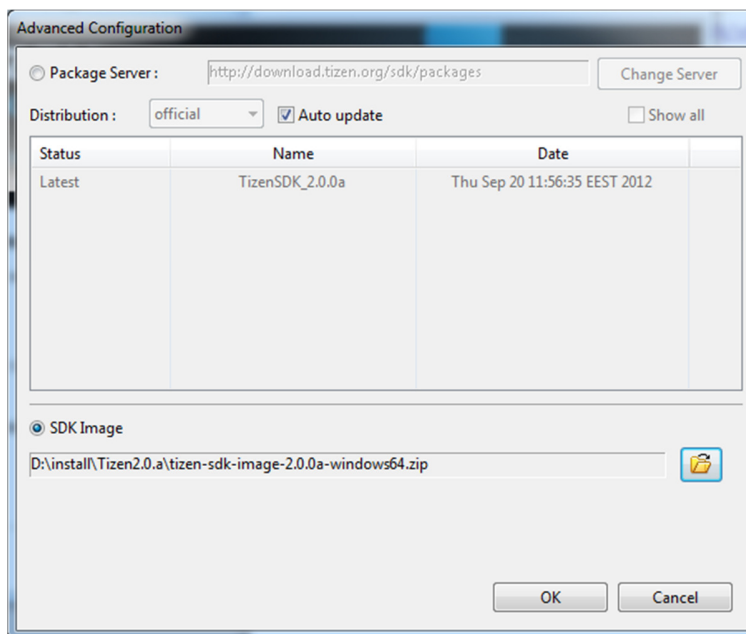
<http://download.tizen.org/sdk/sdk-images/tizen-sdk-image-2.0.0a-windows64.zip>

Install Tizen SDK

Run tizen-sdk-2.0-windows64.exe and click button **Advanced**



In the next window select radio button “SDK Image”



And select downloaded tizen-sdk-image-2.0.0a-windows64.zip . Click Ok.

SDK installation starts. Use default settings for all next steps and go through installation process. As result Tizen SDK installed into **C:\tizen-sdk** .

Tizen CLI Tools from SDK

Check is emulator available

It is important to check if there is a connection between developer tools and emulator.

In console run `C:\tizen-sdk\tools\ide\bin\web-list.bat`

It should show that one emulator instance is available if there is a running Emulator.

Note that it freezes. In this case you have to restart thing called “Samsung Debug Bridge”. It is just a bit modified Android tool originally called adb. To restart execute sdb located in **C:\tizen-sdk\tools**:

sdb kill-server

sdb start-server

sdb devices

First two commands restarts service. Last one shows list of available devices/emulators after successful restart.

Build and run Titanium Application for Tizen

Titanium CLI for Tizen

Tizen is platform as well as iphone or android. The easy way to build Titanium application is use CLI build command and specify platform:

titanium build --platform=tizen

Also Tizen have additional command line options required to sign the application with developer keys:

--cert	path to certificate file
--alias	the alias for the keystore
--password	password for keystore
--keypass	password for the key

Without these parameters it uses default debugging certificate that comes with TizenSDK.

CLI parameters allow specify target Tizen device to install/run/debug widget:

--dev-id	Install widget on this device after successful build	Usage sample: titanium build --platform=tizen --dev-id=emulator-26100
--run-dev-id	Install and run widget on this device after successful build	Usage sample: titanium build --platform=tizen --run-dev-id=emulator-26100
--debug-dev-id	Install widget on this device after build and initiate debugging. There are no Tizen specific debugger. Open result url in browser to debug a widget with Remote Inspector	Usage sample: titanium build --platform=tizen --debug-dev-id=emulator-26100 this will build and install widget. It uses Tizen CLI tool web-debug. As result it shows debug url in console E.g. DEBUG URL : http://localhost:51164/inspector.html?page=1

Emulator

Install Intel HAXM for Tizen

Without HW Acceleration Tizen emulator performance on Windows are far away from excellence even with latest Core i7 processor. It is mandatory configure hardware acceleration. Go to page

<https://developer.tizen.org/downloads/sdk/installing-sdk/hardware-accelerated-execution-manager>

And download and install IntelHaxmTizen.exe

HAXM for Tizen conflicts with HAXM for Android. Uninstall Android version first and reboot.

Target Device

Work with target device is fully similar to work with emulator. If there are no working emulator and device

Device drivers required for work with concrete device are required. E.g. for Samsung devices developer have to install Samsung USB driver available here

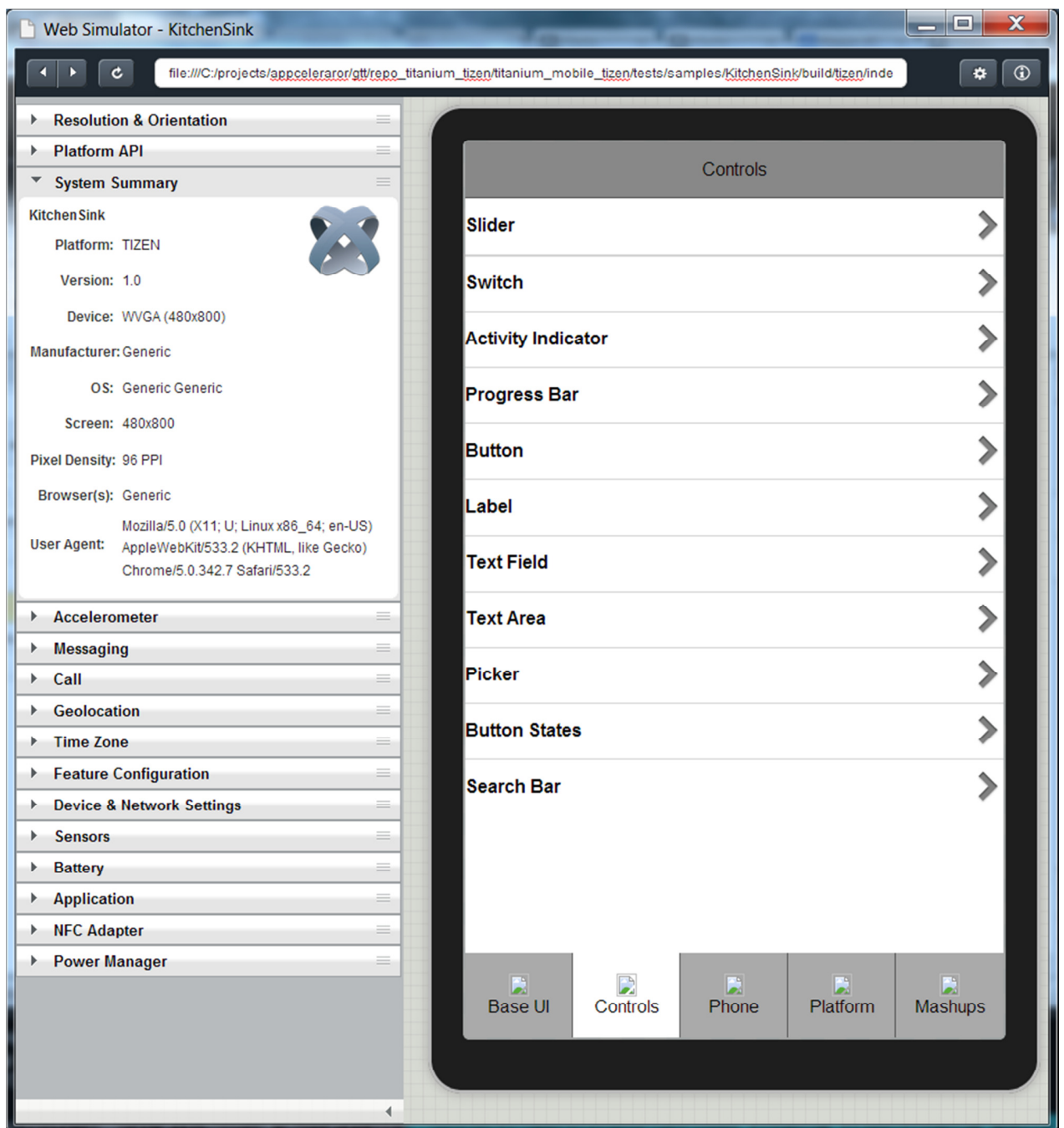
http://down2.local.sec.samsung.com/uploading2/comLocal/service/support/consumer/download/SAMSUNG_USB_Driver_for_Mobile_Phones.zip

Launch your application in the Simulator

Open Tizen Web Simulator via application menu (in Windows).

file:///C:/projects/appcelerator/gtt/repo_titanium_tizen/titanium_mobile_tizen/tests/samples/KitchenSink/build/tizen/index.html

KitchenSink application in the simulator



When the simulator is started from the Tizen IDE, the path to your application's main content file is loaded into the application address bar. You can change which file or project is being run by editing this field. But we use CLI tools to build the project and have to enter this path manually. It is easy to find this path:

<YOUR_TITANIUM_PROJECT>/build/tizen/index.html

Then run Web Simulator manually and copy the path into the address bar.

More information about Web Simulator features is available on [Tizen documentation site](http://tizen.org/docs/concepts/web-simulator).

Using Tizen IDE to Debug Titanium Applications

It is possible to install, run and debug Titanium application with Tizen IDE (available as part of Tizen SDK). It may make sense if developer needs some features not available from Titanium CLI. E.g. It allow us use event inspector

Debugging a Widget

Developers can debug a widget by debugging its JavaScript code while running it in the target. JavaScript debugging uses the Remote Inspector connected with the WebKit on the target. There are no any Tizen specific tips for Remote Inspector

web-debug command from SDK available at <TIZEN_SDK>\tools\ide\bin initiates debug session. Minimal required parameters are path to wgt file and widget ID

web-debug.bat -w "path to wgt" -id <ID>

On successful application start it shows debug URL in console, e.g.:

DEBUG URL : <http://localhost:57283/inspector.html?page=1>

Open this URL to get access to Remote Inspector used to debug the application.

CAUTION: Remote Inspector doesn't support multiple debugging.

CAUTION: avoid use spaces in application path and wgt file name. It does not works on Beta version available now.