Alpha stage of Titanium's Tizen extension project: release notes

The CLI build system

- Titanium SDK for Tizen was developed. It now allows building Tizen applications from Titanium sources.
  - The common command-line interface is supported. Please specify **--platform=tizen** where the target platform must be selected.
  - Package signing using a test certificate is provided.
- A Titanium for Tizen SDK archive can be built, based on the source code of Titanium Mobile Web SDK, using a build script.
  - A step-by-step guide for building the Titanium Tizen SDK, and Tizen applications, is available here.

Titanium API

1. Titanium API was ported to Tizen.
   - It is now possible to write realistic Titanium applications and run them on the Tizen operating system. This was verified by porting Kitchen Sink, geolocation samples, and authoring a Contacts sample.
   - The Tizen implementation of Titanium API is based on the Mobile Web implementation of Titanium API.
   - Tizen device API was made directly available to Titanium developers.
     - The "tizen" namespace, encompassing Tizen device API, can be referenced directly in Titanium code, and used if necessary.
     - As agreed during the project, no wrappers were added (although a script that transforms Tizen's WebIDL to Titanium-style skeleton namespaces was developed).
   - Titanium applications were observed on both Tizen emulator and Tizen hardware device.
   - Parts of Titanium API could not be ported. A discussion on these cases can be found in this spreadsheet.
2. Titanium API was modified in several places to extend the available functionality.
   - Where Tizen's device API was not present or sufficient, HTML5 was used to implement new features and APIs.
   - This document describes the new APIs and the new behaviors in detail. (It can be used by the authors of the Titanium API reference, who could use the information to update the information in a straightforward manner.)
3. Titanium API was tested on Tizen in the following ways:
   - Anvil:
     - Anvil automated tests were ported to Tizen. All Anvil tests were executed.
       - A guide to running Anvil tests on Tizen can be found here.
     - Anvil issues pertaining to Tizen were fixed where possible.
     - New simple, proof-of-concept Anvil tests were added for some Titanium APIs (UI.TableViewSection, UI.MobileWeb.NavigationGroup, UI.Slider, UI.AlertDialog, UI.ProgressBar, UI.OptionDialog, UI.ActivityIndicator, UI.Label). A means of more

detailed testing, based on analyzing the actual screen appearance of UI widgets, was added for future use.
        - A script was developed that parses the Anvil source code and generates coarse statistics of Titanium API coverage.
        - Not all Anvil tests currently succeed. Some failures are attributed to Tizen/Titanium bugs/limitations, but some issues still require investigation/fixing for the beta milestone.
    - Kitchen sink:
        - The Kitchen Sink sample was ported, and studied in depth to find abnormalities on Tizen.
        - Kitchen Sink behavior on Mobile Web and Android was taken as the base for comparison. I.e. missing or wrong behavior was detected by looking at the same code, running on Mobile Web and Android.
        - A number of modifications to both Kitchen Sink and Titanium APIs was made to fix the found discrepansies. Please refer to this spreadsheet for a list of fixes made with respect to the behavior of Kitchen Sink.
    - Mobile web issues found during testing were reported. Some of them were fixed for Tizen, and the fixes may be incorporated back to Mobile Web when they meet the quality requirements.
4. Anvil tests were developed for Tizen device API namespaces.
    - An internal document, describing the coverage of namespaces, methods, and properties of Tizen device API, is available upon request.
    - Tizen issues that were found, were reported to Tizen.

Titanium studio

- As agreed with Appcelerator, Titanium studio user interface extensions pertaining to Tizen will be made by Appcelerator's Titanium studio team.
- Command-line interface that will be called by these extensions was developed by GlobalLogic and is ready for use (see the CLI build system section).
    - GlobalLogic will be happy to support Appcelerator's developers in connecting the UI and the CLI, if needed.

Documentation and support

- The following documentation was written:
    - *Tizen platform overview* - a brief discussion about the Tizen platform from a Titanium developer perspective.
    - *Tizen application icons and splash screens* - is a documentation stub. This document will be provided in full when Tizen's UI guidelines are available.
    - At the moment, the Mobile Web guidelines apply.
    - *Tizen debugging and testing tools* - an instruction for having a debug session of a Tizen application up and running.
    - The debugging tools themselves are provided by Tizen SDK (which is an integral part of a Titanium-for-Tizen development), and are documented here.
    - *Environment Configuration and Running Samples on Tizen* - an instruction for:
    - building the Titanium Tizen SDK from a freshly cloned repository;
    - building Titanium applications for the Tizen target platform, using the built SDK.
    - *Running Anvil's Driver for Tizen* - an instruction for running Anvil on a Tizen

device/emulator.
    - *Detailed status* - a description of the current status of Titanium namespaces and Kitchen Sink locations.
    - *Titanium* - describes changes made to Titanium's interface and behavior.
- GlobalLogic is ready to support trainings for Appcelerator's staff.