

Tizen-based Samsung TV SDK Overview

Introduction

The Tizen-based Samsung TV SDK is a tool that helps developers create HTML5-based applications for the Tizen TV platform. Features of the SDK include:

- Integrated Development Environment (IDE)
- Web Simulator
- Debugging Tools
- Cross-platform support (Windows / Mac OS X / Linux)



Tizen TV Web Apps

A Tizen TV Web App combines the best features of a TV with the power of web based technologies. By combining the size, input, and multimedia benefits of a TV with the connectivity features of the internet, developers can create innovative new experiences for their users.

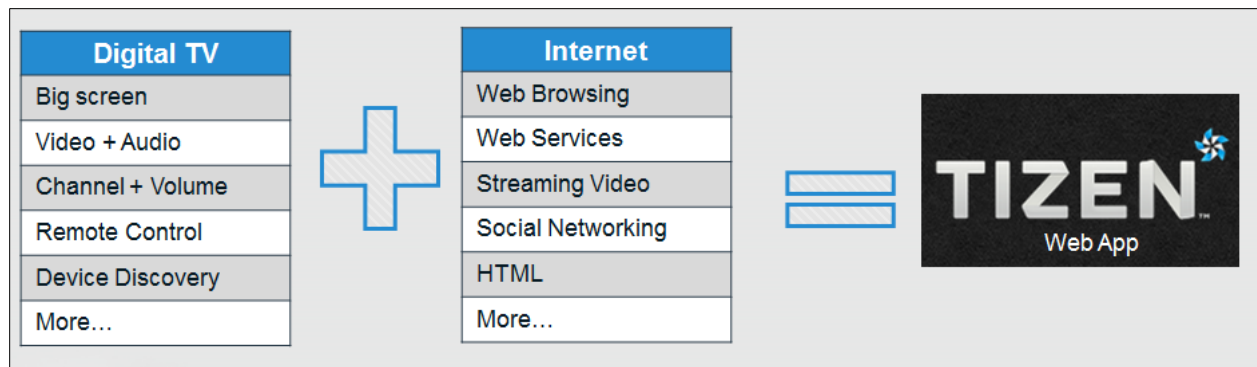


Figure 1 A Tizen TV Application

Tizen TV Web Apps are HTML5-based applications that can run on the Tizen TV Platform. These apps are implemented in the HTML, CSS, and JavaScript languages. Additionally, developers can add multimedia resources such as images, audio, and video. Support for video and audio is provided by using the HTML5 *video* and *audio* tags.

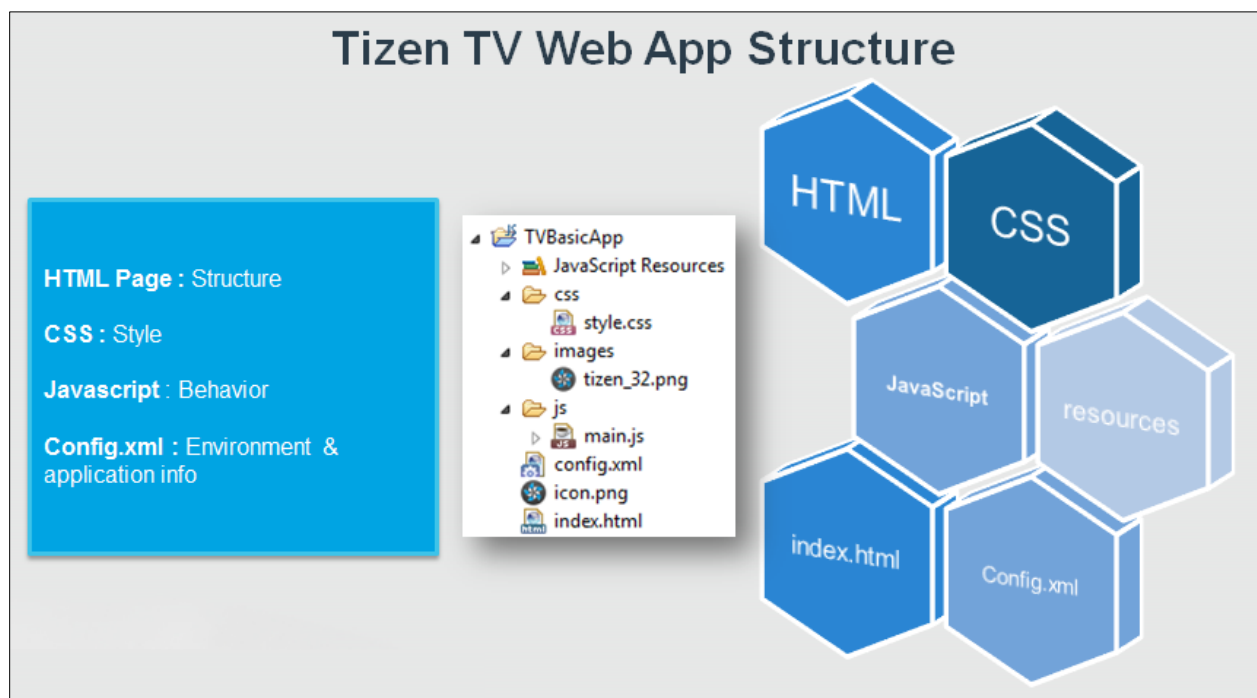


Figure 2 Components of a Basic Web App

Integrated Development Environment (IDE)

The Integrated Development Environment (IDE) provides features to create, edit, and test Tizen TV web applications. This IDE is based on the Eclipse framework and is supported on all major OS platforms (Windows, Mac OS X, Linux).

The IDE provides tools for editing HTML, JavaScript, and CSS files.

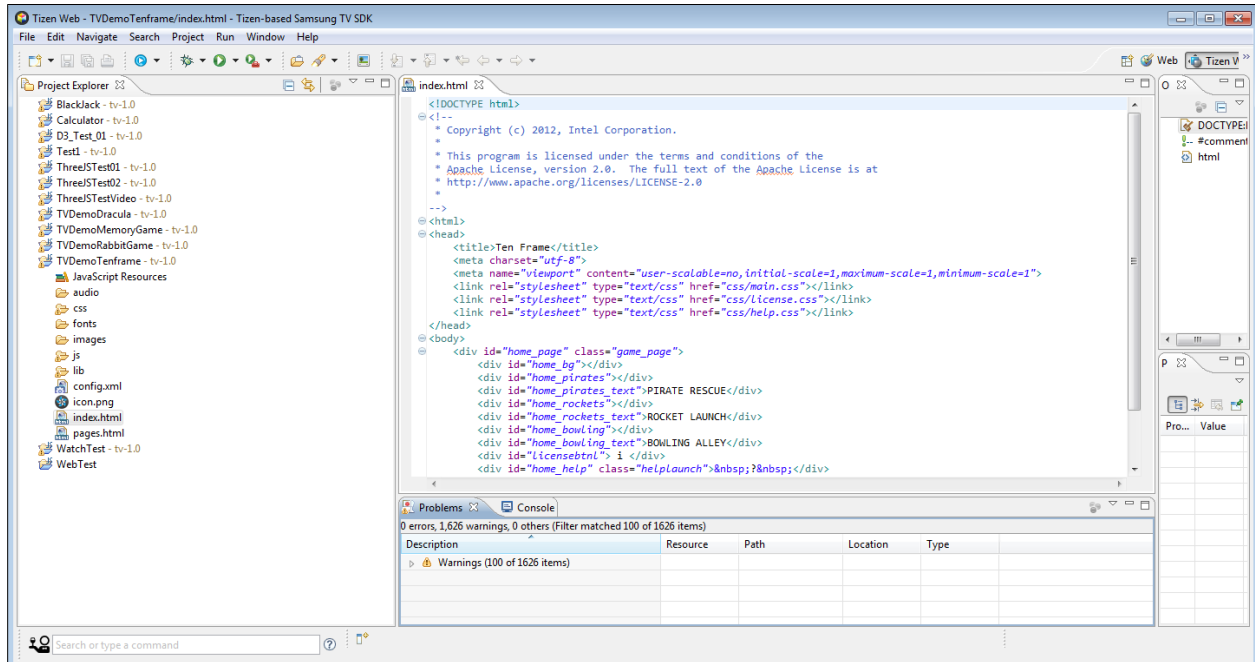


Figure 3 The Tizen TV Web App IDE

The IDE provides many pre-defined templates for creating Tizen TV web applications. Users can create an application based on templates for Tizen Web and JQuery mobile. Additionally, users can create their applications based on sample apps. Users also have the ability to define their own application templates.

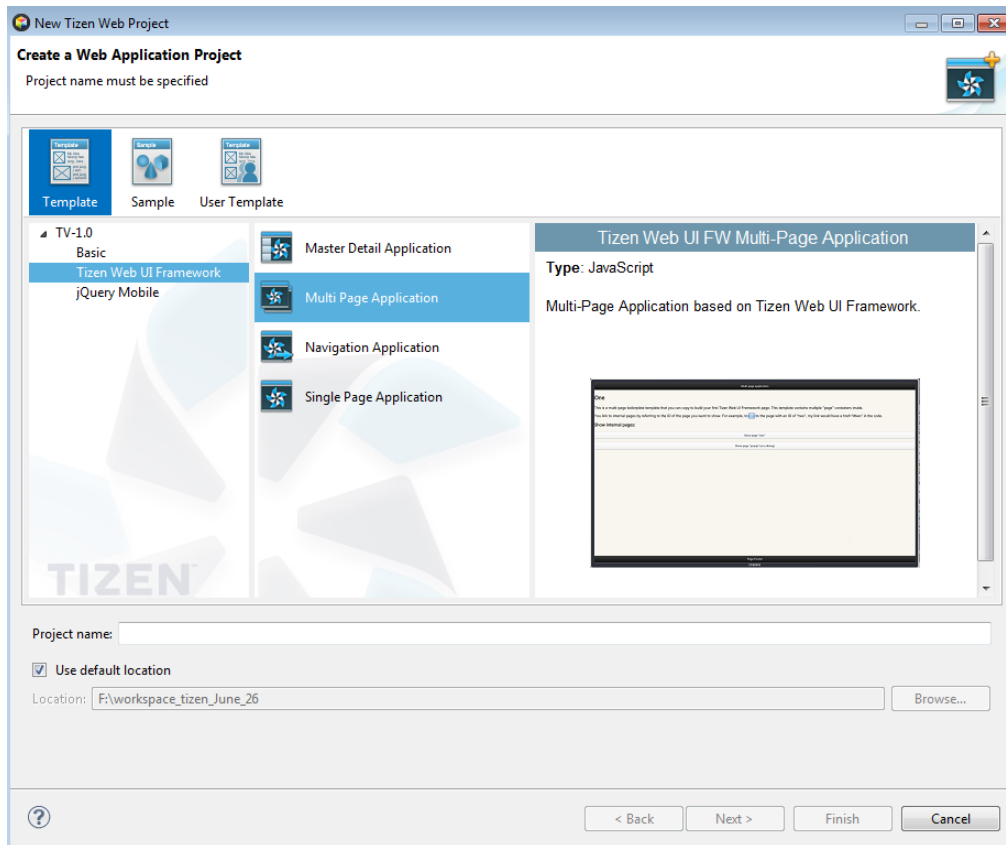


Figure 4 Create a New Application

Web Simulator

The Web Simulator is a light-weight tool that enables developers to quickly test their web applications in the absence of real TV hardware. Apps created in the IDE can easily be launched in the Web Simulator for testing, promoting a fast code-test-debug cycle.

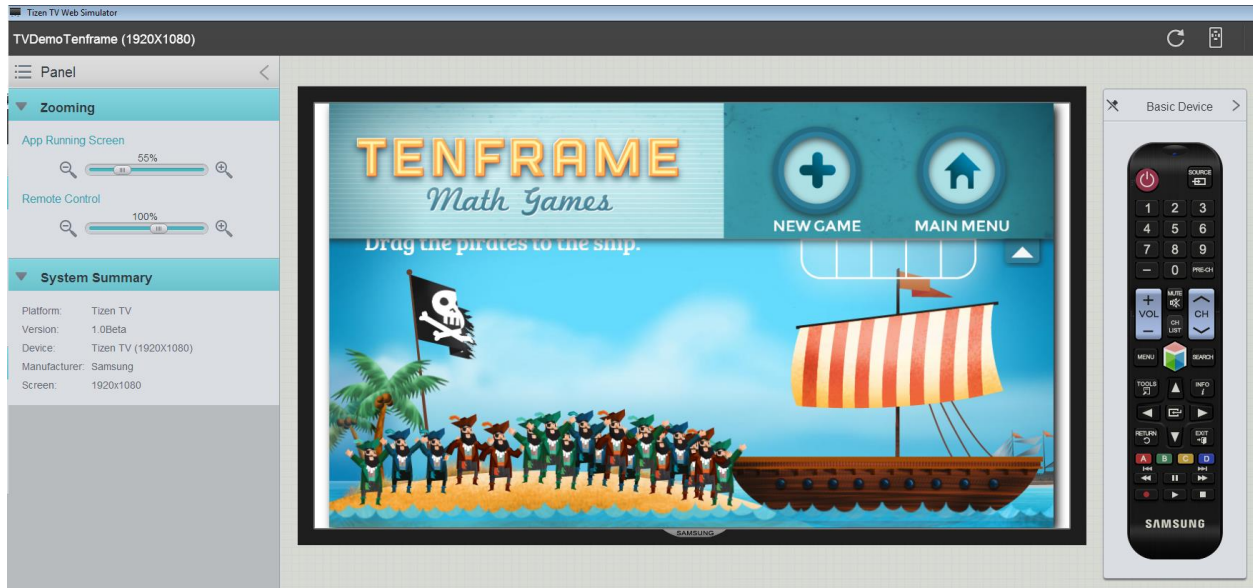


Figure 5 The Web Simulator

Users can interact with the application using mouse/keyboard or the simulated Remote Control. Also, the user can toggle between different types of Remote Control:

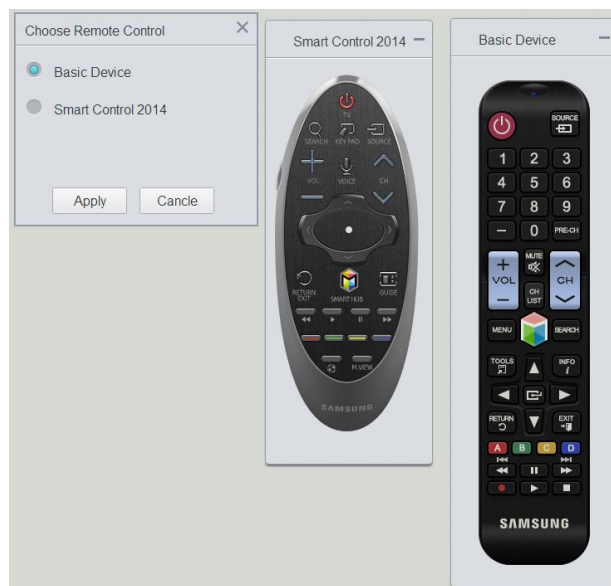


Figure 6 Multiple Remote Control Types

The Web Simulator can be launched through the IDE. To launch the Web Simulator, right-click on a TV project and choose **Run As > Tizen TV Web Simulator Application (Samsung TV)**

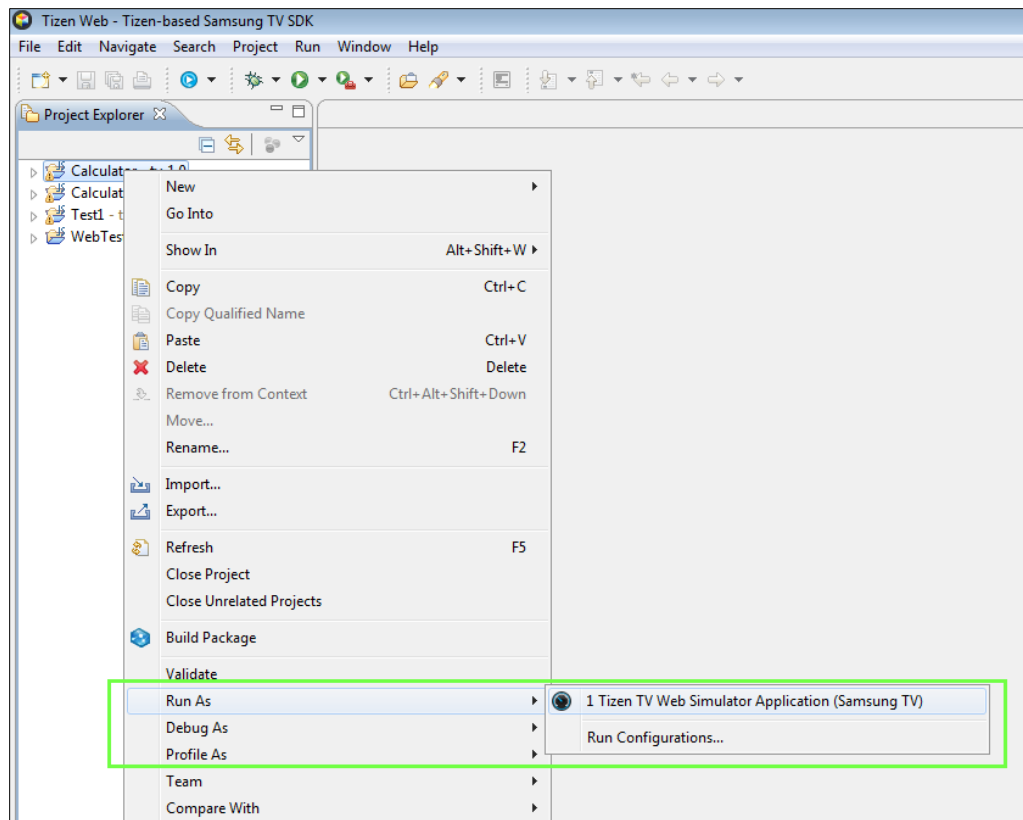


Figure 7 Launching the Web Simulator

Debugging Tools

The Web Simulator tool includes a debugging tool with features to inspect code, step through JavaScript, analyze network usage, and perform other debugging tasks. The tool is based on the Web Inspector debugging tool.

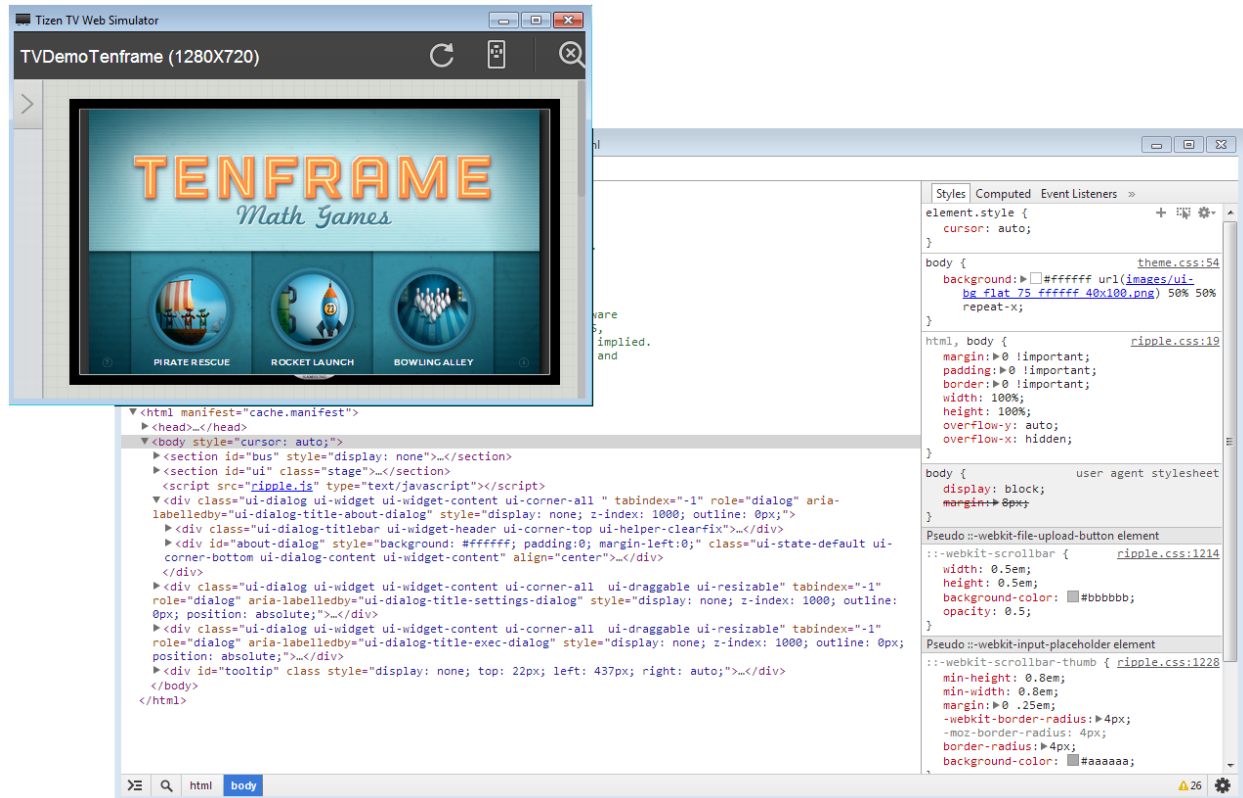


Figure 8 The Web Simulator (top left) and the Debugger (background)

Cross Platform Support

All tools in the Tizen-based Samsung TV SDK are supported on the Windows, Mac OS X, and Linux platforms.