directCanvas for Android – Getting Started

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appMobi{!}

1.0 Purpose

The appMobi directCanvas technology gives hybrid HTML5 applications the ability to accelerate their canvas tag commands. The purpose of this documentation is to help both new and previous users of directCanvas for iOS become familiar with how to write applications for Android using directCanvas.

2.0 Getting directCanvas for Android

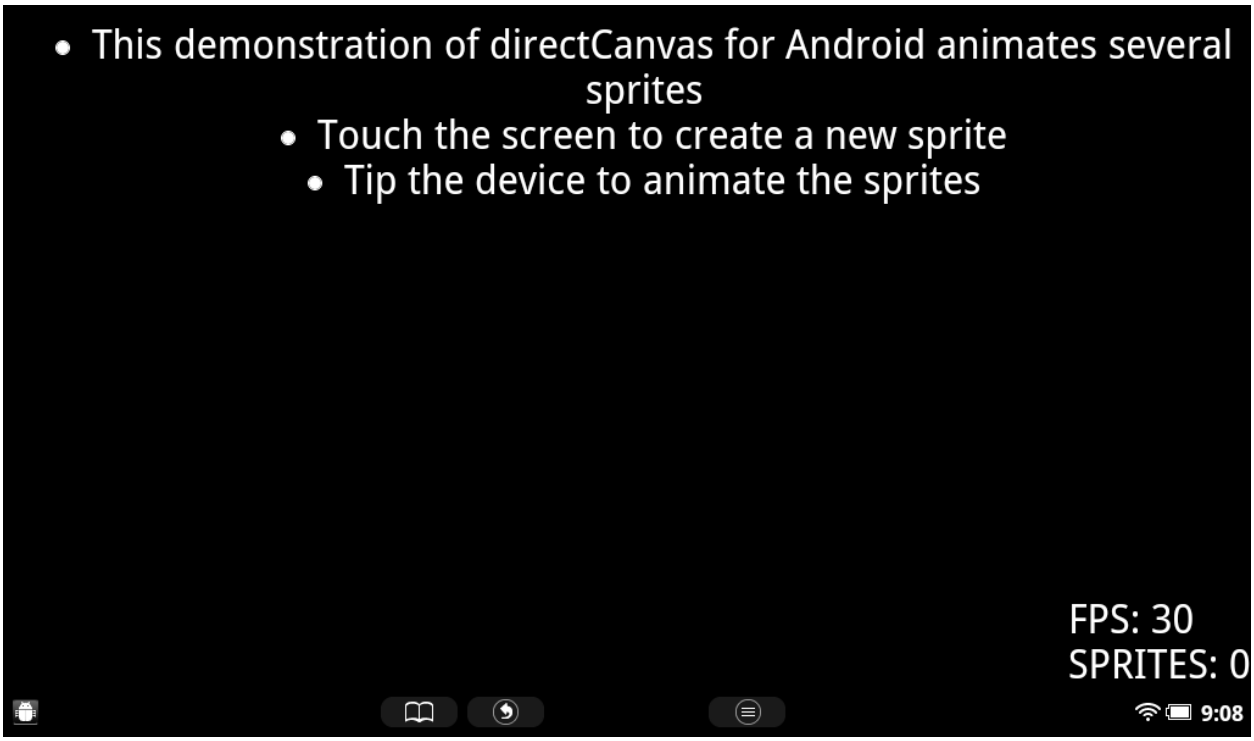
How do you get directCanvas for Android? If you have installed the XDK, you already have it. Android applications build using our cloud build system through the XDK or appHub (previously known as the Cloud Services Dashboard) will include the *AppMobi.canvas* object. That object gives you the ability to create the directCanvas context which would emulate the *<canvas>* tag typically used in an HTML5 game.

3.0 Running the directCanvas Sample on Device

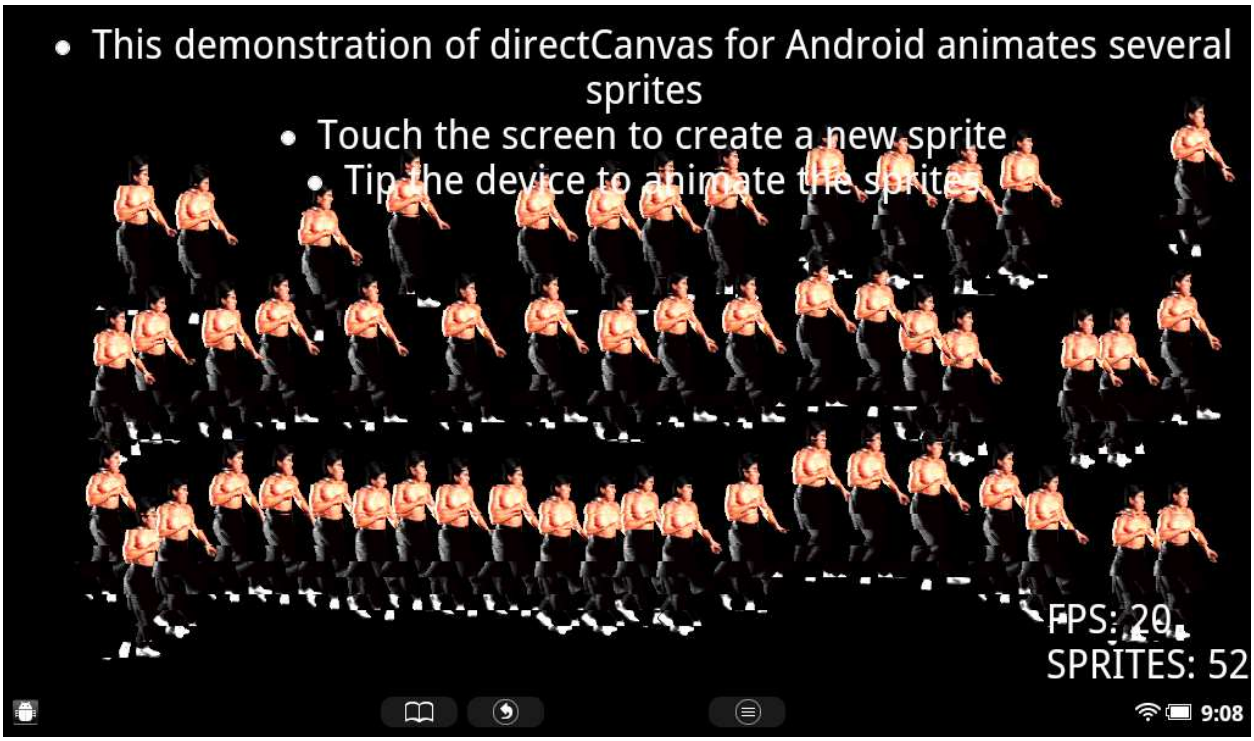
Find a link to the Android directCanvas sample application here:

https://am-xdk.s3.amazonaws.com/app.1c432ce9-fd28-42e8-bcf3-207c823ef82a/f8e498e5-b656-4e1f-9036-4c9c116e825a/PRODUCTION/bundle.zip

Download the code and drop it into an empty XDK project. Run it in “test anywhere” mode in order to test it, or build it into an .APK and load it onto your moble device. You should be able to add and animate sprites in order to demonstrate the acceleration of directCanvas for Android.



Touch the screen to add a new sprite to the screen. Tip the device form side to side to animate the sprites. Take a note to the FPS (frames per second) in the lower right-hand corner of your screen.



4.0 Features of directCanvas for Android

The directCanvas for Android gives developers the ability to interpret multiple screen touches at a time. It is designed to allow game developers to create user interfaces with multiple buttons for users to play the game with simultaneously. However, it is not intended for use with gestures where multiple touches would be used on the same HTML element.

In order to activate directCanvas multi-touch for Android, make sure that your application makes the following function call:

```
//enable multi-touch for dcAndroid
try {
	AppMobi.multitouch.enable();
} catch(e) {}
```

The *AppMobi.multitouch.enable* method is a new command to engage the directCanvas multitouch for Android to start listening for multiple touch events from different HTML elements.

5.0 Limitations of directCanvas for Android

The directCanvas for Android has a few limitations. First, it is not a complete implementation of the HTML5 canvas tag specification. Several commands are missing and a few are added for developers' convenience. For a matrix detailing the command differences, take a look at the directCanvas online documentation here:

http://www.appmobi.com/documentation/gamingAPI/directCanvas/index.html

Second, the physics engine included with the iOS version of directCanvas known as directBox2D is not yet available. Development on that code continues, and it should be available soon.

Finally, there are a few geometric commands that are still being developed such as *arc* and *fillRect*. The directCanvas for Android is aimed at drawing and animating 2d sprites, so all image drawing and animation tools are available.