Android Immersive Mode and Unity3D
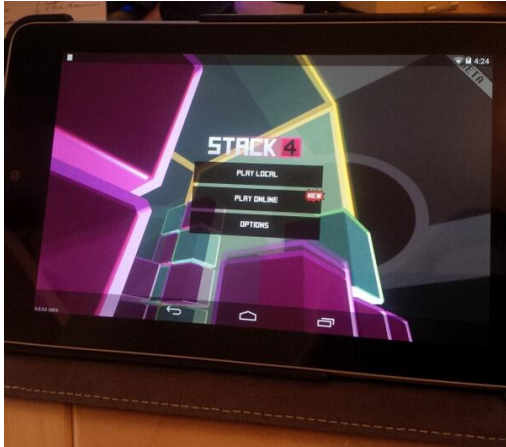

Today I got an email by one of the users of my mobile game STACK4 asking me to support the new "Immersive Fullscreen Mode"[1] of the brand new Android 4.4 (KITKAT). To be honest I didn't even know this feature was introduced. But it is actually pretty cool for mobile games, since it allows your app to use the fullscreen and to hide those softkeys that are shown in absence of hardware buttons. See the status bar and the softkeys on the photo, they are just moving in as an overlay when you swipe in on the top or bottom of the screen (which is a method first introduced on blackberry 10 devices)

Anyway it is not really difficult to implement when you already have an Android Plugin in Unity. So without much further ado, here is the Java code that you have to include into your UnityActivity in the onResume method:

```java
@Override
protected void onResume() {
        super.onResume();

        if (Build.VERSION.SDK_INT &gt;= 19) { //KITKAT

                int flagImmersiveSticky = 4096;
//View.SYSTEM_UI_FLAG_IMMERSIVE_STICKY

                int flags = flagImmersiveSticky
                        | View.SYSTEM_UI_FLAG_FULLSCREEN
                        | View.SYSTEM_UI_FLAG_HIDE_NAVIGATION;

        this.findViewById(android.R.id.content).setSystemUiVisibility(flags);
        }
}
```

There are a few things to mention about this:

1. Why don't I use the sdk identifiers[2] for those new values ? Because Unity seems to refuse to build in my java plugin when it is not build against 4.2.2. Any ideas are welcome!
2. Why in the onResume ? In onCreate it will work too, but whenever the app goes to the background and back to the front those settings seem to be reset either by android or unity, who knows.

3. Why is there a ">=" in the if clause ? Because my code highlighting plugin in wordpress sucks 😀 Of course it is greater-or-equal.

1. https://developer.android.com/training/system-ui/immersive.html [↵]
2. new flags for immersive fullscreen in android sdk [↵]