

June 26 2015

Goals:

- confirm that Swiffy animates and renders offscreen ads
- get a sense of the performance impact.

Results:

- Swiffy animates and renders offscreen ads: confirmed.
- Performance impact: bad; although it depends on the nature of the ad being shown. On this particular run, Swiffy ate the RAIL budget with just one ad element. Note: the Swiffy team is aware of the performance issue in general and is actively investing in performance improvements.

Setup:

- <http://www.androidpolice.com> (on my load: 1 image ad at the top, 1 Swiffy ad further below, 1 image ad at the bottom of the page)
- Nexus 4 on Chrome dev 45.0.2439.0
- Remote debugging from Chrome canary 45.0.2441.3 Mac OS X
- Set the timeline to capture stack, profile JS, paint, screenshots
- Press record, ctrl-r from devtools to reload and capture screenshots
- wait for loading to complete, wait some more
- scroll, when the swiffy ads is visible in the viewport, scroll back to the top
- wait for a few seconds and stop the recording

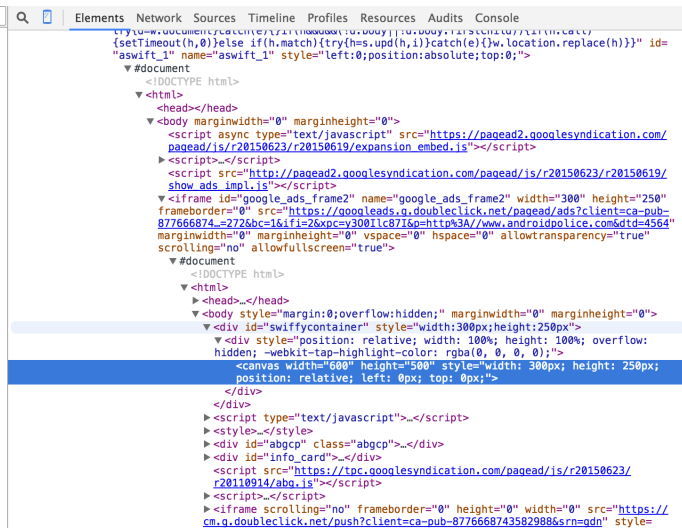
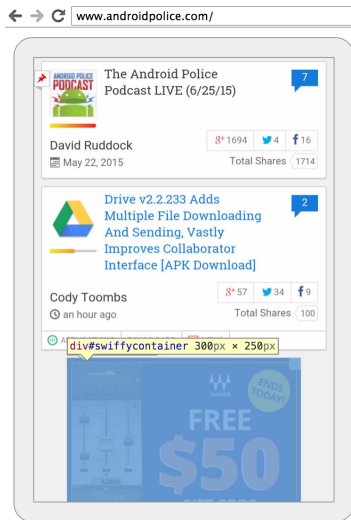
The ad at the top is a regular image.

The swiffy ad is further below, see second screenshot.



```
<iframe id="google_ads_frame1" name="google_ads_frame1" width="336" height="280"
frameborder="0" src="https://googleads.g.doubleclick.net/pagead/ads?client=ca-pub-
877666874=272&bc=1&tf=1&pc=1&lm=1&syfa&sp=http%3A//www.androidpolice.com&id=2484"
marginwidth="0" marginheight="0" vspace="0" hspace="0" allowtransparency="true"
scrolling="no" allowfullscreen="true">
</iframe>
<doctype html>
<html>
<head>
<body onload="onLoad()" marginwidth="0" marginheight="0">
<div id="google_ad">
<div style="display:none">_</div>
<style>_</style>
<div class="gradient" id="ad_unit" style="color:#eee; font-family:
helvetica,sans-serif; height:280px; margin:0px auto; overflow:hidden;
position:relative; width:336px">
<div id="creatives">
<div class="creative" id="c0">
<div class="ad_image_container" style="height:280px; position:
relative; width:336px;">

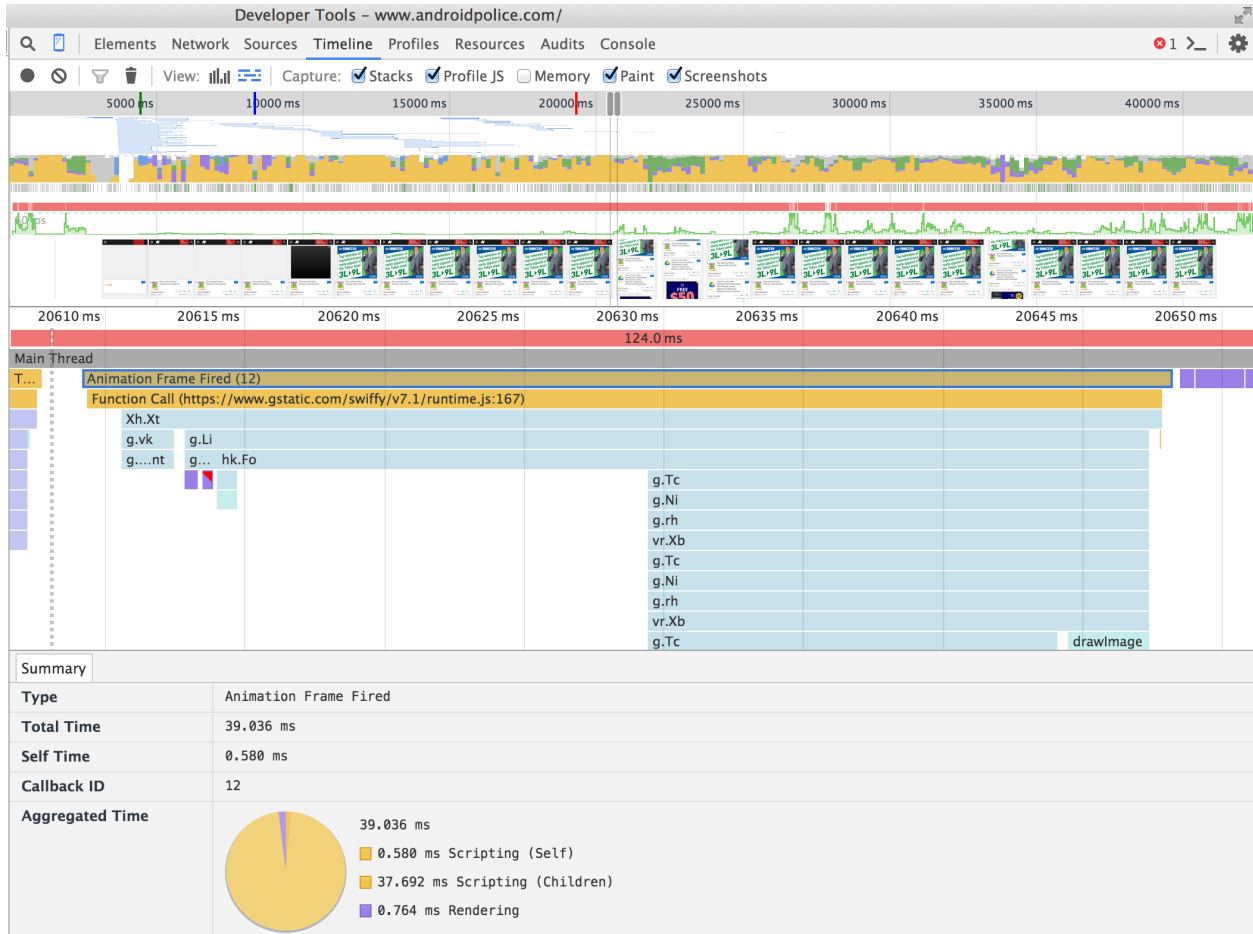
<style>_</style>
</div>
<div class="button_container" style="visibility: hidden; position:
absolute; left: 109px; bottom: 121px; opacity: 0;">_</div>
</div>
</div>
<div id="attribution">_</div>
</div>
</div>
```



Timeline

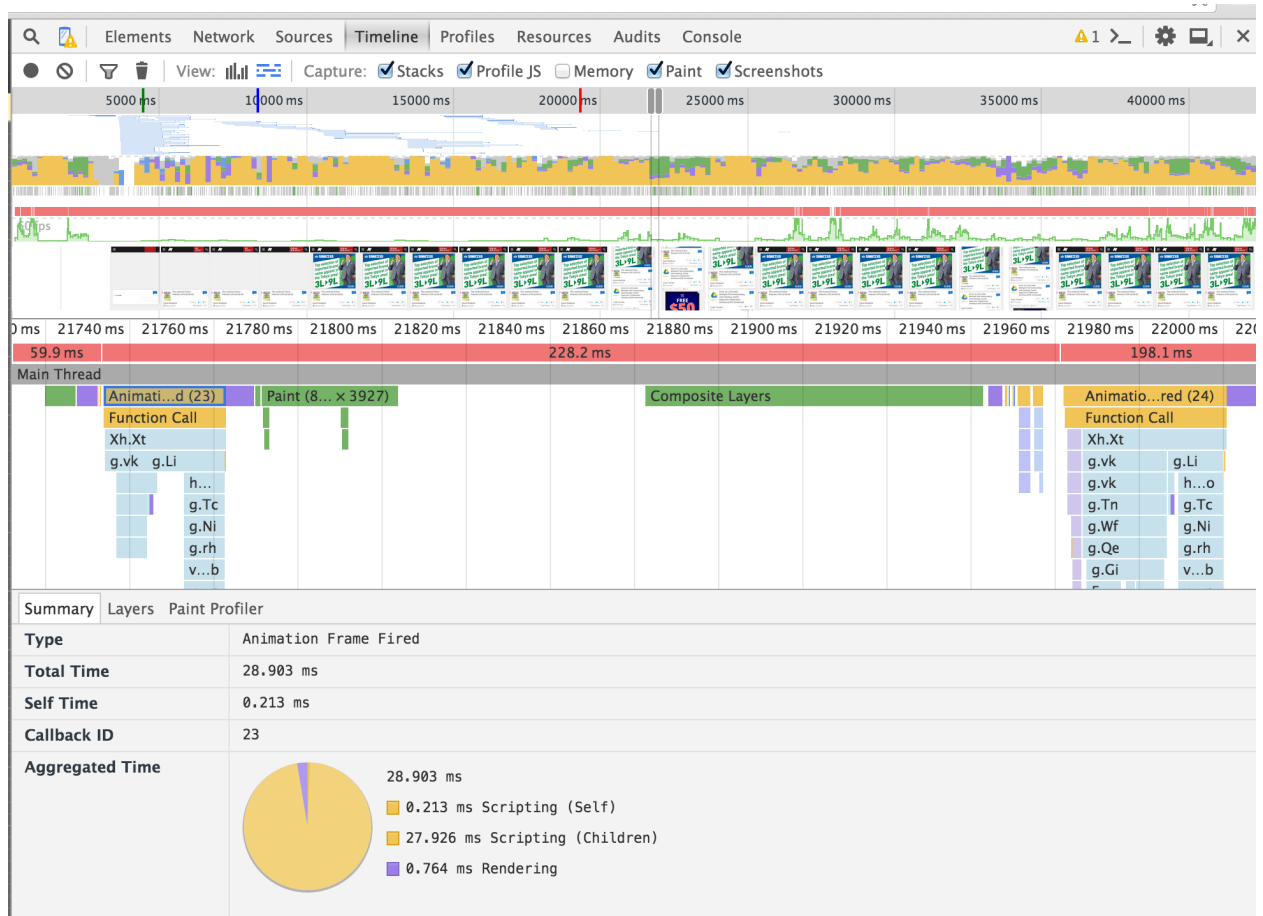
Before scrolling, the following pattern is observed

- Animation Frame is fired
- calls the Swiffy callback
- Swiffy does a lot of work which blows the RAIL budget (~39ms here)



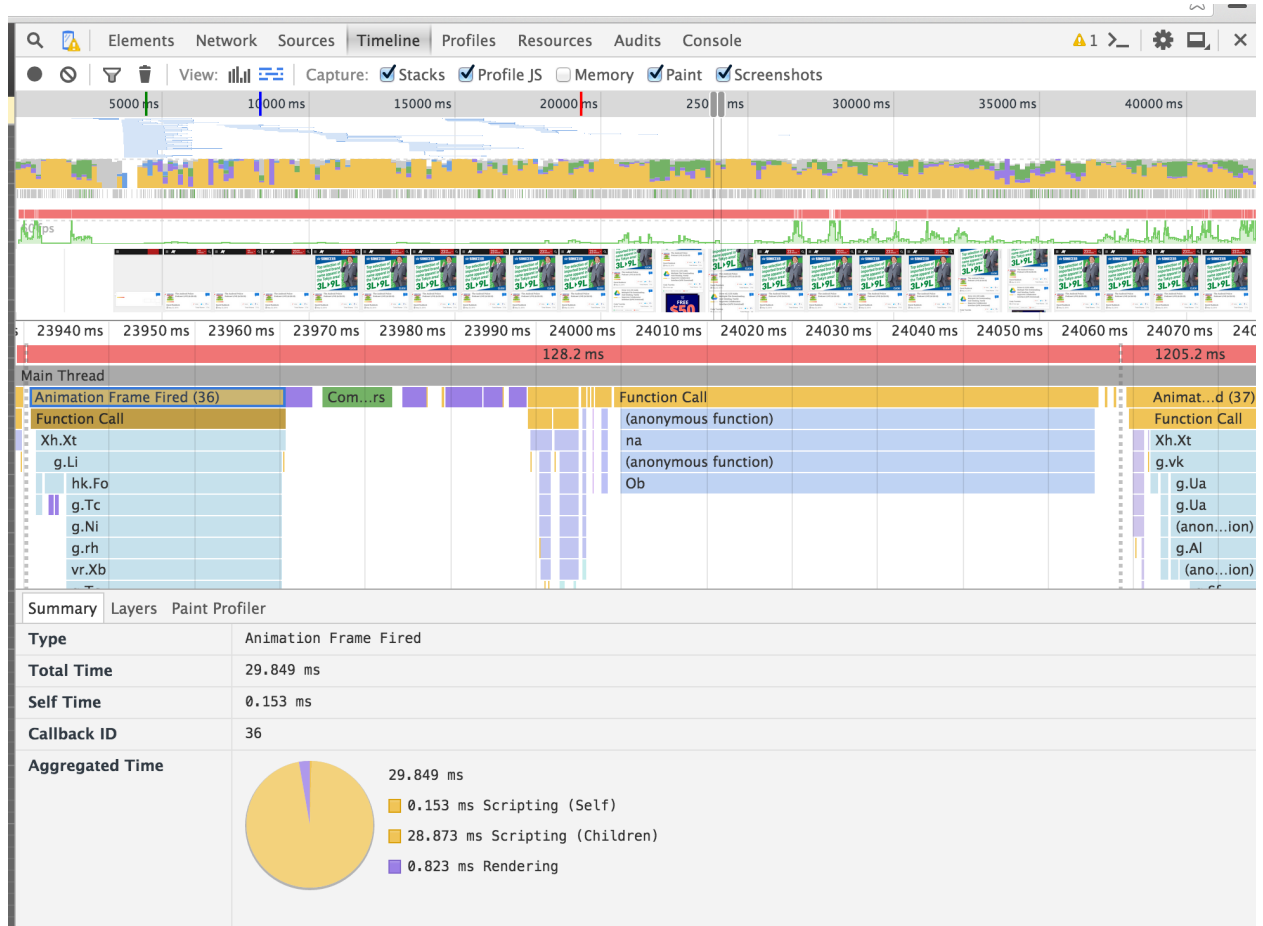
Scrolling, before the Swiffy ad is visible, similar patterns are observed:

- Animation Frame is fired
- calls the Swiffy callback
- Swiffy does a lot of work which blows the RAIL budget (~28ms here)



Scrolling, when the Swiffy ad is visible, raf patterns are roughly unchanged:

- Animation Frame is fired
- calls the Swiffy callback
- Swiffy does a lot of work which blows the RAIL budget (~29ms)



Scrolling back, to hide the Swiffy ad, patterns are unchanged:

- Animation Frame is fired
- calls the Swiffy callback
- Swiffy does a lot of work which blows the RAIL budget (~19ms)

