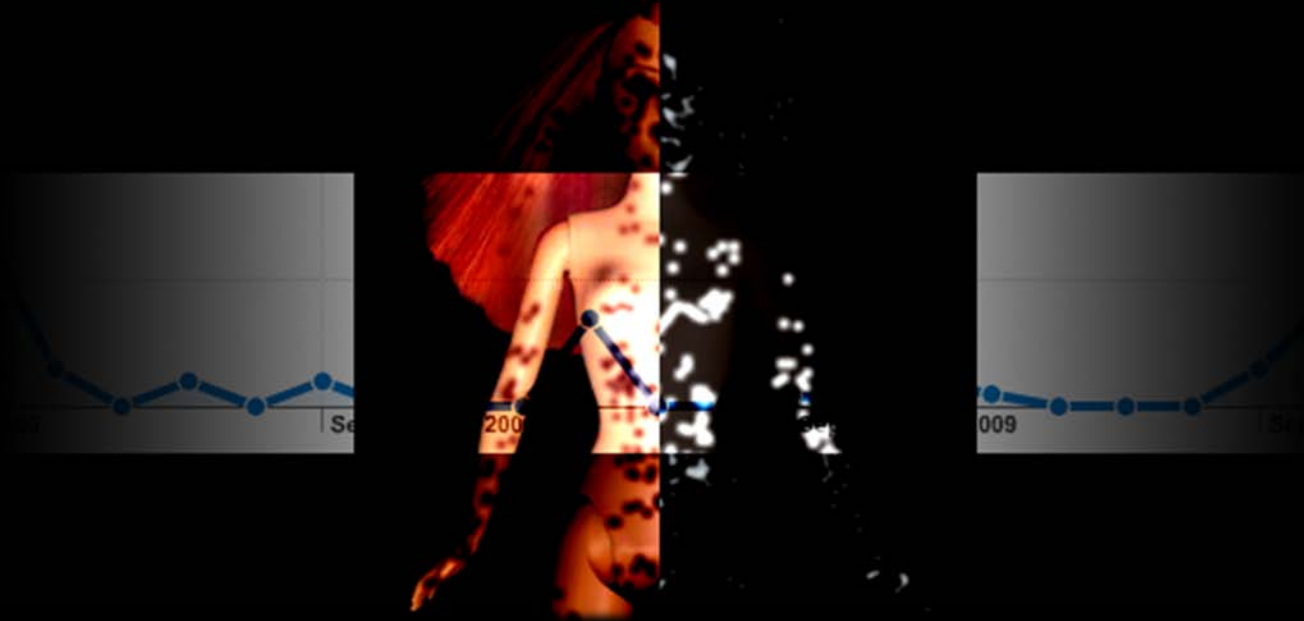


Custom Event Reporting from Flash to Google Analytics



Joseph Labrecque – University of Denver

Senior Multimedia Application Developer
Adobe Higher Education Leader

Google Analytics Tracking For Adobe Flash

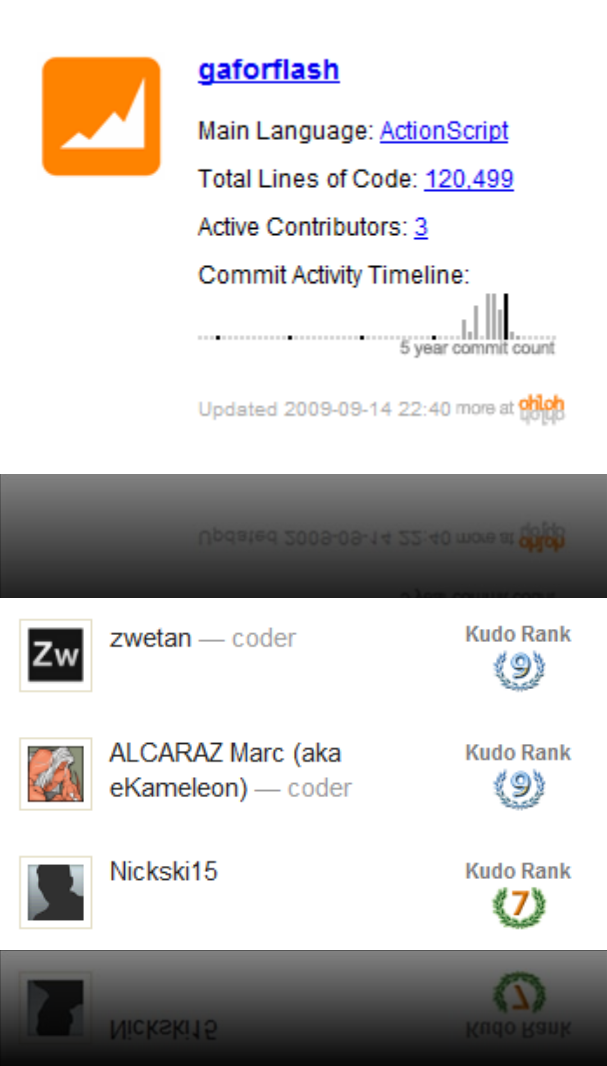
<http://code.google.com/p/gaforflash/>

This is an ActionScript 3 API for Google Analytics data collection.

analytics_flash.swc – Special visual component for Flash Professional.

analytics.swc – Code library for Flash or Flex.

Tracks page views and custom events.



The screenshot shows the Google Code project page for 'gaforflash'. It features an orange square icon with a white line graph. The project name 'gaforflash' is in blue. Below it, the main language is listed as 'ActionScript', total lines of code as '120,499', and active contributors as '3'. A commit activity timeline is shown as a bar chart with the text '5 year commit count' below it. The page is updated with the date '2009-09-14 22:40' and a link to 'more at github'. Below this, a list of contributors is shown, each with a profile picture, name, role, and Kudo Rank. The contributors are: 'zwetan — coder' with a Kudo Rank of 9, 'ALCARAZ Marc (aka eKameleon) — coder' with a Kudo Rank of 9, and 'Nickski15' with a Kudo Rank of 7. The bottom of the screenshot shows a reflection of the contributors list.

gaforflash
Main Language: [ActionScript](#)
Total Lines of Code: [120,499](#)
Active Contributors: [3](#)
Commit Activity Timeline:
5 year commit count
Updated 2009-09-14 22:40 more at [github](#)

zwetan — coder Kudo Rank 9
ALCARAZ Marc (aka eKameleon) — coder Kudo Rank 9
Nickski15 Kudo Rank 7

Page Views vs. Event Tracking

Instantiate Tracker

Pass in a DisplayObject, Web Property ID, Mode, Debug

```
import com.google.analytics.GATracker;
import com.google.analytics.AnalyticsTracker;

private var tracker:AnalyticsTracker;

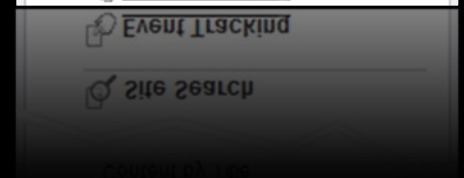
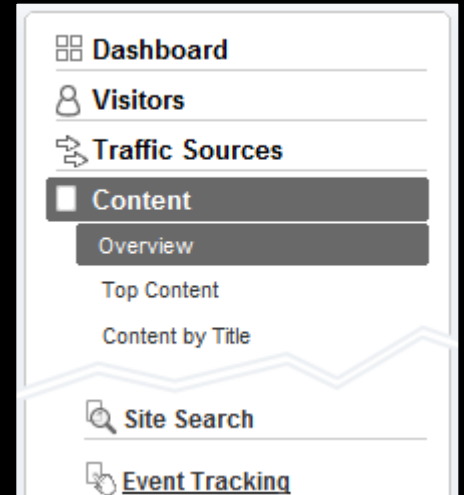
private function init():void {
    tracker = new GATracker(this, "UA-1156XXX-xx", "AS3", false);
}
```

Track Page View

```
tracker.trackPageView("http://somewebsite.com/somepage/");
```

Track Custom Event

```
tracker.trackEvent("Category", "Action", "Label", "Value");
```



Video Player Event Tracking

Custom Events / Custom Data

Play [RTMP URL, Seconds]

Pause [RTMP URL, Seconds]

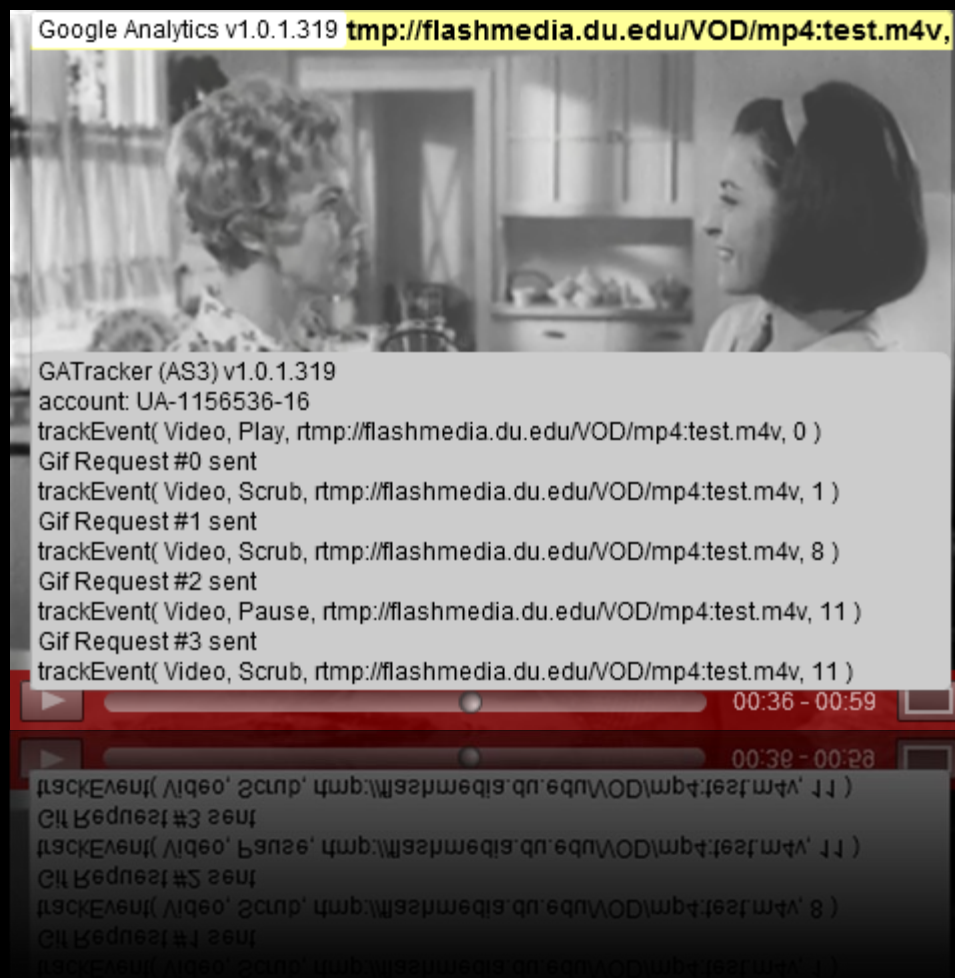
Scrub [RTMP URL, Seconds]

End [RTMP URL, Seconds]

Can be used as a supplement to normal FMS Logs.

Won't interfere with other Google Analytics data such as standard Page Views.

Provides a lot more detail.



The screenshot shows a video player interface with a video frame at the top. Below the video frame, there is a white box containing event tracking data. The data is as follows:

```
Google Analytics v1.0.1.319 tmp://flashmedia.du.edu/VOD/mp4:test.m4v,  
GATracker (AS3) v1.0.1.319  
account: UA-1156536-16  
trackEvent( Video, Play, rtmp://flashmedia.du.edu/VOD/mp4:test.m4v, 0 )  
Gif Request #0 sent  
trackEvent( Video, Scrub, rtmp://flashmedia.du.edu/VOD/mp4:test.m4v, 1 )  
Gif Request #1 sent  
trackEvent( Video, Scrub, rtmp://flashmedia.du.edu/VOD/mp4:test.m4v, 8 )  
Gif Request #2 sent  
trackEvent( Video, Pause, rtmp://flashmedia.du.edu/VOD/mp4:test.m4v, 11 )  
Gif Request #3 sent  
trackEvent( Video, Scrub, rtmp://flashmedia.du.edu/VOD/mp4:test.m4v, 11 )
```

Below the white box, there are two video progress bars. The top one shows a time range of 00:36 - 00:59. The bottom one shows a time range of 00:39 - 00:28. Below the progress bars, there is a list of event tracking data, including trackEvent and Gif Request entries, which are partially obscured by a semi-transparent grey box.

DEMO

Unorthodox Event Tracking

Why be restricted to just Video Events or Application State data???

Every click on Midge will generate a specific event to track both the body part clicked, and the specific X,Y coordinate of that click event.

We've been collecting data from these mouse clicks since late August.



	Dimension: Event Action ▾	Total Events ↓	Unique Events
1.	Touched Midge's Torso!	117	28
2.	Touched Midge's Upper Right Leg!	47	19
3.	Touched Midge's Face!	43	18
4.	Touched Midge's Lower Left Arm!	24	15
4.	Touched Midge's Lower Left Arm!	24	15
3.	Touched Midge's Face!	43	18

Google Analytics Data Consumption Setup

as3corelib

ActionScript 3.0 library for several basic utilities

<http://code.google.com/p/as3corelib/>

as3httpclientlib

HTTP/HTTPS client library for Actionscript 3

<http://code.google.com/p/as3httpclientlib/>

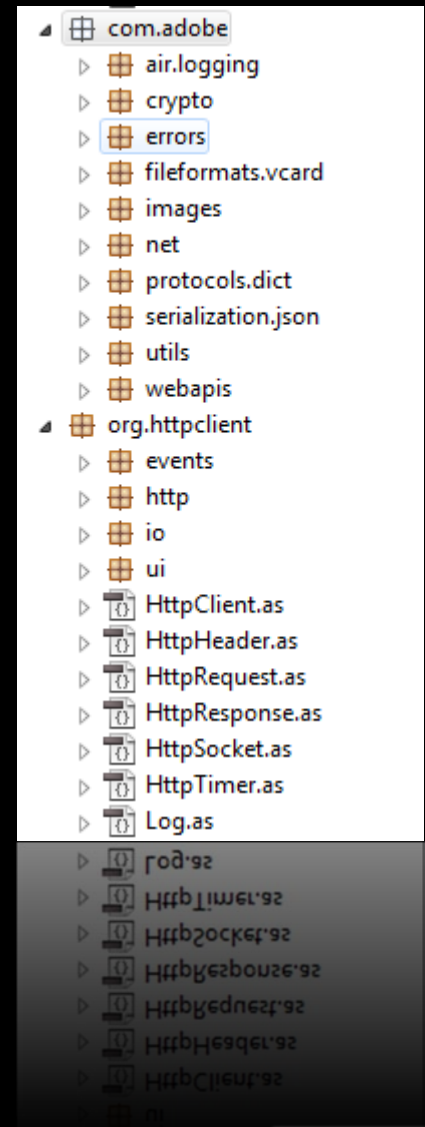
as3crypto

Cryptography library for ActionScript 3

<http://code.google.com/p/as3crypto/>

This article is SUPER useful:

<http://www.zedia.net/2009/how-to-connect-to-google-analytics-data-api-in-air/>



Midge Data Consumption

Midge again! Let's plot some data.

1. Set namespaces for E4X
2. Authenticate to GA with our account data
3. Request data from GA through HTTP query string
4. Parse returned XML string to new XML Object
5. Loop over events and read X/Y coordinates
6. Plot click events over Midge's body

All done through AS3 – no PHP/CF/Whatever.

Total Flash Player to GA data roundtripping.



DEMO

In Conclusion... (what's so great about all this?)

Hey- expecting Flex data charts?
No Flex data charts in this entire presentation!

No traditional page view data from GA to mess with, sort through, or toss away!

We both report and retrieve only the information relevant to specific needs.

Not a huge investment in time or money to implement.

The screenshot shows a web browser's developer console with the following content:

- Variables, Breakpoints, and Expressions tabs at the top.
- A table with a 'Name' column and several rows of XML data, each starting with a green dot icon. The data includes elements like <generator>, <openSearch:totalResults>, <openSearch:startIndex>, <openSearch:itemsPerPage>, <dxp:aggregates>, <dxp:dataSource>, <dxp:endDate>, <dxp:startDate>, and <entry>.
- Below the table, a scrollable area shows XML code: </updated>, <title type="text">, ga:eventLabel=153.65/165.05 | ga:eventAction=Touched M, </title>, <link rel="alte, <dxp:dimension, <dxp:dimension, <dxp:dimension, <dxp:metric con, <dxp:metric con, <dxp:metric con, </entry>.
- An error dialog box titled 'Adobe Flash Player 10 (Not Responding)' is overlaid on the console. It has a menu with 'File', 'View', 'Control', and 'Help'. A 'Load Events' button is visible below the menu.
- A small image of a woman with long red hair is visible in the bottom right corner of the screenshot.

Want More Info? Contact Me!



Joseph Labrecque

Senior Multimedia Application Developer
Adobe Higher Education Leader

Email: Joseph.Labrecque@du.edu
Twitter: [@JosephLabrecque](https://twitter.com/JosephLabrecque)
Weblog: <http://inflagrantedelicto.memoryspiral.com>



An Early
Morning Letter,
Displaced

