

GOOGLE ANALYTICS

ADVANCED WEB METRICS WITH GOOGLE ANALYTICS

by Daniel Ku (<http://kjunine.net>)

IF YOU CANNOT MEASURE IT,
YOU CANNOT IMPROVE IT.

— Lord Kelvin

GETTING STARTED WITH ANALYTICS

1. Sign up for an account.
2. Set up account properties.
3. Set up your tracking code.

FEATURE UPDATE
Analytics now includes Change History, a log of account changes. [Learn more](#)

Mar 20, 2014 - Apr 19, 2014

<div>↓</div> <div>↑</div>		Mode <div><div></div><div></div></div>		Show <div>All</div>	<div></div>
		Sessions	Avg. Session Duration	Bounce Rate	Goal Conversion Rate
☆	📁 kjunine				
☆	📁 kjunine.net (UA-3785948-2)				
☆	🌐 All Web Site Data	62	00:03:19	50.00%	0.00%

This table was generated on 4/21/14 at 2:43:58 PM - [Refresh Table](#)



Administration

kjunine

ACCOUNT

kjunine



Account Settings



User Management



AdSense Linking



All Filters



Change History

PROPERTY

kjunine.net



Property Settings



User Management



Tracking Info



AdWords Linking



Remarketing



Custom Definitions



Data Import



Social Settings

VIEW

All Web Site Data



View Settings



User Management



Goals



Content Grouping



Filters



Channel Grouping

PERSONAL TOOLS & ASSETS



Segments



Annotations



Attribution Models



Custom Channel Groupings



Custom Alerts



Scheduled Emails



Shortcuts



Share Assets

Blog

Wed Feb 12 2014 » [새로운 시작](#)

블로그를 새로 시작하다.

Sun Sep 08 2013 » [마크다운\(Markdown\)에 대하여](#)

개발자의 필수도구 마크다운에 대하여 알아보자.

Q Elements Network Sources Timeline Profiles Resources Audits Console

```
<div class="container">...</div>
<script async src="//www.google-analytics.com/analytics.js"></script>
<script defer="defer" src="/dependencies/underscore/underscore-min.js"></script>
<script defer="defer" src="/dependencies/jquery/jquery.min.js"></script>
<script defer="defer" src="/dependencies/bootstrap/dist/js/bootstrap.min.js"></script>
<script defer="defer" src="/dependencies/highlightjs/highlight.pack.js"></script>
<script defer="defer" src="/scripts/script.js"></script>
<script>
(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){
(i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o),
m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m)
})(window,document,'script','//www.google-analytics.com/analytics.js','ga');
ga('create','UA-3785948-2','auto');
ga('send','pageview');
</script>
<iframe id="rdbIndicator" width="100%" height="270" border="0" src="chrome-extension://oknpjibmpnndlpnmhmkjpocelpnlfdi/
indicator.html" style="display: none; border: 0; position: fixed; left: 0; top: 0; z-index: 2147483647">...</iframe>
</body>
</html>
```

Styles Computed Event Listeners »

element.style {
}
html { bootstrap.min.css:7
font-size: 62.5%;
-webkit-tap-highlight-color:
rgba(0,0,0,0);
}
html { bootstrap.min.css:7
font-family: sans-serif;
-webkit-text-size-adjust: 100%;
-ms-text-size-adjust: 100%;
}
*, *:before, *:after { bootstrap.min.css:7
-webkit-box-sizing: border-box;
-moz-box-sizing: border-box;
box-sizing: border-box;
}

html body script (text)



Find reports & more

Audience Overview

Mar 21, 2014 - Apr 20, 2014

Email Export Add to Dashboard Shortcut



▼ All Sessions
100.00%

Overview

Sessions vs. Select a metric

Hourly Day Week Month

Sessions

10

5

Mar 22

Mar 29

Apr 5

Apr 12

Sessions

62



Users

36



Pageviews

308



Pages / Session

4.97



Avg. Session Duration

00:03:24



Bounce Rate

46.77%

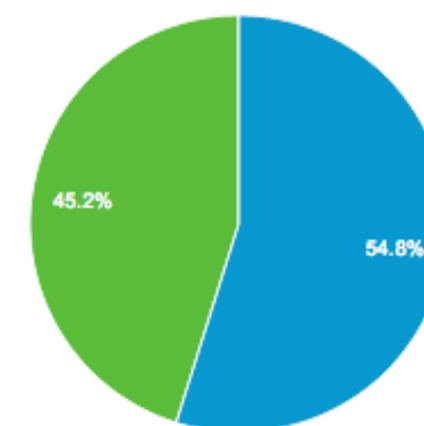


% New Sessions

54.84%



New Visitor Returning Visitor



Dashboards

Shortcuts

Intelligence Events

Real-Time

Audience

Overview

Demographics

Interests

Geo

Behavior

Technology

Mobile

Custom

Users Flow

Acquisition

Behavior

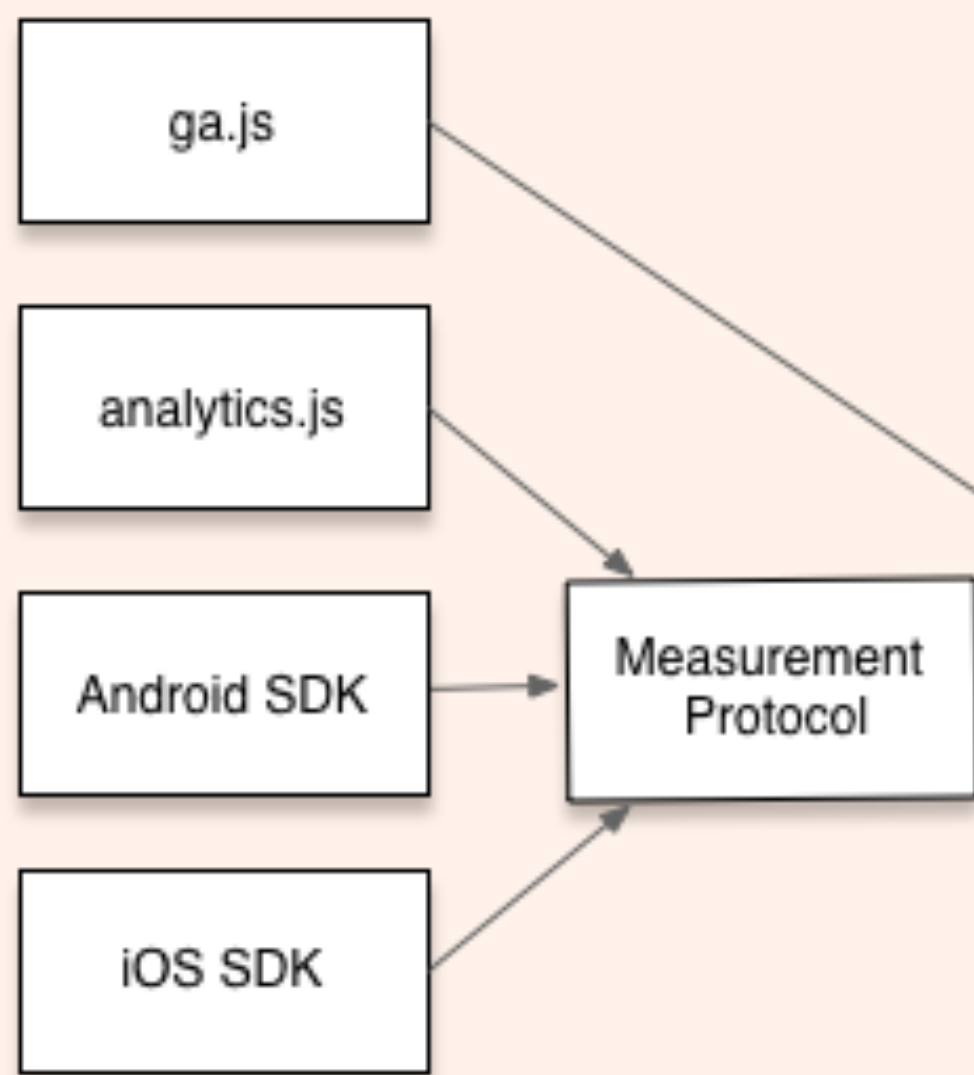
Conversions

HOW IT WORKS

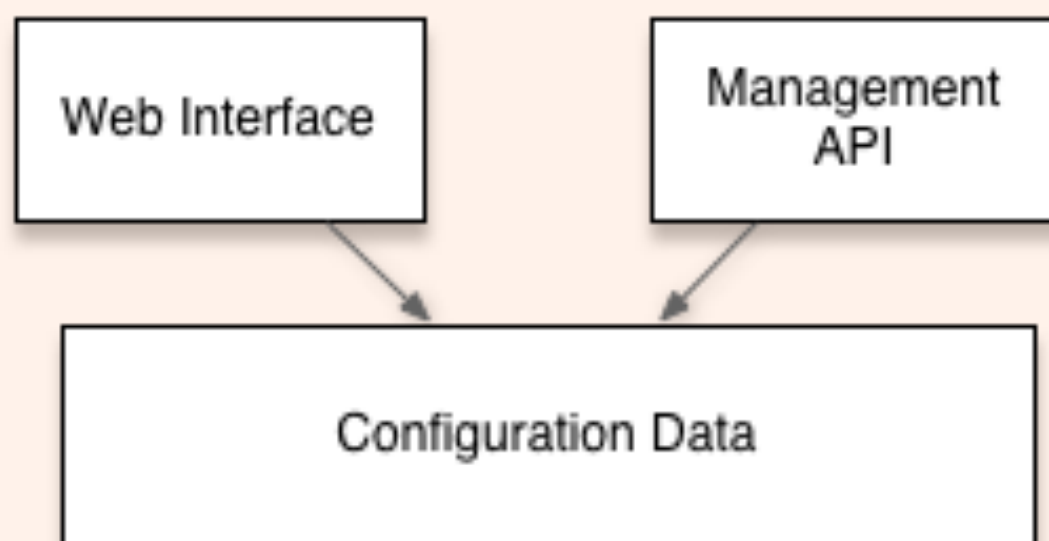
- Collection
- Processing
- Configuration
- Reporting

Collection

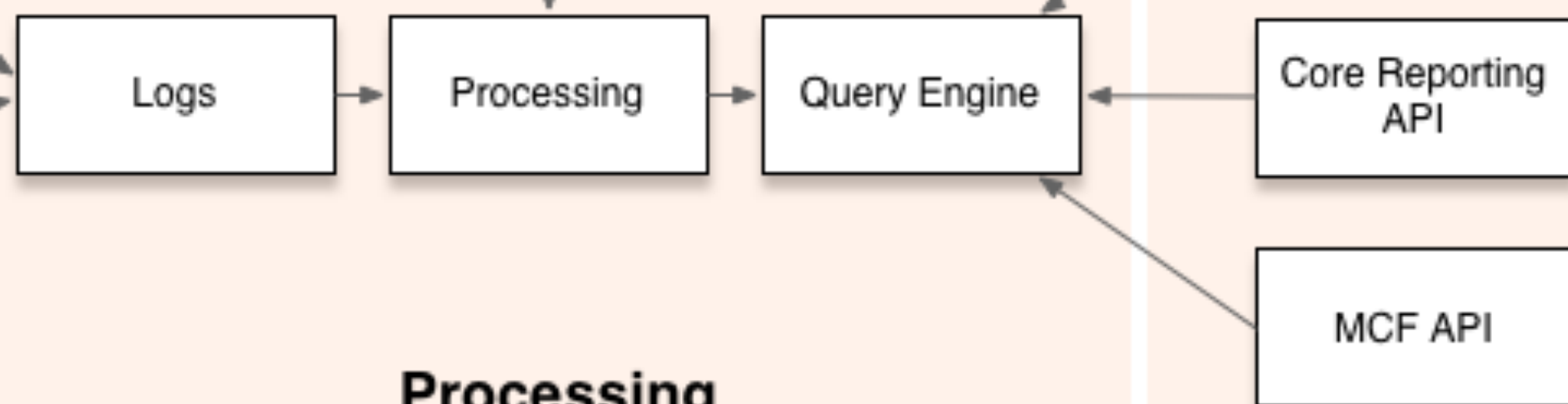
goo.gl/68YDs



Configuration



Reporting



Processing

CONFIGURATION



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kjunine

ACCOUNT

kjunine



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All Filters



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Scheduled Emails



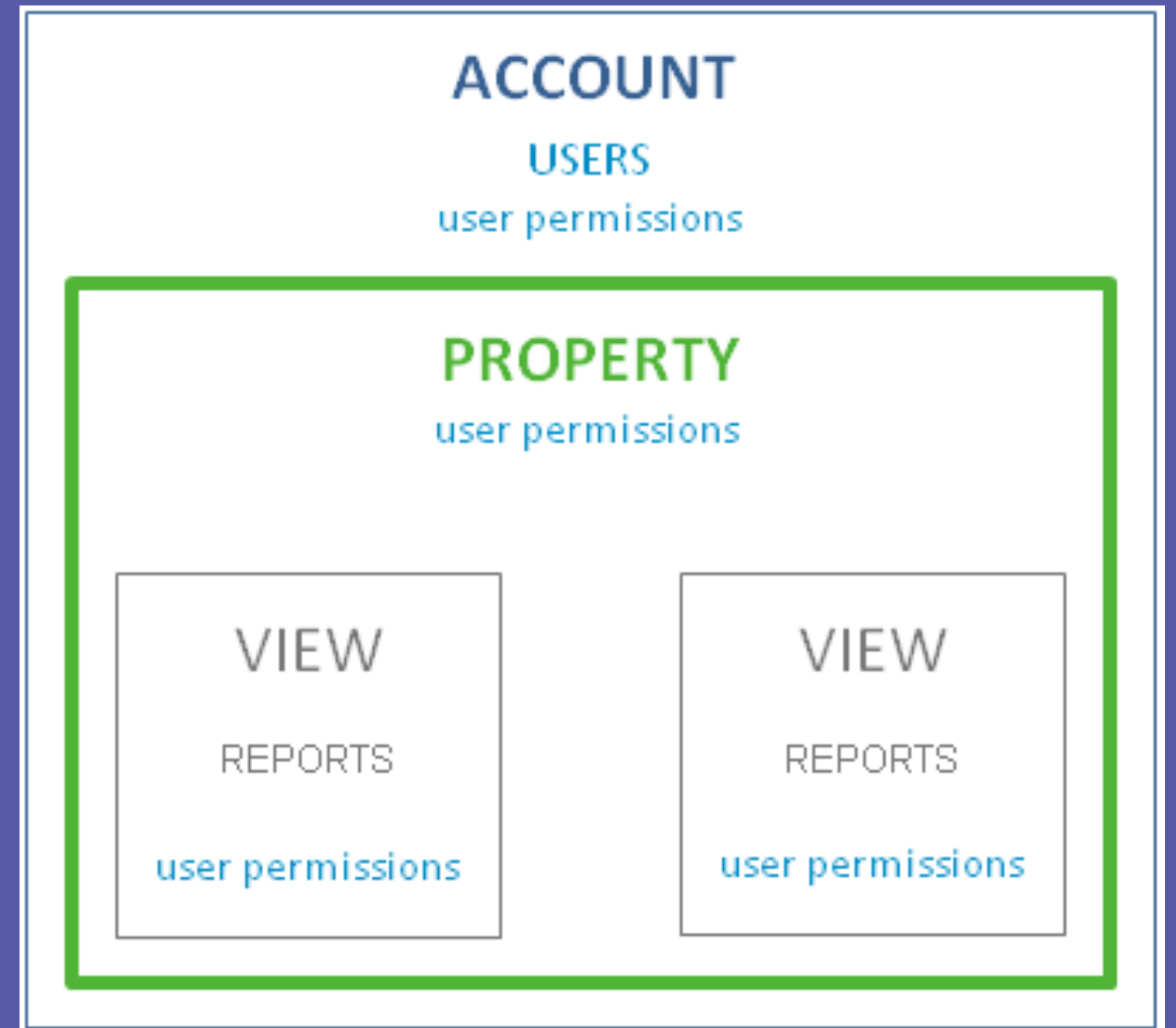
Shortcuts



Share Assets

ACCOUNT STRUCTURE

- Accounts
- Properties
 - Views



WHY MULTIPLE VIEWS?

SEGMENTATION

HOW SEGMENT?

FILTER

FILTERS



Administration > Global Filters > Add Filter to View

kjunine



ACCOUNT

kjunine

Account Settings

User Management

AdSense Linking

All Filters

Change History

Add Filter to View

Filter Information

Filter Name

Filter Type ☐ Predefined filter ☒ Custom filter

- ☒ Exclude
☐ Include
☐ Lowercase
☐ Uppercase
☐ Search and
☐ Advanced

Filter Field

Filter Pattern

Case Sensitive

[Learn more about filters](#)

Apply Filter to Views

Available Views

All Web Site Data

Save

Cancel

- ✓ -
- Content and Traffic
 - Request URI
 - Hostname
 - Page Title
 - Referral
 - Campaign Target URL
 - Hit Type
 - Search Term
 - Site Search Category
 - Source Property Tracking Id
- Campaign or AdGroup
 - Campaign Source
 - Campaign Medium
 - Campaign Name
 - Campaign AdGroup
 - Campaign Term
 - Campaign Content
 - Campaign Code
 - Campaign Referral Path
- Ecommerce
 - Ecommerce Transaction Country
 - Ecommerce Transaction Region
 - Ecommerce Transaction City
 - Ecommerce Store or Order Location
 - Ecommerce Item Name
 - Ecommerce Item Code
 - Ecommerce Item Variation
 - Ecommerce Transaction Id
 - Ecommerce Transaction Currency Code
 - Ecommerce Product Action Type
- Audience/Users
 - Browser
 - Browser Version
 - Browser Size
 - Operating System Platform

Selected views

MOST COMMONLY USED FILTERS

- Include **only your website's** traffic
 - Exclude certain **known visitors**
 - Segment by **geographical location**
- Segment by **visitor campaign, medium, or referrer source**
 - Segment by **content**

BEST PRACTICE

KEEP A VIEW WITHOUT FILTERS

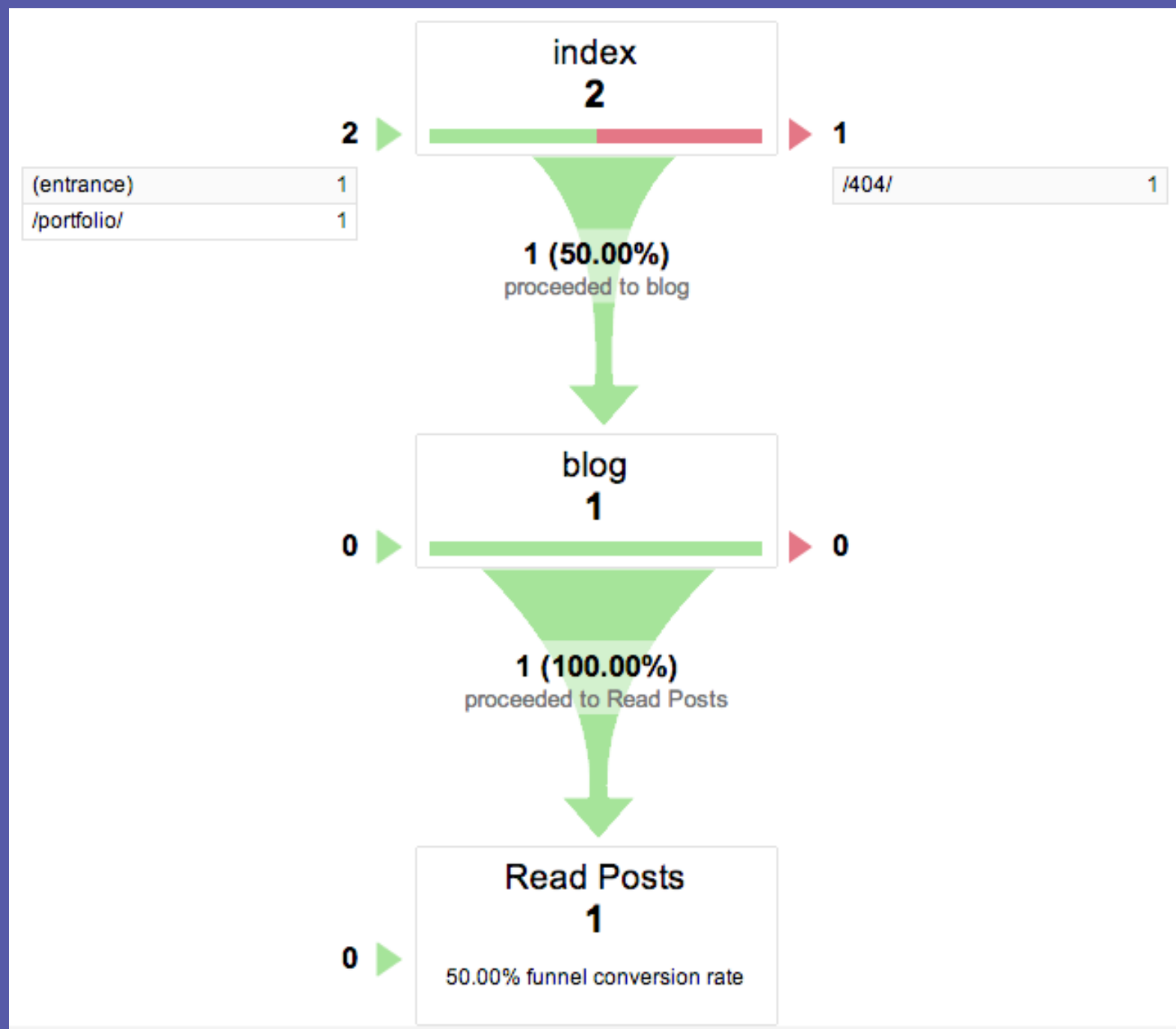
FILTER DEMO

GOALS

TYPES OF GOAL

- Destination
 - Duration
- Pages/Screens per session
 - Event

CONVERSION = GOAL CONVERSION



FUNNEL

✓

Goal setup

Edit

Custom

2

Goal description

Name

Test Goal

Goal ID 5 / Goal Set 1

Type

☒ Destination

ex: thanks.html

☐ Duration

ex: 5 minutes or more

☐ Pages/Screens per session

ex: 3 pages

☐ Event

ex: played a video

Next step

Cancel

3

Goal details

✓

Goal setup

Edit

Custom

✓

Goal description

Edit

Name: *Test Goal*

Goal type: *Destination*

3

Goal details

Destination

Regular expression

^/download/

☐ Case sensitive

For example, use *My Screen* for an app and */thankyou.html* instead of *www.example.com/thankyou.html* for a web page

Value

OPTIONAL

☐ On

1

\$USD

Assign a monetary value to the conversion. [Learn more about Goal Values](#). For a transaction, leave this blank and use Ecommerce tracking and reports to see Revenue. [Learn more about Ecommerce Transactions](#).

Funnel

OPTIONAL

☐ On

Use an app screen name string or a web page URL for each step. For example, use *My Screen* for an app and */thankyou.html* instead of *www.example.com/thankyou.html* for a web page.

Step	Name	Screen/Page	Required?
1	Index	^/\$	<div>No</div>
2	Support	^/support	<div>×</div>

+ Add another Step

Verify this Goal

See how often this Goal would have converted based on your data from the past 7 days.

Create Goal

Cancel

GOAL DEMO

USER ID

A **UNIQUE** STRING

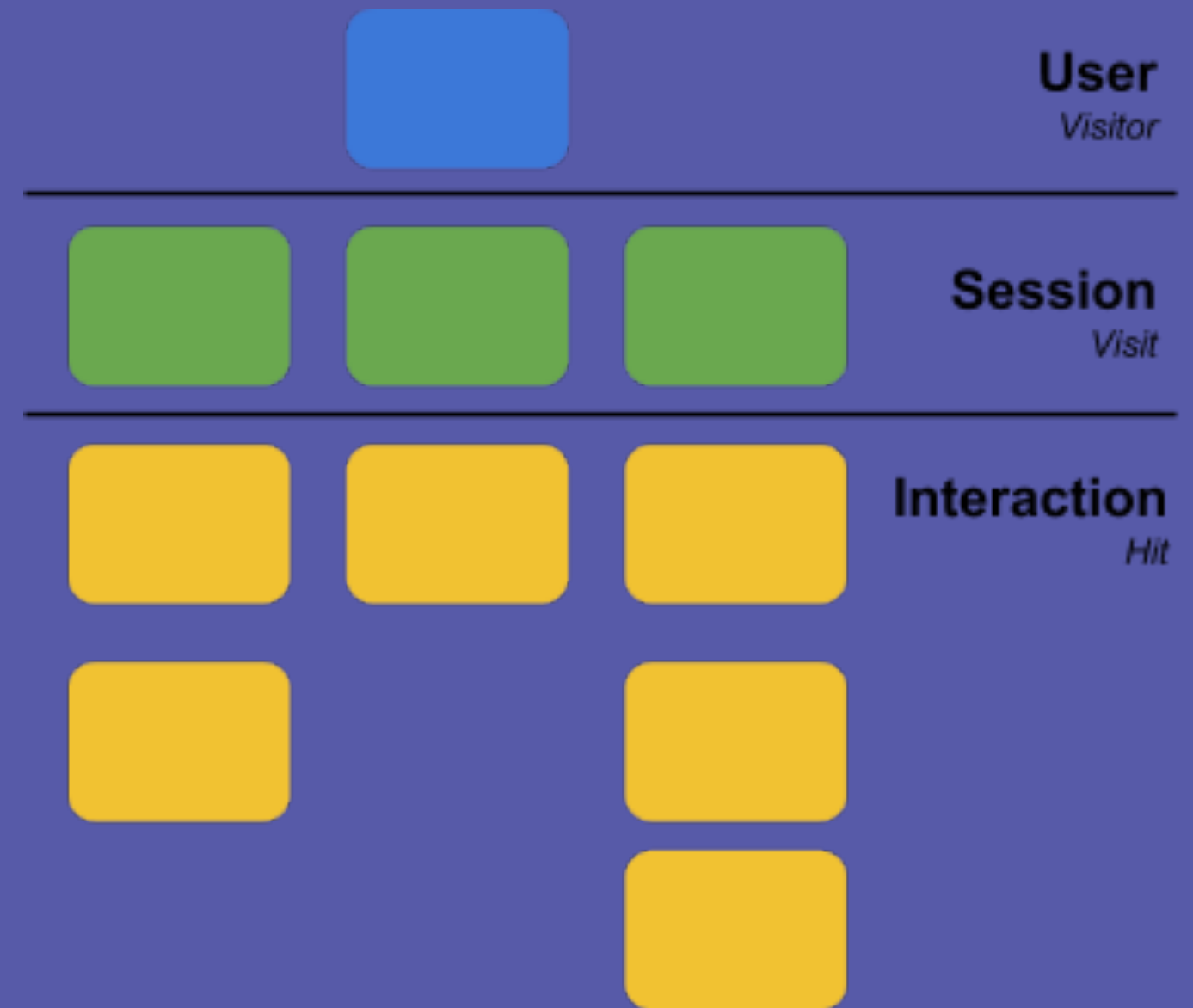
REPRESENTING A **USER**

associates data from different devices and multiple sessions

COLLECTION

DATA MODEL

- User (Visitor)
- Session (Visit)
- Interaction (Hit)



INTERACTION

- Pageview
- Event
- Transaction
- Social Interaction
- User Timing
- Exception

EVENT

- Category
- Action
- Label (optional)
- Value (optional, integer)

VIRTUAL PAGEVIEW

VIRTUAL PAGEVIEW VS. EVENT?

LIMITS AND QUOTAS

PROPERTY SPECIFIC

- 10 million hits per month per property

LIMITS AND QUOTAS

UNIVERSAL ANALYTICS ENABLED

- 200,000 hits per user per day
- 500 hits per session not including ecommerce (item and event hit types)

This applies to analytics.js, Android/iOS SDK and the Measurement Protocol.

COOKIE USAGE

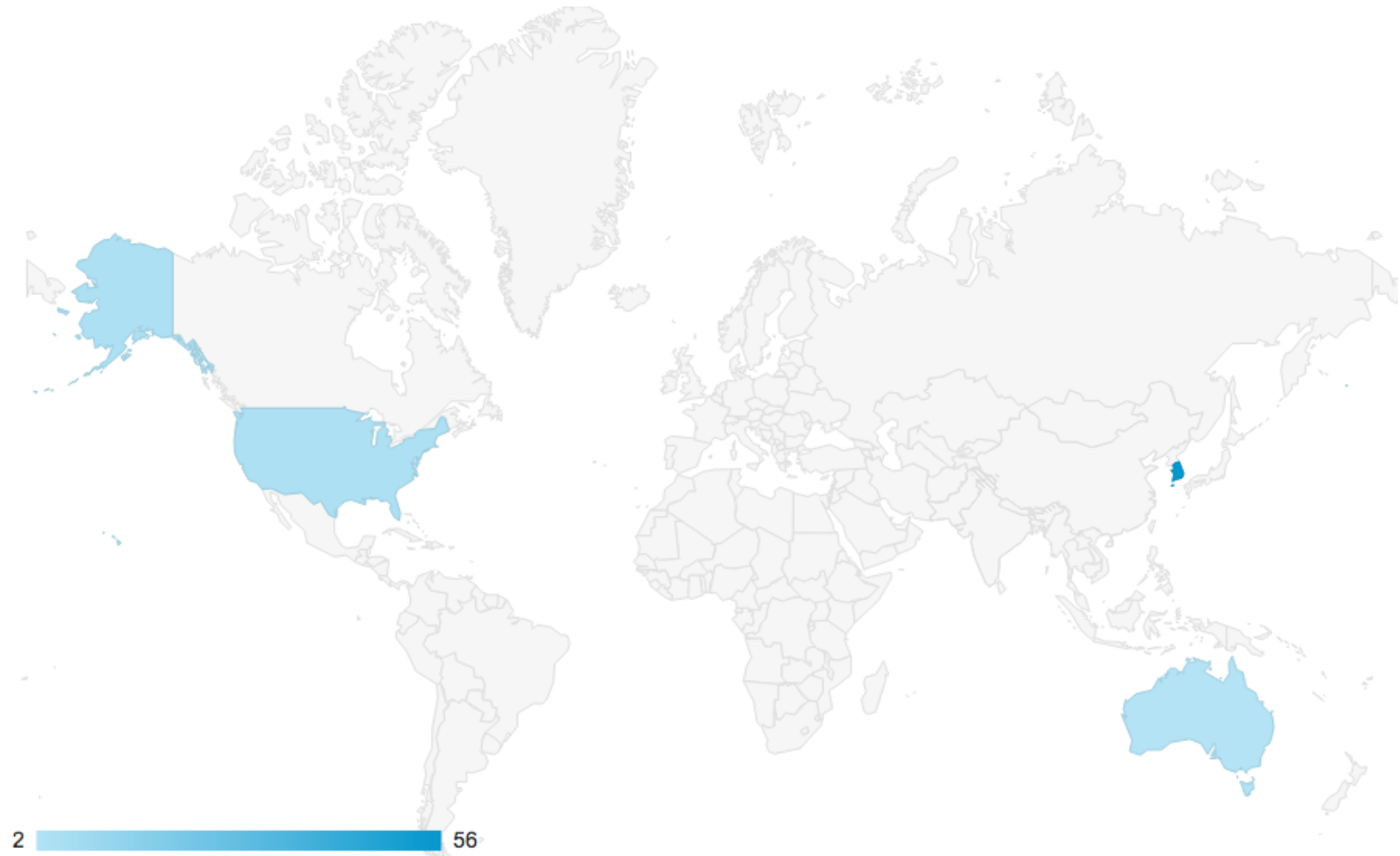
By default,

- cookie name: **_ga**
- domain: **top level**
- expiration: **2 years**

USE APIS AND SDKS,
LATER ...

REPORTING

Sessions



Primary Dimension: Country / Territory City Continent Sub Continent Region

Country / Territory ?	Acquisition			Behavior			Conversions		
	Sessions ?	% New Sessions ?	New Users ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	Read Posts (Goal 1 Conversion Rate) ?	Read Posts (Goal 1 Completions) ?	Read Posts (Goal 1 Value) ?
	62 % of Total: 100.00% (62)	54.84% Site Avg: 54.84% (0.00%)	34 % of Total: 100.00% (34)	46.77% Site Avg: 46.77% (0.00%)	4.97 Site Avg: 4.97 (0.00%)	00:03:24 Site Avg: 00:03:24 (0.00%)	1.61% Site Avg: 1.61% (0.00%)	1 % of Total: 100.00% (1)	\$1.00 % of Total: 100.00% (\$1.00)
1. South Korea	56 (90.32%)	50.00%	28 (82.35%)	44.64%	5.27	00:03:43	1.79%	1(100.00%)	\$1.00(100.00%)
2. United States	4 (6.45%)	100.00%	4 (11.76%)	100.00%	1.00	00:00:00	0.00%	0 (0.00%)	\$0.00 (0.00%)
3. Australia	2 (3.23%)	100.00%	2 (5.88%)	0.00%	4.50	00:01:25	0.00%	0 (0.00%)	\$0.00 (0.00%)

DIMENSION AND METRIC

Primary Dimension: Country / Territory City Continent Sub Continent Region	
Secondary dimension: Operating System	
Country / Territory ?	Operating System ?
1. South Korea	Macintosh
2. South Korea	Windows
3. South Korea	Linux
4. United States	Linux
5. Australia	Android
6. Australia	Windows
7. South Korea	Android
8. South Korea	iOS
9. United States	(not set)

Acquisition			Behavior			Conversions All Goals			
Sessions ?	% New Sessions ?	New Users ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	Goal Conversion Rate ?	Goal Completions ?	Goal Value ?	
62 % of Total: 100.00% (62)	54.84% Site Avg: 54.84% (0.00%)	34 % of Total: 100.00% (34)	46.77% Site Avg: 46.77% (0.00%)	4.97 Site Avg: 4.97 (0.00%)	00:03:24 Site Avg: 00:03:24 (0.00%)	48.39% Site Avg: 4.84% (900.00%)	30 % of Total: 1,000.00% (3)	\$30.00 % of Total: 1,000.00% (\$3.00)	
36 (58.06%)	27.78%	10 (29.41%)	30.56%	7.22	00:05:44	77.78%	28 (93.33%)	\$28.00 (93.33%)	
12 (19.35%)	83.33%	10 (29.41%)	58.33%	1.75	00:00:05	0.00%	0 (0.00%)	\$0.00 (0.00%)	
6 (9.68%)	100.00%	6 (17.65%)	100.00%	1.00	00:00:00	0.00%	0 (0.00%)	\$0.00 (0.00%)	
3 (4.84%)	100.00%	3 (8.82%)	100.00%	1.00	00:00:00	0.00%	0 (0.00%)	\$0.00 (0.00%)	
1 (1.61%)	100.00%	1 (2.94%)	0.00%	6.00	00:02:40	100.00%	1 (3.33%)	\$1.00 (3.33%)	
1 (1.61%)	100.00%	1 (2.94%)	0.00%	3.00	00:00:09	0.00%	0 (0.00%)	\$0.00 (0.00%)	
1 (1.61%)	100.00%	1 (2.94%)	100.00%	1.00	00:00:00	0.00%	0 (0.00%)	\$0.00 (0.00%)	
1 (1.61%)	100.00%	1 (2.94%)	0.00%	7.00	00:01:00	100.00%	1 (3.33%)	\$1.00 (3.33%)	
1 (1.61%)	100.00%	1 (2.94%)	100.00%	1.00	00:00:00	0.00%	0 (0.00%)	\$0.00 (0.00%)	

Show rows: 10 Go to: 1 1 - 9 of 9

This report was generated on 4/21/14 at 6:02:40 PM - Refresh Report

TABLE FILTER AND VIEW OPTIONS

Primary Dimension: Country / Territory City Continent Sub Continent Region

Secondary dimension

Advanced Filter ON



edit



Include

Country / Territory

Containing

South Korea



and

+ Add a dimension or metric

Apply

cancel

Country / Territory ?	Acquisition			Behavior			Conversions All Goals		
	Sessions ?	% New Sessions ?	New Users ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	Goal Conversion Rate ?	Goal Completions ?	Goal Value ?
	56 % of Total: 90.32% (62)	50.00% Site Avg: 54.84% (-8.82%)	28 % of Total: 82.35% (34)	44.64% Site Avg: 46.77% (-4.56%)	5.27 Site Avg: 4.97 (6.04%)	00:03:43 Site Avg: 00:03:24 (9.24%)	5.36% Site Avg: 4.84% (10.71%)	3 % of Total: 100.00% (3)	\$3.00 % of Total: 100.00% (\$3.00)
1. South Korea	56(100.00%)	50.00%	28(100.00%)	44.64%	5.27	00:03:43	5.36%	3(100.00%)	\$3.00(100.00%)

Show rows:

10

Go to:

1

1 - 1 of 1



Primary Dimension: Country / Territory City Continent Sub Continent Region

Secondary dimension ▾



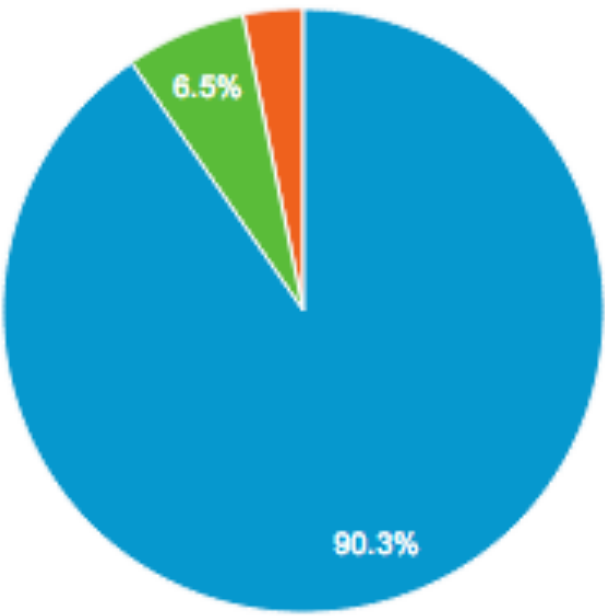
advanced



Country / Territory	Sessions ▾ ↓	Sessions
	62 % of Total: 100.00% (62)	62 % of Total: 100.00% (62)
1. South Korea	56	90.32%
2. United States	4	6.45%
3. Australia	2	3.23%

Contribution to total:

Sessions ▾



Primary Dimension: Country / Territory City Continent Sub Continent Region

Secondary dimension ▾



advanced



Country / Territory

Sessions ▾



Sessions ▾



62

% of Total: 100.00% (62)

62

% of Total: 100.00% (62)

1. 🇰🇷 South Korea

56

 90.32%

2. 🇺🇸 United States

4

 6.45%

3. 🇦🇺 Australia

2

 3.23%

Show rows:

10 ▾

Go to:

1

1 - 3 of 3



Primary Dimension: Country / Territory City Continent Sub Continent Region

Secondary dimension ▾



advanced



Country / Territory

Sessions ▾



Sessions ▾

(compared to site average)

62

% of Total: 100.00% (62)

62

% of Total: 100.00% (62)

1. 🇰🇷 South Korea

56

170.97%

2. 🇺🇸 United States

4

-80.65%

3. 🇦🇺 Australia

2

-90.32%

Show rows:

10 ▾

Go to:

1

1 - 3 of 3



Primary Dimension: **Country / Territory** [City](#) [Continent](#) [Sub Continent Region](#)

Secondary dimension ▾



[advanced](#)



Pivot by: **Operating System** ▾ Pivot metrics: **Sessions** ▾ **Select...** ▾

Columns: 1 - 5 of 6



		Total	1. Macintosh	2. Windows	3. Linux	4. Android	5. (not set)
	Country / Territory	Sessions ↓	Sessions	Sessions	Sessions	Sessions	Sessions
1.	South Korea	56	36	12	6	1	0
2.	United States	4	0	0	3	0	1
3.	Australia	2	0	1	0	1	0

Show rows:

10 ▾

Go to:

1

1 - 3 of 3



REPORTING DEMO

AUDIENCE > OVERVIEW

AUDIENCE > GEO > LOCATION

AUDIENCE > USERS FLOW

ACQUISITION > OVERVIEW

ACQUISITION > CHANNELS

ACQUISITION > ALL TRAFFIC

BEHAVIOR > OVERVIEW

BEHAVIOR > SITE CONTENT > ALL PAGES

BEHAVIOR > SITE SPEED > OVERVIEW

BEHAVIOR > EVENTS > OVERVIEW

CONVERSIONS > GOALS > OVERVIEW

CONVERSIONS > GOALS > FUNNEL VISUALIZATION

CONVERSIONS > GOALS > GOAL FLOW

REPORTING DEMO END

CONTENT DRILLDOWN

BEHAVIOR > SITE CONTENT > CONTENT DRILLDOWN

CONTENT DRILLDOWN DEMO

CONTENT EXPERIMENTS

A/B/N TESTING

NOT A/B TESTING

NOT MULTIVARIABLE TEST

formerly Google Website Optimiser

BEHAVIOR > EXPERIMENTS

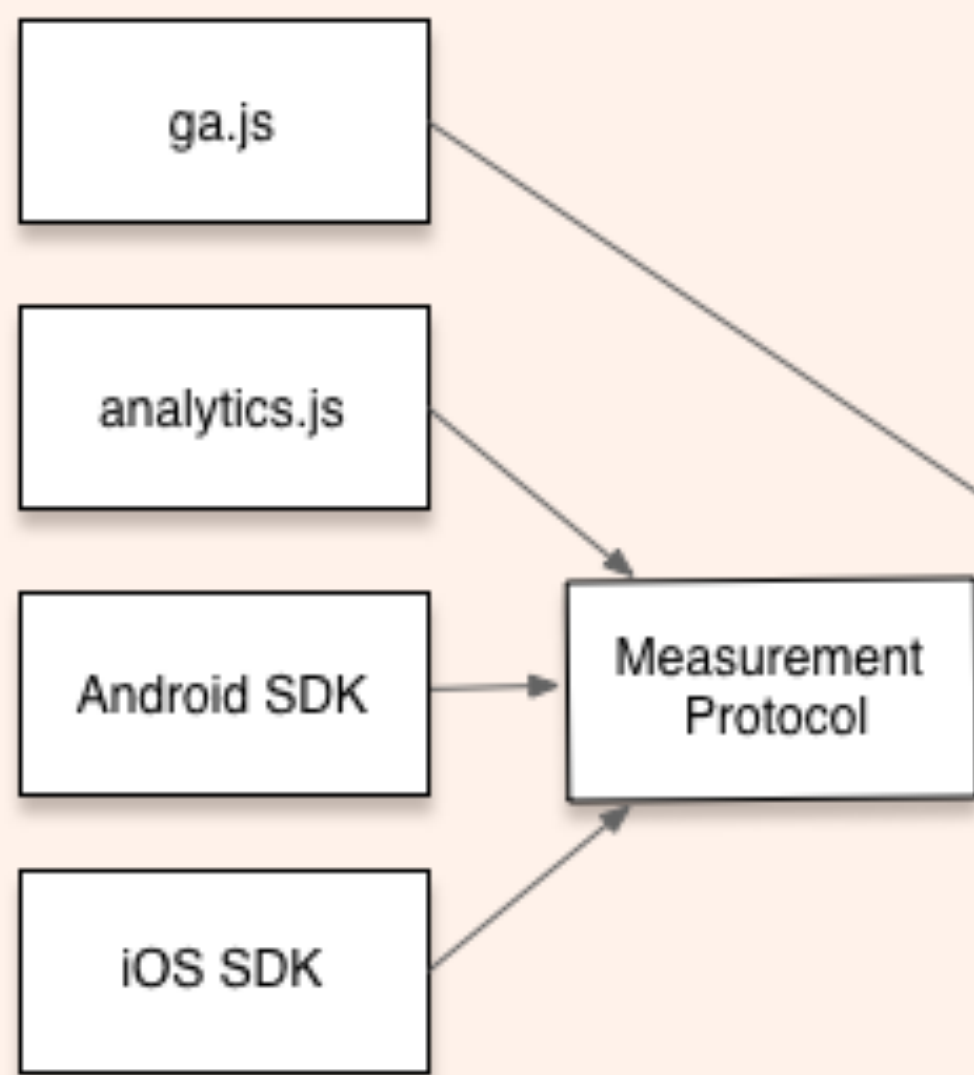
CONTENT EXPERIMENTS DEMO

DEVELOPMENT

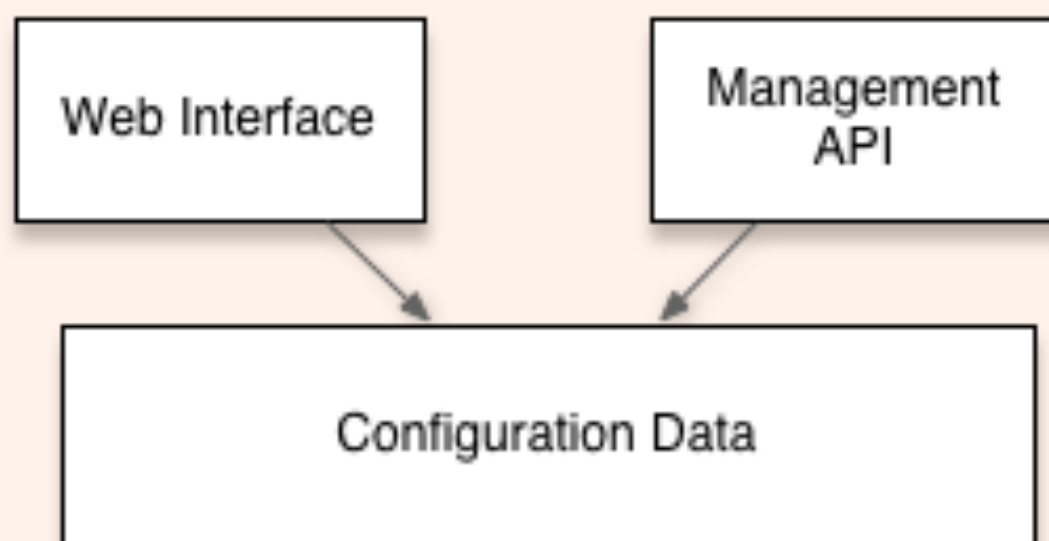
APIs AND SDKs

Collection

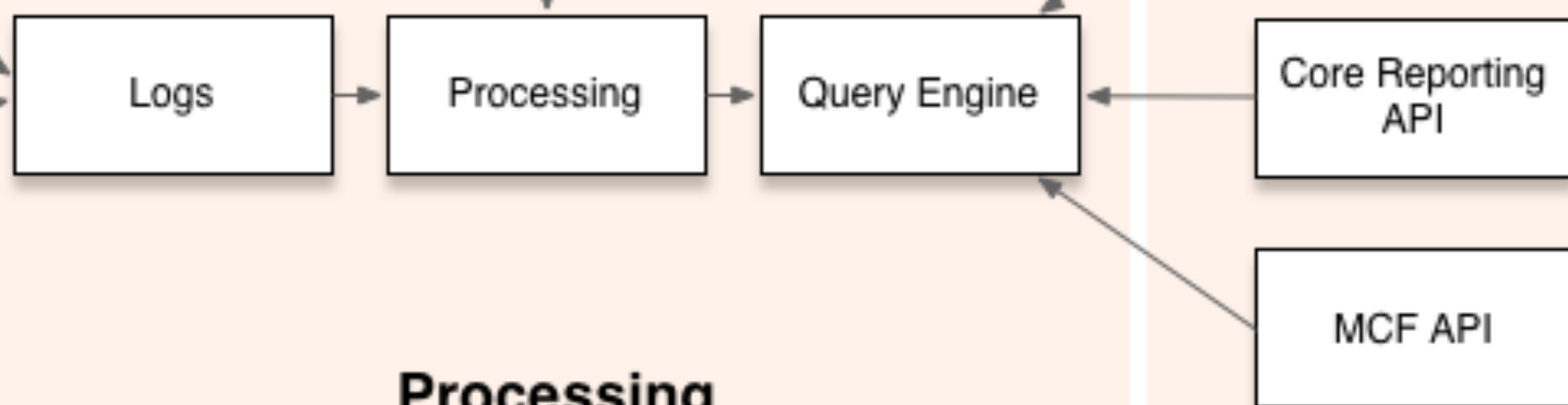
goo.gl/68YDs



Configuration



Reporting



Processing

COLLECTION

- analytics.js
- Android SDK
 - iOS SDK
- Measurement Protocol
 - ...

CONFIGURATION

- **Management API**

REPORTING

- Core Reporting API
 - MCF API
 - Metadata API
- Real Time Reporting API

DEVELOPMENT WITH ANALYTICS.JS

```
<!-- Google Analytics -->
<script>
(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){
(i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o),
m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m)
})(window,document,'script','//www.google-analytics.com/analytics.js','ga');

ga('create', 'UA-XXXX-Y', 'auto');
ga('send', 'pageview');
</script>
<!-- End Google Analytics -->
```

PAGEVIEW TRACKING

```
ga('send', 'pageview');
```

VIRTUAL PAGEVIEW

```
ga('send', 'pageview', '/path/to/virtual/page');
```

```
ga('send', {  
  'hitType': 'pageview',  
  'page': '/path/to/virtual/page',  
  'title': 'Title of Virtual Page'  
})
```

EVENT TRACKING

```
ga('send', 'event', 'button', 'click', 'nav buttons', 4);
```

```
ga('send', {  
    'hitType': 'event',           // Required.  
    'eventCategory': 'button',    // Required.  
    'eventAction': 'click',       // Required.  
    'eventLabel': 'nav buttons',  
    'eventValue': 4  
});
```

USER ID

```
ga('create', 'UA-XXXX-Y', { 'userId': 'USER_ID' });
```

```
ga('set', '&uid', 'USER_ID');
```

GOOGLE ANALYTICS
LIBRARIES FOR MEAN STACK

ANGULARTICS

WEB ANALYTICS FOR ANGULARJS APPLICATIONS

- <http://luisfarzati.github.io/angularartics/>

```
angular.module('myApp', ['angularartics', 'angularartics.google.analytics'])
```

- supports Google Analytics, Kissmetrics, Mixpanel, Chartbeat and Segment.io

UNIVERSAL-ANALYTICS

A **NODE** MODULE FOR GOOGLE'S UNIVERSAL ANALYTICS TRACKING

- <https://github.com/peaksandpies/universal-analytics>

```
var ua = require('universal-analytics');  
var visitor = ua('UA-XXXX-XX', 'USER_ID');  
visitor.pageview("/").send();
```

REFERENCES

<http://www.acornpub.co.kr/book/google-analytics2>

<https://analyticsacademy.withgoogle.com/>
<https://support.google.com/analytics/>
<https://developers.google.com/analytics/>

<http://luisfarzati.github.io/angularartics/>
<https://github.com/peaksandpies/universal-analytics>

THANK YOU!