

Accounts, Properties, Views & Filters

- **Account:** Your access point for Analytics, and the topmost level of organization
- **Property:** Website, mobile application, blog, etc. An account can contain one or more Properties
- **View:** Your access point for reports; a defined view of user data from a Property
- Accounts can have multiple Properties. Maximum accounts per login is 100
- To create a View you need admin rights. Make sure you haven't hit maximum of 50. 50 is max for Properties and/or Views within an account
- A Property has a unique ID number that is used in the GA Tracking Code
- Views are a great way to limit access to a segment of data
- Views are setup to create different sets of data within a Property (Views can't access domains in a different account)
- Filters are created and added to Views to adjust how data is processed and stored in Views
- Order matters when applying filters to Views
- Filters can set data to lower case, upper case, exclude sessions, include only certain traffic, rewrite URLs, and include only certain website sections
- Always maintain one unfiltered View as a backup

Sources & Attribution

- Direct is the Traffic Source when no other traffic source is available (e.g. bookmark or directly typed in browser)
- GA uses a last non-Direct attribution model, meaning the last non-Direct traffic source gets credit for a conversion
- In the case of a "Direct" visit, where visitor has a previous source, the **previous source gets credit for visit**

Campaign Tracking/Traffic Sources

- Manually tag banner ads, email campaigns, non-AdWords CPC campaigns and applications
- Campaign Tracking is used to adjust how GA categorizes a visit. Without a tag, all visitors appear as "direct", "referral", or "organic"
- UTM variables are used to set the source information on links to your website
- **Required UTM variables:** Source (utm_source-facebook,mashable.com,bing), Medium (utm_medium-cpc,display,social,email), Campaign (utm_campaign)
- **Optional UTM variables:** Paid Search Keyword (utm_term), Ad Content (utm_content)
- The **URL Builder** (<http://blast.am/urlbuilder>) in the GA Help Forum can be used to build UTM tagged links

Cookies

- User won't be tracked if blocking cookies or JS, or opted out of GA tracking
- 1st party cookie set by site you're on and only accessible by same site. GA uses this type
- 3rd party cookie set by other site and tracks data across sites (GA does not use 3rd party cookies)
- GA uses JavaScript and a single 1st party cookie: `_ga`

GA Cookie

`_ga=` GA1 2 1441315536 1362115890410

| | | | |
|------------|-----------------------------|------------------|-----------|
| GA Version | Number of domain components | Random Unique ID | Timestamp |
|------------|-----------------------------|------------------|-----------|

Dimensions & Metrics

- Dimensions are "categories"
- Metrics are "counted" in relation to "categories"
- **Examples of Dimensions:** Source, Landing Page, Screen Resolution, Browser, Page, Custom Variable, Region
- **Examples of Metrics:** Sessions, Users, Pageviews, Exits, Bounce Rate, Conversion Rate, Total Events, Entrances

Goals

- Goals are created to track "successes" (can only be added by an admin)
- A goal conversion can only happen once during a visit, but multiple ecommerce transactions can occur
- Goals can be used to track "Time on site", "Pages viewed", "Events", or "URL Destination"
- With URL Destination, a funnel of pages can be setup with the goal
- Only one conversion per goal per visit will be counted
- Goals are tied to views. Limit of 20 goals per view
- Site search terms reports only show goal conversions for those who searched on your site

Referrers

- A referrer is the site that a visitor was on when they clicked a link to get to your site
- Search engines are also often referrers because they have links to your site that aren't part of a search results page (iGoogle, etc) or they aren't in GA's default list of (organic) search engines (which covers most widely used search engines)



Fundamentals

- CTR = Clicks/Impressions
- URI = file path (not including domain)
- Bounce Rate = % of sessions that viewed only one page
- Most crawlers aren't tracked since they don't execute JS
- Direct is the Traffic Source when no other traffic source is available
- Cached Pages are tracked
- Data can take 24-48 hours to show in GA Standard
- Session duration categorizes sessions according to time spent on site
- No PII (Personal Identifiable Info) in GA like address, name, credit cards, etc. CRM identifiers are OK

Intelligence Events

- Intelligence Events are alerts where GA detects changes in site performance
- Alerts can be setup to notify by email on a daily, weekly, or monthly basis
- Custom and Automatic Alerts are available

Segmentation

- Segments are created so that sessions or users match a set of criteria are shown as matching that segment
- Segments can be created using dimensions or metrics
- Up to 4 segments can be applied to a report to analyze how they perform against each other
- Allows side by side comparison and may be applied to historical data

AdWords & Analytics

- Neither can track if user has cookies blocked
- Connecting AdWords & Analytics allows cost data to be imported from AdWords into the Analytics reports
- Use auto-tagging in AdWords and don't manually tag
- Within AdWords report, click on "Clicks" dataset to view cost data and other imported data
- Avoid using redirects on AdWords landing pages that will strip gclid of AdWords spend and differentiates between Google CPC and Non-Google CPC sessions
- Analytics also calculates ROI
- Clicks are not the same as sessions
- AdWords filters out invalid clicks
- Users' browser settings can block GA if JS is blocked but not AdWords
- AdWords has an adjustable 7-90 day window for conversions (30-day by default)
- GA is last-click attribution
- AdWords shows the conversion on the date the ad was displayed. GA on the date of conversion

Virtual Pageviews & Event Tracking

- Virtual pageviews track activity that doesn't generate a pageview
- Rename pages or track page steps for forms and checkout flows when URIs are not unique by using: `ga('send', 'pageview', 'virtual page')`
- Event Tracking elements: categories, actions, labels

Cross Domain Tracking

- GA needs to be customized to track a visit across multiple domains or sub-domains: <https://developers.google.com/analytics/devguides/collection/analyticsjs/cross-domain>

Ecommerce Tracking

- Ecommerce tracking code must be installed on the confirmation or "Thank you" page of the checkout funnel to enable ecommerce tracking
- Transaction data is sent via the ecommerce tracking code
- **Tip:** Ecommerce revenue data is viewable on many reports such as All Traffic via Explorer Tabs

Real-time Report

- Shows active number of users
- Shows pageviews by second and by minute over the last 30 minutes
- Can be categorized by traffic source, location, and page viewed

Custom Reports

- A custom report is configured by selecting specific dimensions and metrics.
- **Explorer Option:** Hierarchy of data tables linked by clickable rows (drill down)
- **Flat Table Option:** Single table that shows all data

Filtering (in-report)

- **Basic:** Filters results containing the entered string
- **Advanced:** Can configure multiple metrics/dimensions, multiple match types, and include/exclude



Dimensions

User

- **User Type:** New or returning visitor
- **Session Count:** The number of sessions on your site for a user

Traffic Sources

- **Source:** The source of referrals to your property
- **Medium:** The type of referrals to your property
- **Campaign:** The value of the utm_campaign parameter on manually tagged links. When using AdWords auto-tagging, the name assigned to the campaign
- **Social Network:** Name of the social network that brought the user to your site

Page Tracking

- **Hostname:** The hostname from which the tracking request was made
- **Page:** The path for a page on your site
- **Page Title:** The title of a page
- **Landing Page:** The first page of a user's session
- **Exit Page:** The last page in a user's session
- **Page Depth:** The number of pages visited by users during a session

Event Tracking

- **Category:** The category of the event
- **Action:** The action of the event
- **Label:** The label of the event

Platform or Device

- **Browser:** The names of browsers used by users to your website
- **Bowser Version:** The browser versions used by users to your website
- **Operating System:** The operating system used by your users
- **Operating System Version:** The version of the operating system used by your users
- **Device Category:** The type of device used by users (Desktop, Mobile, Tablet)

Ecommerce

- **Transaction ID:** The transaction ID associated with a purchase
- **Product SKU:** The product sku for a purchased item
- **Product:** The product name for purchased items
- **Category:** Any product variations (size, color) for purchased items

Goal Conversions

- **Goal Completion Location:** The page path that matched any destination type goal completion

This page is meant to reference the most common used metrics and dimensions. The full reference can be viewed here: <https://developers.google.com/analytics/devguides/reporting/core/dimsmets#mode=web>

Metrics

User

- **Users:** Total number of users to your site for the requested time period
- **New Users:** The number of users whose session on your site was marked as a first-time session
- **% New Sessions:** The percentage of sessions by people who had never visited your site before

Session

- **Sessions:** The total number of sessions
- **Bounces:** The total number of single page sessions on your site
- **Bounce Rate:** The percentage of single-page sessions
- **Session Duration:** The total duration of user sessions represented in total seconds

Page Tracking

- **Entrances:** The number of entrances to your site measured as the first pageview in a session
- **Pageviews:** The total number of pageviews for your site
- **Unique Pageviews:** The number of different (unique) pages within a session
- **Avg. Time on Page:** The average amount of time users spent viewing a page or a set of pages
- **Exits Rate:** The number of exits for a page divided by the total number of pageviews
- **Page Value:** The average value of this page or set of pages.
(ga:transactionRevenue + ga:goalValueAll) / ga:uniquePageviews (for the page or set of pages)

Ecommerce

- **Transactions:** The total number of transactions
- **Revenue:** The total sale revenue provided in the transaction excluding shipping and tax
- **Average Order Value:** The average revenue for an ecommerce transaction
- **Shipping:** The total cost of shipping
- **Tax:** The total amount of tax
- **Quantity:** The total number of items purchased
- **Average Price:** The average revenue per item
- **Product Revenue:** Product revenue in local currency

Event Tracking

- **Total Events:** The total number of events across all categories
- **Unique Events:** The total number of unique events across all categories
- **Event Value:** The total value of events
- **Avg. Value:** The average value of an event

Goals

- **Goal Completions:** The total number of unique events across all categories
- **Goal XX Completions:** The total number of completions for the requested goal number
- **Goal Conversion Rate:** The percentage of sessions which resulted in a conversion to at least one of your goals
- **Goal XX Conversion Rate:** The percentage of sessions which resulted in a conversion to the requested goal number



Audience

- Where is my audience based geographically?
Audience > Geo > Location (Country/Territory)
- How can I see which browsers and devices people view my website on?
Audience > Technology > Browser & OS
Audience > Mobile > Devices
To see usage by browser version, drill-down into a specific browser or use a secondary dimension.
- How often are users returning to my site?
Audience > Behavior > Frequency & Recency
Audience > Behavior > Frequency & Recency > Days Since Last Session

Acquisition

- Where are my users coming from?
Acquisition > All Traffic
- Which sites are referring traffic to my site?
Acquisition > All Referrals
- Which channels convert better?
Acquisition > Channels
Pay special attention to the Conversions column in the right hand side of this report.
- How are my campaigns performing?
Acquisition > Campaigns
This report includes both AdWords and custom campaigns.
- How are our Social efforts performing?
Acquisition > Social > Network Referrals
Acquisition > Social > Conversions

Behavior

- What is my most popular content?
Behavior > Site Content > All Pages
- Where can I found how users are navigating to and away from a specific page?
Behavior > Site Content > All Pages
Click on the specific page you are interested then select the 'Navigation Summary' tab next to the 'Explorer Tab'.
- Where can I see how my landing pages are performing?
Behavior > Site Content > Landing Pages
Pay special attention to Bounce Rate to help identify Landing Pages that may not match the user's intent.
- Where can I find how my event tracking is performing?
Behavior > Events > Top Events
To get further insight drill down into the event categories and actions.
- What are users searching for on my site?
Behavior > Site Search > Search Terms
This report is useful for uncovering what is important to users and what they might be having a hard time trying to find on your site.

Conversions

- What is the conversion rate?
Conversions > Goals > Overview
To get further insight, view conversion rate by other dimensions such as medium, landing page, and more.
- What products are people purchasing?
Conversions > Ecommerce > Product Performance
- During conversion, where are people exiting the funnel?
Conversions > Goals > Funnel Visualization

Additional Resources

Online Learning

- **Google Analytics Academy**
<https://analyticsacademy.withgoogle.com/explorer>

Helpful Tips

- **Web Analytics Demystified**
<http://www.kaushik.net/avinash/web-analytics-demystified/>
- **Beginner's Guide To Web Data Analysis: Ten Steps To Love & Success**
<http://www.kaushik.net/avinash/beginners-guide-web-data-analysis-ten-steps-tips-best-practices/>

Blogs

- **Justin Cutroni**
<http://cutroni.com/>
- **Google Analytics**
<http://analytics.blogspot.com/>
- **Blast Analytics & Marketing**
<http://www.blastam.com/blog/>
- **Avinash Kaushik**
<http://www.kaushik.net/avinash/>
- **Online Behavior**
<http://online-behavior.com/analytics>

Browser Extensions

- **Google Tag Assistant**
<https://chrome.google.com/webstore/detail/tag-assistant-by-google/kejbdjndbnbjgmefkgdddjlbokphdefk>
- **Google Analytics Debugger**
<https://chrome.google.com/webstore/detail/google-analytics-debugger/jnkmfdillelhojfcijamephohjechna>
- **Page Analytics**
<https://chrome.google.com/webstore/detail/page-analytics-by-google/fnbdnhhicmebfqdgglcdacdapkcihcoh>



Anchors

| | |
|----|--|
| ^ | Start of line (^site matches site , not mysite) |
| \$ | End of line (site\$ matches site , not sites) |

Shorthand Character Classes

| | |
|----|-------------------------------------|
| \s | White space character |
| \S | Non-white space character |
| \d | Digit character (same as [0-9]) |
| \D | Non-digit character |
| \w | Word (same as [A-Z a-z 0-9]) |
| \W | Non-word (e.g. punctuation, spaces) |

Example: \d {1,5}\s \w* matches "235 Market"

Metacharacters

Need to escape with backslash when you don't want character interpreted as RegEx function.

| | | |
|----|---|---|
| ^ | [|] |
| \$ | (|) |
| . | { | } |
| * | + | ? |
| \ | | - |

RegEx Creative Credit: [Jay Taylor](#) & Google

Filter Group Accessors

| | |
|------|---------------------------------------|
| \$Ax | Access group x in field A (e.g. \$A1) |
| \$Bx | Access group x in field B (e.g. \$B1) |

Quantifiers

| | |
|--------|---------------------------------------|
| \$*Ax | Zero or more (greedy) |
| *? | Zero or more (lazy) |
| + | One or more (greedy) |
| +? | One or more (lazy) |
| ? | Zero or one (greedy) |
| ?? | Zero or one (lazy) |
| {X} | Exactly X (e.g. 5) |
| {X,} | X or more (e.g. 5) |
| {X, Y} | Between X and Y (e.g. 1 and 3) (lazy) |

Wildcards

- Matches any single character
- * Matches zero or more of previous item (**bla*st matches blaast & blaaast**)
- + Like asterisk, but must match at least one previous item (**bla+st matches blaast, not blast**)
- ? Matches zero or one of previous item (**bin?g matches both bing and big**)
- | a|b Matches a or b

Ranges and Groups

| | |
|--------|--|
| (a b) | a or b (case sensitive) thank(s lyou) |
| (...) | Group, e.g. (keyword) |
| (?...) | Passive group, e.g. (?:keyword) |
| [abc] | Range (a or b or c) |
| [^abc] | Negative range (not a or b or c) |
| [A-Z] | Uppercase letter between A and Z |
| [a-z] | Lowercase letter between a and z |
| [0-7] | Digit between 0 and 7 |

Sample Patterns

199\.212\.121\.123 IP Match

^199\.212\.121\.([1-9])1[0-9]2[0-5])\$ IP Range (.1-25)

^/directory/(.*)
Any page URLs starting with /directory/

(brand\s*?term)
Brand term with or without whitespace between words

^brand\s+[^cf]
Key phrases starts with 'brand' and second word not starting with c or f

\.aspx\$
URLs ending in '.aspx'

ORDER\-\d{6}
"ORDER-" followed by a six digit ID

(?:\?|&)utm=([^\&\$]+)
Value of 'utm' querystring parameter

