

Google Analytics for beginners

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Table of Contents

About Mito	5
Areas of expertise	5
Our clients	6
About our Digital Analytics team	6
Introduction	7
Creating an account	8
Creating an Analytics account	8
Filling the form	9
Installing the tracking code	13
Account structure	14
User management	15
Read & Analyze	15
Collaborate	15
Edit	16
Manage users	16
Data limits	17
Limitation of the account structure	17
Data collection	17
Processing and storing data	18
Sampling	18
What to do when you're reaching the limits	19
Interface	20
Dashboard	20
Admin	20
Customization	21
Reports	22
Filters on views	27
Filtering internal traffic via IP filters	27
Filtering hostname traffic	28
Filtering subdirectory traffic	28
Goals in Google Analytics	29
Setting up goals	29

Ecommerce and Enhanced ecommerce	32
Enabling Ecommerce	32
Ecommerce reports	33
Enhanced Ecommerce reports	34
Event tracking	37
Event tracking reports	38
Virtual pageviews	39
UTM parameters	40
Variables	40
General recommendations	40
Campaign URL builder	42
Google Sheets Add-on	42
Reporting results	43
Segments in Google Analytics	44
Creating new segments	45
Importing segments	46
Common mistakes	47
Wrong placement of the tracking code	47
No tracking code on certain pages	47
Both GTM and GA is in the source code	47
Filters are not set up correctly	47
Only filtered views are set up	47
No goals are set up	48
No annotations are added	48
No event tracking is set up	48
Enhanced Ecommerce is not enabled	48
Appendix: Implementation guide for developers	49
Implementing Google Analytics on a website	49
Implementing Google Analytics for Firebase in apps	50
Google Tag Manager (GTM) container code	52
Google Ads conversion and remarketing code	54
Facebook pixel	58
Hotjar tracking code	59
GDPR compliance checklist	62
Contact us	63

About Mito

Mito is a full-stack digital agency based in Budapest, with more than a decade of experience in web design, web development, user experience design, data mining, search engine marketing, digital analytics, communication consultancy, and management of international projects related to these fields. We have been offering services to domestic and international companies since 2008.

Our company has continuously grown since the beginning, both in terms of personnel and their areas of expertise. Now, twelve years after launching, Mito offers a second home to more than 200 employees (and 20 dogs) and counting - all in-house, available instantly.

Areas of expertise

Mito teams can cover digital processes from beginning to end, starting with market research, competitor analysis, strategic planning, creative concepts with their graphic and development solutions, all the way to content creation, media planning and buying, and data analysis. The close relationship and fluent communication among our business units make it possible to offer our clients services of the highest quality.



Our clients

Thanks to almost a decade of expertise, Mito has gained extensive knowledge in the fields of telecommunication, banking, ecommerce, FMCG, aviation and the automotive industry. Find out how we've helped our clients with some clever things on <u>our website</u>.

About our Digital Analytics team

Thanks to our extensive and up-to-date knowledge in the field of analytics and the fact that we have the option to work closely with all other business units and teams depending on the client's needs, we are able to tackle complex, international projects and deliver custom-made solutions.

We provide analytics and conversion rate optimization (CRO) services for global clients from a wide variety of industries, including ecommerce, banking, IT, aviation, FMCG, telecommunication, etc.

We are also <u>Google Marketing Platform (GMP) Partners</u> since 2018, with several product specializations like Analytics, Tag Manager or Data Studio. Being a GMP Partner provides us early access to Google Product beta features and a wide range of training materials.

Introduction

We believe that Google Analytics is one of the most useful tools for those who do business online and want to understand the potentials their online business holds.

If set up properly, Google Analytics provides useful insights that can help us make business decisions and optimizations, so our online business - whether it's a web store or a blog - can become more successful.

Besides demonstrating the implementation and setup options of Google Analytics, this tutorial explains the operational principles so you can start setting up your account and making analyses with a strong knowledge of the basics.

We at Mito hope that this tutorial will reach the masses and help those interested in Google Analytics become skilled users of the tool, and thereby become more successful in their business.

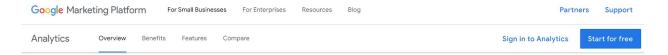
Creating an account

Creating an Analytics account

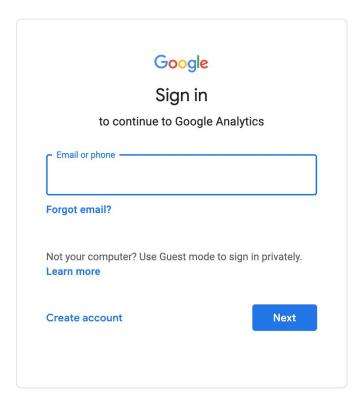
Any user who wants to create a Google Analytics account can only do so via an existing Google account. If you already have one, click on the following link:

https://marketingplatform.google.com/about/analytics/

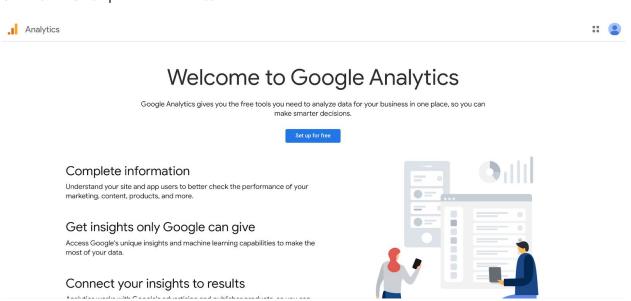
Click on the "Start for free" button, shown below:



Then sign in:

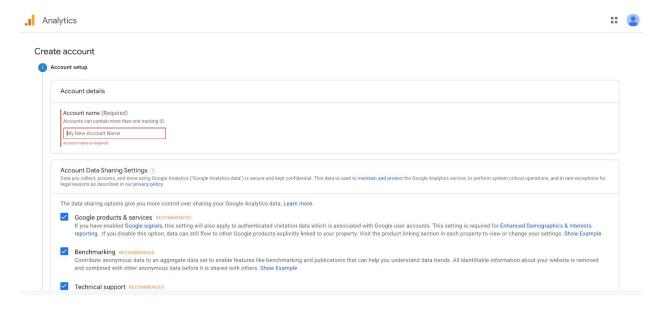


Click the "Set up for free" button:



Filling out the form

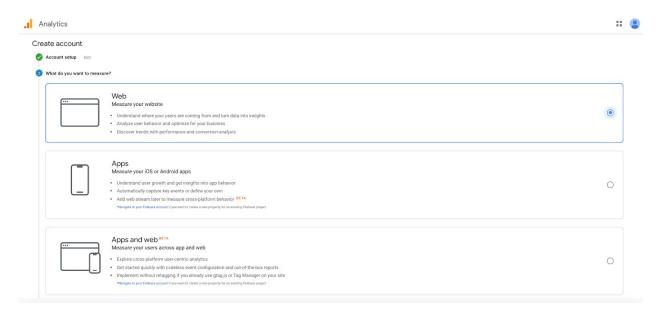
Now start filling out the form with the account details. First, choose an account name. This should ideally reflect your company or business name.





After choosing an account name, click the "Next" button at the bottom of the page.

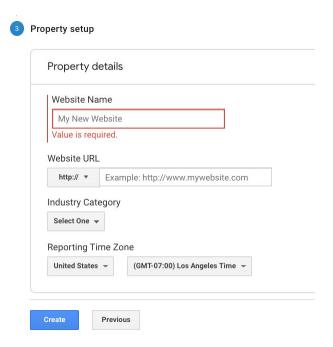
Choose your scope of measurement. If you want to measure a website, choose "Web", if you want to measure a mobile application together with a website, choose "Apps and web":



Note: you will need <u>Google Analytics for Firebase</u> implementation in your mobile app if you want to choose the second or third option here. Within this ebook, we will only cover the Web option. If you need any assistance or help with app measurement or the "Apps and web" option, do not hesitate to contact us at <u>analitika@mito.hu</u>.

After choosing your measurement scope, click the "Next" button at the bottom of the page.

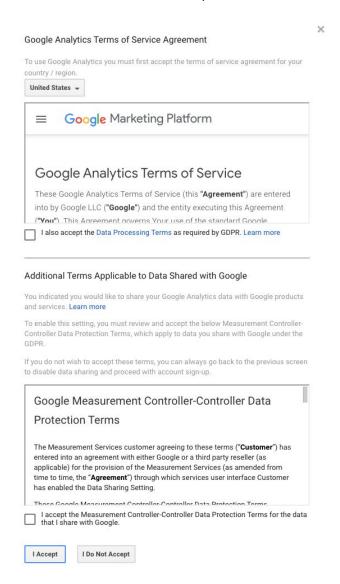
Choose a name for your website. If you want to measure multiple websites, it is best to use here the website domain names (e.g. "yourwebsite.com"):



Make sure you are using the correct version of "http" or "https", as well as the right time zone. The reports in Google Analytics will be based on the chosen time zone. You can also choose an "Industry Category" here, but this is not mandatory.

After filling out the form, click "Create" at the bottom of the page.

You will need to accept the Terms of Service Agreement and Data Protection Terms at this point. Tick the checkboxes, then click "I Accept" at the bottom of the page:



If needed, you can get email updates from Google. Tick the checkboxes if interested, however, this is not mandatory.

After clicking "Save" in the email communications windows, you have successfully created your Google Analytics account.

Installing the tracking code

After the account has been successfully created, a new tracking code is generated. This code snippet has to be added to the source code of all the web pages that you want to track, right after the opening <head> tag.

In order to find out whether the setup was successful, start a session on the website while looking at the Real-time report in Google Analytics at the same time. If data about the test traffic shows up, the code has been implemented correctly.

Please note that even though the Real-time report can show the real-time traffic, it could take 24 to 48 hours for the data to appear in the other reports. Your tracking code can be found at Admin » Property » Tracking info » Tracking code.

Google Analytics tracking code (gtag.js) example:

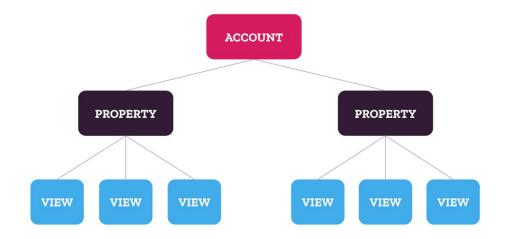
```
<!-- Global site tag (gtag.js) - Google Analytics -->
<script async src="https://www.googletagmanager.com/gtag/js?id=UA-
XXXXXXXX-X"></script>

<script>
    window.dataLayer = window.dataLayer || [];
    function gtag(){dataLayer.push(arguments);}
    gtag('js', new Date());
    gtag('config', 'UA-XXXXXXXXX-X');
</script>
```

Note: if you are using <u>Google Tag Manager</u>, Google Analytics should be implemented in a different way. If you have any questions about GA implementation in Google Tag Manager, contact us at <u>analitika@mito.hu</u>.

Account structure

Google Analytics accounts are structured in the following way:



Account: The Account is the top level within the hierarchy. There is usually one per company.

Property: An account can have up to 50 properties. A property marks a website, an application or an "Apps and web" property. Each property has a unique tracking ID (e.g., UA-123456789-1) that helps to send data to the right place.

View: Views contain reports. Each property comes with an unfiltered view by default (usually with the name "All website data"), but it is possible and recommended to create more views for each property. With the help of filters, unique views can be created for different traffic channels, countries or sections of the website/app. Each property can contain a maximum of 25 views.

It is highly recommended to create more views within each property, to ensure room for testing and data backup. We recommend the following view structure:

- Normal or Master view (for reporting)
- **Test view** (for testing filters or other settings)
- Unfiltered view (for data backup)

User management

There are various types of user permissions in Google Analytics that might be assigned on different levels (account, property or view). Permissions are inherited hierarchically within the account structure. For example, a particular set of user permissions that are granted on the Account level applies to the Property and View levels for the same user. The set of user permissions cannot be narrowed down when progressing down the account hierarchy.

User permissions can be assigned within the Admin section, selecting User Management on the Account, Property or View level.

There are four types of permissions in Google Analytics; each can be assigned individually or in combination.

Read & Analyze

- Report and configuration data
- Manipulating data in the reports (creating segments, filtering data, adding a secondary dimension)
- Sharing assets (such as custom reports)
- Cannot collaborate on shared assets

Collaborate

- All features of 'Read & Analyze'
- Collaborating on shared assets

Edit

- All features of 'Collaborate'
- All administrative and report-related functions
- Creating filters (account level permission needed)
- Applying filters (view level permission needed)
- Cannot manage users or user permissions

Manage users

- Adding and removing users
- Assigning user permissions
- Does not include features of 'Collaborate' or 'Edit'

Data limits

This chapter shows the limitations of data collection, storing and processing in the free version of Google Analytics.

Limitation of the account structure

Always bear in mind the below-mentioned limitations of properties, views, goals, dimensions and metrics when building your Google Analytics account.

Limits	Max value
Properties per Account	50
Views per Property	25
Goals per View	20
Custom dimensions	20
Custom metrics	20

Data collection

Pageviews, screen views, events and transactions count as individual hits.

When the number of individual hits exceeds the limits, data recording is not guaranteed in the case of hits per sessions and daily hits per users.

Limits	Max value
Individual hits per month	10 million
Hits per sessions	500
Daily hits per user	200 000
Daily ecommerce transactions	50 000

In case the 10-million-hit per month limit is exceeded, data in the account will be shown in sampling mode. The number of recordings for the current period can be followed in the Admin/Property Settings/Property Hit Volume section.

Processing and storing data

The speed of processing reports depends on the amount of data processed. It usually takes 24-48 hours for data on individual hits to be processed and get shown in the reports.

Limits	Value
Data processing	24-48 hours without guarantee
Data storage	26 months (by default)

Sampling

Sampling is a method in statistics where a subset of data is analyzed to make conclusions about the larger data set. In some cases, Google Analytics uses sampling to enhance the speed of processing reports with a relatively large amount of data.

In general, sampling is not used in the case of default reports, but custom reports or reports filtered with secondary dimensions can be subject to data sampling. In these cases, Analytics selects a subset of data and creates the report based on its findings within that subset.

What to do when you're reaching the limits

Reaching the limits of data collection or data processing might lead to data distortion and misleading reports. When notified about reaching the data limits, you have three potential solutions available:

- Purchase <u>Google Analytics 360</u>
- <u>Unsampler.io</u> is a great tool for this exact purpose, in case you'd like to give it a try.
- Apply sampling to data collection by configuring the tracking code:

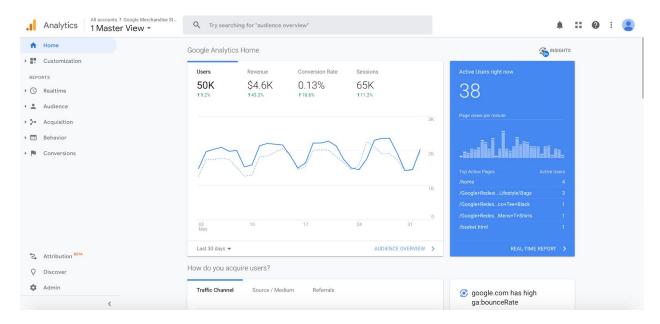
```
ga('create', 'UA-XXXX-Y', {'sampleRate': 5});
```

Interface

In this section, we'll introduce 4 main parts of the Google Analytics interface: dashboard, admin section, customization and reports.

Dashboard

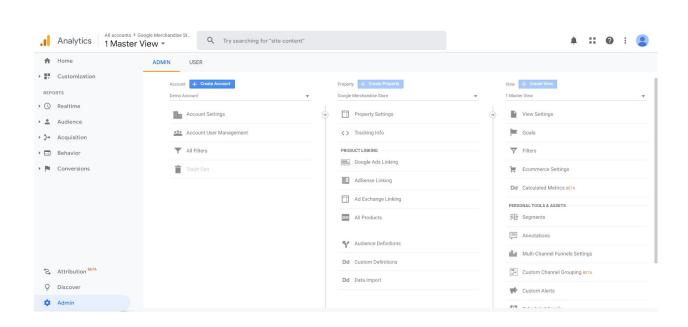
After logging in, you can see the menu of the available reports on the left, as well as the Dashboard of your default view that offers a quick look into the view's performance. You can access the data from your other accounts, properties and views with the help of the top-left selector.



Admin

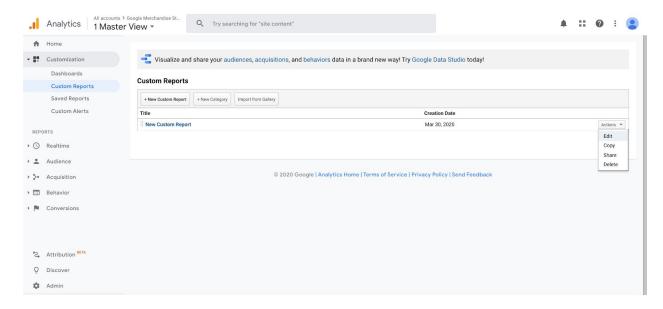
In the Admin section, you can find menus with various setup options for the selected account, property and view in the corresponding columns. At the top of the columns, you can select one of your existing accounts, properties and views or create new ones. Among other things, you can find the tracking code here anytime. You can also set up goals and adjust filters, as well as manage user permissions.





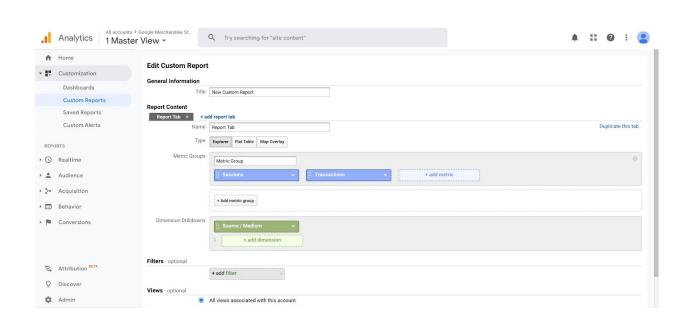
Customization

Under customization, you can create, edit and share custom reports, dashboards or custom alerts.



A custom report is a report based on your definitions of dimensions and metrics and the displayed data's quality.





The following menu items are available in Customization:

Dashboards: Dashboards are reports made up of modules; they allow quick insights into the results. We can also set up the most relevant metrics.

Saved reports: We can save our most used reports so that we can reach them quickly and easily.

Custom alerts: Set up daily, weekly or monthly alerts that notify you if there is significant change in your traffic; for example, a large setback in traffic, unusually high bounce rates, etc.

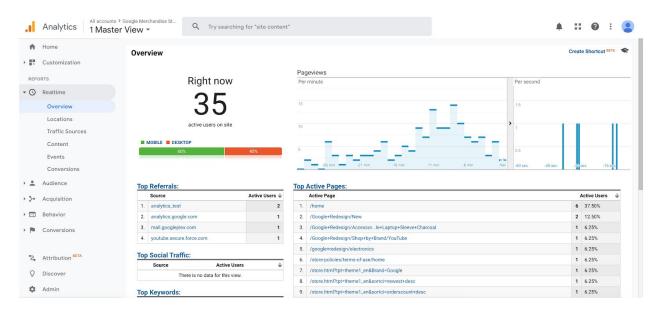
Reports

Under Reports, you can see all the available reports in Google Analytics and examine the recorded data from various aspects. Reports are grouped into the following categories:

Real time: Here you can track various activities on the website or in the app in real time. For example, you can see how many users are viewing your site at the given moment



and how many of them carry out different actions. During the launching of a new website, this is a highly effective function for validating measurements.



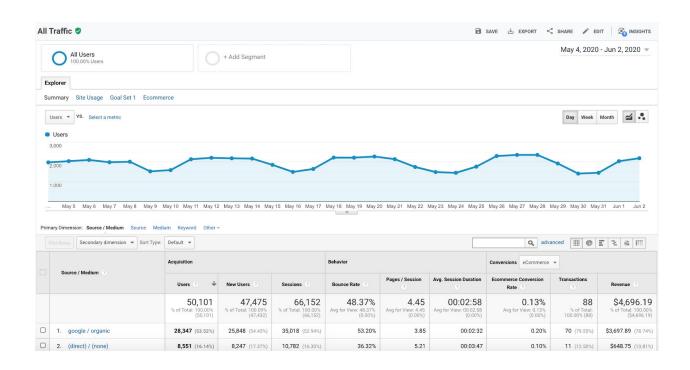
Audience: Here you can get information about the characteristics of the users or user groups who visited the website or app (demographic and geographic data, type of browser, devices, etc.).

Acquisition: These reports provide insights on where users arrive from, as well as the conversion data of different channels.

Behavior: In these reports, you can see how your site's certain pages and elements perform (number of page views, location of clicks, loading times, etc.).

Conversions: See the reports of your goals' performance, as well as the Ecommerce reports. In addition, you can examine how the different traffic channels affect conversions.

Default reports are built up as follows:



Report header: The header contains the controls that affect the whole report. The icon next to the name of the report shows whether the report has been sampled (green – no, yellow – yes). By clicking on the icon, you can see what percentage of the sessions (sample size) is used by the report. If your data is sampled for any reason, you can request more precise data collection; if your reports load slowly, you can request faster response time.



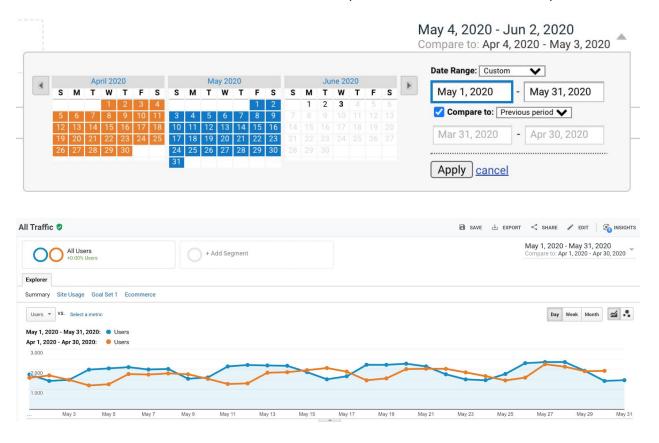
You can save, export or share your report with the help of the buttons in the header.



Adding segments: A segment is a subset of data (e.g. mobile traffic or traffic from one specific source, etc.) You can add up to 4 segments to the reports simultaneously, so results can be compared with each other more easily.



Date range: Here you can adjust the period you want to examine, either with default time frames or custom dates. You can also compare the results of two time periods.



Report sheets: In some cases, multiple sheets are available under the same report, where data is displayed from various aspects. An example:



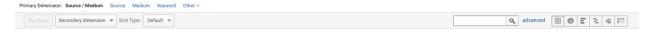
Charts: A maximum of two metrics can be displayed at the same time - this can be selected in the top left corner, by clicking "Select a metric". You can choose between daily, weekly and monthly breakdowns.



By default, data is displayed visually on a Line Chart. In the top right corner, you can choose from two diagram types, Line Chart or Motion Chart.

Data tables:

The following controls are available for a simple data table in Google Analytics:



- Primary dimension selector, for selecting the primary dimension.
- Secondary dimension selector: here you can add an additional dimension for a more detailed analysis.
- Search bar: Search for dimensions and values of metrics. Click on "advanced" to get more complex search options and filters.
- In the top right corner, you can toggle between display modes that affect the table and the data's appearance.

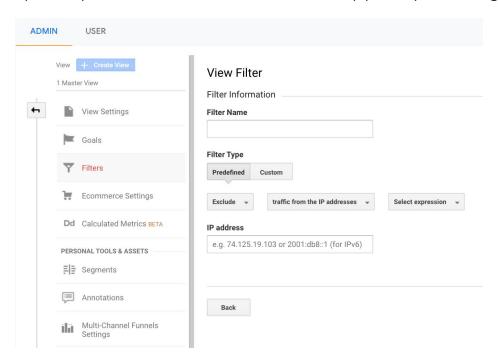
Filters on views

Filters help customize views and show only a selected set of data in the reports. Applying the right filters can eliminate traffic from certain IP addresses, subdomains, subfolders or groups of users. It is crucially important to filter out bots, referral spam, internal traffic, duplications, etc. from the view that is used for reporting; this way, you can make sure that data in the reports is accurate enough to form the basis of your business decisions.

As mentioned above, it is highly recommended to create one separate view for testing filters and one where there is no filter added so the risk of losing any data is minimized.

Filtering internal traffic via IP filters

You can exclude traffic coming from certain IP addresses via predefined filters. This comes handy when you'd like to filter out sessions made by you or your colleagues.



Note: if you use IP Anonymization, you will not be able to exclude specific IP addresses.

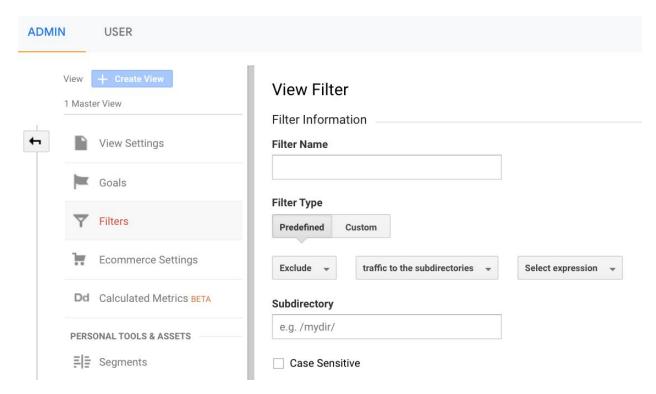
Filtering hostname traffic

In case you'd like to set up a separate view for checking the subdomain data of your site (e.g. info.example.com), you can use the "traffic to the hostname" predefined filter.

Note: Google's guidelines are clear on the best practice for measuring subdomains' performance: data should be collected into a separate property.

Filtering subdirectory traffic

If you'd like to see a certain subdirectory's data in a view (e.g. /products), you can set up an 'include' filter for the given subdirectory. Make sure to use the Case Sensitive option if it applies.



Goals in Google Analytics

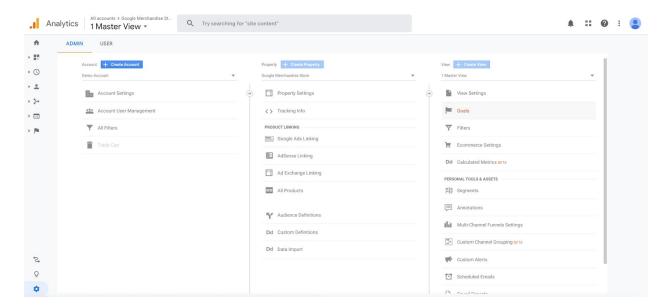
Besides analyzing traffic data, it is crucially important to check whether users fulfil the business objectives of your website or application; the best way to do this is to set up conversion goals in Google Analytics.

In general, goals can be grouped into macro- and micro conversions. Macro conversions are fulfillments of the main purpose of the website and can vary based on what kind of website or app we are collecting data from. In the case of a web store, a purchase is a macro conversion, while for websites offering free ebooks, it is downloads/subscriptions.

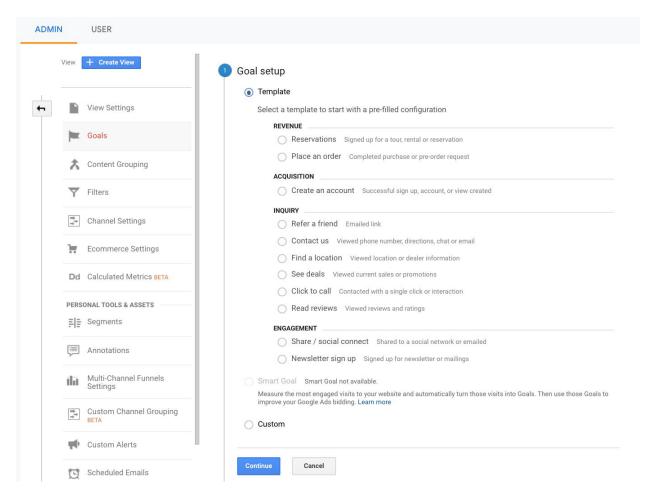
Micro conversions, on the other hand, are the smaller but recognizable steps that users take before completing a macro conversion, such as adding an item to the cart, registering or subscribing to a newsletter in the case of a web store, etc.

Setting up goals

You can add goals in the Admin » Goals section in Google Analytics by clicking on Goals.



Setup starts after clicking on the "New Goal". For beginner users of Google Analytics, we recommend using custom goals, but templates are always good to check for hints or ideas.



After selecting "Custom goal", add a descriptive name and select the Goal slot and the type of the goal on the "Goal description" screen.

You can add no more than 20 goals in each Google Analytics view. Existing goals can only be modified, but not deleted. The following types of goals can be created:

- **Destination:** when the user loads a specific location on the site, e.g. a "thank you" page at the end of a purchase.
- **Duration:** when a session lasts a specific amount of time or longer.

- Pages/Screens per session: when a user loads a specific amount of pages or screens within a session.
- **Event:** when one of the events that has been previously set up was triggered. This option requires the implementation of an extra tracking code or setup in Google Tag Manager (GTM).

As the next step, goal details have to be set according to the goal type that has been selected previously. The "Verify this Goal" button helps you check how often the goal that you are about to create would have been fulfilled in the past seven days.

Note: if your view was just created or your website hasn't got any traffic during the past seven days, you will not be able to use the "Verify this Goal" feature.

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

When you finish the Goal setup, click "Save". Your reports will start showing Goal metrics (e.g. goal completions, goal conversion rate) after the Goal has been set up correctly and there are users who are completing the given Goal conversion.

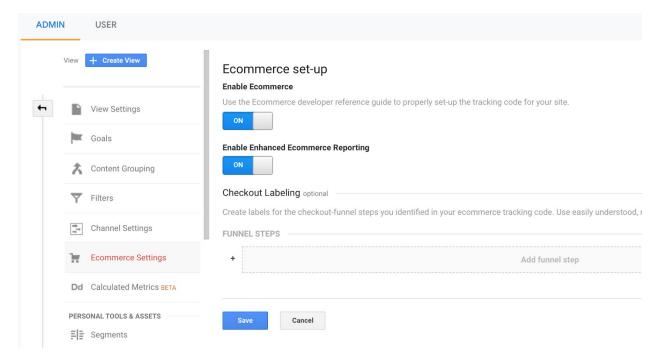
Ecommerce and Enhanced ecommerce

This chapter discusses the setup and some reports of Ecommerce and Enhanced Ecommerce in Google Analytics.

Setting up Ecommerce in Google Analytics helps us analyze the purchases made on a website or in an application. Among others, Ecommerce reports show data on products and transactions, average order value, ecommerce conversion rates and the time it takes to make a purchase. For correct reporting, make sure to set the right currency in Admin » View settings.

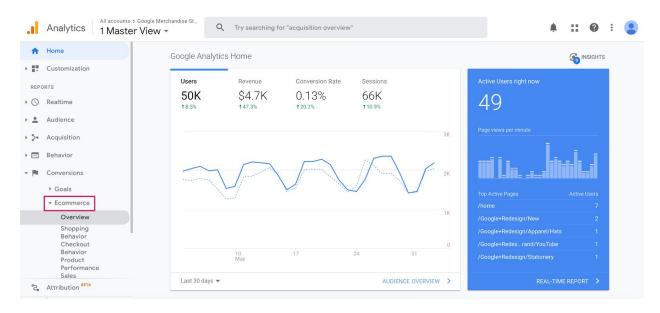
Enabling Ecommerce

Ecommerce (and Enhanced Ecommerce) reports have to be enabled manually in the Admin » View section » Ecommerce Settings. In order to ensure proper data collection on transactions, consult with your developer or colleague responsible for Google Tag Manager.

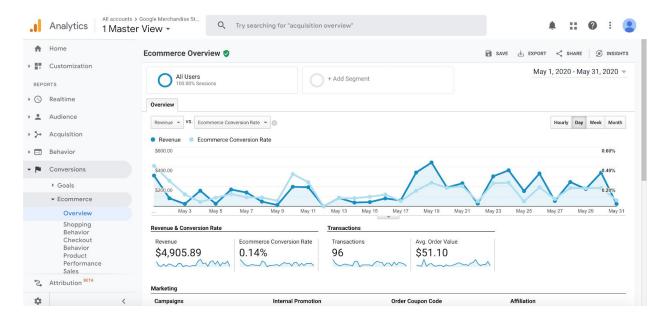


Ecommerce reports

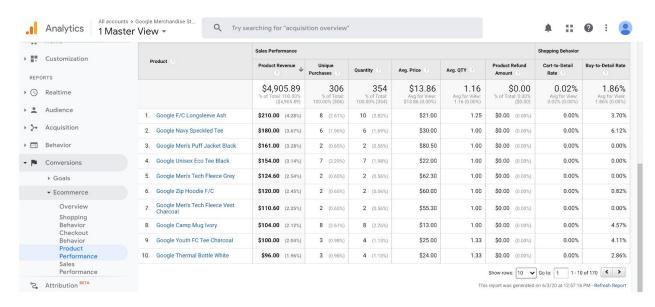
You can find Ecommerce reports in the Conversions section.



Overview: The report shows data on revenue, ecommerce conversion rate, transactions and average order value.



Product Performance: This report gives deeper insights into the revenue certain products generated, the quantity in which products were sold, the average price, as well as other useful product-related metrics.



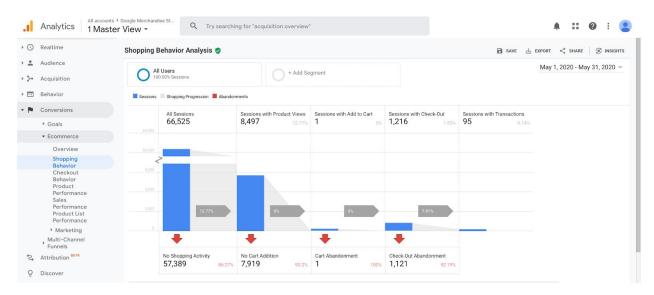
Sales Performance: The report shows data on all transaction sorted by date or transaction ID.

Time to purchase: The report shows how many days or sessions does it take for users to convert.

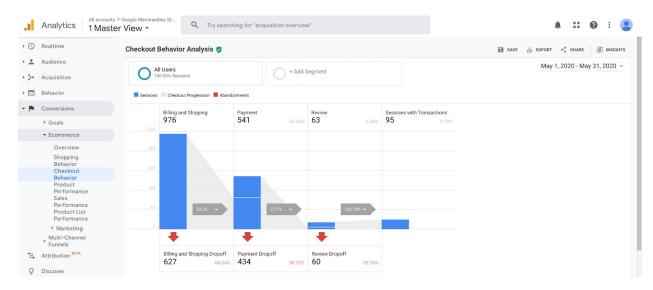
Enhanced Ecommerce reports

Enhanced Ecommerce reports give even deeper insights into user behavior related to transactions. This feature is highly recommended for web stores that want to further analyze the purchasing processes and marketing activities. After enabling Enhanced Ecommerce (see above), contact your developer to implement all the necessary settings.

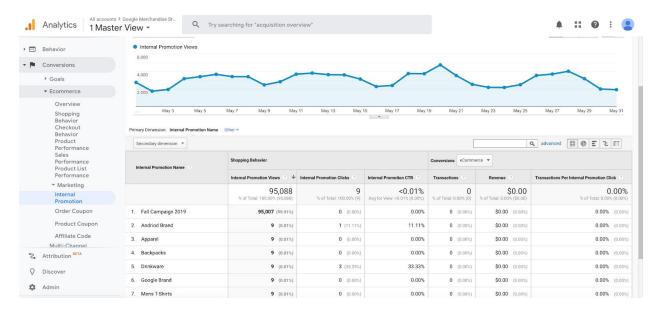
Shopping behaviour: This report shows the number of sessions at different steps of the shopping funnel, as well as the proportion of sessions churned at each step.



Checkout behaviour: You can see the user behavior at each step of your checkout funnel. This report is great for identifying potential hindrances in your checkout flow.



Marketing: These reports show details about marketing activities including internal promotions and different coupons.



With the help of Enhanced Ecommerce reports, you can find out where users leave your conversion funnel, how many of them viewed your list pages or product pages, how they use the shopping cart, how many refunds occur, etc. Using the information wisely can be of great help in growing your business.

Event tracking

Event tracking is a great tool to measure certain elements of a page or interactions that are not measured by default, such as clicking on a button or a call-to-action (CTA) button, playing videos, downloading files, etc. A consistent and well-thought-out structure is a must when it comes to event tracking. Events consist of the following parameters:

- Category: Group similar events into one category with the category label. For example, playing a video, stopping the video and setting the resolution should go into the category "video".
- Action: Name elements or interactions with this label, such as "filter", "footer button", etc.
- Label: (Optional parameter) With the help of this field you can add more details about the events you want to track. This parameter comes in handy when naming similar events within the same category.
- Value: (Optional parameter) By using the value parameter, values can be assigned to events, such as how long a user was watching a video (in seconds) or even a monetary value that the event is worth.
- Non-interaction: (Optional parameter) This parameter is set to "false" by default. Set this to "true" if you do not want the event to influence bounce rate.

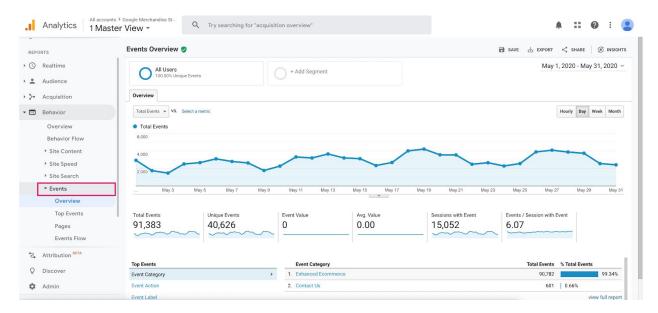
It is crucial to be consistent with naming each parameter and to follow a certain pattern or structure; this way you make the evaluation of campaigns in the future much easier. After collecting the parameters for different events, get in contact with your developer for implementation, or implement them via Google Tag Manager (GTM).

Effects on bounce rate

If event tracking is set up on a page and an event is triggered, the session will not be counted as a bounce, so make sure to set up the non-interaction tags of your events accordingly.

Event tracking reports

Reports on events are available within Behavior / Events.



Overview: This report gives an overview on the performance of our events.

Top Events: This report shows all events that were measured in a data table with different filtering options.

Pages: This report groups events based on which pages they were triggered.

Events Flow: This report shows in which order different events occurred within the same sessions.

Virtual pageviews

The Google Analytics tracking code is able to record URL and Page title data on each pageview by default. However, there are certain cases when a virtual pageview has to be set up manually in order to record data on a pageview. Such cases are:

- Single-page purchasing flows
- Single-page forms without a "thank you page"
- AJAX sites
- Pages where the content is arranged on different tabs but with the same URL
- URLs with hashmarks (#) (The part of the URI after the hashmark is not recorded by Google Analytics.)

UTM parameters

Google Analytics can automatically identify direct traffic, referral traffic and traffic coming from different search engines (organic traffic). In order to track other sources such as email campaigns, paid traffic, or affiliate marketing, UTM parameters are recommended.

Variables

There are 6 important elements when it comes to UTM parameters:

- Website URL: the URL of the campaign's landing page -"https://www.example.com"
- Campaign source: the source the traffic is coming from (e.g. Google, Facebook, Twitter, newsletter, etc.) "utm_source=newsletter"
- Campaign medium: the type of traffic (e.g. cpc, email, social, etc.) -"utm_medium=email"
- Campaign name: the campaign has to be named for future comparisons -"utm_campaign=new_product_release_july"
- Campaign term: (optional) in general, this marks the search term that triggered the ad - "utm_term=product_name"
- Campaign content: (optional) can differentiate among links within the same advertising space e.g. footer and text link within one newsletter -"utm_content=footer_link"

General recommendations

DOs

 Create a unified and consistent structure for the UTM parameters; this makes analyzing campaigns more simple.

- Be consistent with the different versions of terms, like ppc/cpc or email/e-mail.
- Stick to the main purpose of each parameter. E.g. mark the type of traffic in the medium parameter instead of using customized ones, such as "Campaign".
- Be consistent with upper and lower case letters, since Google Analytics is case sensitive and will collect results of different versions separately.
- Be sure to avoid spelling mistakes.
- Name each parameter in a way that they can be understood easily either by you or others.
- Always fill out the mandatory fields so the number of sessions marked with "(not set)" is kept at a minimum.

DON'Ts

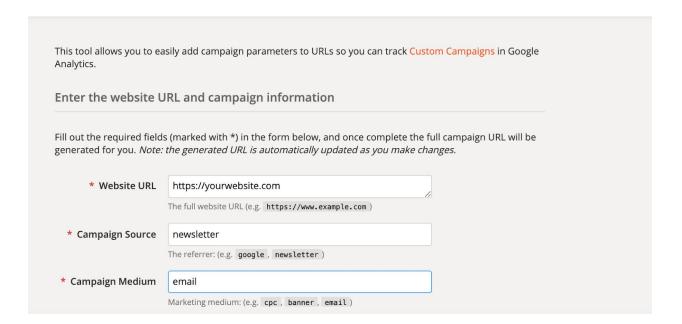
- Never use UTM parameters on internal website links, only use them for identifying traffic from external sources.
- Avoid using special characters or letters with accents, since they appear differently in the URLs, thus making them complicated and long.
- Never use space as a separator, always use an underscore (_) instead.

Campaign URL builder

<u>Campaign URL builder</u> is an online tool that helps you build URLs with tracking parameters. After filling out all the fields, the tool provides the URL either in long or shortened format.



Campaign URL Builder



Google Sheets Add-on

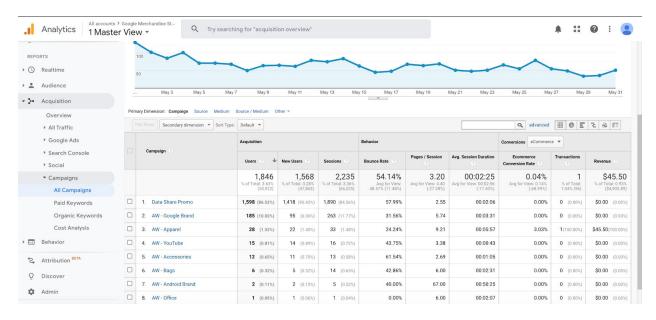
While the Campaign URL Builder helps in creating single links with UTM parameters, the <u>"GA Campaign URL" Google Sheets Add-on</u> helps in doing the same in bulk and also keeping all of them in one place. After adding the tool successfully, you'll find it under Add-ons in your Google Sheets.

Create a sheet with the following columns and use the "=UTM_URL" formula (only available via the add-on) to automate the creation of your custom URLs.



Reporting results

The results of campaigns (specified in the "utm_campaign" parameter) can be found under Acquisition » Campaigns » All Campaigns report.



The results of different sources and mediums ("utm_source" and "utm_medium") can be found under Acquisition » Campaigns » Source/Medium.

The results of other UTM parameters can be added to the reports as secondary dimensions.

Segments in Google Analytics

Finding correlations or drawing conclusions from a big mass of data can be quite challenging. With the help of segments in Google Analytics, you can highlight and analyze different subsets of your data separately and take a deeper look into the numbers.

Segments in Google Analytics can group users or sessions based on different attributes such as geographical locations, devices used or different user behavior metrics. Analyzing groups of users or sessions separately can help identify groups or patterns that will help your business.

You can use the default segments of Google Analytics without any additional settings. Add a segment to the reports by clicking on "Add Segment" at the top of most of the reports.

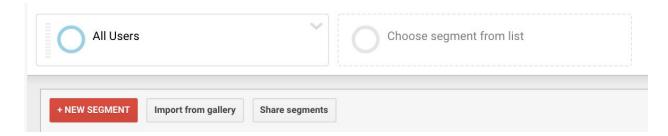


A few examples for useful segments or types of segments:

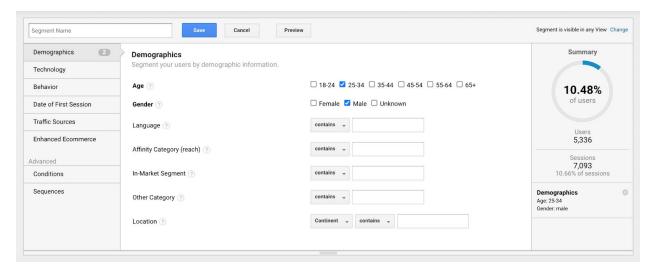
- Referral traffic
- New vs. Returning users
- Demographic attributes
- Content viewed on the site
- Landing page type
- Devices / technology
- Page loading time

Creating new segments

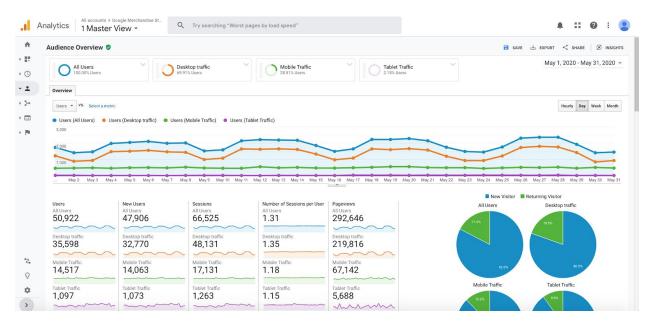
You can create new segments that are customized to your needs in reporting by clicking on the '+NEW SEGMENT' button instead of choosing an existing one.



Choose the parameters and specify the conditions for the custom segment, name it and click 'Save' to finish the process. After saving your new segment, you'll be able to use it in the reports.



You can add up to four segments to your reports at the same time. Reports provide the data for all segments added, as shown below.



Importing segments

Besides using existing ones and creating new ones, you can also import segments from Google Solutions Gallery. This way you can save time and also be sure that the segments you're using are set up correctly.

To import segments, all you need to do is to visit the Google Solutions Gallery (link below), select the package you need and click on import.

https://analytics.google.com/analytics/gallery/#landing/start/

Common mistakes

Wrong placement of the tracking code

The tracking code has to be placed right after the opening <head> tag of the page, otherwise accurate data collection is not guaranteed.

More info: https://support.google.com/analytics/answer/1008080

No tracking code on certain pages

Google Analytics can only collect data on pages where the tracking code is implemented, therefore it is crucial to use the tracking code on all pages of the domain.

Both GTM and GA is in the source code

When using Google Tag Manager, make sure not to have Google Analytics tracking implemented in both the source code and in the GTM container, otherwise you risk duplicate data collection.

Filters are not set up correctly

There are plenty of types of "false data" that can mess up your reporting. Make sure to filter out internal traffic (visits made by your developers, colleagues, agencies), bots, spam traffic, technical URL parameters, irrelevant referral traffic, etc.

Only filtered views are set up

In order to see accurate data in your reports, using filters is a must. However, it is important to have an unfiltered view that serves as a backup and stores your raw data in case something goes wrong with the setup in the other views.

No goals are set up

Setting up goals in Google Analytics can help in finding out whether your website or app is successful in serving its main purpose(s). With the lack of GA goals, analyzing the performance of your website cannot be complete.

No annotations are added

By using annotations, you can add comments that are shown on the timeline of the reports. Make sure to mark campaign launches, major changes on the website or anything that has an influence on your traffic so you won't miss any details when analyzing your reports.

No event tracking is set up

Google Analytics can track many types of interactions by default but not all. These interactions are usually unrelated to the page load: PDF downloads, clicks on external links, playing videos, putting products in the cart etc.

Enhanced Ecommerce is not enabled

If you are selling goods on your website, we highly recommend that you go the extra mile and upgrade your Ecommerce settings to Enhanced Ecommerce, so you get a clearer picture of your online sales. The additional details and extra reporting functions will surely give you more insight into your marketing efforts. The only downside of Enhanced Ecommerce is that you will need IT support for the setup.

Find out more info here: https://support.google.com/analytics/answer/6014841

Appendix: Implementation guide for developers

In most cases, tracking codes should be placed either in the **<head>** or the **<body>** section of the page.

It is extremely important to follow the guidelines throughout the implementation of the code. Making incorrect changes in the code or errors in the placement can lead to corrupted data.

Use the <u>Google Tag Assistant</u> or browser developer consoles to validate the correct implementation.

Implementing Google Analytics on a website

With new accounts:

When creating a new Google Analytics account, your first property will come with a unique tracking code. Implementing this **gtag.js** code will help you collect user interaction data on the website.

Gtag.js is available since the end of 2017, replacing analytics.js, the older version of the tracking code.

The Global Site Tag gives you more control over your data and makes implementation easier.

With existing accounts:

If you're using Google Tag Manager for measurement, there is no need for change.

If you're not using Google Tag Manager, consider changing your GA tracking code to the gtag.js in order to ensure higher quality data collection. You can find the latest version of the tracking code in Google Analytics:

Admin » Property » Tracking info » Tracking code

Implementation

You need to place the JavaScript tracking code right after the opening **<head>** section, on all of your pages. In case you need to implement other tracking codes that should also be placed after the opening **<head>**, just make sure you're implementing all of the codes in the right place and do not mind the order.

The tracking code that should go after the opening <head> tag looks like this:

More info on implementation:

https://developers.google.com/analytics/devguides/collection/gtagis/

Implementing Google Analytics for Firebase in apps

For measuring applications, it is recommended to use <u>Google Analytics for Firebase</u>. Using Google Analytics SDK is not supported anymore for free Google Analytics users.

Google Analytics for Firebase is not only a great tool for analysing app traffic but can also be an essential platform for app development.

Guide for implementation and development - Android apps

https://developers.google.com/analytics/devguides/collection/firebase/android/start/

Prerequisites:

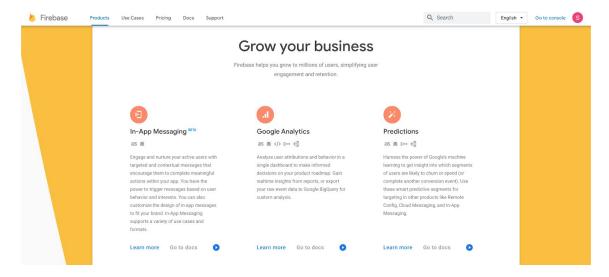
- Implement Firebase SDK
- Add applications to Firebase projects within the <u>Firebase console</u>
- Android Studio 1.5 or higher

Guide for implementation and development - iOS apps:

https://developers.google.com/analytics/devguides/collection/firebase/ios/start

Prerequisites:

- Add Firebase to iOS projects:
- In order to get a list of features like Analytics, A/B testing, In-App Messaging, Remote Config or Dynamic Links, it is recommended to add <u>AdSupport</u> framework



Google Tag Manager (GTM) container code

GTM is a tag management system that enables easy implementation and quick access to tags and code snippets used for analysing traffic or other marketing purposes.

With the help of Google Tag Manager, you can easily add and modify Google Ads, Google Analytics, Firebase Analytics, Floodlight and other third party or custom HTML tags without having to make changes in the source code of your pages.

Featured Google Analytics: Universal Analytics . Google Marketing Platform Google Analytics: App + Web Configuration BETA Google Marketing Platform Google Analytics: App + Web Event BETA Google Marketing Platform Google Ads Conversion Tracking Google Ads Google Ads Remarketing Google Ads Floodlight Counter Google Marketing Platform Floodlight Sales Google Marketing Platform **Conversion Linker** Google Google Optimize Google Marketing Platform Google Surveys Website Satisfaction Google Marketing Platform

Implementation

There are two pieces of GTM code that you will need to implement.

The <script> part of the code should go in the <head> section (as close to the opening <head> as possible), while the <noscript> part of the code should go in the <body> (as close to the opening <body> tag as possible). The <script> code populates the container and all its tags with data, while the <noscript> code serves as a backup in case JavaScript is not enabled in the browser of the user.

The <script> code that goes in the <head> looks like this: (replace "XXXXXXX" with your GTM container ID)

The <noscript> code that goes in the <body> looks like this: (replace "XXXXXXX" with your GTM container ID)

```
<!-- Google Tag Manager (noscript) -->
<noscript><iframe src="https://www.googletagmanager.com/ns.html?id=GTM-XXXXXXX"
height="0" width="0" style="display:none;visibility:hidden">
</iframe></noscript>
<!-- End Google Tag Manager (noscript) -->
```

Just like in the case of all other tracking codes, it is important that you use the exact same code that your GTM account provides without any modification, and that you put the code snippets in the right places. Besides this, try to avoid using tracking codes in the source code together with the GTM codes.

You can use <u>Google Tag Assistant</u> to check if your implementations were done correctly. More info on implementation:

https://developers.google.com/tag-manager/quickstart

Google Ads conversion and remarketing code

Google Ads conversion code

In order to measure purchases, subscriptions or other conversion events that happened via Google Ads, you will need to implement the Google Ads conversion code snippets.

First, you need to place a code snippet in the <head> section of all pages of your site, one that looks like this:

This code alone will not be sufficient to measure conversions, you need another piece of code on your site. For the next step, you have two potential options.

In case the conversion you want to measure has a 'thank you page', you need to place a snippet in the source code of the 'thank you page', **after** the above-mentioned gtag code. The 'thank you page' snippet looks like this:

```
<!-- Event snippet for Example conversion page -->
<script>
gtag('event', 'conversion', {
    'send_to': 'AW-XXXXXXXXX/conversion_label',
    'value': xxxx.x,
    'currency': 'EUR',
    'transaction_id': ''
});
</script>
```

If set up correctly, this tracking code will help collect data on the value of each conversion, which is crucially important information when evaluating your Google Ads campaigns. Make sure to implement this code in a way so that it does not load again when the user reloads the 'thank you page', otherwise your data can be corrupted.

In case there is no unique landing page on your site for the conversion, you need to place an 'on click' event tracking code on the source code of the button that the user has to click on in order to convert.

The tracking snippet for the button click should look something like this:

```
<!-- Event snippet for Example conversion page
In your html page, add the snippet and call gtag report conversion
when someone clicks on the chosen link or button. -->
<script>
function gtag report conversion(url) {
  var callback = function () {
    if (typeof(url) != 'undefined') {
      window.location = url;
    }
  };
  gtag('event', 'conversion', {
      'send to': 'AW-XXXXXXXX/conversion label',
      'value': xxxx.x,
      'currency': 'EUR',
      'transaction id': '',
      'event callback': callback
  });
 return false;
</script>
```

Important! Do not use the 'thank you page' method and the button click method at the same time, since that would lead to inflated numbers of conversions in your report.

Sending Google Analytics and Google Ads data via Global Site Tag

One great advantage of the Global Site Tag is that you can send Google Analytics and Google Ads data to your accounts with a minor modification of the single gtag code. The only thing you need to do is to add the highlighted part of the code to your gtag snippet with your AW-CONVERSION_ID.

Remarketing

Remarketing helps you reach people who have previously shown interest in your goods or services on your website.

If you want to run remarketing campaigns, you need to place the Global site tag in all of your pages' source code:

If dynamic remarketing is what you're planning to do, then you must add the following extra code snippet **after** the Global site tag, with dynamic variables like 'id', or "value':

```
<!-- Event snippet for Example dynamic remarketing page -->
<script> gtag('event', 'add_to_cart', { 'value': 345.89, items': [{
'origin': 'NYC' 'destination': 'PAR', 'google_business_vertical':
'flights' }, { 'origin': 'PAR' 'destination': 'LON',
'google_business_vertical': 'flights' }, { 'id': '123456',
'location_id': 'LON', 'google_business_vertical': 'hotels' }] });
</script>
```

Both snippets should go in the <head> section of your pages, after the gtag. More info on implementation: https://support.google.com/google-ads/answer/2476688 and https://support.google.com/google-ads/answer/3103357

Facebook pixel

With the help of the Facebook pixel code, you can collect data on user interactions made on your website. The code consists of two elements: the basic tracking code and the event tracking code(s). The basic tracking code (or pixel code) collects data on basic interactions such as pageviews and should be placed right before the closing </head>tag of all pages of your site.

An example of basic Facebook pixel code:

```
<!-- Facebook Pixel Code -->
<script>
 !function(f,b,e,v,n,t,s)
  {if(f.fbq)return; n=f.fbq=function() {n.callMethod?
 n.callMethod.apply(n,arguments):n.queue.push(arguments));
 if(!f._fbq)f._fbq=n;n.push=n;n.loaded=!0;n.version='2.0';
 n.queue=[];t=b.createElement(e);t.async=!0;
  t.src=v;s=b.getElementsByTagName(e)[0];
  s.parentNode.insertBefore(t,s)}(window, document, 'script',
  'https://connect.facebook.net/en_US/fbevents.js');
 fbq('init', 'XXXXXXXXXXXXXXX');
fbq('track', 'PageView');
</script>
<noscript><img height="1" width="1" style="display:none"</pre>
  src="https://www.facebook.com/tr?
id=XXXXXXXXXXXXXXXX&ev=PageView&noscript=1"
/></noscript>
<!-- End Facebook Pixel Code -->
```

The event tracking snippets help you collect data on custom events, such as add-to-carts, subscriptions or transactions. Make sure to put the event tracking snippets after the basic Facebook pixel code.

An example of an event tracking snippet:

```
<script>
   fbq('track', 'AddToCart');
</script>
```

You can also add dynamic parameters to your Facebook events such as product IDs, or transaction values. Facebook also gives you the ability to track some events automatically without extra code implementation.

To find your Facebook Pixel Code, go to Ads Manager » Events Manager » Details » Set up » Install pixel » "Manually add pixel code to website".

Use the <u>Facebook Pixel Helper Chrome extension</u> for troubleshooting.

If you're using both Google Analytics tracking and the Facebook Pixel on your site, make sure to put the latter one right before the closing </head> tag to ensure correct data collection. The Facebook Pixel Code tends to be more sensitive when it comes to placement. More information on implementation:

https://www.facebook.com/business/help/952192354843755

Hotjar tracking code

Hotjar is an analytics tool that helps you analyze user behaviour and website performance in more depth. Its core functions are the following:

- Heatmaps, Scrollmaps
- Visitor recordings
- Conversion Funnels

- Form Analytics
- Feedback polls
- Incoming feedback (instant feedback)
- Surveys
- Recruit User Testers

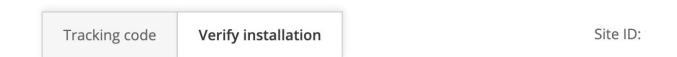
Implementation

Place the tracking code in the **<head>** section of all pages of your site. Do not change the tracking code and make sure to place it in the right place.

The Hotjar tracking code looks something like this:

```
<!-- Hotjar Tracking Code for http://example.com/ -->
<script>
    (function(h,o,t,j,a,r){
        h.hj=h.hj||function(){(h.hj.q=h.hj.q||[]).push(arguments)};
        h._hjSettings={hjid:123456,hjsv:6};
        a=o.getElementsByTagName('head')[0];
        r=o.createElement('script');r.async=1;
        r.src=t+h._hjSettings.hjid+j+h._hjSettings.hjsv;
        a.appendChild(r);
    })(window,document,'https://static.hotjar.com/c/hotjar-','.js?
sv=');
</script>
```

You can check if the implementation is correct in "Sites & Organizations" » Tracking Code. Here you need to input the URL of your page and click "Verify Installation".



Steps to verify if Hotjar is installed correctly on your site:

1 Enter the URL of the site you installed Hotjar onto in the field below.

Enter a URL you want to verify.

e.g. http://www.yoursite.com or http://localhost:8000

Click the verify button below and check that you see a confirmation badge like this

Verify Installation

More info on implementing Hotjar:

https://help.hotjar.com/hc/en-us/articles/115009336727

GDPR compliance checklist

All companies that collect online data of any kind about their EU citizen customers or users must comply with the GDPR law of the European Union that came into force in May 2018.

If you collect data on EU users, especially for marketing purposes, check out all the items in the following list to be GDPR compliant:

- Update your privacy policy using clear & transparent language
- Make sure you do not track PII (Personally Identifiable Information)
- Review & accept <u>Google's Data Processing Terms</u>
- Review & Accept Google Analytics Data Retention settings
- Begin <u>Anonymizing</u> / Masking IP Addresses
- Obtain user consent for User ID Tracking
- Obtain user consent for advertising & remarketing features
- Obtain user consent for Google Analytics tracking
- Prepare process for EU Citizens' 'right to be forgotten'
- Implement a GDPR compliant cookie consent framework on your website (with the ability to only choose operational cookies)

Source and more info on the web analytics aspects of GDPR: https://www.empiricalpath.com/gdpr-risk-matrix-for-web-analytics-customers/

Contact us

This document was created by the <u>Mito</u> Digital Analytics team. Should you have any questions regarding this guide or other relevant topics, feel free to contact us via mail: <u>analitika@mito.hu</u>.