Julius Fedorovicius

GTM for beginners

Taking first steps with Google Tag Manager

Analytics mania

INTRODUCTION

Google Tag Manager is an amazing tool. I have been running AnalyticsMania.com for almost two years now and 98% of all blog posts are about GTM. It has saved me, my colleagues and my clients so much time that I cannot even imagine how I could live now without it.

Need to add a particular tracking pixel to a website? Not a problem! Do you want to track submissions of a newly created form? Consider it done. All thanks to a thing called Tag Management.

Instead of waiting (for days) for a busy developer to add those tracking codes you could do this by yourself. Even though you will not replace developers 100% (and, in fact, you never should), with Google Tag Manager you (and your team) will become much agiler implementing new marketing campaigns and/or web analytics tracking.

But where should you start? GTM looks like a tank, which requires some very specific knowledge, and your regular driver's license will not help much here. Just like any other tool, GTM has its own learning curve. That's why I decided to create this e-book for GTM beginners, the first step towards new knowledge and becoming more independent + have more control over your analytics/marketing tracking codes.

I hope that you will find this e-book useful and if you need any help in that journey, feel free to contact me at julius@analyticsmania.com.

Julius Fedorovicius, *Founder of AnalyticsMania.com*

TABLE OF CONTENTS

That is a long Google Tag Manager e-book waiting for you ahead :) You know what? This is just a beginning; there are many more GTM topics to learn. However, I am not trying to scare you off. Definitely not. Google Tag Manager is an amazing tool that I am in love with, the only problem here is that it takes a lot of time to put all the puzzle pieces together and become a skillful GTM user.

Luckily, I have a fast-track solution for you. A **Google Tag Manager course for beginners** that I have been polishing for a while.

- 9 hours of video material
- 9 modules
- A sandbox website + many practical tasks
- Lifetime access, free updates, and so much more is waiting for you.

Learn more about the course

THE PRE-TAG-MANAGEMENT WORLD

Before we dive deeper into what a GTM is, let us take a quick look at the world we used to live in (a.k.a. "without tag management"). In fact, many people still live in it. Every time you want to install Google Analytics or some other web-tracking tool, it prompts you to add a piece of their JavaScript code on your website. Pretty standard, right?

It can be Hotjar, Google Analytics, or some other tool, but they all ask you to add their code to your site. When a visitor lands on your website, that tracking code is also loaded, therefore, a visitor is tracked.

Adding that one tracking code to a site is not big of a deal. You just ask a developer and he does that (sometimes on the same day, sometimes over the course of several days, but still reasonable because this has to be done only once).

However, not everything is so perfect. Out of the box, GA offers plenty of metrics but to make really good and thoughtful decisions you need to track much more: interactions (e.g. clicks, form submissions), sales, etc.

This means more tracking codes must be added to a website. And usually, this is not just a "one-time project". You need to constantly add new tracking codes and modify/remove the current ones.

That is where the developer becomes a bottleneck. Since he is working on his own tasks/projects, marketing/analytics tasks often are a B priority; therefore, you and your team have to wait. And wait a bit more. And more. If there was a way to add those codes faster...

That is where the Google Tag Manager (or any other tag management system) saves the day.

WHAT IS GOOGLE TAG MANAGER?

Google Tag Manager is a tag management solution which acts as an intermediary between a website (or a mobile app) and 3rd party tracking tools. All you need to do is to add your tracking codes to GTM and then configure rules when they should fire (on page load, click, form submission, etc.).

Imagine that Google Tag Manager is a toolbox, where you keep all your tools: a ruler (Google Analytics), a hammer (Google Ads), etc.

Google Tag Manager also lets you test your tags to make sure they are triggered when you load a page or click a particular button. Another great benefit: you can change your tags and the way they work without actually changing the source code of your website (which you may not be able to do because of slow release cycles or busy schedule of developers) - instead you just edit tags in GTM user interface and publish changes with a click of a button.

Many beginners confuse Google Analytics with Google Tag Manager by asking which one should they use now. The answer is actually **both**. These two tools do not replace each other, they work together. Google Analytics is a tool that collects visitor data and displays it in various reports, while Google Tag Manager is a data transportation method. It catches website interactions and sends the data over to Google Analytics or any other tracking tool.

To sum up, Google Tag Manager lets you manage various JavaScript tracking codes (a.k.a. Tags) on your website. **Google Analytics tracking code is one of those tags**.

If you still feel confused about the relationship between Google Analytics and GTM, read this guide: GA vs GTM - what is the difference?

As I have mentioned before, Google Analytics is not the only tag compatible with Google Tag Manager. Other examples include:

- Google Ads Conversion Tag.
- Google Ads Remarketing Tag.
- Facebook Pixel code.
- Crazyegg tracking code.
- Inspectlet tracking code.
- Any other custom HTML/Javascript code, etc.

WHY SHOULD YOU START USING GOOGLE TAG MANAGER?

There is a whole bunch of reasons why you should immediately start using Google Tag Manager:

REASON #1. FAST DEPLOYMENT OF TRACKING CODES

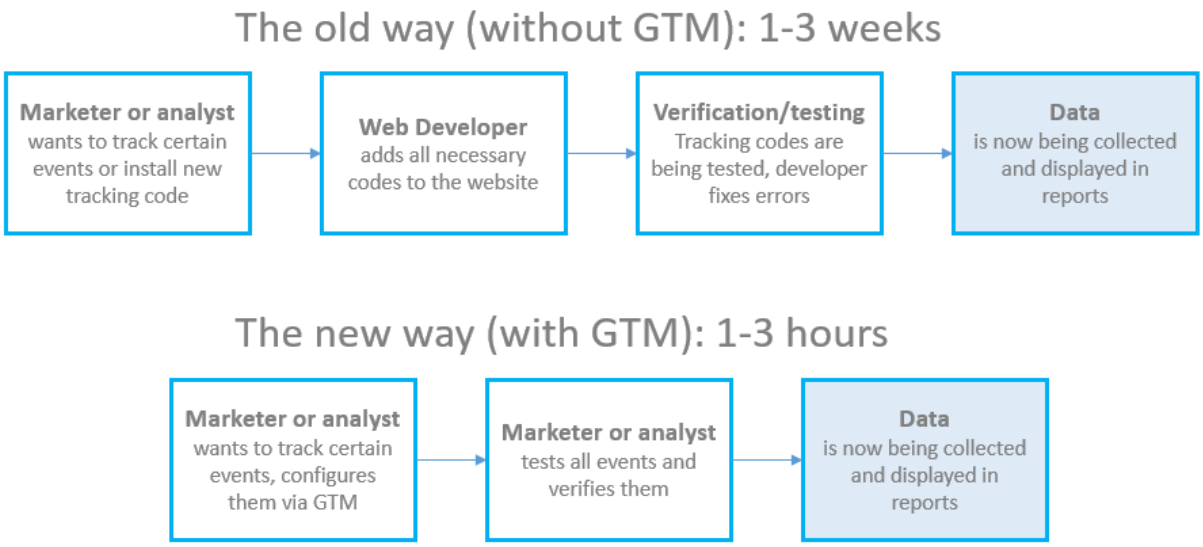
Once again, let us remember the *classic way* of how tracking codes are managed:

- A marketer (analyst, or anyone else) decides to start using a new marketing platform to track user behavior.

- He/she gets a tracking code and sends it to a developer.
- The developer says he's busy and will do that next week.
- What if you need to track additional events? In that case, you will need to write a detailed task, send emails back-and-forth with the developer in order to get those codes installed. This takes even more time.

In many cases, Google Tag Manager gets rid of this hassle and allows making the process much more effective.

Google Tag Manager speeds up many processes. Changes and new tags (read: "tracking codes") can be created rapidly and a lot of them do not require code changes to the website. This is great for marketers because it can really speed up launch time by testing each change themselves and deploying when ready.



In fact, Lunametrics have published a short case study where their client experienced a **600% improvement** in tag implementation time.

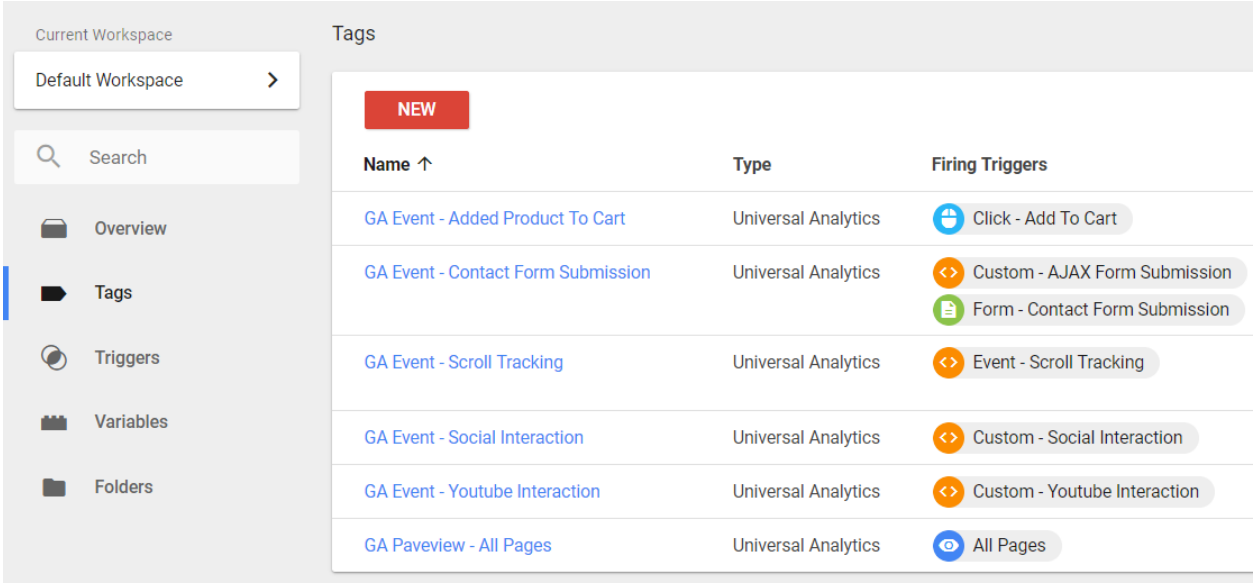
REASON #2. ALL TAGS ARE CONTROLLED IN ONE PLACE

In the past, all tracking codes were coded directly in website's/app's source code. The worst part, those little pieces of JavaScript code snippets were scattered across different

website's files. So if you need to do a change, the developer most likely needs to: (1) find all those codes, (2) update them.

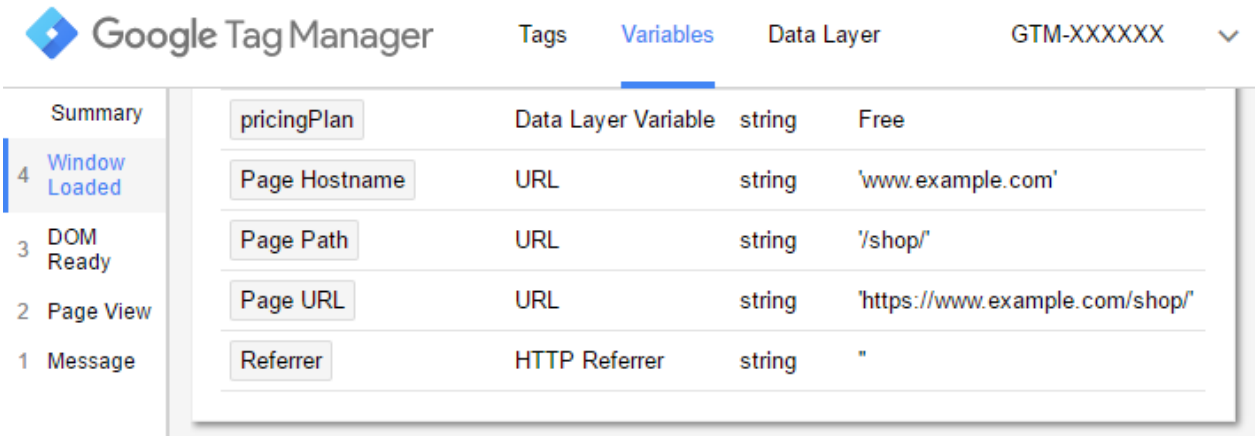
I've seen many cases when due to a human error some codes were missed, therefore this caused inaccuracy in data collection.

Thanks to GTM, this process is made easier: all tags are controlled in one place.



REASON #3. TESTING TOOLS

Troubleshooting and correcting tag errors is simplified via Google Tag Manager's [Preview and Debug mode] that shows which tags are fired on a page and which are not. It also includes information about triggers that fire tags and data contained within tracking tags.



Why is it important? With GTM debugging solutions, you are making sure that your tags work before you publish them to the live site. Also, let us not forget other useful browser extensions such as [Tag Assistant], [Data Layer Inspector], etc. I have listed a lot more of them in a blog post called [Top Google Tag Manager Extensions for Chrome].

Still not convinced? Continue reading this e-book and I'll show you the Pandora's chest.

REASON #4. SIMPLE (KIND OF) EVENT TRACKING

As I have mentioned before, event tracking involves custom JavaScript codes that a developer has to add to a website to track events like clicks, form submissions, etc. To make things easier, Google Tag Manager comes with a feature called auto-event tracking.

Once you enable a certain trigger in GTM, it will start automatically listening to particular website interactions. There is still some setup required, but it is relatively straightforward to do. You can use those interactions to fire tracking codes, e.g. Google Analytics Event Tag.

Basic events that you can track (by default) in GTM are based on:

- Clicks
- Link clicks
- Form submissions
- Time spent on a page, etc.

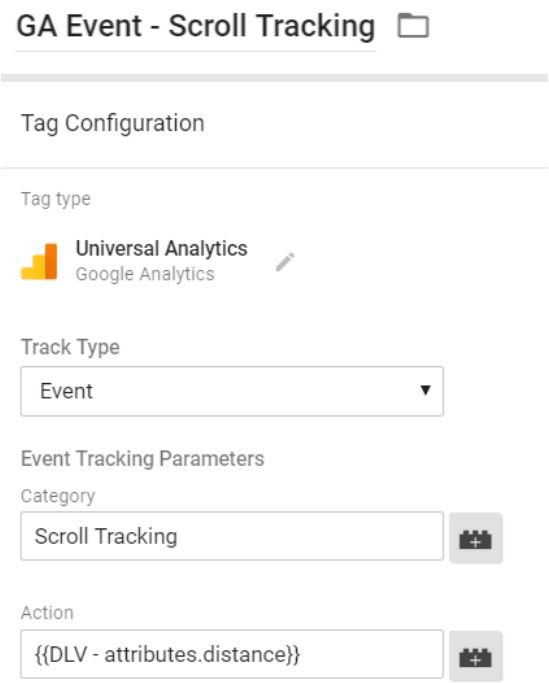
But wait, there's more! Thanks to the growing community of GTM users and enthusiasts, the number of auto-event tracking functions constantly increases. You can also add custom features that record things such as intentions to leave a page, new comments, video players and much more.

Why is this important? Well, it enables you to gain insight into what actions users take on your website. Are they engaging with the content? Are they filling out your forms? You can then use these events to create goals specific to your business in Google Analytics (or any other tool of your choice, of course).

Just keep in mind, that events that are more complex still *might* require a developer's input. Although GTM gives you some super powers, it does not make you almighty.

REASON #5. TAG TEMPLATES

GTM comes with a number of important built-in tags for classic and Universal Analytics, Google Ads conversions, remarketing, and more. This allows a marketer with little or no coding knowledge to customize tags, without implementing a complicated code or asking for a developer's help.



Currently, there is a whole bunch of [templates] at your disposal and the number is expected to grow in the future.

If you still have some doubts about whether you should start using Google Tag Manager, here are some additional posts tailored to you:

- Google Tag Manager benefits
- Things you can do with Google Tag Manager (A LOT of them)

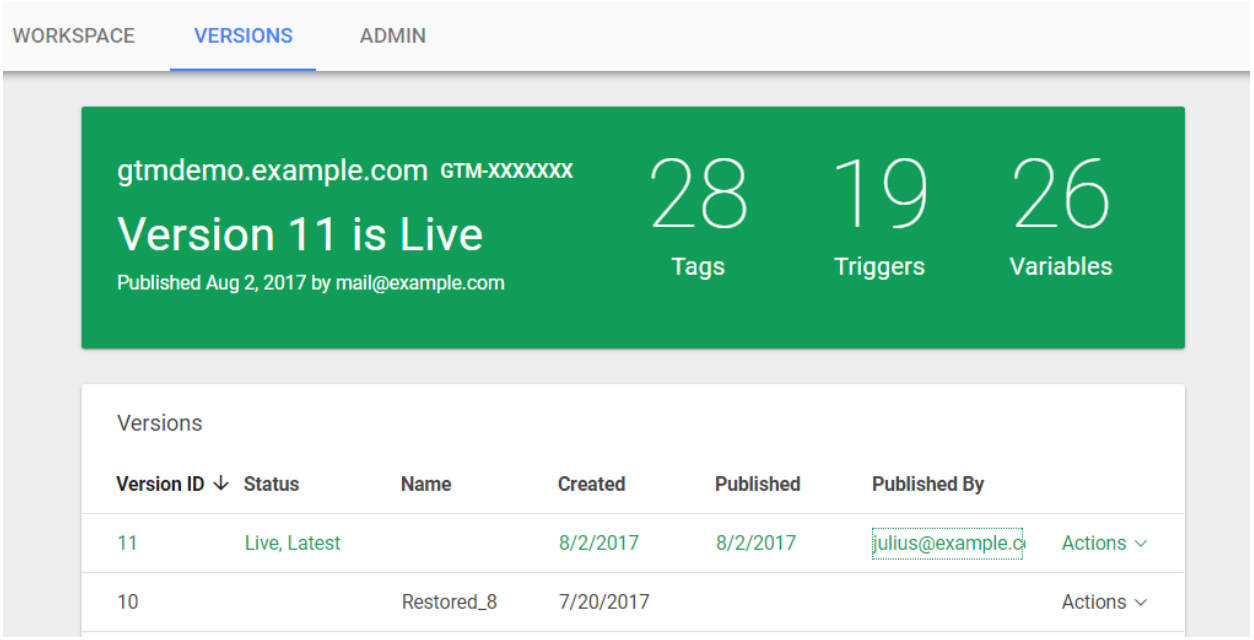
REASON #6. VERY ACTIVE GTM COMMUNITY

If you get stuck and can't figure out why one thing or another does not work in GTM, **join our community on Facebook** to get help. I have founded this group in January 2018 and there already are more than 3300 members (in August 2018). The group is very active and constantly growing. So do not be shy and feel free to ask all things GTM. I, Simo Ahava, or anyone else will definitely try helping you.

REASON #7. VERSIONS

Every time you publish a change to a container (where your tracking codes are stored), GTM creates a new version. If at any time you need to restore to a previous (or any other existing) version, you can do easily.

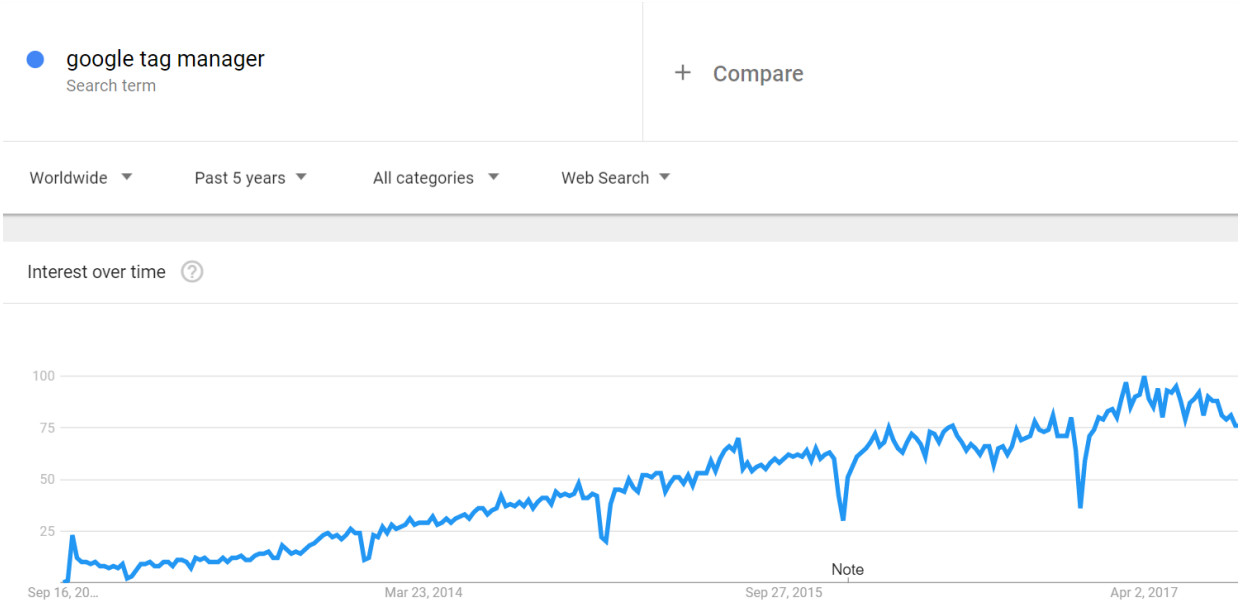
Accidentally published changes to a live site although some tags were still incomplete? Not a problem. Just head over to **Versions** page and publish a previous version. That is an easy way to solve all ***Ooops…*** situations.



REASON #8. GROWING POPULARITY

Google is known for launching and killing many products, like Google Glasses, RSS Reader, etc. But it looks like Google Tag Manager's future is bright: its popularity is growing, more and more people are using as their work tool, the number of free and paid GTM resources is also constantly increasing.

But don't trust my word. Here is what the data says (taken from Google Trends). Although the growth has slowed down, let us see where this leads us in the future.



What does it mean? Well, the more people are using GTM, the more blog posts, tutorials and other types of content will be available. To name a few:

- The Ultimate list of 90+ GTM Resources
- The Library of Google Tag Manager Recipes (ready-made container templates)
- The Ultime Google Tag Manager Glossary

HOW DOES GOOGLE TAG MANAGER WORK?

For very beginners, there are three concepts to understand: tags, triggers, and variables.

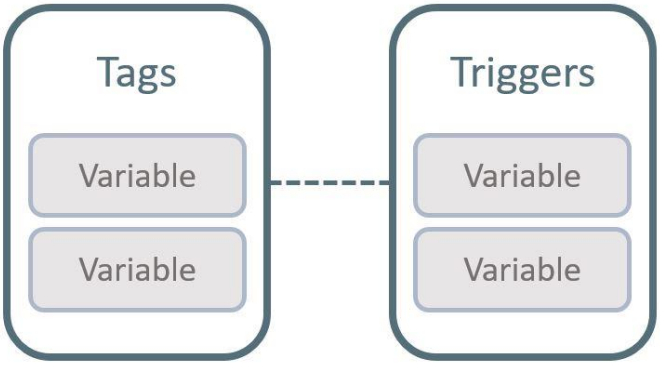
A tag is a piece of code that fires on a website under certain circumstances. It can be a tracking code, some piece of code that changes the text or a particular website element, or even a code which changes the color of the browser's address bar, you name it. When you create a tag, you basically instruct Google Tag Manager to "do this", "do that", "track page views of this visitor", "track this click and send to Google Analytics" etc.

A trigger is a condition when a tag must fire. Should a tag fire on all page views? Or maybe on certain clicks? How about successful form submissions? All these examples

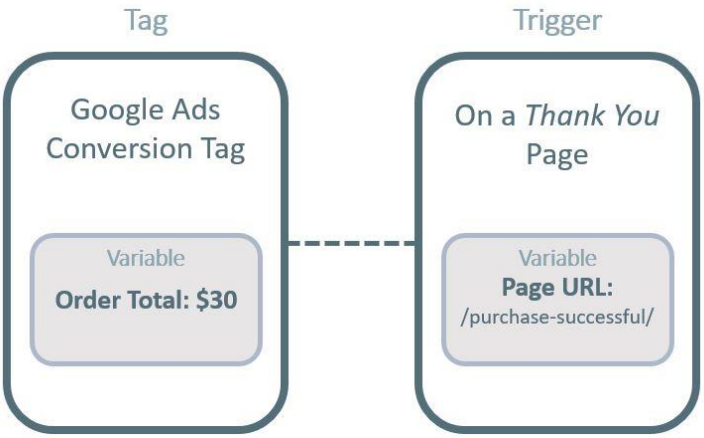
are triggers. When a particular condition (or a set of conditions) is met, a trigger is activated and all the tags (linked to it) are dispatched.

A variable is the final member of this trinity. Variables are little helpers that can be used in tags, triggers, or even in other variables. A variable can:

- Hold a single piece of data (like page URL, website domain, product ID, text of a link, etc.)
- Hold a set of data/settings (Google Analytics settings variable contains multiple settings related to GA, like *Tracking ID, Display Advertising settings, etc.*)
- Be a complex function (but this one is too advanced for beginners, therefore, let's skip it, at least for now), etc.



The best way to understand the relationship among tags, triggers, and variables in Google Tag Manager is to look at an example (see the image below).

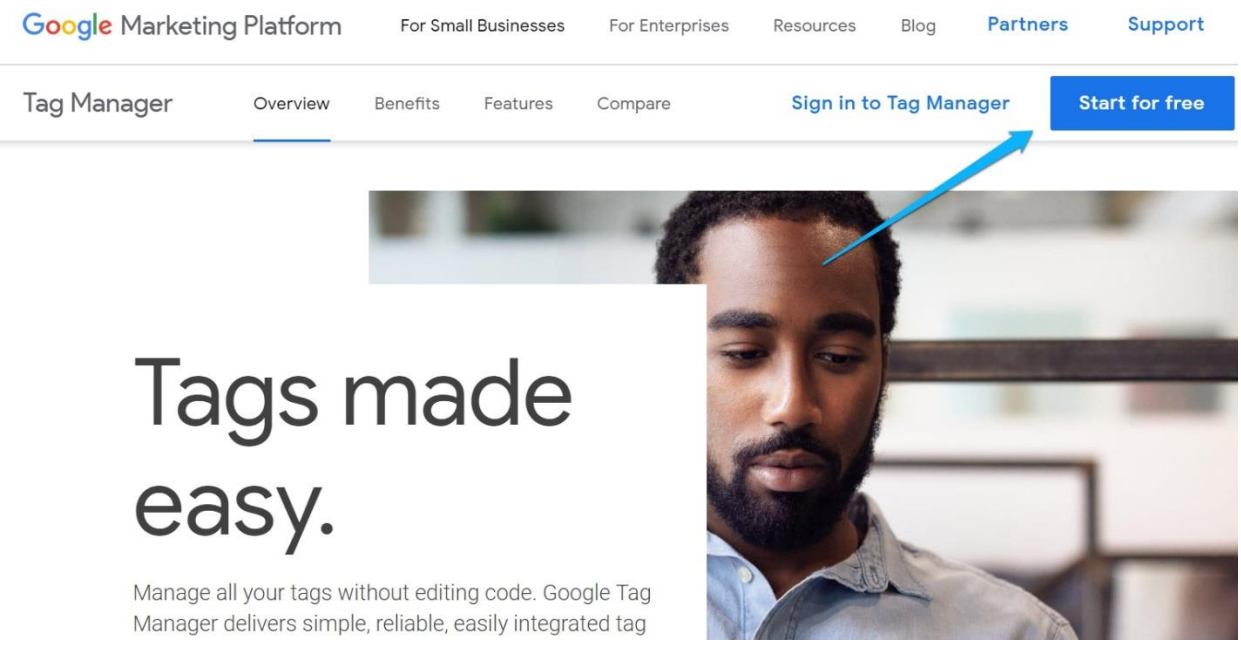


- Google Ads Conversion Tag is **a tag.** With it, you instruct the Google Tag Manager to do **what**? Track a conversion.
- **When** must this tag fire? The answer is *On a Thank You Page* (a.k.a. order confirmation page). This condition is our **trigger**.
- Now, we need to use some additional information in order to send data that is more precise to Google Ads and to make our trigger actually work.
  - With Google Ads conversion tag, we can send **Order Total** which is a variable. Whenever a successful purchase is complete, Google Ads tag will fetch the value of the variable **Order Total** and send it over to Google's servers. Variables are things, which makes GTM tracking dynamic.
  - In the trigger, we need to precisely instruct GTM, **when** to fire. Saying *on a Thank You page* is comprehensible for a human. But in GTM, we need to be more specific. What is a *Thank You* page? The answer: it is the page of which Page URL contains "/purchase-successful/" (P.S. this is just an example). In this case, Page URL is a variable and we have instructed GTM to constantly check Page URL when the page loads. If a variable (URL) contains "/purchase-successful/", the trigger will be activated.

So as you can see, variables can be used in both Tags and Triggers. You can also use them in other variables but you will learn that in the future (not in this guide).

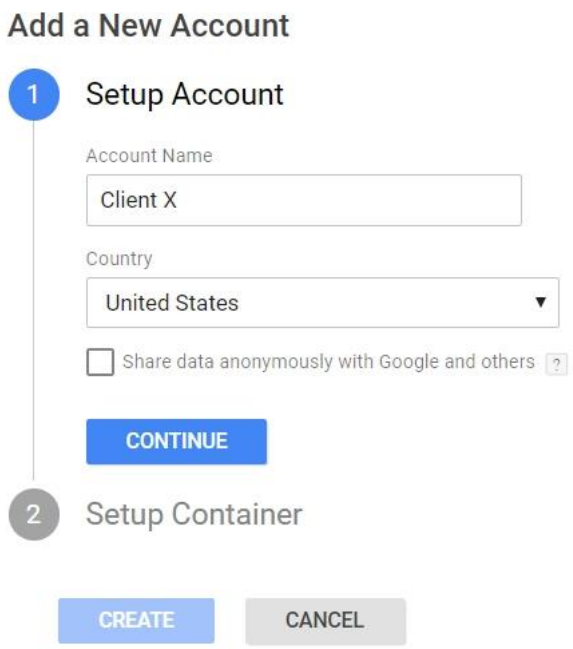
CREATE A GOOGLE TAG MANAGER ACCOUNT

To get started, first let's create a Google Tag Manager account. Go to [GTM official website] and click the main call-to-action in order to create a new account.



Just like with any other Google's product, you will use the same Google account for GTM. So if you're already on Gmail (Google Ads, Google Analytics, etc.) you will be automatically logged in to Google Tag Manager. If not, create a Google account first (I will not show that procedure, so you're on your own here :)).

Once you log in, you will be asked to create a new GTM account and a new container.



GTM account works the same as Google Analytics account, usually it's for a company/business/client, while a container is usually for a website or application. A single container can contain many tags, triggers, and variables.

However, if there are several websites which belong to a single business and their structure is very similar (and their tracking implementation is similar), feel free to use one container on multiple websites.

HOW TO PROPERLY INSTALL GOOGLE TAG MANAGER?

After you create a container, you will get two codes that need to be added to a website. Hand over these two snippets to a developer and ask him/her to carefully follow the instructions (the first code should be added somewhere in the <head> of a website, while the second should be added right after the opening <body> tag).

Install Google Tag Manager

Copy the code below and paste it onto every page of your website.

Paste this code as high in the **<head>** of the page as possible:

```
<!-- Google Tag Manager -->
<script>(function(w,d,s,l,i){w[l]=w[l]||[];w[l].push({'gtm.start':
new Date().getTime(),event:'gtm.js'});var f=d.getElementsByTagName(s)[0],
j=d.createElement(s),dl=l!='dataLayer'?'&l='+l:'';j.async=true;j.src=
'https://www.googletagmanager.com/gtm.js?id='+i+dl;f.parentNode.insertBefore(j,f);
})(window,document,'script','dataLayer',[redacted]);</script>
<!-- End Google Tag Manager -->
```

Additionally, paste this code immediately after the opening **<body>** tag:

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

For more information about installing the Google Tag Manager snippet, visit our Quick Start Guide .

OK

Thanks to this code (implemented on a page), all the tags will be fired when they are configured to do so.

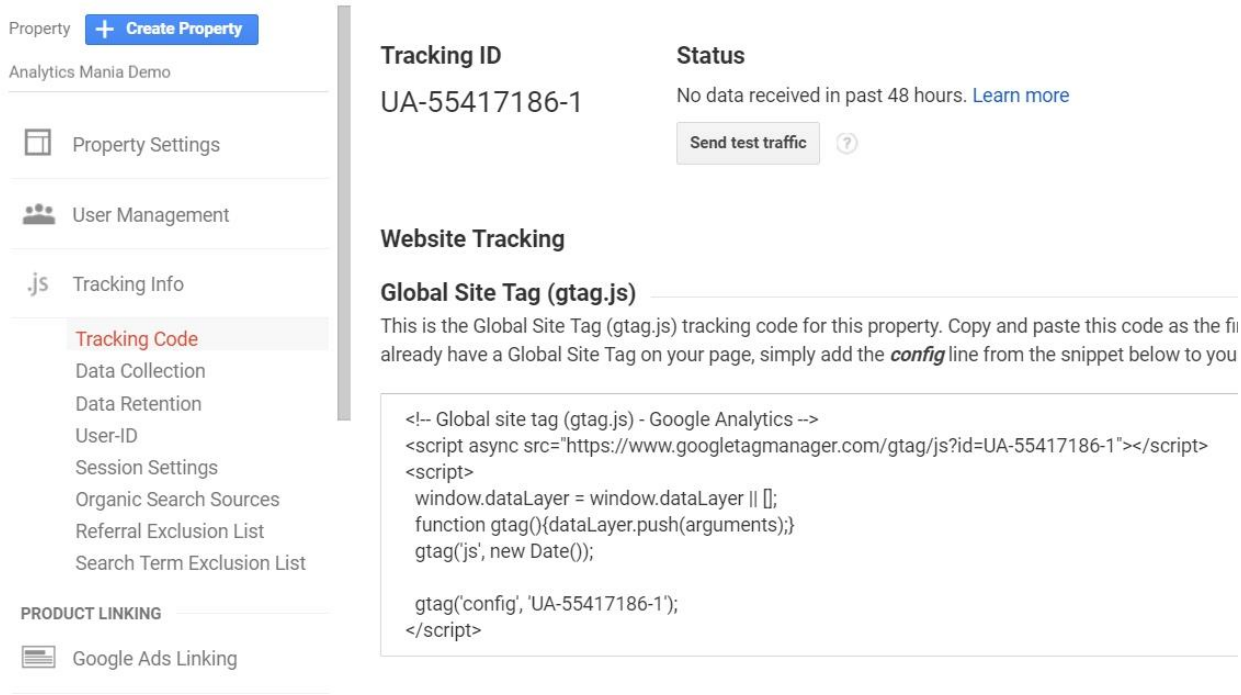
If you want to learn more about the proper installation, read this guide on how to install Google Tag Manager on a website.

If you're using a popular content management system, like Wordpress, chances are that there is a ready-made GTM plugin which eases the installation process + adds some additional benefits.

For example, in Wordpress, there is an awesome plugin GTM4WP (by Duracell Tomi). Not only will it help you easily install GTM, but also you can get some additional data from it, like *page author, page tags, etc.* Later, this data can be turned into GTM variables and used in tags and triggers.

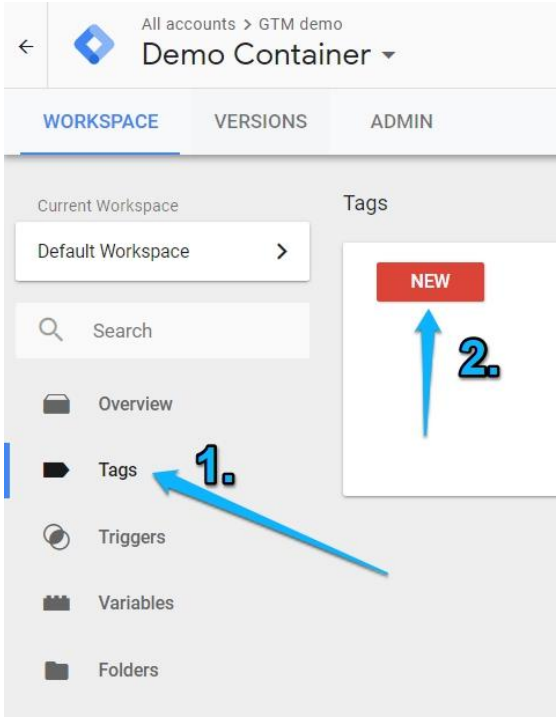
CREATING YOUR FIRST TAG

Usually, the first tag that marketers/web analysts install with GTM is Google Analytics Pageview tag. This is an equivalent to the procedure where Google Analytics asks you to add their tracking code snippet to all pages of a website.

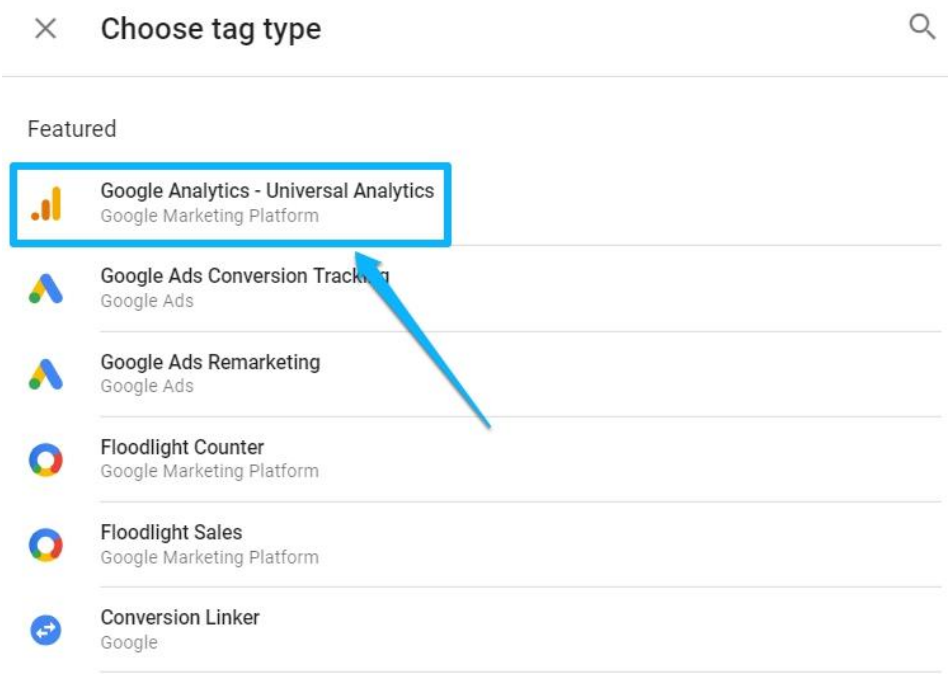


In this case, we'll add Google Analytics tracking to all pages with help of Google Tag Manager.

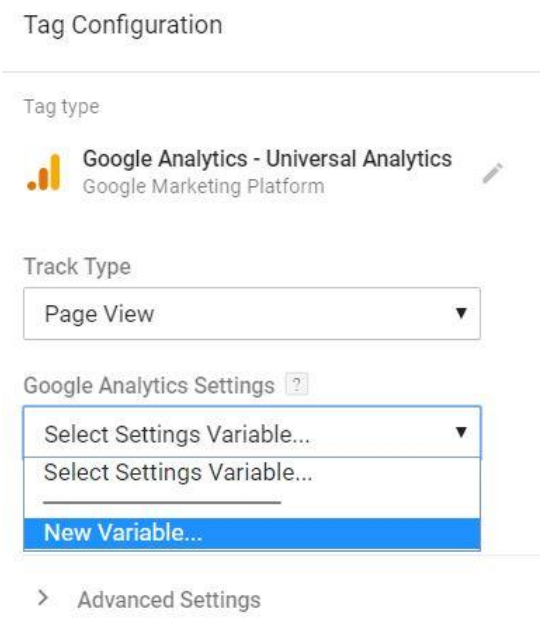
In Google Tag Manager, go to Tags and click **New**.



A window will slide in from the right. It consists of two parts, Tag Configuration and Triggering. Click anywhere on Tag Configuration block and choose **Google Analytics - Universal Analytics** tag type.



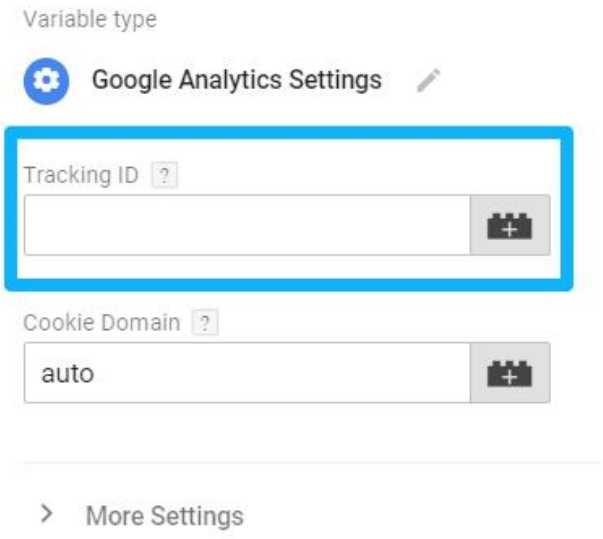
Leave *Page view* as a *Track Type* and then in Google Analytics Settings Variable drop-down choose *New Variable*. You are about to create your first variable.



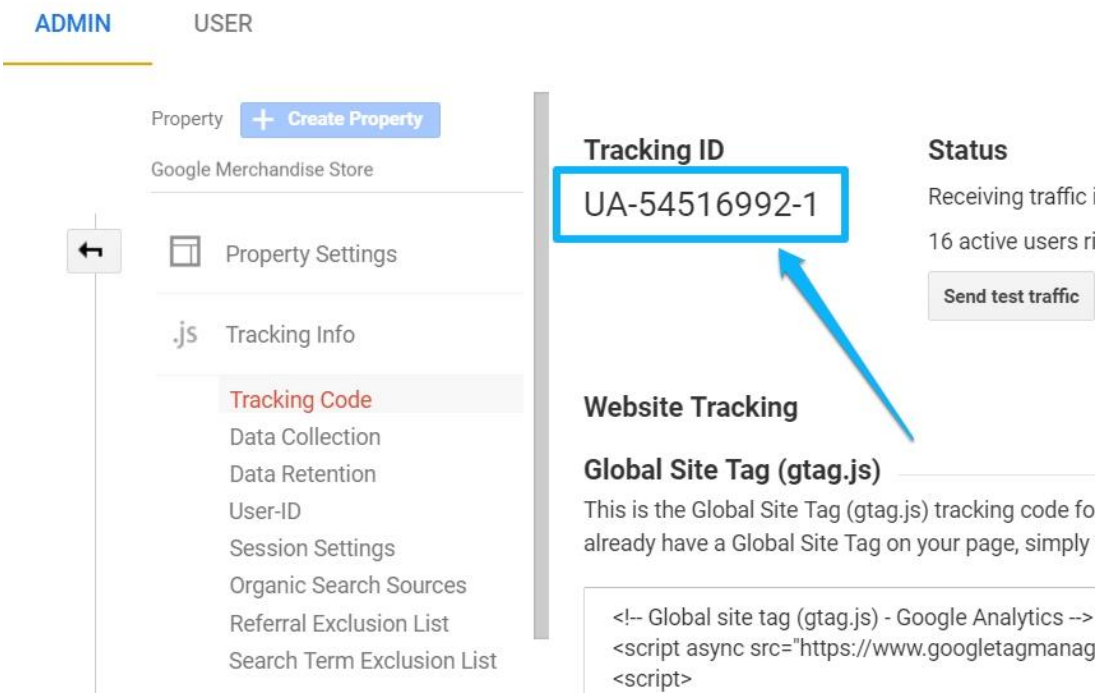
Google Analytics Settings Variable is a great time-saver. What you will learn in the future is that in each Google Analytics tag you will need to separately set various settings, like GA tracking ID (UA-XXXXXX-XX), cross-domain settings, custom dimensions, etc.

The more GA tags you have, the more inconvenience it will cause. Imagine a situation when you suddenly have to do a single change in 40 tags, that's 40 manual changes! Thanks to GA Settings Variable, you can assign it to multiple tags and when you need to change some configuration, you need to do this only once (because all the tags are using the settings variable).

Anyway, back to our GA Settings Variable. For starters, we need to insert the tracking ID of our Google Analytics account (because GTM must know to which GA account should it send the data).



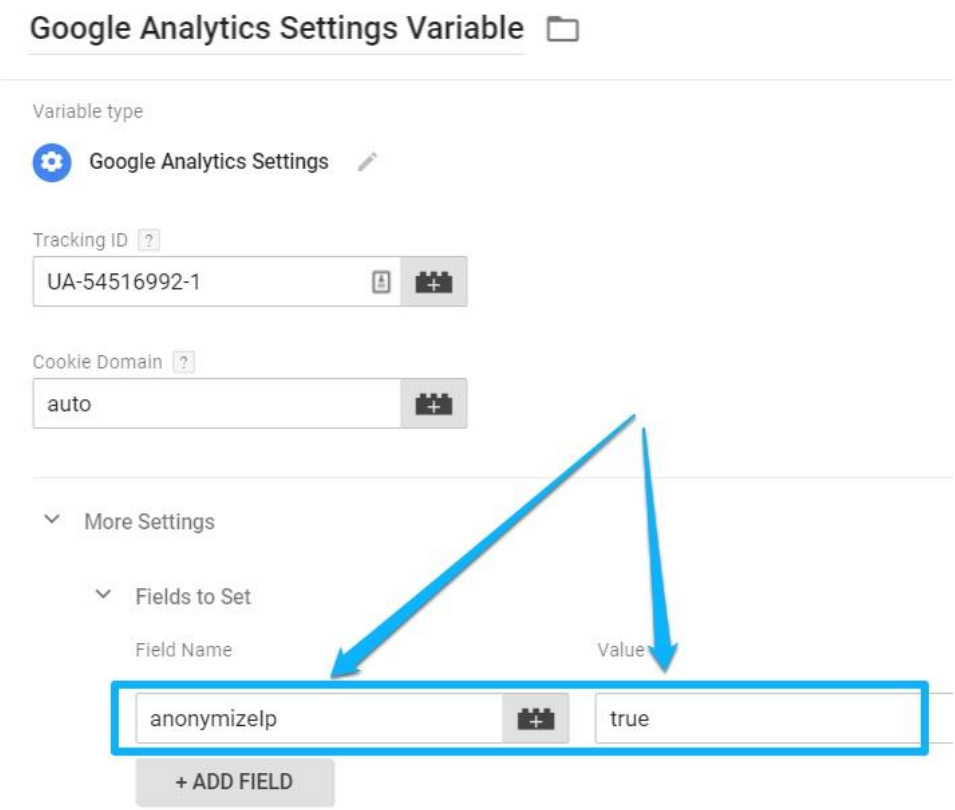
Go to your **Google Analytics account** > **Admin** > **Tracking Info** (on a *Property* level) > **Tracking Code** and then copy the Tracking ID. Not the entire code, but just the ID.



Go back to the Google Tag Manager interface and paste the ID in a Google Analytics Settings Variable. Since GDPR is already present, we also need to anonymize visitor's IP

address (because according to this regulation, IP address is considered as personal data).

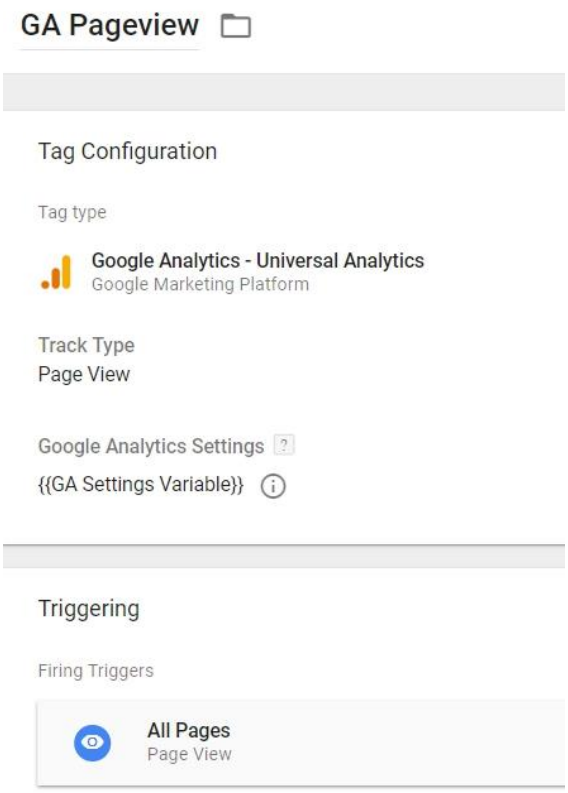
In GA settings variable, go to *More Settings* > *Fields to Set* and enter **anonymizeIp**, set it to *true.* This parameter will change the last digit of the IP address to 0 (e.g. 123.233.212.12 -> 123.233.212.0).



P.S. Do not forget to [update your GA filters] (which exclude internal traffic) accordingly.

Save the variable and you will be brought back to editing mode of the Google Analytics Tag.

Tag configuration part is complete, now let us set the trigger. In the Triggering section, click anywhere on that white block and choose the trigger, *All Pages.*



This condition means that Google Analytics Page View tag will fire on all pages where Google Tag Manager container code is installed.

That's it! Save the tag. This is all you need to do with basic GA implementation. If someone asks you to install the standard tracking with Google Analytics, that is all you need to do, create a Page View tag. It is an equivalent of adding that GA tracking code (which is provided in the Admin section of GA property) to website's source code.

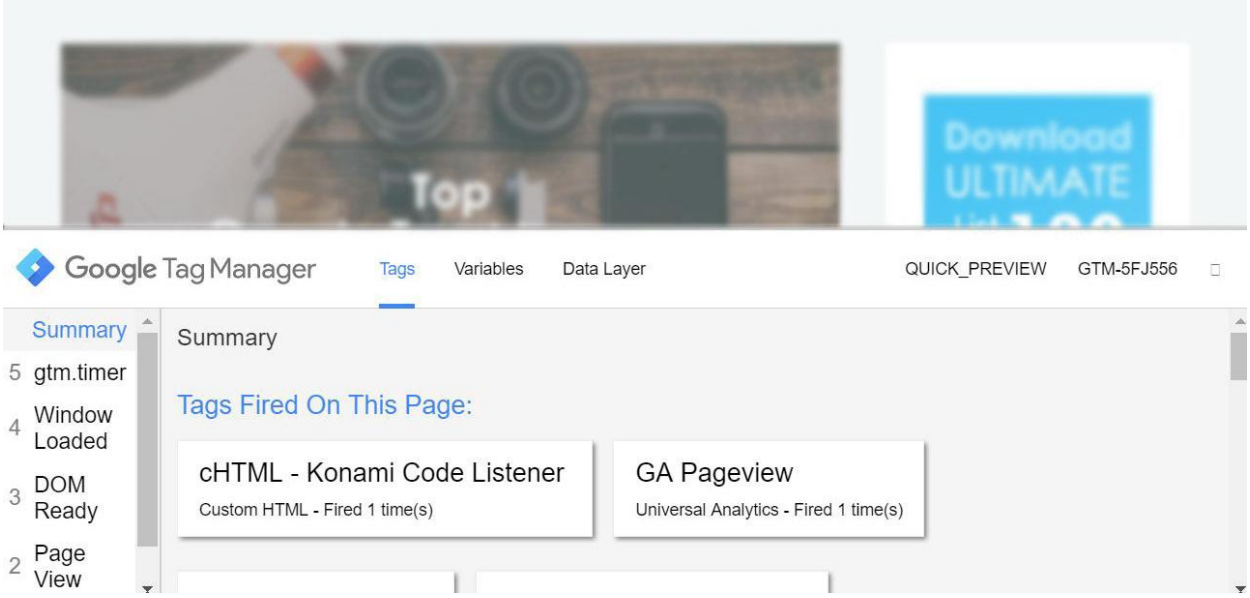
By completing these steps, we've instructed Google Tag Manager:

- to track website visitors with GA (that's a **tag**)
- to fire that tag on all pages (that's a **trigger**)
- to send the data to a particular Google Analytics account (GA Tracking ID was inserted in a Google Analytics settings **variable**)

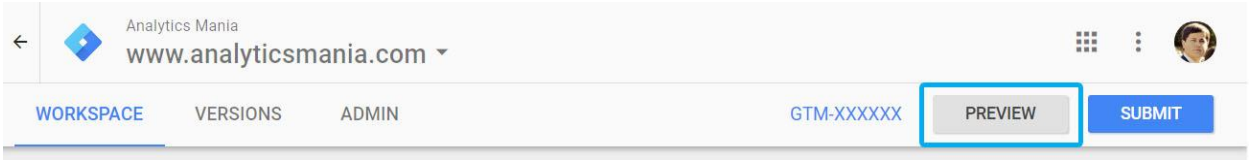
TESTING WITH PREVIEW AND DEBUG MODE

Before we publish these changes and start tracking all the visitors, first we need to make sure that everything is configured properly. That's where GTM Preview and Debug mode becomes very useful (in fact, this is one of my favorite features in Google Tag Manager).

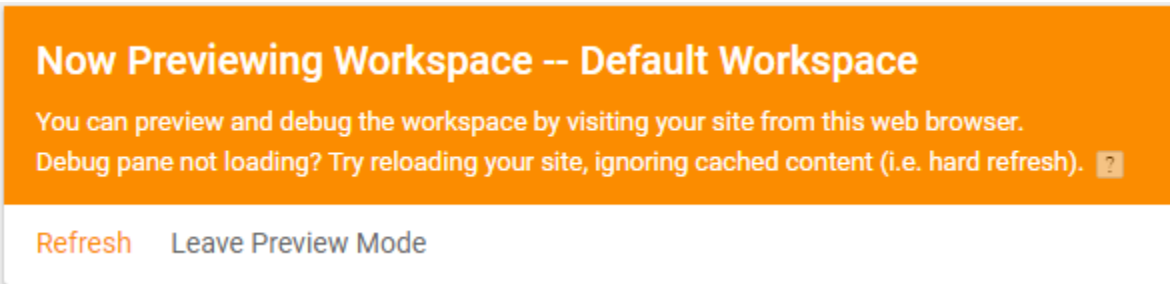
Google Tag Manager Preview and Debug (P&D) mode allows you to browse a site on which your GTM container code is implemented. Sites with preview mode enabled will display a debugger pane (a.k.a. console) at the bottom of your browser screen so that you can inspect which tags fired and when.



To enable Google Tag Manager Debug mode, click **Preview** button in the top right corner of your GTM interface (near **Submit** button).



After you enable P&D mode, a large orange notification banner will appear.

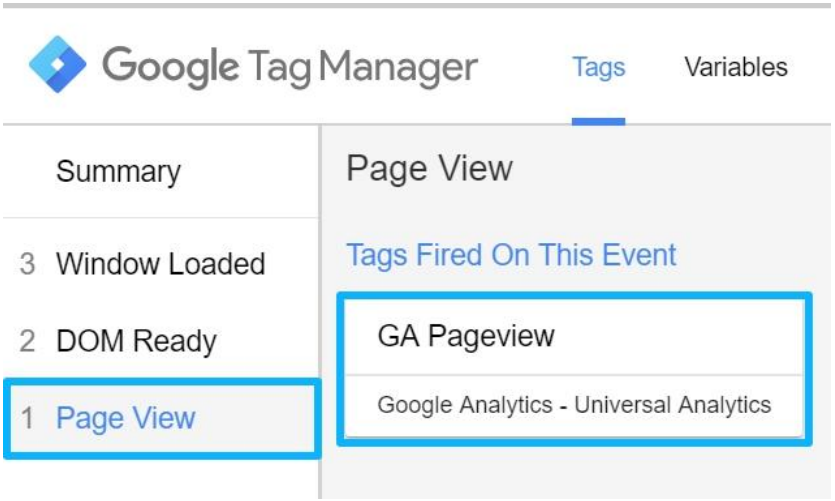


Now, navigate to the site where the Google Tag Manager container code is implemented, refresh the page and a debug console window will appear at the bottom of your browser, showing detailed information about your tags, including their firing status and what data is being processed.

This console window will appear only on your computer as you preview the site, and is not visible to your other website visitors. So calm down, if something breaks in the container, nobody is affected (until you publish all the changes to the live environment)

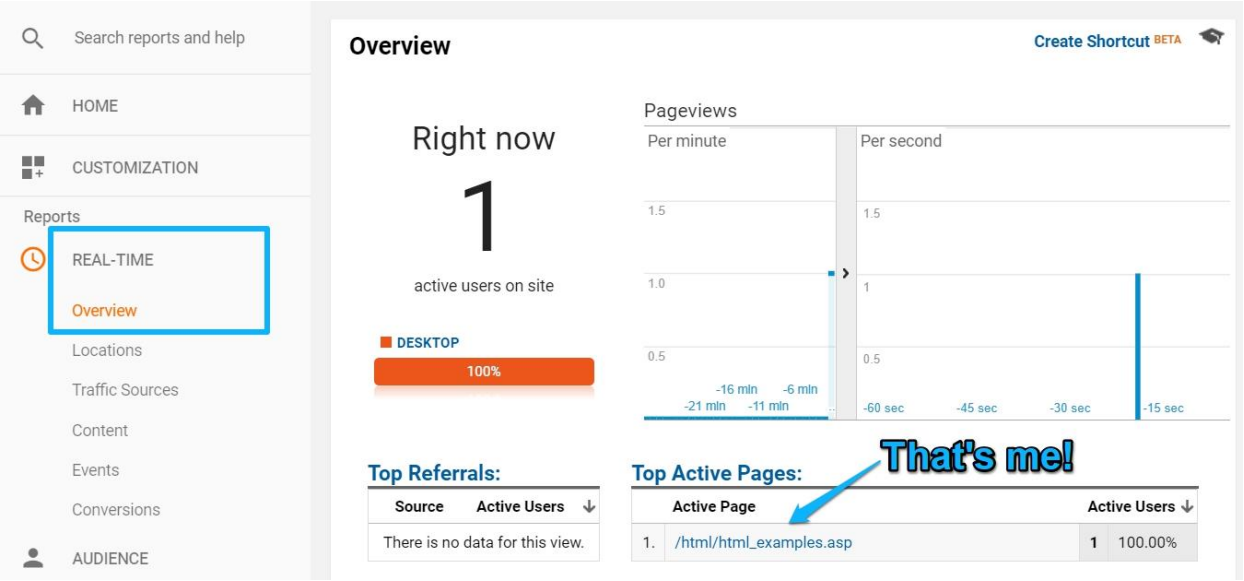
P.S. If you are having difficulties seeing with Preview and Debug mode, read the guide on how to fix it. Also, if you want to learn more about the P&D mode, check this blog post out.

Back to our Google Analytics Page View tag. Once the Preview and Debug console appears on your website, click *Page View* event (on the left side of the console) and see if your GA tag has successfully fired.



Great! Before we start celebrating your first tag, we need to check whether that page view actually reached Google Analytics (Because the fact that tag fired does not mean that data was actually sent. For example, a tag may be incorrectly configured and send page views to the wrong GA account).

The best way to check if the data was actually sent to GA is Real-time (RT) reports. In Google Analytics, go to Real-time > Overview. Navigate through various pages of your website and see if all those page views are displayed in RT reports.



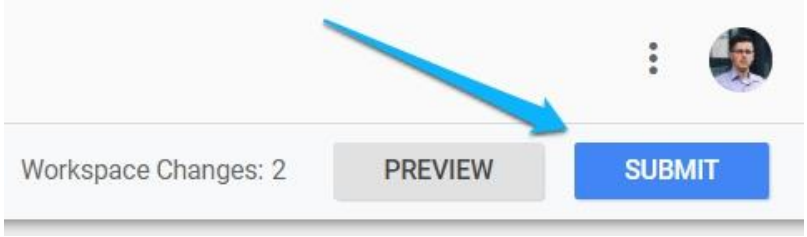
If the GA tag is firing but no interactions are displayed in RT reports, [read this troubleshooting guide](#).

Another useful tool which you should definitely try (if you haven't used it yet) is [Google Tag Assistant](#). It is a Chrome extension which reports on various Google tracking scripts and checks if they are properly configured (like Google Ads, Google Analytics, Google Optimize, etc.).

PUBLISHING THE CONTAINER

Once you have finished configuring and testing tags/triggers/variables in the container, publish it (otherwise, those changes won't go live and your visitors/users will not be tracked). Every time a container is published, a new version of it is created. This is very useful because in case of "ooopsss...." you will be able to quickly restore to one of the previous versions.

In the top right corner of the Google Tag Manager interface, click blue the SUBMIT button.



You have two options here:

- Publish all changes live to your website visitors (and automatically create a version)
- Or just create a version. Changes won't go live to the website visitors but you will have a saved checkpoint to which you can later restore the container (if something bad happens).

This time, we will choose to **Publish and Create Version**. Although *Version Name* and *Version Description* fields are not required, it is highly recommended to fill them out. Once your version history grows to 10, 20 or more versions, those names, and descriptions will become very useful (when you will try to find out when a certain change was implemented).

Once you hit the PUBLISH button in the top right corner, your changes will go live and you will start tracking page views of visitors.

By the way, here is yet another reminder about the GDPR (General Data Protection Regulation). Even though it was simple to implement GA tracking, you need to do additional configurations if you receive a lot of traffic from the European Union countries. First, you need to implement a Cookie Consent banner. And once you get a consent from a visitor to use his/her personal data (because various tracking IDs are also considered

as PII), then you can fire your tags (like Google Ads tags, Facebook Pixel, etc.). On a brighter side, it looks like in the nearest future we will not have to ask a permission to set cookies for analytics purposes).

This is a pretty tough topic (GDPR cookie consent + GTM + your tracking tools) but I cover it in my **Google Tag Manager course**, so if you want a fast-track, **join it**.

SO WHAT IS NEXT?

My suggestion: start using GTM on all new projects. The size does not matter, it might be a simple website or it might be a larger e-commerce business. Even if you don't plan to track various events and just need the basic page view tracking, still use GTM. Google Tag Manager first, then Google Analytics Page View tag. Because you never know, maybe one day you will suddenly need to track something that X project and you'll be able to do that in no time (because GTM will be already implemented there).

But what about those projects/websites which already have some Google Analytics or other tracking tools implemented (not via GTM)?

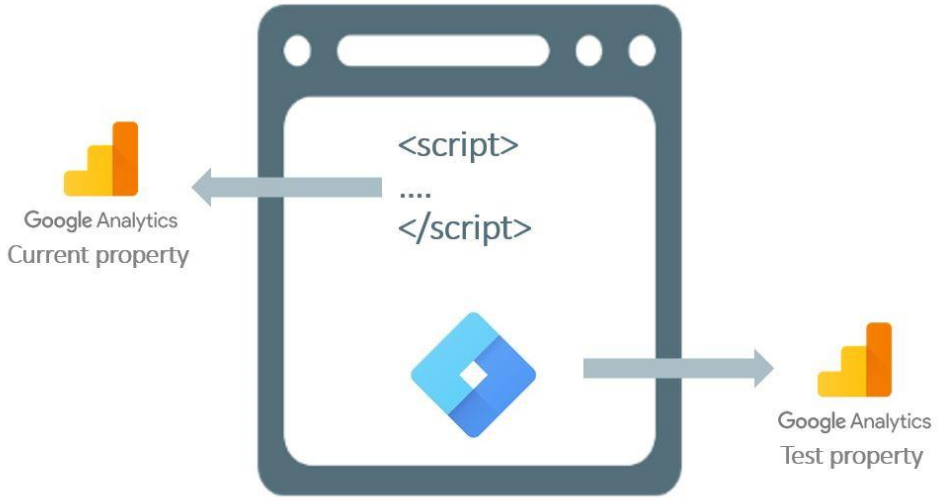
There are several options here:

- **The most recommended**: migrate all the *hardcoded* tracking scripts from the website's source code to Google Tag Manager. This process is not easy and will require both your and developer's input but in the long run, it will definitely pay off. Just think about how long marketing campaigns were delayed because the developer was busy on other projects/tasks. With GTM, you could implement tracking much faster and you/your team would become much agiler.
- You can implement new tags with GTM while old tags are still *hardcoded* (P.S. in this contest, "hardcoded" means that tracking scripts are added directly to the website's source code). Just make sure that you are not tracking the same interactions with both hardcoded script and GTM (otherwise, your data in reports will be duplicated).
- Do nothing. I do not like this one :(

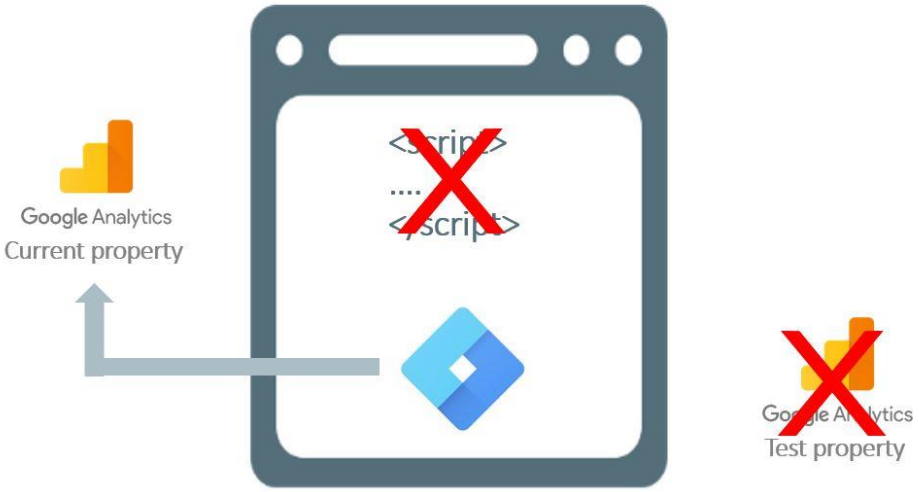
GOOGLE TAG MANAGER MIGRATION TIPS

I will repeat myself once again, migration to Google Tag Manager is not very easy. The larger the project is, the more resources migration will require. Lunametrics have posted a very useful guide on this topic, but if you are in a hurry, here is a process in a nutshell (plus my personal tips):

- Audit all current tracking scripts hardcoded on a website (you will need a developer's input as well).
- Prepare a migration plan (which tracking codes and which tools must be migrated, what are the priorities). If the project is large, I would suggest migrating one tool at a time (nobody likes big bangs).
- Replicate all that tags in GTM, which should replace the hardcoded scripts.
- Publish all the changes in the container. A developer (at the same time) must remove hardcoded scripts.
- Start monitoring results and keep looking for anomalies (sudden increase or decrease in page views, users, bounce rate, transactions, etc.)
- If possible, have a verification period (usually, applicable to Google Analytics). It is a technique when you have both hardcoded GA and GA (via GTM) on the same website. Hardcoded GA continues sending data to the current (original) GA property while GTM + GA are sending data to a test property.



This technique is also described in Lunametrics guide. After a while, you then check both properties and see if the data is similar. If no, dig deeper with a developer and try to identify the causes of those discrepancies. Once you reach the point when both properties have similar data in their reports, ask a developer to remove hardcoded tracking (while you change the tracking ID in GTM) and start sending data via GTM to the original Google Analytics property.



- To avoid losing some data while you and developer try to "flip the switch" (when you publish the container and a developer removes the hardcoded scripts), you can try using a "blocking trigger" technique (which, again, is also described at the end of Lunametrics guide). That method is a bit more advanced if you're very new to GTM, but once you get your hands on the Data Layer and Data Layer Variable, the ice will be broken.

By the way, this topic is also explained in greater detail in my **Google Tag Manager course** (including **my personal GTM migration checklist**). Feel free to **join and learn GTM faster**.

GOOGLE TAG MANAGER BEST PRACTICES FOR BEGINNERS

To help you avoid various blunders, here are some of the top GTM best practices for beginners. Even though some of them are not required, I really want you to succeed, therefore, I highly recommend following these practices. Learning from your own mistakes is ok. But it's even better to learn from someone else's mistakes.

#1. NAMING CONVENTION

I just can't emphasize enough how important to me this Google Tag Manager best practice is.

If you have used GTM for real, then you may have found that the number of tags, triggers and variables can grow very quickly into a hard to manage the mess. Therefore, you should use clear naming guidelines that will help you to manage your GTM implementation far easier. Easier for you and your teammates. Easier = less risk, less time, and less money wasted on tagging. Otherwise, this will happen:

Unfortunately, I could not find the original author of the meme above. I just remember that I saw it a long time ago on GTM Google+ community and then recreated.

Best tips for naming tags, triggers and variables:

- Include track type if you are creating Google Analytics Tags. For example, you can have Pageview, Event, or Social in the tag name. For AdWords Tags, you can have the Tag Type, such as Conversion or Remarketing, in the name.
- **Include specific pages.** If a tag should fire on a specific page or a set of pages (like a subdirectory), then include the page/subdirectory in the tag name. Examples:
  - GA Pageview – Contact Form.
  - AW Remarketing – Thank You Page.
- For more naming convention tips read the following resources:
  - Naming conventions by Lunametrics.
  - Naming conventions and setup tips by Google.

#2. GIVE GTM CONTROL ONLY TO THE RIGHT PEOPLE

Google tag manager is a very powerful tool and if used irresponsibility or without proper thought, planning and testing, can break your website functionality. So you should limit the access to this tool to only those who are actually involved in tag deployment.

GTM allows you to delegate access to other users at the Account and Container level. Users can be granted the ability to view or administer other users at the Account level and can be granted read, edit, approve, or publish rights at the Container level.

#3. LEVERAGE WORKSPACES

This Google Tag Manager best practice is especially useful for larger teams. In GTM, workspaces enable you to create multiple and differing sets of changes to your container. Different users and teams can work on these sets of changes in separate workspaces **at the same time** to independently develop and test tag configurations. Learn more

#4. CONSULT WITH DEVELOPERS PRIOR TO USING UNKNOWN JAVASCRIPT

If you spot online some custom Javascript code published by top influencers in Tag Management industry or Digital Analytics in general (e.g. Simo Ahava or Stéphane Hamel), then feel free to use their codes without a doubt in your GTM containers. At least I would do so. They are respected and well-known professionals, and it is very unlikely that they will publish some low-quality material.

However, if you do find a possibly useful code published by the lesser-known author, I highly recommend consulting with a developer (if possible) prior to using it. Although I always talk with my devs about posting Javascript codes in my blog posts and GTM containers, it does not mean that everyone does.

#5. TAKE ADVANTAGE OF THE DATA LAYER

This topic is more advanced (you will learn it in the future). However, you should definitely not postpone learning about it.

Google Tag Manager Data Layer is incredibly helpful when it comes to custom data and triggers. Although it is a pretty difficult concept to master for beginners, it is one of the key parts of tag management. So whether you like it or not, you will have to understand it.

If you want to track certain parts/features of your website and default GTM auto-event listeners do not catch any interactions, my recommendation would be utilizing Data Layer.

Just ask your developers to put the data you want into Data Layer, then Google Tag Manager will easily access it and use it in triggers, tags or variables.

#6. ALWAYS TEST BEFORE PUBLISHING

This seems like a no-brainer, but sometimes we are still doing this (when the change is minor and we are in a hurry). There should be no excuse for this!

Regardless of what change was committed in GTM container, it **always must be tested**. GTM offers a great Preview and Debug mode, there are other debugging tools out there (e.g. Tag Manager Assistant) which help you test and rapidly spot bugs. Use them!

#7. ASK A DEVELOPER TO ADD VISITOR'S IP ADDRESS TO DATA LAYER

If you are following Google Analytics best practices, you are already filtering out your company's internal traffic. But this affects only Google Analytics reports.

What about Facebook Pixel? Or Google Ads Remarketing? It would be awesome to exclude your own visits from those platforms too, wouldn't it?

There is actually a simple way to solve this:

- Ask a developer to add a visitor's IP address to Data Layer.
- Create Data Layer Variable in Google Tag Manager.
- Update this IP exception to all your tags and triggers – they must not fire when visitors IP address is equal to ***your office's IP address*.**

#8. SEARCH FOR READY-MADE CUSTOM AUTO-EVENT LISTENERS

An auto-event listener is a Javascript function(s) which fires a Google Tag Manager event (a.k.a. Data Layer event) when a particular interaction occurs on a webpage. That event can be used as a trigger to fire tags. GTM offers a bunch of built-in auto-event listeners, such as Click, Form listeners.

But the list of auto-event listeners does not end here – there are plenty of custom listeners online that you can make use of, e.g. this Extended Library of GTM Recipes.

So if you want to track a specific element/action on your website, check whether a ready-made auto-event listener is publicly available.

#9. ASK DEVELOPER TO ADD IDS TO IMPORTANT WEBSITE ELEMENTS

This tip is useful when you have several call-to-action buttons on the same page but in different locations. They all have the same CSS class and target URL. You want to track them separately in Google Analytics. What should you do here?

Ask a developer to add IDs to each button, for example:

```
// ID of the first button is "menu-button"
<a class="button" id="menu-button">https://www.example.com</a>

// ID of the second button is "footer-button"
<a class="button" id="footer-button">https://www.example.com</a>
```

Then in GTM enable built-in variable “Click ID”. After a click, in Preview and Debug console’s Variables tab you’ll see that Click ID equals to either “menu-button” or “footer-button” ID. You probably have no clue what I'm talking here about. Google how to track button or link clicks and you will catch my drift.

This list of best practices is definitely not complete. If you want to read more, look at this blog post.

WHICH GTM TOPICS SHOULD YOU LEARN NEXT?

If you decided to go on your own and learn GTM by yourself, here's what you should learn next (I recommend studying in this exact order):

- Link click tracking (the guide is visually a bit outdated but the principle of configuration works even today)
- Button click tracking
- How to insert variables in Google Tag Manager?
- Scroll tracking
- Video tracking

- Data Layer
- Custom event trigger
- Google Ads Conversion Tracking
- Facebook Pixel with Google Tag Manager
- Google Analytics Ecommerce Tracking

This list is far from complete but you should notice a significant increase in your Google Tag Manager knowledge.

WHAT OTHER THINGS CAN YOU DO WITH GOOGLE TAG MANAGER?

Oh, you can do many things with GTM. That is why I love working with it so much. To name a few:

- Track form submissions
- Track when a particular element appears on the screen
- Track sales, conversions, grow remarketing lists
- Fire a tag when a visitor stays on a page for more than X seconds
- And so much more. In fact, I have published a guide with almost 100 ways how you can use Google Tag Manager. You should definitely check it out. It is just a matter of time when I will update that blog post and surpass the "100".

A FASTER WAY TO LEARN GOOGLE TAG MANAGER

In e-book, I have explained very basics and it already has become one of my largest guides on this blog. And there's so much more to learn! As of now, I have already published 100 blog posts about GTM and there are still plenty of things to write about in the future.

Just like any other tool of such complexity, Google Tag Manager has its learning curve, which in some cases might look very challenging. To save you a lot of time and explain everything in a clear manner, I have created a **Google Tag Manager online course** (polished for a long time). By enrolling to it, you will learn ins and outs that a GTM beginner should definitely be aware of.

With many practical tasks, 9 hours of video material, downloadable resources and my personal checklists/workflows you will cut many corners and avoid a lot of mistakes that I've made in the past. Instead of spending months or years trying to figure everything out by yourself, you will be fully ready much quicker.

Lifetime access, free updates, and course completion certificates are also included. **You can find out more here** or click the image below.

FREQUENTLY ASKED QUESTIONS

I bet that there are still a lot of questions in your head right now. That's totally normal! Here are the most common ones.

#1. Who should use Google Tag Manager? Anyone who wants to add/remove/edit various tracking codes on their (or their client's) website. This usually includes digital marketers, web analysts, SEOs, PPC specialists, owners of e-commerce businesses, etc. With Google Tag Manager you'll be much more in control of what's being tracked/measured on a website/app.

#2. Does GTM work only with Google Products? No. Google Tag Manager plays well with a lot of platforms/tools. It offers a wide range of predefined tag templates (like Google Analytics, HotJar, Twitter Universal Tag, etc.) and, additionally, you can add custom codes with help of Custom HTML tag.

#3. Is Google Tag Manager free? GTM has both Free and Premium plan. **A free plan is more than enough to small and medium businesses**. Large enterprises can benefit from a paid Google Tag Manager 360 option. You can compare both pricing plans here.

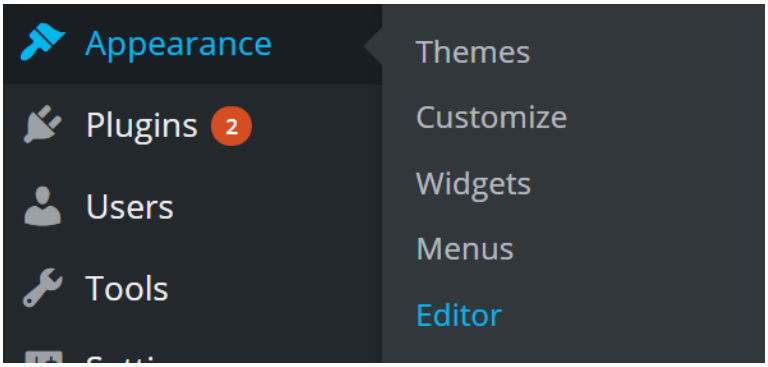
#4. What if my content management system does not allow to place GTM code in the <head>? Don't worry, this is not the end of the world. Actually, GTM <script> code can be placed anywhere on the website. The higher you put it in the website's source code, the sooner it will load, therefore your web tracking will be more precise. But if your CMS allows placing all codes only at in the <body> tag, that is still fine. The most important thing is that you **must not** place the <noscript> code in the <head> of a website. All other variations are allowed (e.g. both codes can be placed right after the opening <body> tag or both codes before the closing </body> tag).

#5. How to install Google Tag Manager on a Wordpress site?

There are two ways how to do that:

- By adding container codes directly into the website's source code.
- Or by using a plugin.

As for the 1st option, go to your WordPress Admin panel, navigate to **Appearance > Editor** and edit the Header.php file. Lunametrics have published a guide how to do that.



Personally, I recommend the second option, using a plugin. But not just any plugin, the GTM4WP plugin, also known as *GTM plugin by DuracellTomi*.

- Go to the plugin page on WordPress.org
- Download the plugin in a .zip file
- Unpack the downloaded file
- Upload it to your WordPress installation using an FTP client into wp-content/plugins
- Go to your WordPress admin panel
- Enable the plugin under Plugins / Installed plugins
- Follow the instructions in the plugin itself.

After you have successfully installed and enabled the plugin, go to **Settings > Google Tag Manager,** enter your Google Tag Manager container ID and set up other options. The reason why I like this plugin is that it also gives me additional options and data that can be easily available for web tracking, e.g. *Post author, Post Category, Post Tags,* etc.

#6. Do I need to learn to code in order to use Google Tag Manager? No, but JavaScript, HTML, CSS, Regular Expression, DOM knowledge will be super useful and will open an entirely new horizon of possibilities for you in web tracking with GTM. But even without these skills, you can achieve some great results.

#7. Do I still need developers after I start using Google Tag Manager? It depends on what your goals are. Even though a lot of new opportunities open to digital marketers after they start using GTM, sometimes a developer's help is still necessary. Such interactions as video player actions, scroll tracking, element's appearance on the screen, etc. will be easy for you to track (as you get more experienced with GTM). But if you need

some server-side data (which is not accessible by Google Tag Manager), for example, *user ID, user's pricing plan*, you'll need to cooperate with the developer.

#8. Can I use the same GA Tracking ID in multiple GTM containers? Yes, you can. This is common for digital marketers because you or your client might have several different websites that are different regarding their structure, CSS/HTML, etc. So it might make sense to create several GTM containers with their own set of triggers, variables, etc. and to create Google Analytics tags with the same tracking ID. This means that all this data from different Google Tag Manager containers will be sent to the same Google Analytics property.

#9. Where can I get help regarding Google Tag Manager?

- **Google Tag Manager Community on Facebook** (recommended and the most active)
- Google Tag Manager Community on Google+
- Google Tag Manager Forums
- Stack Overflow

#10. Can I break a website with GTM? Yes, you can. With great power comes great responsibility. Using poorly tested or unknown/suspicious scripts found online can break some functionality on your website. A rule of thumb would be to consult with developers before deploying custom JavaScript. On the other hand, it's much harder to break something with built-in triggers and variables. Actually, I cannot think of a situation where this might happen (but that does not mean it's impossible). Therefore, built-in GTM tracking functionality should always be a priority.

#11. Does Google Tag Manager store any data about visitors? #GDPR. Google Tag Manager does not store any data about the visitor; it's just a system that helps you transport the data to third party tools. That transportation occurs only client-side, i.e. on his/her browser.

#12. What is a Google Tag Manager recipe? I am not sure about the origin of this term but I give the attribution to Lunametrics. GTM recipe is a read-made Tag Manager container template which can be easily imported into your GTM container. As a result, it automatically creates a set of tags, triggers, and variables that are already configured. All you need to do is enter your tracking IDs or other settings (depends on a recipe and its instructions) and you are good to go. I have collected a large library of free GTM Recipes, which is at your service.

FINAL WORDS

GTM is one of my all-time favorite tools that has saved me a lot of time, helped become agiler, and marketing/web analytics. In this Google Tag Manager e-book for beginners, you have learned that GTM is like a middleman between a website/app and 3rd party tools (e.g. Google Analytics, Google Ads, Facebook pixel).

Back in the old days (which are continuing until this moment), all tracking codes were controlled by developers who had to add them to the website's source code. This workflow caused several problems. To name a couple of them:

- Developers were too busy; therefore, marketers/web analysts had to wait days or even weeks to have their tracking codes implemented.
- Multiple tracking codes meant that they were scattered across different places of the website that meant more difficulties in the maintenance of the code.

Thanks to tag management systems (like Google Tag Manager), adding, editing and removing tracking codes have become much easier. In a single interface, marketers can control codes (read: *tags*) of various tools, like GA, FB Pixel, etc. To make things much easier, most popular tools can be controlled with help of tag templates, which do not require coding knowledge.

Also in this e-book, I've explained what tags, trigger, and variables are in Google Tag Manager, what is their role and how are they connected with each other.

Tags are various pieces of code (or templates) which are activated under certain circumstances. Triggers are those conditions that activate tags. And variables are little helpers which can hold data (or some useful settings/functions) and can be inserted in tags, triggers, and even other variables.

There is still a lot for you to learn about GTM but I hope that this e-book helped you take the first step towards new possibilities in your marketing/analytics.

This e-book was created by Julius Fedorovicius, www.analyticsmania.com
Contact the author via Twitter @fedorovicius or Linked In
2018