

GTM

for beginners

Taking first steps with
Google Tag Manager
and Google Analytics 4



INTRODUCTION

Google Tag Manager is an amazing tool. I have been running AnalyticsMania.com for many 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*



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That is a long Google Tag Manager e-book waiting for you ahead :) And 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 Masterclass for beginners](#) that I have been polishing for a while.

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

This e-book covers only about 15% percent of the course's material.

[Learn more about the course](#)



THE PRE-TAG-MANAGEMENT WORLD

Before we dive deeper into what Google Tag Manager is, let's take a quick look at the world we used to live in (a.k.a. "without tag management"). 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 (a.k.a. tag) on your website. Pretty standard, right?

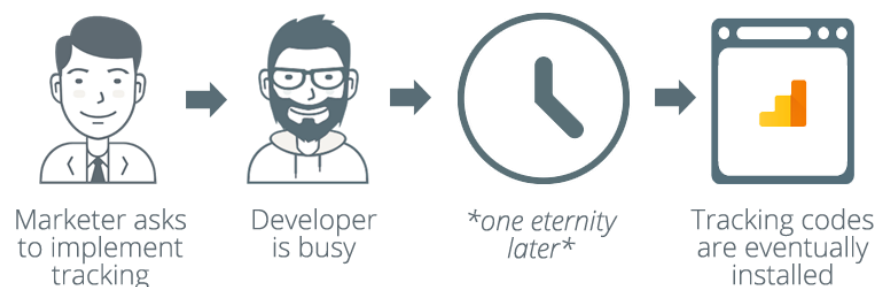
It can be Hotjar, Google Analytics 4, or some other tool, but they all ask you to add their code (tag) to your site. When a visitor lands on your website, that tracking code is also loaded, therefore, a visitor is tracked.

Adding that one tag to a site isn't big of a deal. You just ask a developer and he/she will do that (sometimes on the same day, sometimes over the course of several days, but still reasonable because this has to be done only once).

But here's the catch. 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 that 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's where the developer (and the IT department) becomes a bottle-neck. Since he/she 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.



That's where the GTM saves the day and this Google Tag Manager tutorial will show you how.

WHAT IS GOOGLE TAG MANAGER?

Google Tag Manager is a tag management solution which acts as an intermediary between a website 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 4), 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](#).
- 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

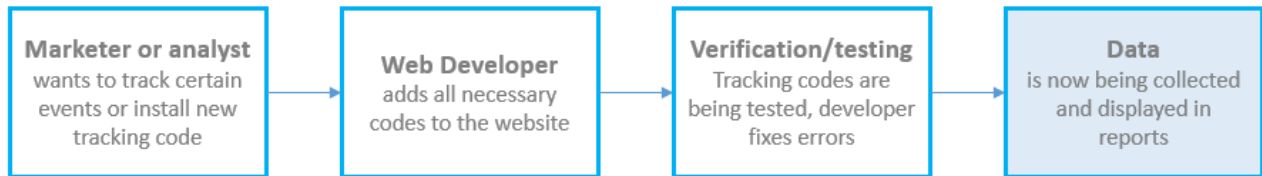
Once again, let us remember the *classic way* of how tracking codes are managed:

- 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.

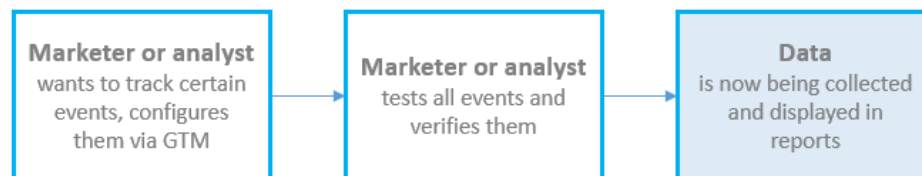
In many cases, Google Tag Manager gets rid of this hassle and allows making the process much more effective.

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.

The old way (without GTM): 1-3 weeks



The new way (with GTM): 1-3 hours



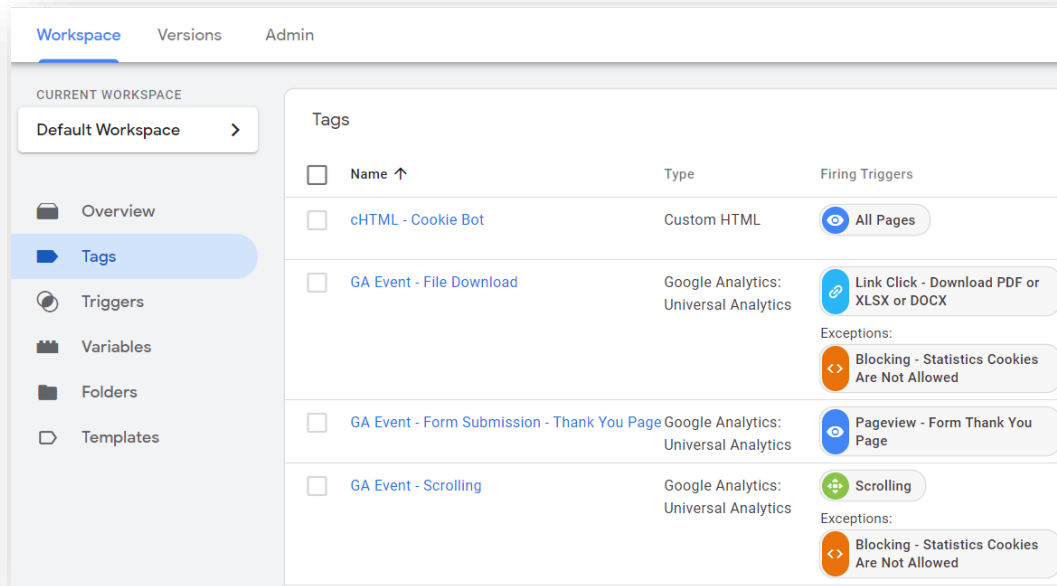
In fact, [Bounteous](#) have published a short case study where their client experienced a **600% improvement** in tag implementation time.

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.

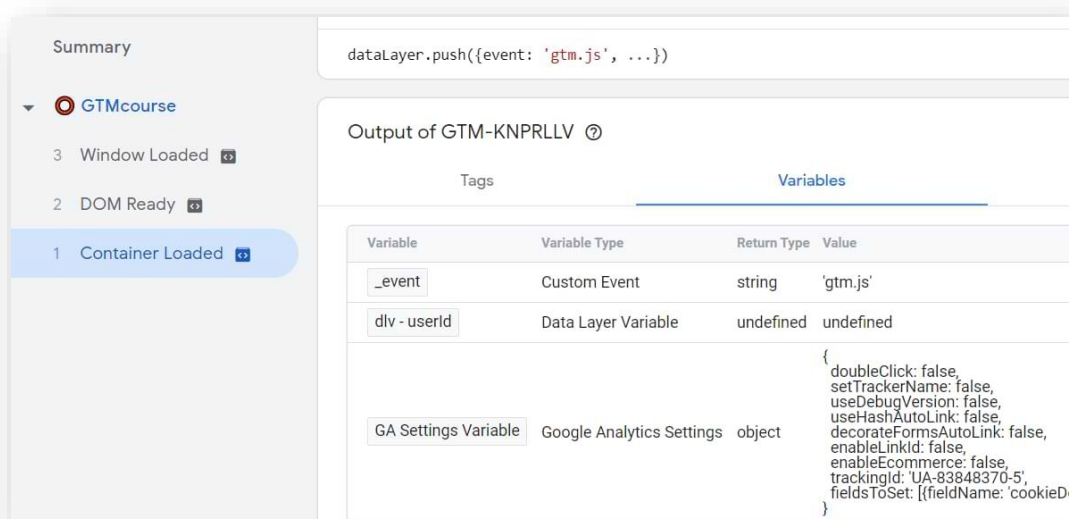
I've seen many cases when due to a human error some codes were missed, therefore this caused inaccuracy in data collection.

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 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 [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 goldmine.

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 4 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.

P.S. Some of the abovementioned guides might still be a bit outdated because GTM is constantly evolving. But they are still more than enough to get the idea.

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 [new comments](#), [video players](#) and [much more](#).

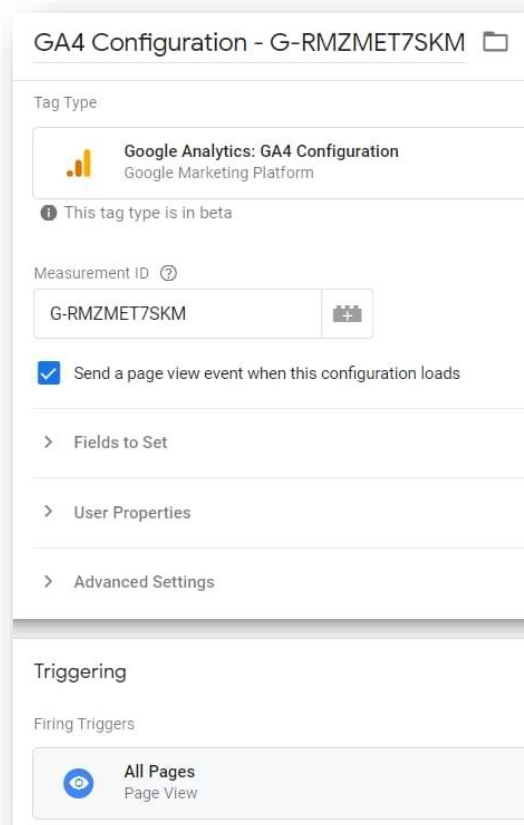
Why is this important? Well, it enables you to gain insight into what actions users take on your website. Are they engaging with the content? Are they filling out your forms? You

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.



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 20 000 members. 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.

Version ID ↓	Status	Name	Created	Published	Published By	
11	Live, Latest		8/2/2017	8/2/2017	julius@example.c	Actions ▾
10		Restored_8	7/20/2017			Actions ▾

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.

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 Library of Google Tag Manager Recipes](#) (ready-made container templates)
- [The Ultimate Google Tag Manager Glossary](#)

HOW DOES GOOGLE TAG MANAGER WORK?

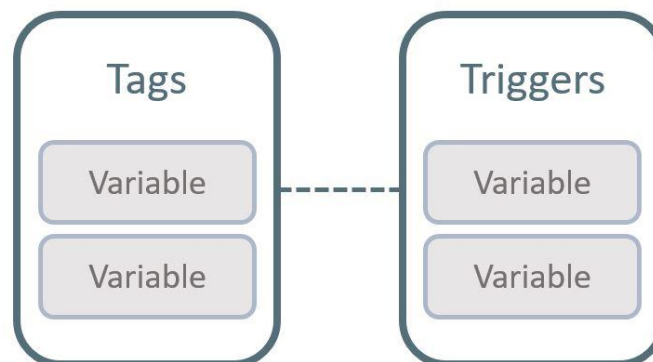
For very beginners, there are three concepts to understand: tags, triggers, and variables.

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.

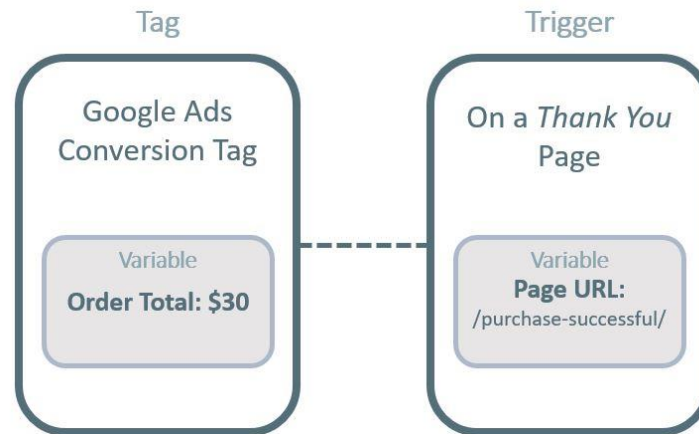
A trigger is a condition when a tag must fire. Should a tag fire on all page views? Or maybe on certain clicks? How about successful form submissions? All these examples are triggers. When a particular condition (or a set of conditions) is met, a trigger is activated and all the tags (linked to it) are 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 (Universal Analytics 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).

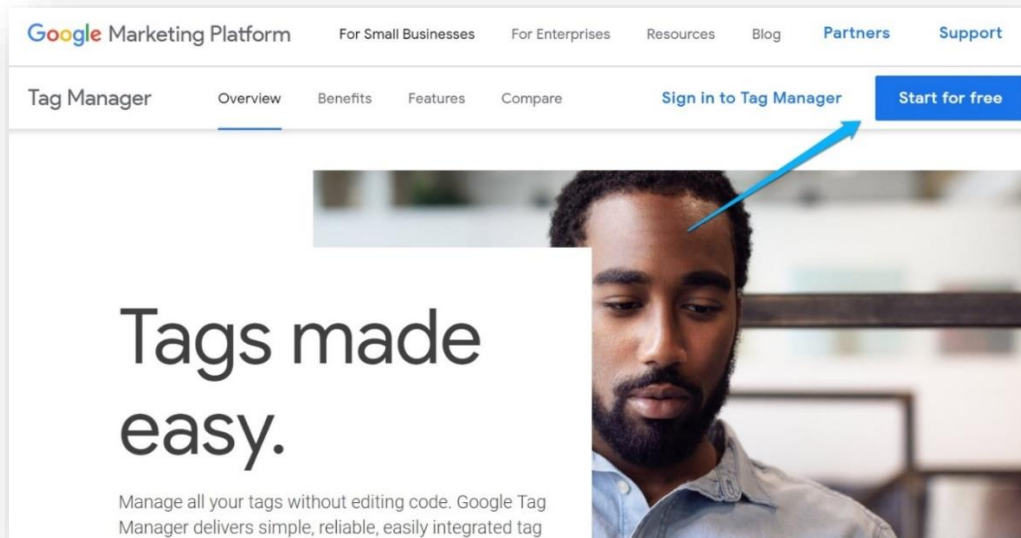


- Google Ads Conversion Tag is a **tag**. With it, you instruct the Google Tag Manager to do **what**? Track a conversion.
- **When** must this tag fire? The answer is *On a Thank You Page* (a.k.a. order confirmation page). This condition is our **trigger**.
- Now, we need to use some additional information 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.

← Add a New Account

Account Setup

Account Name
Client X

Country
United States

☐ Share data anonymously with Google and others ⓘ

Container Setup

Container name
Client's website

Target platform

- ☒ Web
For use on desktop and mobile web pages
- ☐ iOS
For use in iOS apps
- ☐ Android

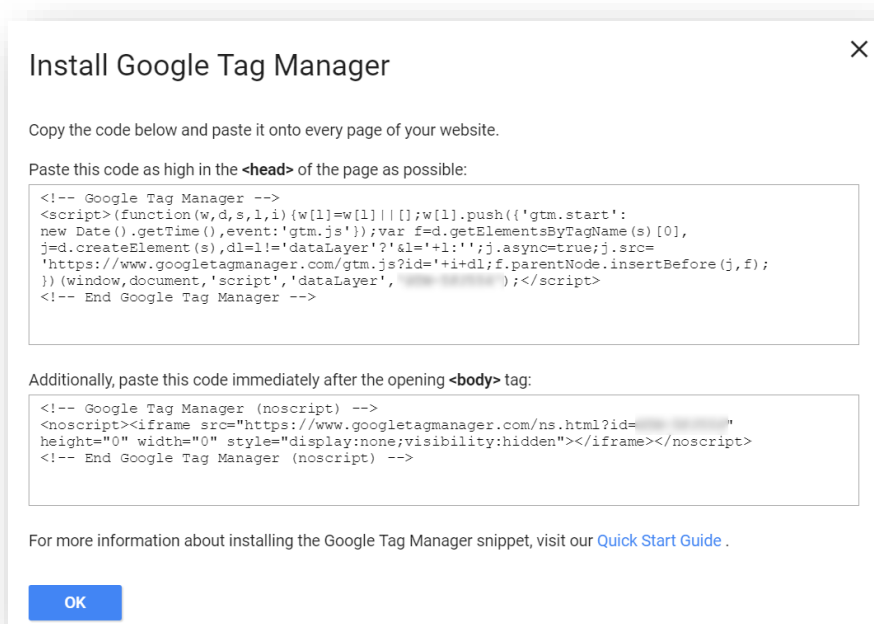
GTM account works the same as Google Analytics account, usually it's for a company/business/client, while a container is usually for a website or application. A single container can contain many tags, triggers, and variables.

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).



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

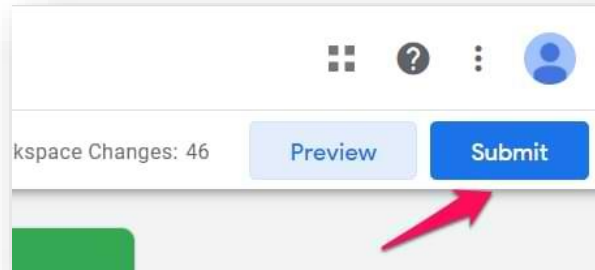
If you want to learn more about the proper installation, read this guide on [how to install Google Tag Manager on a website](#).

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.

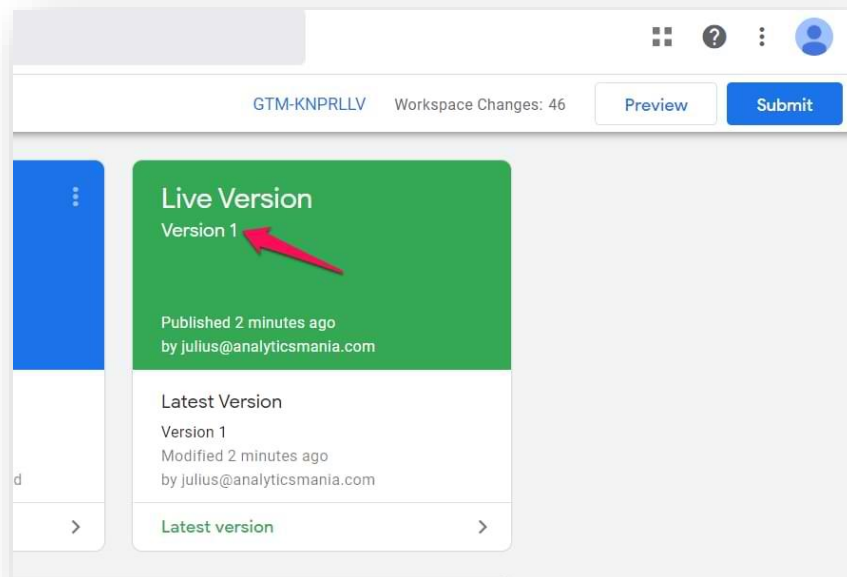
For example, in Wordpress, there is an awesome plugin [GTM4WP](#). Not only will it help you easily install GTM, but also you can get some additional data from it, like *page author*, *page tags*, etc. Later, this data can be [turned into GTM variables](#) and used in tags and triggers.

IMPORTANT: PUBLISH EMPTY GTM CONTAINER

Once you create the new container in Google Tag Manager, you have to publish it (otherwise a thing called *Preview mode* will not work). To publish the container, click the **Submit** button in the top right corner and then click the **Publish** button.



Once you do this, you should see that the current version of your container is 1.

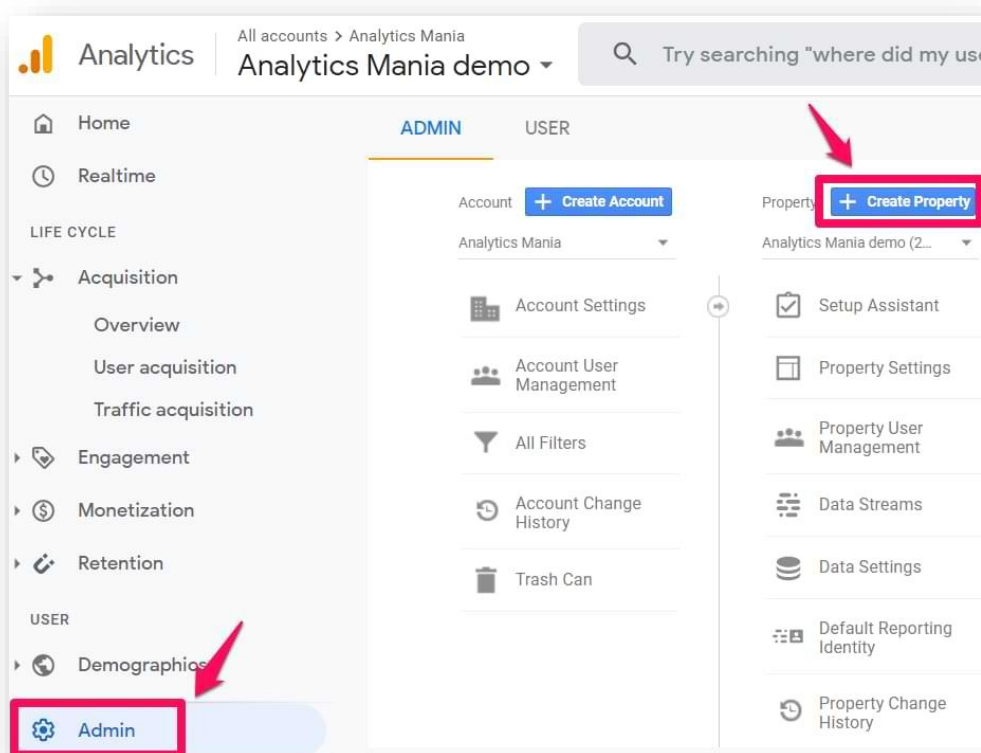


CREATING YOUR FIRST TAG

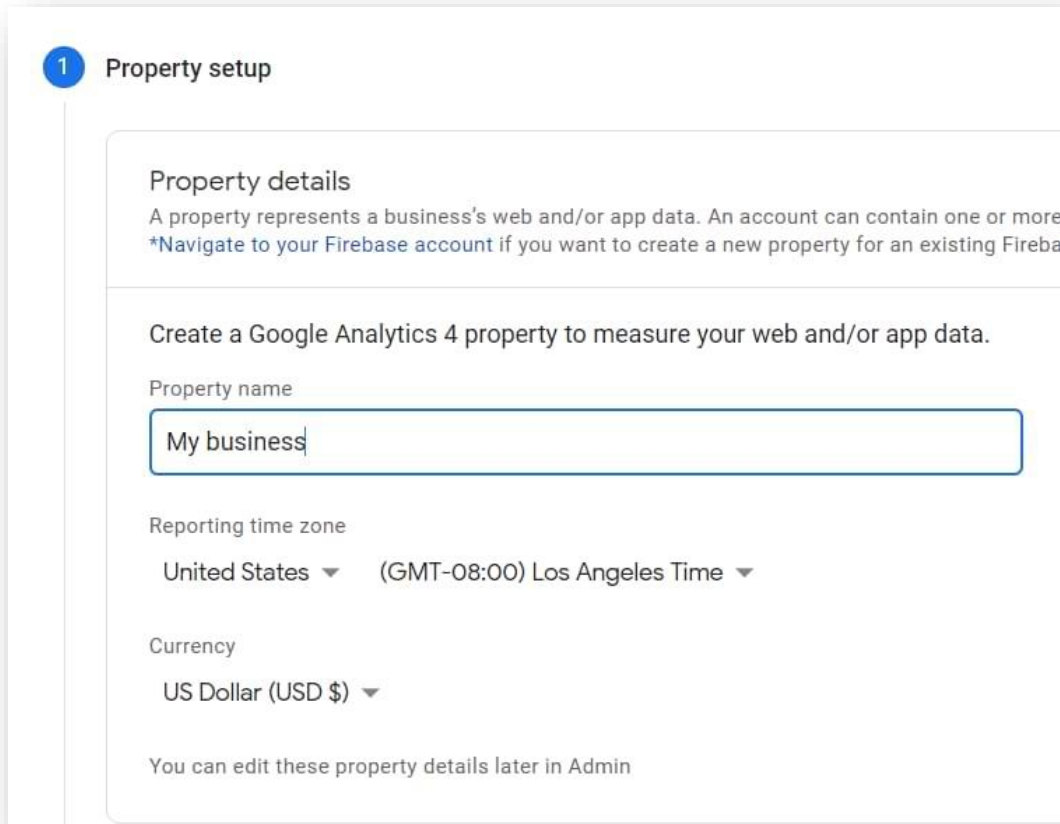
NOTE: This ebook includes Google Analytics 4 examples. If you are looking for a Google Tag Manager tutorial with Universal Analytics examples, [read this blog post instead](#).

Usually, the first tag that marketers/web analysts install with Google Tag Manager is the basic Google Analytics 4 tracking. This is equivalent to the procedure where GA4 asks you to add their gtag tracking code snippet to all pages of a website. But instead, we'll choose a more flexible road, GTM.

To get started, go to *analytics.google.com*. Then go to the *Admin* section of your Google Analytics interface (by clicking the *Admin* at the bottom-left corner) and then (in the *Property* section) click **Create Property**.



Then enter the name of your property. It might be the name of your website, of your company, a brand, etc. Choose your company's country, reporting timezone, and the main currency that your business operates in.



1 Property setup

Property details
A property represents a business's web and/or app data. An account can contain one or more properties.
**Navigate to your [Firebase account](#) if you want to create a new property for an existing Firebase app.*

Create a Google Analytics 4 property to measure your web and/or app data.

Property name

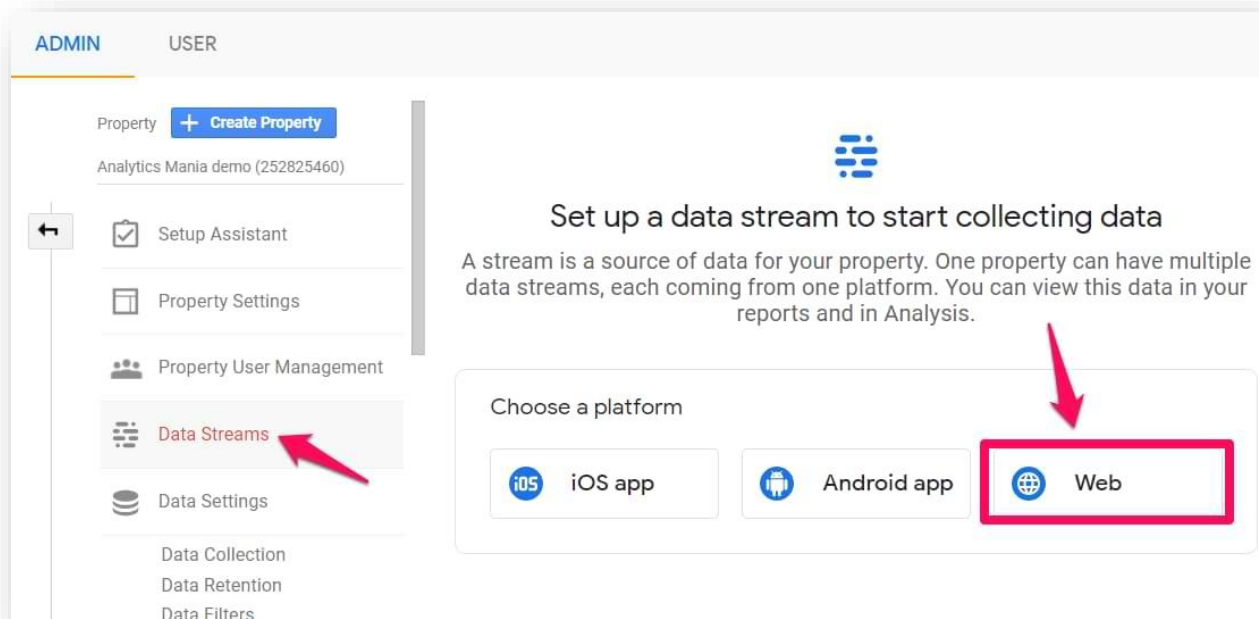
Reporting time zone
United States ▼ (GMT-08:00) Los Angeles Time ▼

Currency
US Dollar (USD \$) ▼

You can edit these property details later in Admin

Then press *Next*, answer several questions, click *Create* and your new property will be ready. The next step to complete is to configure your first data stream. It is a data source from which events will be sent to your Google Analytics 4 property. You can have multiple data sources in a single property. For example, 3 web properties, 1 for Android app, and 1 for an iOS app.

In this blog post, I will focus on a **Web** stream. Select it.



Then enter the URL of your website (for example, <https://www.mywebsite.com>). Note, that the protocol (*https*) is already selected. After that, enter the name of your website.

When you create a web data stream in Google Analytics 4, you have an option to enable/disable Enhanced Measurement. It is designed to help marketers get as many events in the reports as possible without the need to cooperate with developers or configure them in Google Tag Manager.

Set up data stream

Set up your web stream

Website URL Stream name


Enhanced measurement

Automatically measure interactions and content on your sites in addition to standard page view measurement. ☒

Data from on-page elements such as links and embedded videos may be collected with relevant events. You must ensure that no personally-identifiable information will be sent to Google. [Learn more](#)

Measuring: Page views Scrolls Outbound clicks [+ 3 more](#)

When you're ready, press the **Create stream** button. When you create a data stream (web), you will see a Measurement ID.

STREAM URL	STREAM NAME	MEASUREMENT ID
https://www.analyticsmania.com	Mirrored property (later to migrate to GA4)	G-RMZMET7SKM 
STREAM ID 2143901710	STATUS Receiving traffic in past 48 hours. Learn more	

Enhanced measurement

Automatically measure interactions and content on your sites in addition to standard page view measurement. ☒

Data from on-page elements such as links and embedded videos may be collected with relevant events. You must ensure that no personally-identifiable information will be sent to Google. [Learn more](#)

Measuring: Page views Scrolls Outbound clicks [+ 3 more](#)

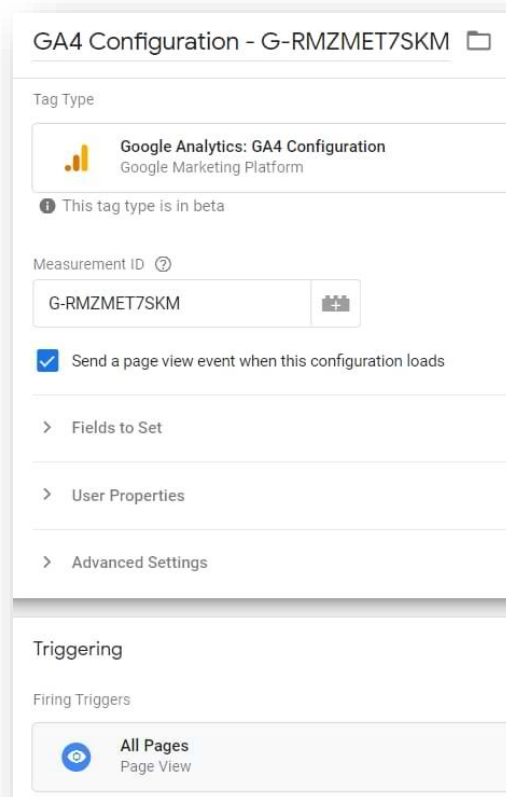
In the top-right corner, you will see the tracking ID of your new property. Copy it. We'll need to use it in Google Tag Manager.

By the way, if you ever get lost in the GA4 interface and you need to revisit this page, go to *Admin > Data Streams >* choose your most recently created stream, and then you will return to the same window that I have displayed in the screenshot above.

Then go to your Google Tag Manager container > *Tags > New* and choose GA4 configuration. In the Measurement ID field, enter the ID that you copied in the GA4 interface. Keep the *Send a page view event when this configuration loads* if you want to automatically track pageviews.

Usually, that's ok keep it enabled but in some situations, e.g. on single-page applications, it is more recommended to disable the pageview checkbox and create just a standalone configuration tag. You can [read more about that here](#).

In the Triggering section, select *All Pages* and then name the tag, e.g. *GA4 Configuration – [measurement-id]*.



GA4 Configuration - G-RMZMET7SKM

Tag Type

Google Analytics: GA4 Configuration
Google Marketing Platform

This tag type is in beta

Measurement ID ⓘ

G-RMZMET7SKM

☒ Send a page view event when this configuration loads

> Fields to Set

> User Properties

> Advanced Settings

Triggering

Firing Triggers

All Pages
Page View

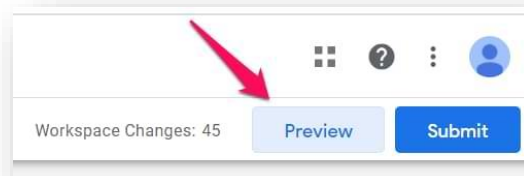
That's it! Save the tag. This is all you need to do with basic Google Analytics 4 implementation. If someone asks you to install the standard tracking with GA4, that is all you need to do, create a Configuration tag. It is the equivalent of adding that gtag tracking code (which is provided in the Admin section of GA property) to the website's source code.

TESTING: PREVIEW MODE AND GA4 DEBUGVIEW

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 the [GTM Preview Mode](#) becomes very useful (in fact, this is one of my favorite features in Google Tag Manager).

Google Tag Manager Preview mode allows you to browse a site on which your GTM container code is implemented.

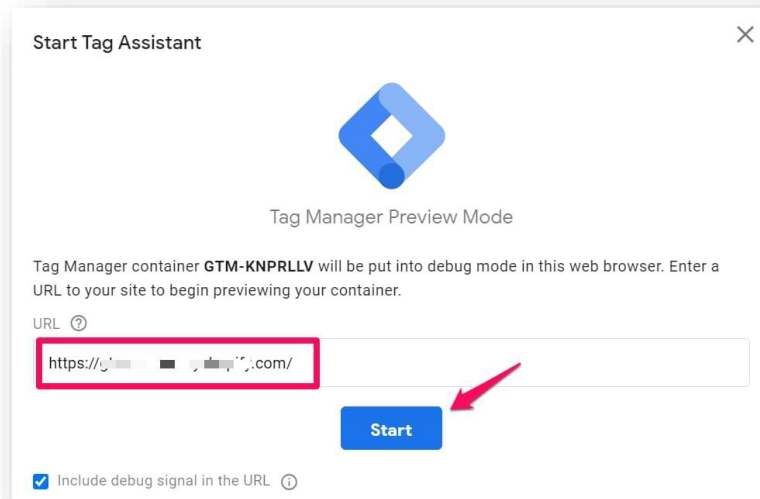
To enable Google Tag Manager Debug mode, click the **Preview** button in the top right corner of your GTM interface (near **Submit** button).



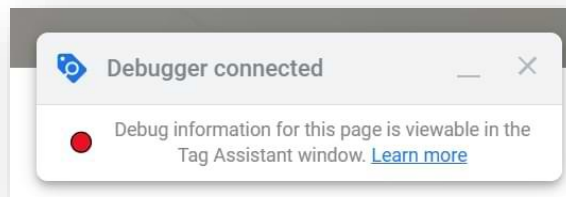
If you ever stumble upon older GTM tutorials (published before the October 16th, 2020), they will tell you that an orange banner must appear in the GTM interface (when the preview mode is enabled). That is no longer true. From October 16th, 2020, the orange banner is gone.

Once you click the Preview button, a new browser tab will open (with tagassistant.google.com). If it does not, [read this guide](#).

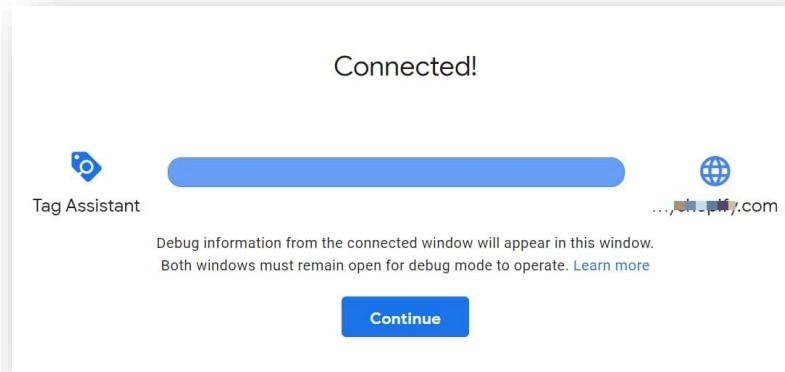
A popup there will ask you to enter the URL which you want to test and debug. It might be the address of a homepage or it might be a specific page's URL and then press **Start**.



A new browser tab (or window) should appear where you will see the URL that you entered in the previous popup. At the bottom of that page/tab, you must see the following badge:

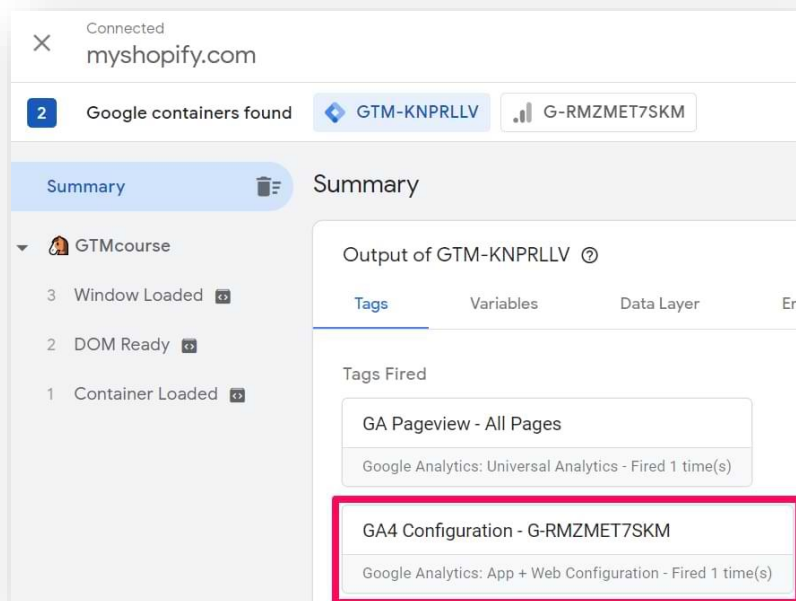


And if you go back to the *tagassistant.google.com* tab, you must see this success message.



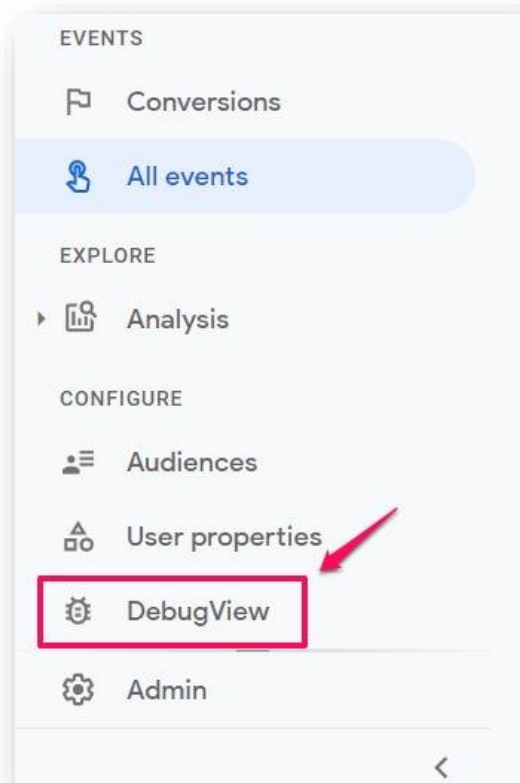
Click Continue in that popup and you'll see the Preview and Debug page (also known as the Debugger). Once you enable the Preview mode, click *Container Loaded* event on its left side. This is the earliest moment when your tag might fire.

Every time you set a tag to fire on *All Pages*, it actually means *All Contained Loaded events*. After you click on the *Container Loaded*, you should see your GA Configuration tag in the "Tags Fired" section.



Great! Before we start celebrating your first tag, we need to check whether that data actually reached Google Analytics 4 (because the fact that tag fired does not mean that data was properly sent. For example, a tag may be incorrectly configured and send page views to the wrong GA property).

The primary feature built for debugging GA 4 data is the [DebugView](#) section. You can find it at the bottom left corner of your GA4 interface. Click it.



Do not mix this with the GTM Preview and Debug mode. They are two different beasts.

To enable the debug mode in GA4, you have several options (any of them will work):

- Enable the GA debugger Chrome extension
- Send a *debug_mode* parameter together with an event
- Have enabled Google Tag Manager's Preview mode on a page that you're debugging

But since we are working with Google Tag Manager, having the [GTM Preview mode](#) enabled automatically sets the `debug_mode` to `true`, thus the data will start appearing in the GA4 DebugView.

When you start seeing data in the [DebugView](#), you can click on every individual event and then a list of parameters will be displayed.

Click on that parameter to see the value that was received by GA4. Now that is some granular debugging!

The screenshot displays the GA4 DebugView interface. On the left, a vertical timeline shows a sequence of events: 'new' (0), 'scroll', 'page_view', 'menu_click', and another 'page_view'. A red arrow points to the 'page_view' event at 10:32:31 PM. On the right, a detailed view of the 'page_view' event is shown, listing parameters such as 'ga_session_number', 'medium', 'page_location', 'page_referrer', 'page_title', and 'source'. A red arrow points to the 'page_location' parameter, which has the value 'https://www.analyticsmania.com/courses/'.

1. Click on the event

2. Click on a parameter to see its value

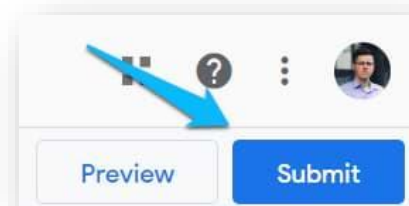
Event Time	Event Name	Duration
10:32:33 PM	new	0
10:32:32 PM	scroll	4s
10:32:31 PM	page_view	
10:32:31 PM	menu_click	
10:32:00 PM		31s
10:31:10 PM		50s
10:31:10 PM	page_view	
10:31:09 PM	user_engagement	

Parameter	Value
ga_session_number	1
medium	1
page_location	https://www.analyticsmania.com/courses/
page_referrer	1
page_title	1
source	1

PUBLISHING THE CONTAINER

Once you've 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 container version of it is created. This is very useful because in the case of "oops...", **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.



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 container version history grows to 10, 20, or more versions, those names, and descriptions will become very useful (when you'll try to find out when a certain change was implemented).

After that, once you hit the PUBLISH button, your changes will go live and you will start tracking page views of visitors (and additional events, if [Enhanced Measurement](#) is enabled).

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.).

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)?

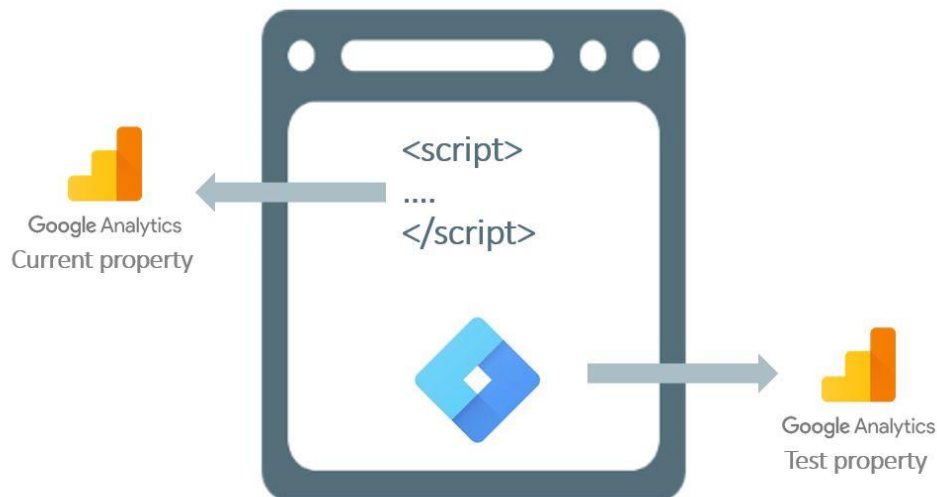
There are several options here:

- **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 :(

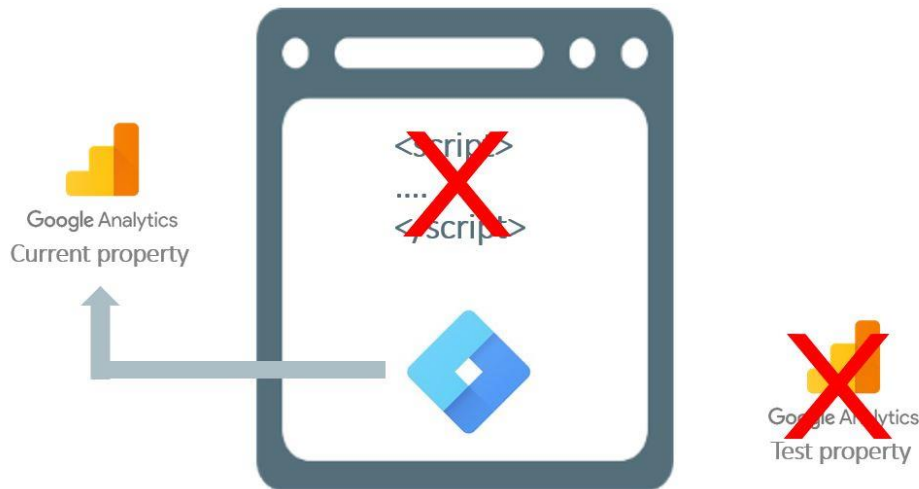
GOOGLE TAG MANAGER MIGRATION TIPS

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. 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.



After a while, you should 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.



By the way, this topic is explained in greater detail in my [premium Google Tag Manager course for Beginners](#) (including **my personal GTM migration checklist**). Consider joining it [to learn GTM much faster](#). I'll show you the fastest and most efficient way + I'll help you if get stuck along the way. No more guesswork and wasting time trying to find a solution by yourself.

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.

#2. GIVE GTM CONTROL ONLY TO THE RIGHT PEOPLE

Google tag manager is a very powerful tool and if used irresponsibly 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.

#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. 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.

#8. 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](#).

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

A FASTER WAY TO LEARN GOOGLE TAG MANAGER

In this e-book, I have explained just the very basics of GTM. And there's so much more to learn!

Just like any other tool of such complexity, Google Tag Manager has its learning curve, which in some cases might become very challenging.

Instead of wasting time reading all the blog posts, watching videos, and getting stuck countless times, you can have me as a mentor and learn the tool much faster.

While teaching digital marketers and analysts, I've developed a proven step-by-step system/framework how to get the results from GTM in the fastest and most efficient way.

- No more guesswork. No more time wasting.
- Proven and efficient process to learn GTM
- Includes time saving checklists, templates and other downloadables
- Many practical tasks + sandbox website to practice
- Lifetime 24/7 access to the course material
- Free updates

With this course, 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](#).

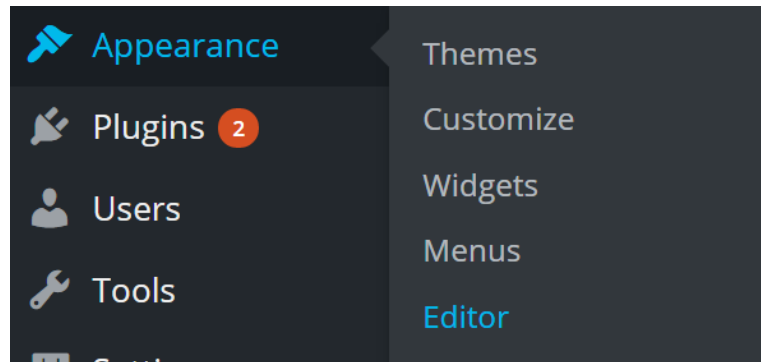
#4. What if my content management system does not allow to place GTM code in the <head>? Don't worry, this is not the end of the world. Actually, GTM <script> code can be placed anywhere on the website. The higher you put it in the website's source code, the sooner it will load, therefore your web tracking 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 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.

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.

If you want to learn how to use GTM 5x or 10x faster and become a GTM power user, go [check my GTM Masterclass for Beginners](#).



This e-book was created by Julius Fedorovicius, www.analyticsmania.com
Contact the author via Twitter [@fedorovicius](https://twitter.com/fedorovicius) or [Linked In](#)