



Get going with Google Analytics 4

DrupalCon Pittsburgh

JUNE 5, 2023

INTRODUCTION

What you'll learn

For everyone

- General background

For developers

- How to set it up

For marketers and site owners

- What to consider about set up
- What to expect in default reports



Outline

- 1 What is Google Analytics 4?
- 2 What is Google Tag Manager?
- 3 Set up a GA4 property and GTM tag
- 4 Install and configure Google Tag module
- 5 What GA4 tracks automatically
- 6 Tracking custom events

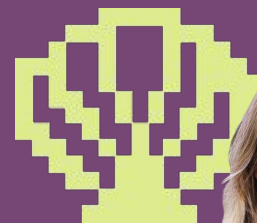
ABOUT ME

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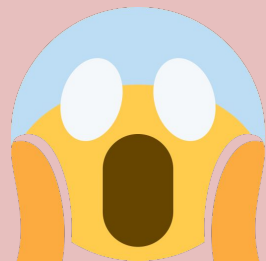


What is Google Analytics 4?



On July 1, 2023, standard Universal Analytics properties will stop processing data. We strongly encourage you to make the switch to Google Analytics 4 as soon as possible.

Our friends at Google



GOOGLE ANALYTICS 4

The next generation of analytics

1

Collects both website and app data to better understand the customer journey

2

Is events-based rather than session-based

3

Has privacy controls and predictive capabilities

Source: <https://support.google.com/analytics/answer/10089681>

The bottom line:

**Requires you to be
more thoughtful about
what you collect**

What is Google Tag Manager?

GOOGLE TAG MANAGER

Tool for adding tags

Custom code snippets that we include under certain conditions

1

Web-based interface with tag organization and version control.

2

Tag templates and collaboration features.

3

Supports Google products and third-party tags.

Source: <https://developers.google.com/tag-platform/tag-manager>

GOOGLE TAG MANAGER

These things are not the same

- **Google Tag Manager** - the web-based tool for managing tags and triggers
- **Google Tag [Manager]** - the Drupal module for adding Google tags to your site
- **gtag.js** - the JavaScript that adds Google product tags directly to pages

GOOGLE TAG MANAGER

How do you add GA4 to your Drupal site?

Implementation options

1 Hard-code snippet in templates 😞

2 Google Analytics module 😊

www.drupal.org/project/google_analytics

3 Google Tag module 😄

www.drupal.org/project/google_tag

Benefits of using Google Tag Manager via module

- Supports many types of tags (Facebook Pixel, LinkedIn, Adwords and more)
- Organization's staff can add new tags without going through a developer
- Can set conditions on who and what to track (user roles, paths, 404/403 pages, content types, and more)
- Can disable in development and test environments to avoid data pollution

Set up a GA4 property
and GTM tag

This property will stop processing data starting on July 1, 2023. To continue measuring website performance, create a Google Analytics 4 (GA4) property as soon as possible.

Learn more

Begin migration

Home

Customization

REPORTS

Realtime

Audience

Acquisition

Behavior

Conversions

Attribution ^{BETA}

Discover

Admin

Google Analytics Home

INSIGHTS

Users Sessions Bounce Rate Session Duration

This property will stop processing data starting July 1, 2023

To continue collecting data, go to Setup Assistant to migrate your property to Google Analytics 4. Otherwise, one may be created for you based on your current settings. [Learn more about UA deprecation](#)

| Days | Hours | Minutes | Seconds |
|------|-------|---------|---------|
| 35 | 10 | 55 | 37 |

No thanks [Go to Setup Assistant](#)

19 May 20 21 22 23 24 25

Last 7 days

AUDIENCE OVERVIEW

REAL-TIME REPORT


How do you acquire users?

Traffic Channel Source / Medium Referrals

Ask Analytics Intelligence

Below is a list of Tag Manager Accounts and Google tags to which you have access.

Accounts Google tags [Create Account](#)



[Click here to create an account](#)

Install and configure Google Tag module

INSTALL GOOGLE TAG MODULE

```
heather@Heathers-4K-MacBook-Pro ga4-demo % ls
composer.json  composer.lock  vendor          web
heather@Heathers-4K-MacBook-Pro ga4-demo % lando composer require drupal/google_tag
Using version ^2.0 for drupal/google_tag
./composer.json has been updated
Running composer update drupal/google_tag
Loading composer repositories with package information
Updating dependencies
Lock file operations: 1 install, 0 updates, 0 removals
- Locking drupal/google_tag (2.0.2)
Writing lock file
Installing dependencies from lock file (including require-dev)
Package operations: 1 install, 0 updates, 0 removals
- Installing drupal/google_tag (2.0.2): Extracting archive
Generating autoload files
42 packages you are using are looking for funding.
Use the `composer fund` command to find out more!
heather@Heathers-4K-MacBook-Pro ga4-demo % lando drush en google_tag -y
[success] Successfully enabled: google_tag
heather@Heathers-4K-MacBook-Pro ga4-demo %
```

Default Tag Settings

Tag Settings

Advanced

Google Tag ID(s)

Show row weights



GTM-56D7PJM

← Add your container ID

Add another ID

This ID is unique to each site you want to track separately, and is in the form of UA-xxxx-yy, G-xxxxxxx, AW-xxxxxxx, or DC-xxxxxxx. To get a Web Property ID, [register your site with Google Analytics](#), or if you already have registered your site, go to your Google Analytics Settings page to see the ID next to every site profile. [Find more information in the documentation.](#)

Custom dimensions and metrics

| Type | Name | Value | Remove |
|------|------|-------|--------|
|------|------|-------|--------|

No custom dimensions or metrics added.

Response Code

Request Path

User Role

Content type

Vocabulary

When the user has the following roles

- Anonymous user
- Authenticated user
- Content editor
- Administrator

If you select no roles, the condition will evaluate to TRUE for all users.

- Negate the condition

Exclude roles (if desired)

Advanced settings

Google Tag Manager

The settings affecting the snippet contents for this container.

- Enabled
Check this checkbox to enable Tag Container.

Confirm we are using Tag Container (necessary for Google Tag Manager)

Save Delete

CONFIGURE GOOGLE TAG MODULE

Export configuration and deploy

- Steps will vary depending on your host and how you manage your code

CONFIGURE GOOGLE TAG MODULE

But wait!

**I don't want data
about my developers
and testers.**

GOOGLE TAG MODULE

How to disable Google Tag in dev/test environments?

Implementation options

1 Config Split

Good option if your site is already set up with configuration splits for different environments.

2 settings.php

Condition to check for non-live environments, then:
`$config['google_tag.settings']['default_google_tag_entity'] = '';`

3 Custom GTM trigger

Simplest! Create a Page Views trigger that fires when Page Hostname matches RegEx yourdomain.com

Trigger Configuration

Trigger Type

Page View ✎

This trigger fires on

All Page Views Some Page Views

Fire this trigger when an Event occurs and all of these conditions are true

| | | | | | | |
|---------------|---|---------------|---|-------------------|---|---|
| Page Hostname | ▼ | matches RegEx | ▼ | www\.example\.com | - | + |
|---------------|---|---------------|---|-------------------|---|---|



What GA4 tracks
automatically

WHAT GA4 TRACKS

Automatically (kinda) collected events for web

- click
- file_download
- form_start
- form_submit
- page_view
- scroll
- session_start
- user_engagement
- video_complete
- video_progress
- video_start
- view_search_results

WHAT GA4 TRACKS

Extra steps

- Enable Enhanced Measurement
- Map associated parameters to Custom Dimensions to expose them in reports (i.e. file_name for file_download, link_text for click)
- Feels like it should be easier - am I missing something?



**What do you mean
by “kinda”
automatically
collects?!**



ADMIN

USER

Property [+ Create Property](#)



Setup Assistant

Property Settings

Property Access Management

Data Streams

Events

Conversions

Audiences

Custom definitions

Data Settings

Data Import

Reporting Identity

Attribution Settings

Property Change History

Custom definitions

[Quota information](#)

[Custom dimensions](#) Custom metrics

[Create custom dimensions](#)

| Dimension name ↑ | Description | Scope | User Property/Parameter | Last changed | |
|------------------|-------------|-------|-------------------------|--------------|---|
| File Extension | | Event | file_extension | Jun 2, 2023 | ⋮ |
| File Name | | Event | file_name | Jun 2, 2023 | ⋮ |
| Form Destination | | Event | form_destination | Jun 2, 2023 | ⋮ |
| Form ID | | Event | form_id | Jun 2, 2023 | ⋮ |
| Form Name | | Event | form_name | Jun 2, 2023 | ⋮ |
| Header Link | | Event | header_link | Jun 2, 2023 | ⋮ |
| Header Logo | | Event | logo_click | Jun 2, 2023 | ⋮ |
| Header Search | | Event | header_search_click | Jun 2, 2023 | ⋮ |
| Link Text | | Event | link_text | Jun 2, 2023 | ⋮ |
| Link URL | | Event | link_url | Jun 2, 2023 | ⋮ |



Sample report screens

All Users

Add comparison +

Realtime overview

USERS IN LAST 30 MINUTES

222

USERS PER MINUTE



DEVICE CATEGORY IN LAST 30 MINUTES

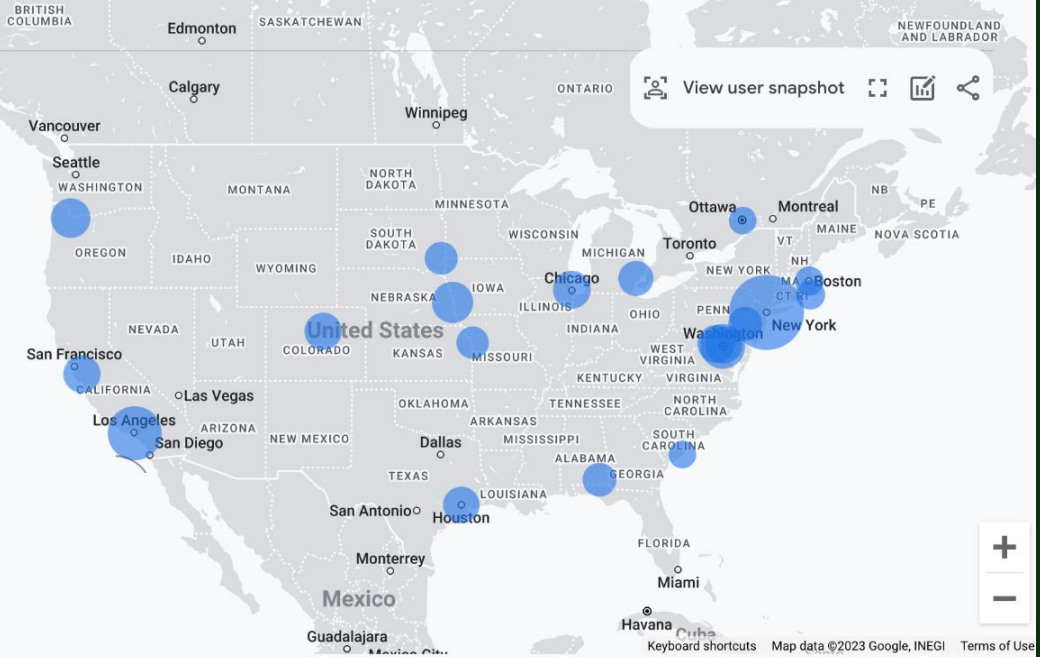


DESKTOP

81.6%

MOBILE

18.4%



View user snapshot

Users by First user source

#1 google

26

45.61%



FIRST USER SOURCE

USERS

google

26

(direct)

25

bing

2

Users by Audience

#1 All Users

223

100%



AUDIENCE

USERS

All Users

223

Views by Page title and screen name

#1

44

7.93%



PAGE TITLE AND S...

VIEWS

N

44

N

31

Bi

22



Search...

Rows per page: 10 Go to: 1 1-10 of 6108

| Page path and screen class | Views | Users | Views per user | Average engagement time | Event count | Cor |
|----------------------------|---------------|---------------|----------------|-------------------------|---------------|-------|
| | 100% of total | 100% of total | Avg 0% | Avg 0% | 100% of total | All e |
| 1 /l/... | 127,051 | 77,077 | 1.65 | 0m 00s | 264,052 | |
| 2 / | 18,270 | 13,012 | 1.40 | 0m 15s | 54,100 | |
| 3 /ou rep | 16,465 | 12,979 | 1.27 | 1m 22s | 55,616 | |
| 4 /ou wa cas | 14,127 | 10,314 | 1.37 | 1m 30s | 50,028 | |
| 5 /l/... | 10,797 | 9,571 | 1.13 | 0m 00s | 21,105 | |
| 6 /ou anc tre | 10,302 | 8,709 | 1.18 | 1m 04s | 36,577 | |
| 7 /ou rigl | 7,136 | 5,429 | 1.31 | 1m 21s | 25,139 | |
| 8 /ou rep | 6,887 | 5,334 | 1.29 | 1m 27s | 23,630 | |
| 9 /ou nra | 6,081 | 4,511 | 1.35 | 2m 24s | 19,605 | |
| 10 /se | 5,984 | 5,326 | 1.12 | 0m 22s | 40,382 | |

Include Event name = user_engagement AND Include Platfor...

User engagement > Page title

| TITLE | % TOTAL | AVG. TIME |
|-----------------|---------------|----------------|
| Citizens Un... | 5.6% ↓ 6.8% | 1m 27s ↑ 8.5% |
| Roe v. Wad... | 4.2% ↑ 24.6% | 1m 02s ↑ 8.3% |
| The Equal ...or | 2.5% ↓ 29.8% | 1m 15s ↓ 21.4% |
| Gerrymande... | 2.4% ↓ 28.9% | 1m 17s ↓ 10.1% |
| Myths and R... | 2.7% ↓ 12.3% | 0m 55s ↑ 1.3% |
| The Elector...f | 1.6% ↑ 1.3% | 1m 38s ↑ 4.0% |
| The Posse C... | 1.7% ↑ 59.1% | 1m 46s ↑ 7.4% |
| The Suprem... | 2.0% ↑ 13...% | 2m 43s ↑ 48.4% |
| The Caution... | 0.5% ↓ 73.3% | 1m 56s ↓ 16.8% |

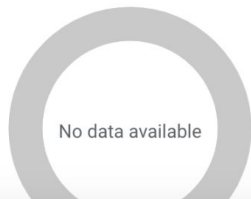
1-9 of 5000 < >

Event count by Country



| COUNTRY | EVENT COUNT |
|----------------|-------------|
| United States | 521K |
| United Kingdom | 8.2K |
| Canada | 6.7K |
| Australia | 2.9K |
| Philippines | 2.9K |
| Germany | 2.4K |
| India | 2.2K |

Event count by Gender



EVENT COUNT / SESSIONS

1.6 ↓ 18.9%



- Reports snapshot
- Realtime
- Life cycle ^
 - Acquisition
 - Engagement
 - Overview
 - Events**
 - Conversions
 - Pages and screens
 - Landing page
 - Monetization
 - Retention
- User ^
 - Demographics
 - Tech

click

Last 28 days May 6 - Jun 2, 2023



Link URL

| CUSTOM PARAMETER | EVENT COUNT | TOTAL USERS |
|----------------------------|-------------|-------------|
| (total) 137 items | 1.2K | 871 |
| (not set) | 481 | 309 |
| https://ipn2...?lang=en | 257 | 229 |
| http://www...org/ | 52 | 45 |
| http://...a...4da2755b65bc | 42 | 41 |
| http://www.stca...ce.org/s | 34 | 34 |
| tel:6303774400 | 27 | 20 |

Page Location

| CUSTOM PARAMET... | EVENT COUNT | TOTAL USERS |
|-------------------------------|-------------|-------------|
| (total) 81 items | 482 | 295 |
| (not set) | 186 | 156 |
| https://www... | 56 | 25 |
| https://www.s...ility-billing | 32 | 28 |
| https://www...res | 12 | 1 |
| https://www...ecial-events | 11 | 9 |
| https://www... | 11 | 9 |

Page Referrer

| CUSTOM PARAMETER | EVENT COUNT | TOTAL USERS |
|-------------------------|-------------|-------------|
| (total) 57 items | 482 | 295 |
| (not set) | 235 | 185 |
| https://www.google.com/ | 67 | 48 |
| https://www... | 46 | 34 |
| https://www.bing.com/ | 19 | 6 |

Outbound

| CUSTOM PARAMET... | EVENT COUNT | TOTAL USERS |
|-------------------|-------------|-------------|
| (total) 2 items | 482 | 295 |
| (not set) | 364 | 221 |
| true | 118 | 94 |



Some observations

Learning how to utilize the built-in reports requires patience and practice

- Date ranges are easier to select
- Dashboards consist of tiny boxes that cut off information
- Can't drill down on many reports like you could in UA
- Filtering by dimensions is sometimes easy, sometimes not



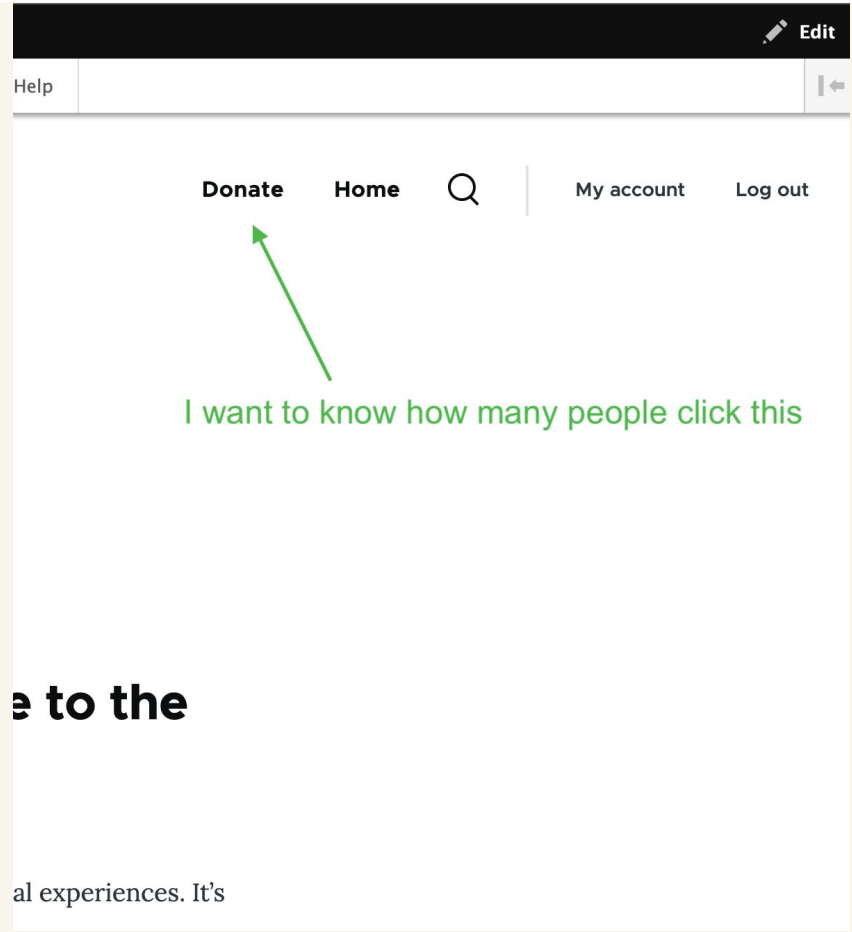
Tracking custom events



Identify your event

Choose from automatic or recommended events

What unique feature of the element can you use to distinguish from other events? Class, link text, URL...



a to the

al experiences. It's

Add a custom trigger

× Donate button

Save

Trigger Configuration

Trigger Type

Click - Just Links

This trigger fires on

Click Text equals Donate




Throw the event - add an event tag

GA4 Event - Donate Click

Save

Tag Configuration

Tag Type

 **Google Analytics: GA4 Event**
Google Marketing Platform

Configuration Tag ⓘ
Google Analytics 4 Page Views


Event Name ⓘ
click

Event Parameters

| Parameter Name | Value |
|----------------|-------|
| donate_action | start |


Triggering


Firing Triggers


 **Donate button**
Just Links





Catch the event - add a custom dimension

 Creating a custom dimension with a high number of unique values may negatively impact your reports. Be sure to follow best practices when creating custom dimensions.
[Learn more about best practices](#)

Dimension name 

Scope 

Description 

Event parameter 



View the custom dimension in reports

Analytics interface showing a report for the 'click' event over the last 28 days (May 6 - Jun 2, 2023). The interface includes a line chart and a table for the 'Donate Action'.

Line Chart Data:

| Date | Value |
|--------|-------|
| 07 May | 0 |
| 14 | 0 |
| 21 | 0 |
| 28 | 0 |
| Jun 2 | 0 |

Donate Action Table:

| CUSTOM PARAMET... | EVENT COUNT | TOTAL USERS |
|-------------------|-------------|-------------|
| (total) 2 items | 11 | 1 |
| (not set) | 8 | 1 |
| start | 3 | 1 |

WHAT WILL THE FUTURE HOLD?

The landscape is evolving

- Users are learning GA4 and developing best practices
- Google is evolving the product itself
- Other, simpler tools may meet the needs of many site owners for basic analytics

Thank you!

Questions?

