

Google Analytics 4 Guide

University Communications, Digital Marketing & Analytics

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A. ABOUT THE TRANSITION

As of June 2022, UCR is in the process of transitioning the campus from using Universal Analytics (UA) to Google Analytics 4 (GA4) and preparing for the sunsetting of UA in July 2023.

This guide was created to serve as a resource for campus partners during this transition.

The campus-wide transition will be handled by University Communications and ITS, with the option for campus partners to create and implement their own Google Analytics/Google Tag Manager if additional customization is desired for their specific program area.

What is Google Analytics?

Google Analytics (GA) is a web analytics service used to track user behavior on websites with the GA tracking code configured. GA includes features that can help identify trends and patterns in how visitors engage with our websites.

What is the current Google Analytics setup?

The UC Riverside campus is currently set up with Universal Analytics (UA). Most ucr.edu sites are tagged with the main campus UA code (UA-3051875-1), with the following exceptions:

- The Enrollment Team and Student Affairs team are tagged with their own UA codes. Their analytics are still housed in different accounts but are now being managed by the University Communications team.
- There are a few program areas/colleges that have their own GA accounts that are managed by each team independently.

What is Google Analytics 4?

GA4 is **not** an upgrade to UA. It is a completely new version of GA that works based on a different model. GA4 is centered around an event-based model, whereas UA stands on a session-based data model.

Why are we transitioning to Google Analytics 4?

UA is going to stop processing data in July 2023, and historical data in UA will be available for up to 6 months after July 2023 (so up until January 2024).

One of the reasons that Google is discontinuing UA is to address data privacy concerns. Per Google, “UA was built for a generation of online measurement that was anchored in the desktop web, independent sessions and more easily observable data from cookies.” By not relying exclusively on cookies and using an event-based data model, GA4 can operate across multiple platforms. This makes it a more future-proof solution.

What will the campus-wide transition to Google Analytics 4 look like?

With the transition to GA4, there is an opportunity to restructure our campus GA account(s) to be more cohesive, track user engagement across the entire ucr.edu domain (all sites hosted on Drupal), and still have the ability to drill down into specific segments as needed.

We encourage our campus partners to create a separate Google Analytics (and/or Google Tag Manager) account if they want to have more control over and have the ability to customize their tracking for their specific program area/college. The campus GA4 codes and the separate program area-specific codes will work concurrently, as long as it is set up properly. More information on how to accomplish this can be found in the [Advanced Google Analytics 4 for My Program Area](#) section in this document.

Next steps from University Communications and ITS

1. University Communications and ITS are working to globally add the new campus GA4 tracking codes to all ~700 sites hosted on Drupal once the Pantheon transition is complete.
2. University Communications will provide this guide, two live trainings, and a recorded video training to prepare our campus partners for this transition. These resources will all be available on <https://websites.ucr.edu/google-analytics-tracking>.

Timeline

- **September-October 2022:** The new campus GA4 tracking codes will be added to all ucr.edu sites by ITS.
- **September-October 2022:** Stephanie will release this guide and a recorded video training to campus partners.
- **October-November 2022:** Stephanie will host two live, basic GA4 training sessions for campus partners.
- **November-December 2022:** Campus partners will have access to training resources on <https://websites.ucr.edu/google-analytics-tracking>.
- **July 2023:** UA will no longer process any hits. We will officially move to GA4 as our main analytics platform.
- **July-December 2023:** Campus partners will identify and save historical data from UA before January 2024.

How will this transition impact my work as a campus partner?

Setting up GA4

- Campus partners will not need to set up the new campus GA4 codes on their sites. This will be handled by ITS.
- Campus partners can set up their own GA4 or GTM codes on their sites, if desired. To do so, please follow the instructions outlined in the [Advanced Google Analytics 4 for My Program Area](#) section in this document.

Saving historical data

- Campus partners will need to identify and save historical data from UA, as it will not be available past January 1, 2024. Please keep in mind that for the most part, reports from UA and GA4 will not be comparable, as they are using completely different models to process data.

Understanding and using GA4

- **IMPORTANT:** Campus partners will need to take ownership of learning GA4 and applying their knowledge to their respective program areas/colleges.
- This guide and the resources provided by University Communications are meant to serve as a general overview of the transition and an outline of how it may apply to campus partners at a high-level. However, since GA4 is such a new tool with updates and enhancements happening constantly, it will be up to the campus partner to determine the depth of knowledge relevant to their respective program areas/colleges.

What are my next steps as a campus partner?

1. Read through the guide thoroughly and review the recommended online trainings.
2. Attend one of the two live trainings in October/November 2022 (both sessions will cover the same material).
3. Save your historical data from UA before January 1, 2024.

B. GOOGLE ANALYTICS 4 BASICS

What are the key differences between Universal Analytics and Google Analytics 4?

Please refer to this article: <https://www.monsterinsights.com/docs/google-analytics-4-versus-universal-analytics/>

How do I save my historical data from Universal Analytics?

Please refer to this article: <https://www.workshopdigital.com/blog/save-universal-analytics-data-for-ga4/>

Please refer to this video tutorial: [How to backup Universal Analytics: Exporting data from Google Analytics and moving to GA4.](#)

For the average campus partner, saving the basic metrics will be enough to reference for future reporting. I recommend exporting the data into Google Sheets or Excel. If you need more robust information and reporting capabilities of historical data, you may need to look into a data warehouse like BigQuery.

Please note, you can export data from UA, but you cannot import this data into GA4. Remember that GA4 is a completely new version of GA, and data from UA and GA4 are not comparable since they are processed differently.

What standard reports are available in Google Analytics 4?

Please refer to this article: <https://www.bluecompass.com/blog/understanding-google-analytics-4-reporting>

Please refer to this article: <https://databox.com/most-useful-google-analytics-reports#head1.4>

To view standard reports specifically for your program area, you will need to create a comparison with the specific hostname(s) you would like to review. Please refer to the [Creating and Using Your Comparison/Segment in Reports](#) guide.

How do I create custom exploration reports in Google Analytics 4?

Please refer to this article: <https://www.monsterinsights.com/how-to-create-google-analytics-4-custom-reports-step-by-step/>

To view key exploration reports specifically for your program area, you will need to reach out to the Marketing Data Manager to create a segment and set up key exploration reports for you. Please refer to the [Creating and Using Your Comparison/Segment in Reports](#) guide.

C. ADVANCED GOOGLE ANALYTICS 4 FOR MY PROGRAM AREA (Optional)

When should I create a separate Google Analytics account and Google Analytics 4 property for my program area?

We encourage our campus partners to create a separate Google Analytics (and/or Google Tag Manager) account if they want to have more control over and have the ability to customize their tracking for their specific program area/college. The campus GA4 codes and the separate program area-specific codes will work concurrently, as long as it is set up properly.

What are the benefits of having a separate GA account and GA4 property for my program area?

- You will have the ability to:
 - Create recommended or custom events specific to your sites (requires configuration through GTM)
 - Customize tagging for campaigns specific to your program area (requires configuration through GTM)
 - Define your own conversions (for example, leads who complete and submit a form)
 - Create your own funnel tracking (to see if a user follows a defined/expected path on your site)
 - Create your own custom definitions (for example, custom dimensions or custom metrics)
 - Create your own segments and audiences (for targeting/retargeting)

How do I set up my separate tracking for my program area?

Step 1: Create a new Google Analytics account

- If you do not currently have a separate Google Analytics account, navigate to this [link](#) to set one up for your program area.

Step 2: Determine an account structure

- Unlike Universal Analytics, Google Analytics 4 properties do not have views, so think carefully about how you want to structure your account. Consider the following key concepts and definitions:

Key concepts and definitions

- **Account:** A collection of properties whose data is owned by a single legal entity and governed by region-specific terms of service (TOS).



Is it important that the data from each region is owned by a distinct legal entity within that region?

- **Yes:** Create multiple accounts, one for each region.
- **No:** Create one account in the region that houses your company headquarters.

- **Property:** Lives within an account, and represents data for one user base. If data should generally be analyzed together (product line, brand, application), data should be in one property (which can act as a [source property](#) if you have Google Analytics 360.)



Is the data you collect related to a single logical user base? When you link Analytics to other products, do you want to share that entire body of data with each product?

- **Yes:** Create one property.
- **No:** Create a separate property or subproperty for each logical user base.

- **Data stream:** Lives within a property, and is the source of data from an app or website. The best practice is to use a maximum of 3 [data streams](#) per property: 1 single web data stream to measure the web user journey and 1 app data stream each for iOS and Android.



- **App data stream:** You can have one data stream for each combination of app-package name and platform.
- **Web data stream:** In most cases, you should use a single web data stream to measure the web user journey. To ensure consistent user and session reporting for web journeys that span domains, use a single web data stream combined with [cross domain measurement](#).

Step 3: Create a Google Analytics 4 property

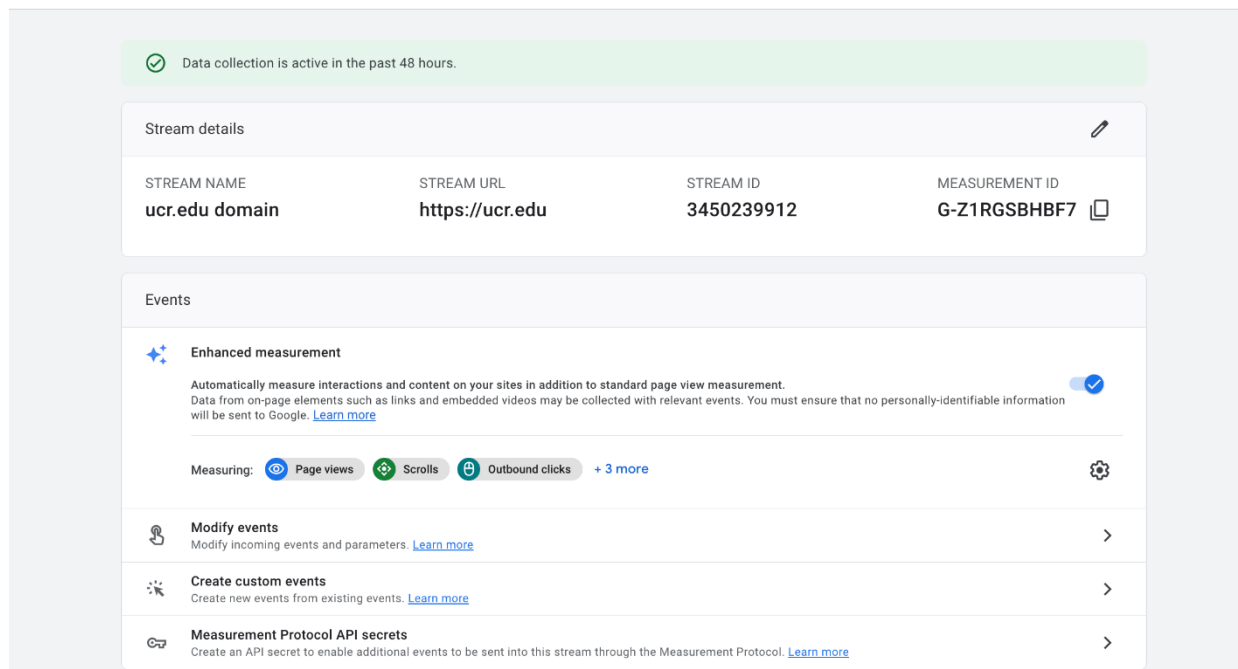
- Sign into your account and go to your account settings.
- If you just created your Google Analytics account, do not have any Universal Analytics properties, or want to start fresh, create a new GA4 property.
- If you already have a University Analytics property and would like to closely replicate its settings and custom events, create a new GA4 property based on this existing property.

Step 4: Create a data stream

- Navigate to the GA4 property's admin settings > select Data Streams > add a web data stream.
- Enter a name for your data stream (the name does not impact tracking; it is just a way to identify the stream) and add the URL you plan to track (the URL does not impact tracking; it is just a way to identify the stream).
- Make sure **Enhanced Measurement** is turned on.

× Web stream details

⋮



The screenshot shows the 'Web stream details' page in Google Analytics. At the top, a green notification bar states 'Data collection is active in the past 48 hours.' Below this is a table with the following information:

STREAM NAME	STREAM URL	STREAM ID	MEASUREMENT ID
ucr.edu domain	https://ucr.edu	3450239912	G-Z1RGSBHBF7

Below the table, the 'Events' section is visible, with 'Enhanced measurement' turned on. It lists the following events being measured: Page views, Scrolls, Outbound clicks, and 3 more. Other options like 'Modify events', 'Create custom events', and 'Measurement Protocol API secrets' are also listed.

Step 5: Set up a Google Tag Manager account to configure your Google Analytics 4 tag (Optional – Skip to Step 6)

What is the benefit of using Google Tag Manager to configure GA4?

- It is best practice to use Google Tag Manager to configure GA4.
- GTM provides an easy, templated route to install GA4 on your site. GTM also supports all tags and offers easy-to-use turnkey templates for a wide range of Google and third-party tags for web and mobile apps.
- Once GTM is set up on your site, you can add or change your tags as needed within GTM, instead of having to make code updates directly on the site. You can also use GTM to manage how your tags behave once users make their cookie consent decisions.

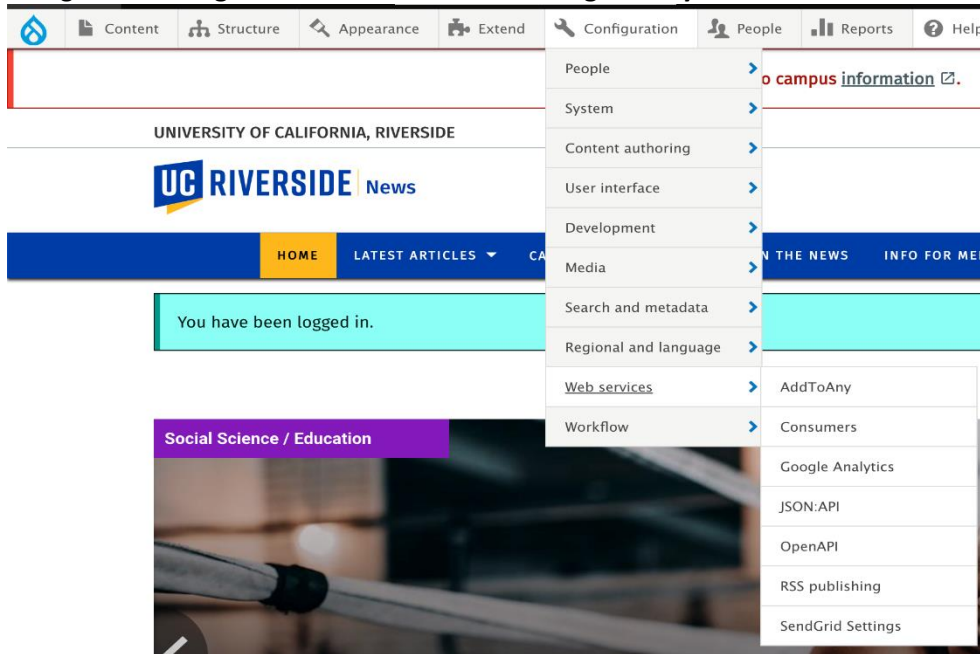
How do I create a Google Tag Manager account?

- Follow the instructions on how to set up a new Google Tag Manager account and container, or add a new container to an existing GTM account outlined here:
<https://support.google.com/tagmanager/answer/6103696?hl=en#new>

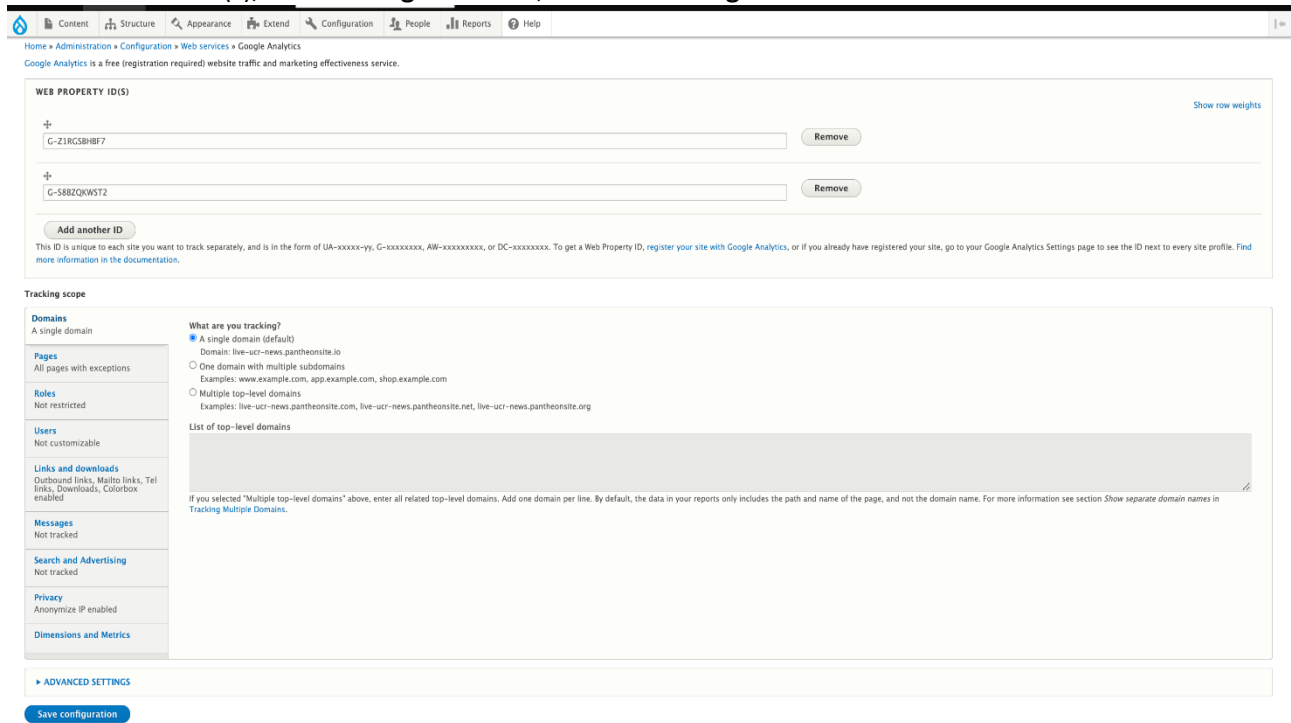
Step 6: Configure the Google Analytics 4 tag on your website

Using the Google Analytics module in Drupal (if you did not complete Step 3)

- Go to the website you want to add the GA4 tag to and log in to Drupal using CAS.
- Navigate to **Configuration > Web services > Google Analytics**.



- Add the GA4 code(s), select **A single domain**, and **Save configuration**.



Using the Google Tag Manager module in Drupal (if you did complete Step 3)

- Follow the instructions outlined here (steps 1-8): <https://paragondigital.com/resources/setting-up-ga4-using-google-tag-manager/>

Step 7: Test the Google Analytics 4 tag on your website

Using Google Tag Manager preview mode & Google Analytics realtime reports

- Again, follow the instructions outlined here (step 6-7): <https://paragondigital.com/resources/setting-up-ga4-using-google-tag-manager/>

Using the Google Analytics built-in debugger mode

- Follow the instructions outlined here: <https://support.google.com/analytics/answer/7201382?hl=en#:~:text=Once%20you%20enable%20debug%20mode%20on%20your%20devices%2C%20go%20to,during%20the%20last%2060%20seconds.>

Step 8: Link Google Ads to the new Google Analytics 4 property (Optional)

How to link Google Ads to the new GA4 property

- Refer to these resources:
 - <https://support.google.com/analytics/answer/9379420#zippy=%2Cin-this-article>
 - <https://www.kristaseiden.com/step-by-step-linking-google-analytics-4-to-google-ads/>
- You will be asked to configure 2 settings: enable personalized advertising and auto-tagging.

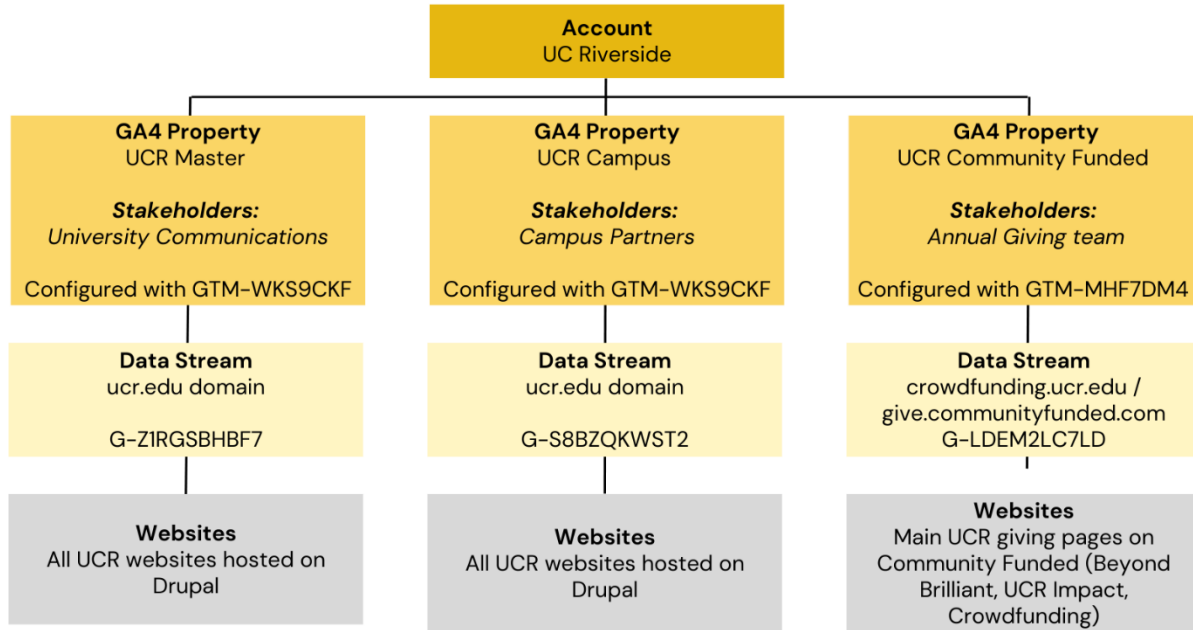
If you are already bidding on UA conversions...

- You can migrate these conversions to GA4 conversions, then import them to Ads.
- Refer to this resource: <https://support.google.com/analytics/answer/11053134>
- Before importing UA conversions into Google Ads, you should avoid duplication by either:
 - Removing your existing UA conversions, or
 - Changing them from "primary" to "secondary" conversions in your Google Ads account.
- Plan ahead and confirm when you want to make this official switch before you do so. If applicable, consult with your media buying agency as well to see if they have any recommendations.

D. APPENDIX/RESOURCES

Google Analytics 4 Account Structure

This visual map represents how our Google Analytics account is structured as we migrate from Universal Analytics to Google Analytics 4 (June 2022).



Overview of Google Analytics 4:

- <https://databox.com/google-analytics-4-vs-universal-analytics>
- <https://www.searchenginejournal.com/google-sunsetting-universal-analytics-in-2023/442168/>
- <https://www.wordstream.com/blog/ws/2022/06/23/google-analytics-4-vs-universal-analytics>
- <https://www.rootandbranchgroup.com/ga4-setup/>
- <https://measuremindsgroup.com/ga4-features>
- <https://support.google.com/analytics/answer/9679158?hl=en>