Google Analytics 4 - Reports

Table of Contents

Resources

Getting Started

Official Google Analytics Help
1. https://support.google.com/analytics

2. https://developers.google.com/analytics

Julius Fedorovicius has both a YouTube channel and a website that contains a lot of information on many aspects of Google Analytics. His content is a good starting point for how to do things and for dealing with various problems.

1. https://www.analyticsmania.com/

2. Google Analytics Tutorials - Playlist
   https://www.youtube.com/playlist?list=PLVz1bbeMX6hzdLVTdivgmUkCpgebOsjpr

----

The value **(Not set)** is going to be an ongoing problem in all reports. For an explanation of what it is all about and how to fix some aspects of it see.

3. Not set in Google Analytics 4. How to fix it?
   https://www.analyticsmania.com/post/not-set-in-google-analytics-4/?utm_medium=video&utm_source=youtube.com&utm_campaign=am+yt+-+not+set+in+ga4+2023

Regular Expressions:

Another feature that will recur in all reports is filtering. In a number of cases there will be a need for regular expressions as the best way of getting the expected result. Regular Expressions are a standard IT tool used for finding character patterns in text and files.

Here are some sites to get you started.

1. https://www.optimizesmart.com/regular-expression-guide-for-seos/

2. https://measureschool.com/regular-expressions-google-tag-manager/

3. https://www.lovesdata.com/blog/regex-google-analytics

Highly recommended: https://regex101.com/

This site will enable you to create and more importantly test any regex. It contains reference information, tools to explain what each part of the expression does, a debugger to track the effects of a regex, etc.
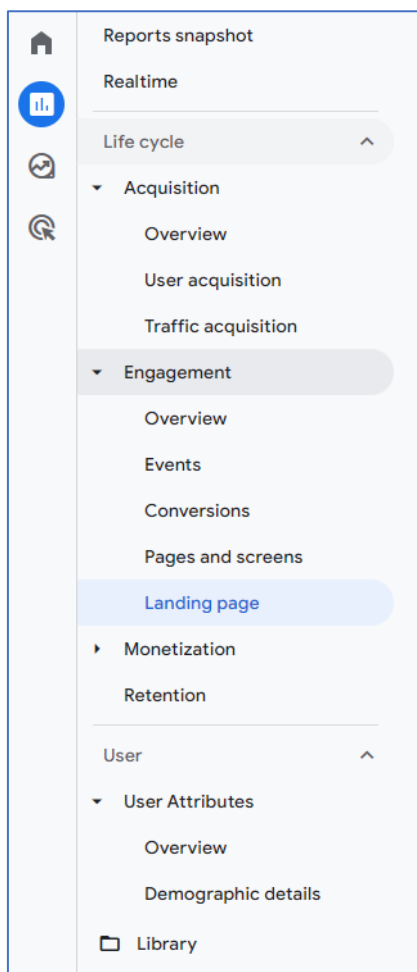
Part 1: Standard reports:

These are similar to the types of reports that were available in the older version of Google Analytics. For example, the age and gender reports are located in the **User Attributes** section, source/medium is in the **Acquisition** section and device category reports are contained in the **Tech** section. All sections have an Overview page from which you can then go to a more detailed page for each specific report.

See also Canva Related Data below and then for creating your own standard reports see Part 4 below.

Part 2: Exploration reports:

These are entirely new. They are more flexible and configurable than the standard reports. It is this type of report that will be of most use to us and from which we would mostly export our data into a csv file. These reports can include all the custom data fields we want to use in whatever combination is useful. By comparison the standard reports can have only at most two dimensions viewable at a time.


Part 1: Standard Reports

GA4 – Landing Page

1) Select - Engagement

2) Select – Landing page

I will use the landing page report as a guide to the other standard reports as they all mostly follow the same format and can be used in much the same way.

You are able to create a modified version of one of the standard reports if the need arises. See Part 5 below.

For modifications that cannot be done in the standard reports you can design an exploration report that can replicate and extend the type of data available in a report. See Part 2 below.

Typical output for a Landing Page report. Unfiltered other than a specified date range.
Date Range in this example: Jan1 – Jun 26, 2023
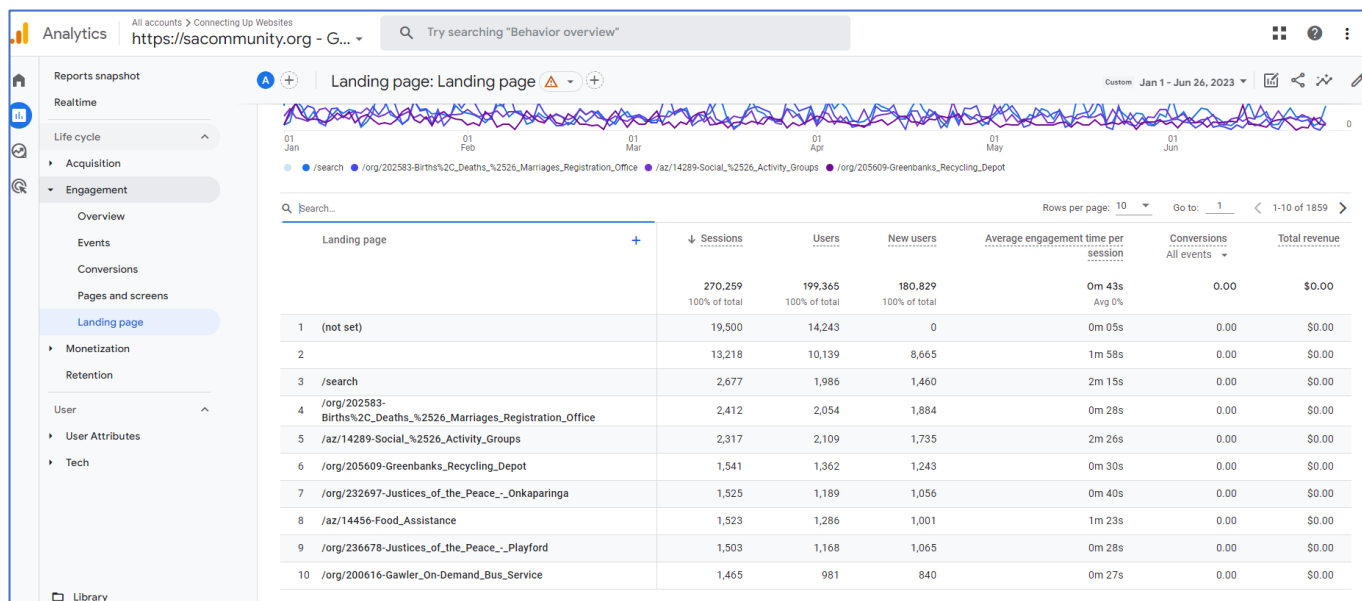
Search Landing Pages.

For when we need to search for a specific SAcommunity page.

Type in the search criteria next to the Lens symbol.

You can search by any text here:

e.g., a search for the text "Georganas" will lead you to the following landing page data.
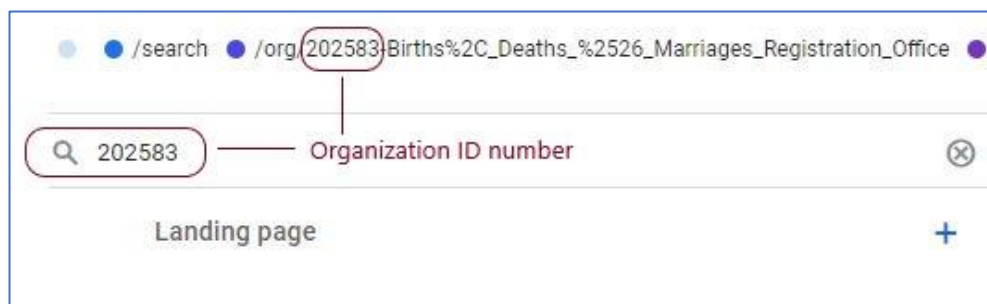/org/203559-Georganas%2C_Steve_MP_-_Federal_Member_for_Adelaide

Organization Search by ID number

Type in the ID number next to the Lens symbol.

This is the ID number for the Births, Deaths & Marriages Registration Office - **202583**
Page Path: /org/**202583**-Births%2C_Deaths_%2526_Marriages_Registration_Office

The landing page data for the Births, Deaths & Marriages Registration Office
2412 Sessions recorded in the selected date range.
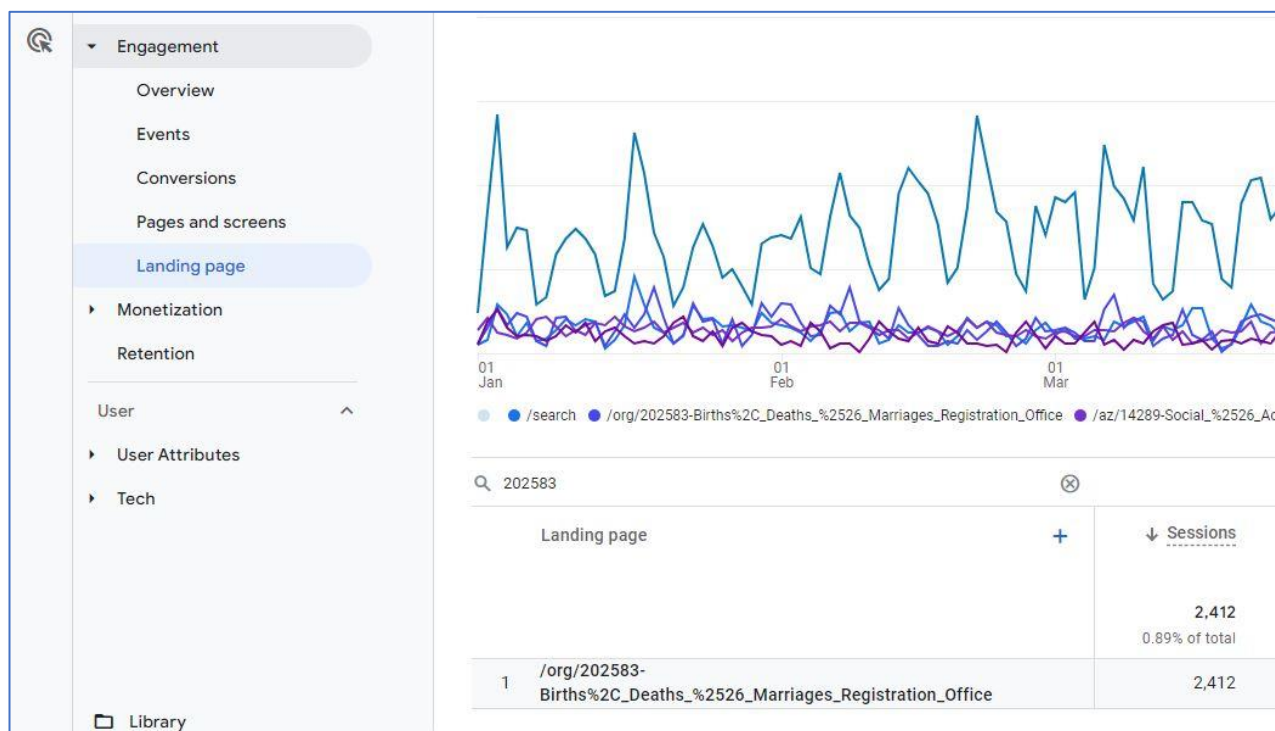
Remove Search Filter

To remove a search filter, click on the cross within circle symbol. Just deleting the number or text from the search box will not revert the screen to an unfiltered output.
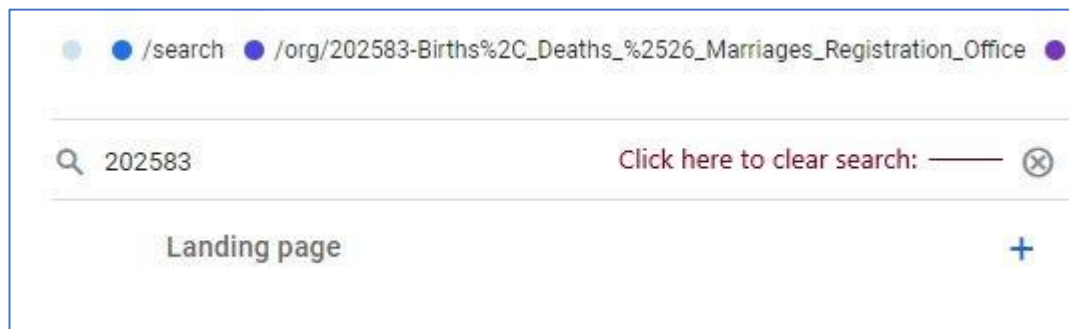

Additional Fields

You can also modify a landing page report to combine the default dimension with another data field column.

Click on the blue ✚ symbol to see and select an additional data field. You can add a number of additional fields or dimensions to the report but only one of the extra fields will be active or viewable at any one time.

Choose from a whole range of built in data fields from GA4. Our Custom Data fields are also available.
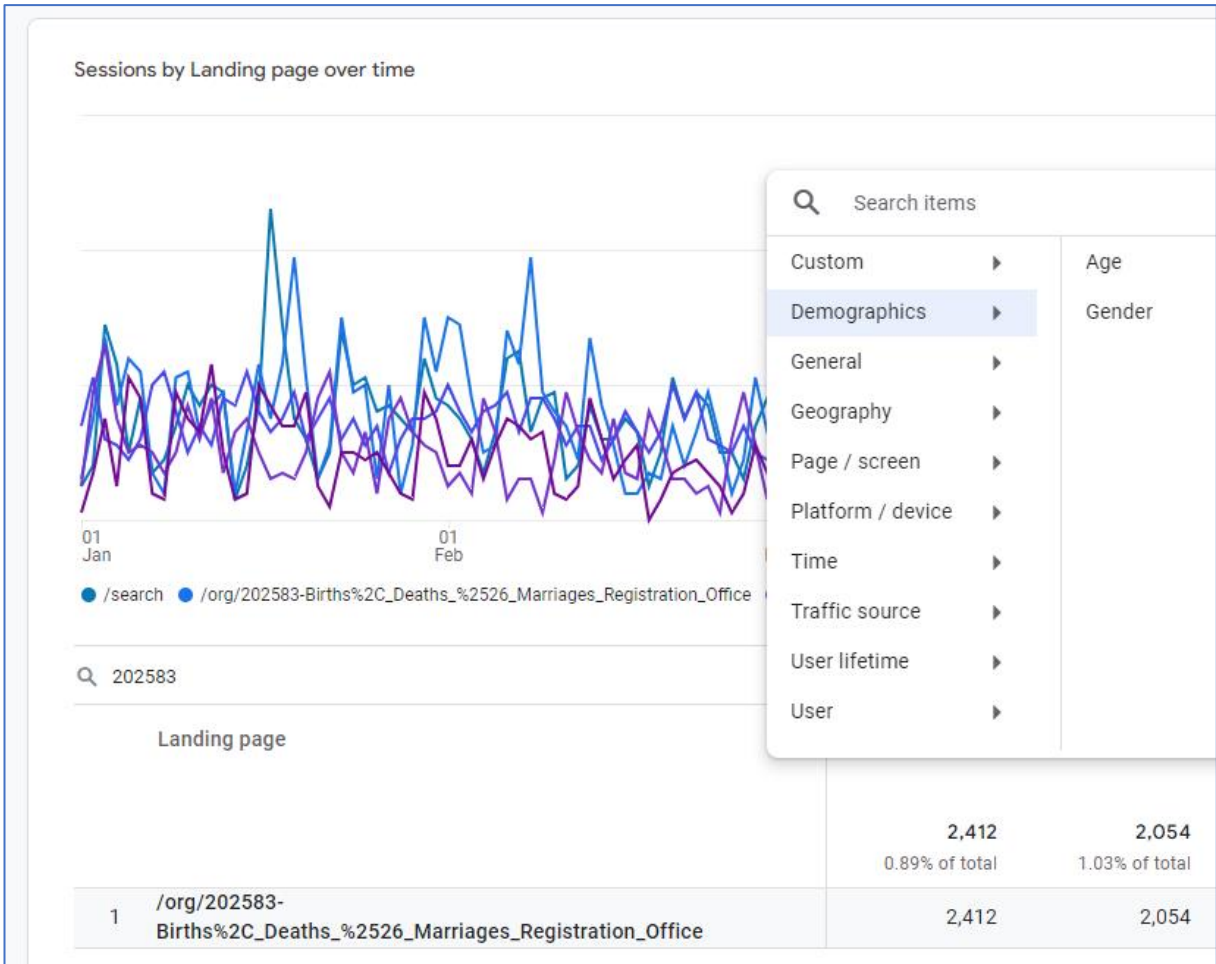
Age data for this specific landing page.

|	Landing page	Age		↓ Sessions
				2,341 1.05% of total
1	/org/202583- Births%2C_Deaths_%2526_Marriages_Registration_Office	unknown		2,079
2	/org/202583- Births%2C_Deaths_%2526_Marriages_Registration_Office	35-44		72
3	/org/202583- Births%2C_Deaths_%2526_Marriages_Registration_Office	25-34		65
4	/org/202583- Births%2C_Deaths_%2526_Marriages_Registration_Office	45-54		65
5	/org/202583- Births%2C_Deaths_%2526_Marriages_Registration_Office	55-64		60

Search: 202583

Gender data for this specific landing page.

	Landing page	Gender		↓ Sessions
				2,412 1.06% of total
1	/org/202583- Births%2C_Deaths_%2526_Marriages_Registration_Office	unknown		2,066
2	/org/202583- Births%2C_Deaths_%2526_Marriages_Registration_Office	female		188
3	/org/202583- Births%2C_Deaths_%2526_Marriages_Registration_Office	male		158

Search: 202583

Canva Related Data

The following types of information can all be obtained by temporarily changing a setting in one of the existing standard reports.

Filtering: They can all also have a filter applied to them to narrow the results to a specific council, electorate, or any other desired criteria. (see Standard Report Filter below)

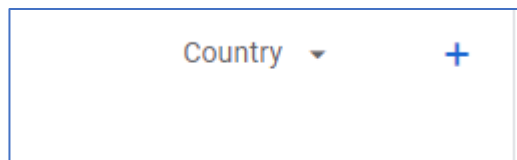### Age, Gender

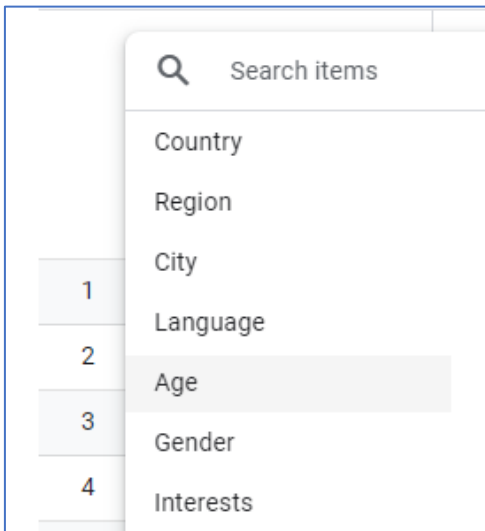**1)** Open the "**Demographic details**" report in the **User** -> **User Attributes** section.
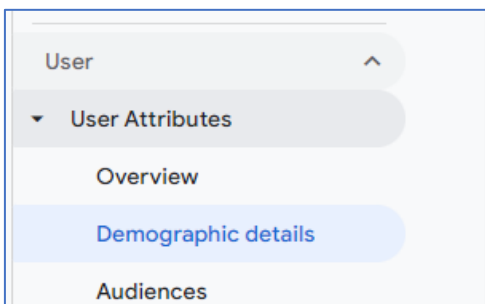
2) Click on the drop-down list arrow next to the default displayed item "Country"
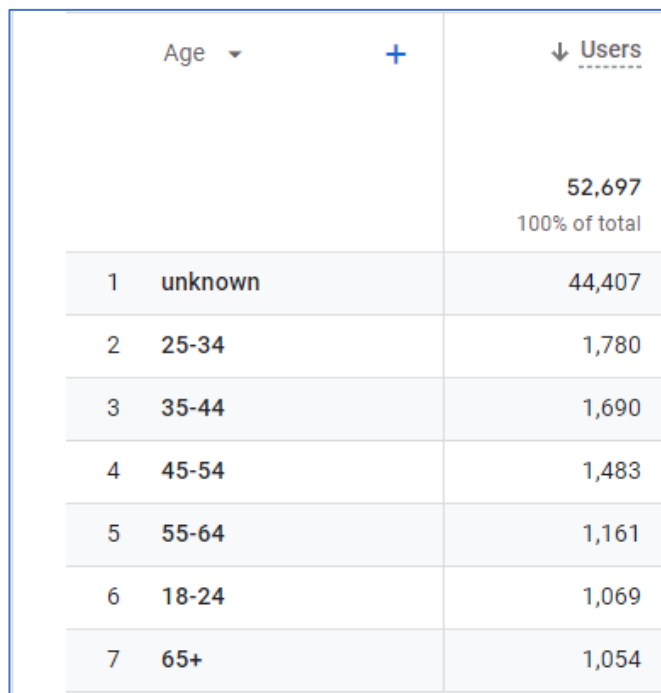
Change the default data field to the one you need.

3) Select Age or Gender from the list

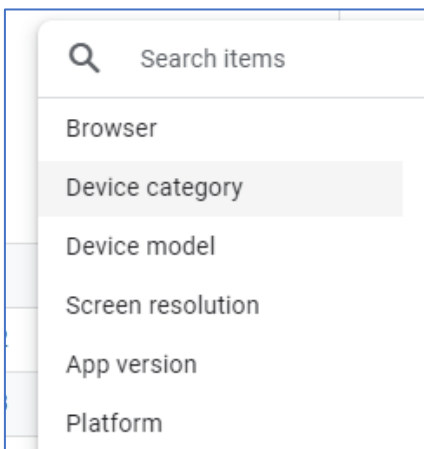**4)** The output of this report is now Age.

Device Category

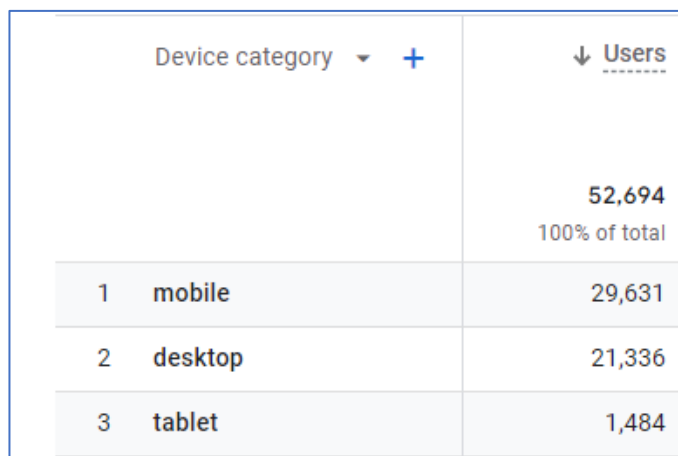**1)** Open the "**Tech details**" report in the **Tech** section.
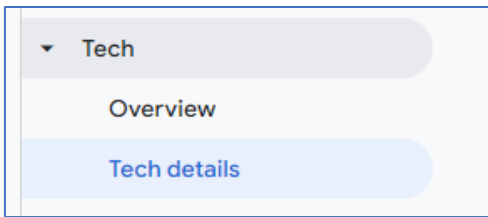
2) Click on the drop-down list arrow next to the default displayed item "Browser"
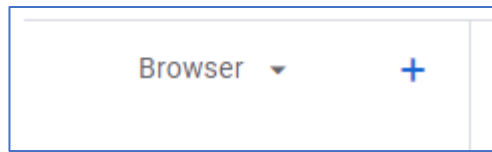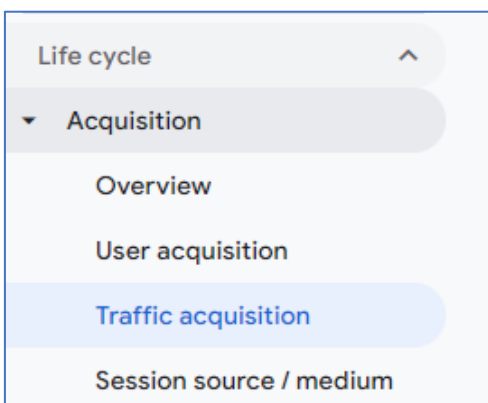

3) Select Device category from the list

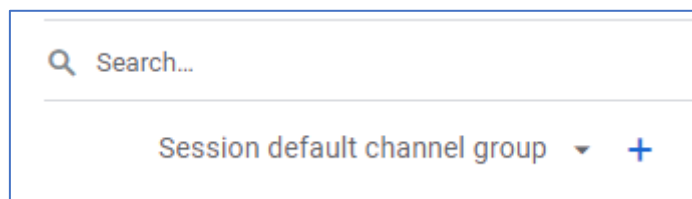**4)** The output of this report is now Device Category.
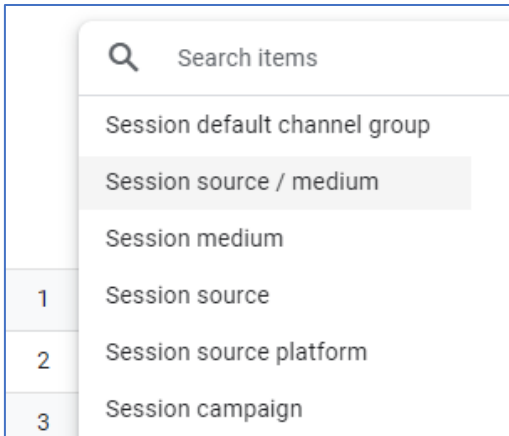

Source/Medium

1) Open the "**Traffic acquisition**" report in the **Life Cycle** -> **Acquisition** section.

2) Click on the drop-down list arrow next to the default displayed item "Session Default channel group"

3) Select Session source / medium from the list

**4)** The output of this report is now Source / Medium.

Standard Report Filter:

We would also want to separate out the results of these reports based on such criteria as a Council or State or Federal electorate. Since all the above reports follow the same standard format, they all also have the same method for implementing a filter.
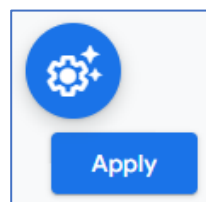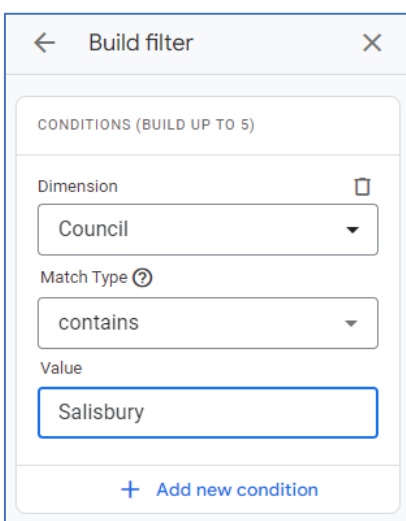
1) Click on Add Filter +
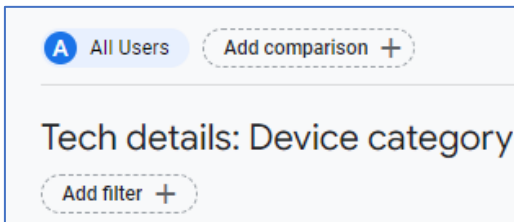
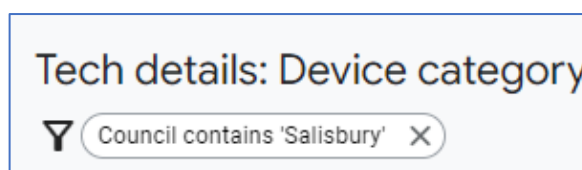**2)** This new section will appear on the right-hand side of the window.
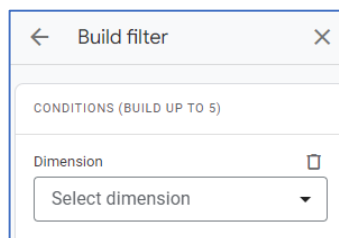
3) Filter with selection criteria filled in.

There is an Apply button further down towards the bottom of this section. This button will save the filter and make it active.

4) The filter is now active.

NOTE: Only up to 5 filters can be used at any one time.

Unfiltered report: All areas and users for the selected time period

Device category	Users
	52,694 100% of total
1 mobile	29,631
2 desktop	21,336
3 tablet	1,484

Filtered: Council contains Salisbury,   i.e., City of Salisbury

Device category	Users
	2,089 100% of total
1 mobile	1,155
2 desktop	891
3 tablet	44

Landing Pages – Page Views   (custom report)
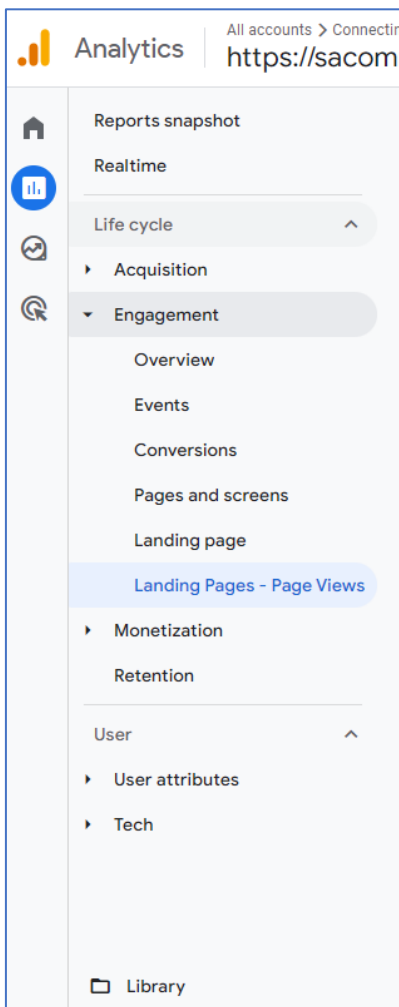
The purpose of this report is to measure the page views for SAcommunity. By contrast most other reports use sessions as the main metric.

This report is a modified version of the "**Pages and screens**" report. The changes include,

Dimensions: "Landing page + query string" or "page_title" have replaced the default dimension of "Page path and screen class"

Metrics: "Conversions" and "Total revenue" have been deleted from the modified report. They are not relevant to anything that SAcommunity does or the information we need in this report.
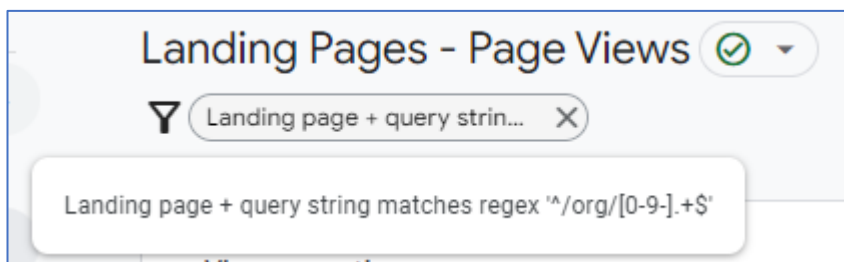
Filter: A filter may be included to limit the report output to only the organization listings. You can always remove or change a filter to select a different subset of data.

For example,
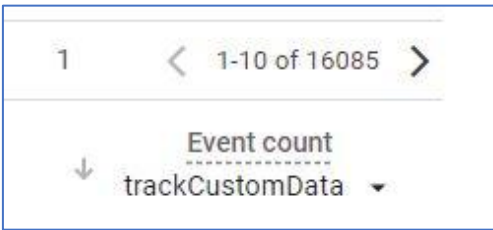**Landing page + query string contains '/org/**

Or use the regular expression version:
Landing page + query string matches regex ^/org/[0-9].+$

Search: You can combine a filter with the search function to get different results again.
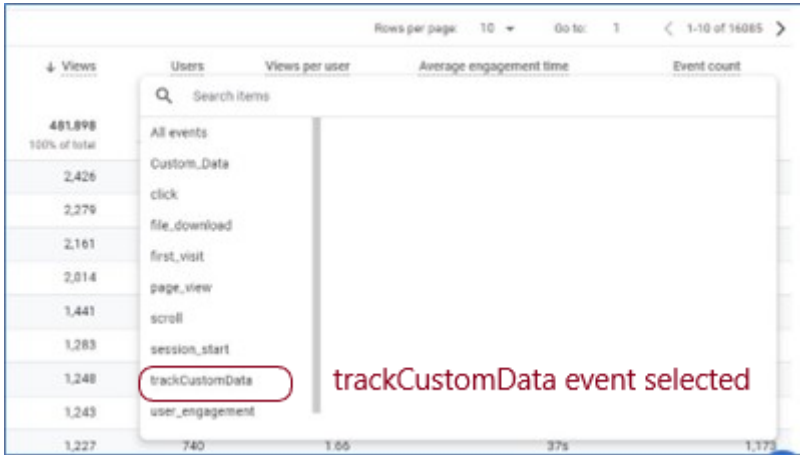
Event Count:

This by default shows all events. Not all are useful to know.

If you select trackCustomData as the event to be viewed, then you also get a metric that is directly equivalent to page views.

Select an event from the list of events information collected by Google Analytics including our custom event of trackCustomData.
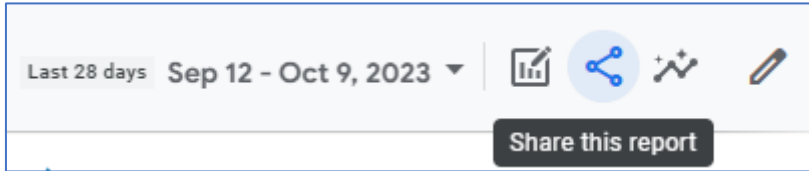

trackCustomData event selected

Typical Output:

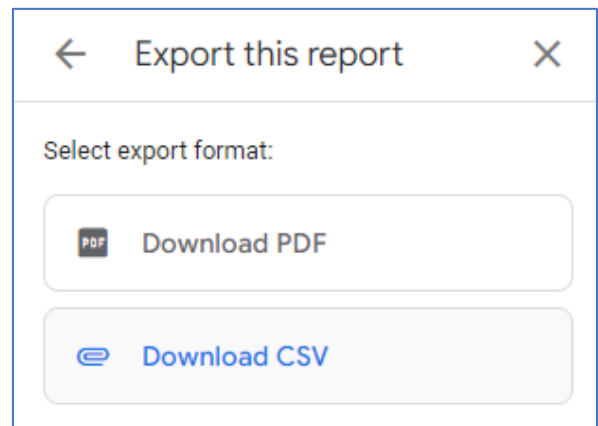# Download Report Data

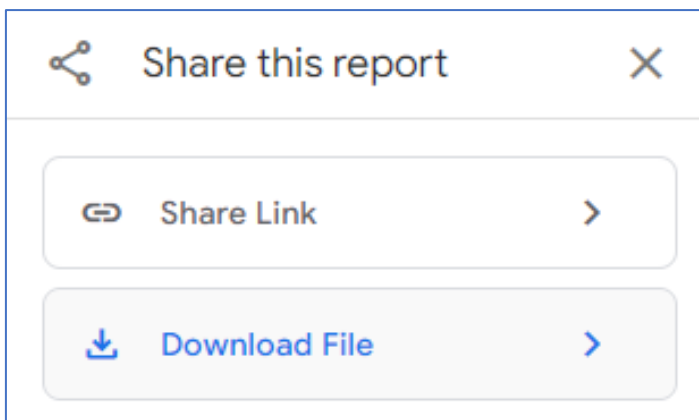## Standard Reports:

1) Top Right Corner, click on the Share Report symbol

2) Click on Download File

3) Click on Download CSV

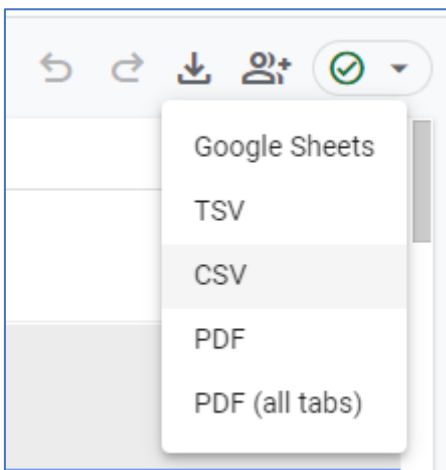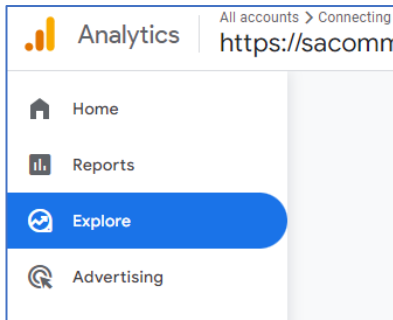## Exploration Reports:

1) Top Right Corner, click on the Export Data symbol
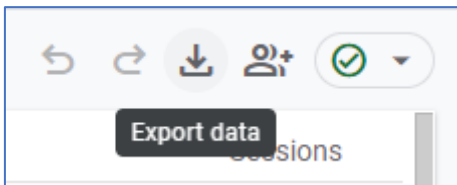
2) Select the CSV option

Part 2: Exploration Reports

Select the **Explore** section

Prepared Templates:

I have created several reports here. Template reports are prefixed with R1, R2...R6 etc.
Each has a specific purpose and has been optimized for that purpose.

Please treat these created reports as templates and guides. They are not to be directly used.

Type	Name ↓	Owner	Last modified ↓	Property
👤	R1-Custom Data-All Pages	SAcommunity Volunteers	10:18 AM	https://sacommunity.org - GA4
👤	R2-Non Organization Pages	SAcommunity Volunteers	11:05 AM	https://sacommunity.org - GA4
👤	R3-Organization Pages Only	SAcommunity Volunteers	11:05 AM	https://sacommunity.org - GA4
👤	R4-Electorates and Council	SAcommunity Volunteers	11:33 AM	https://sacommunity.org - GA4

Make a **copy** of a template report (**Duplicate**) and work with the copy. Experiment with the copy as you like but the original template should remain intact.

Further specialised template reports will be created over time.
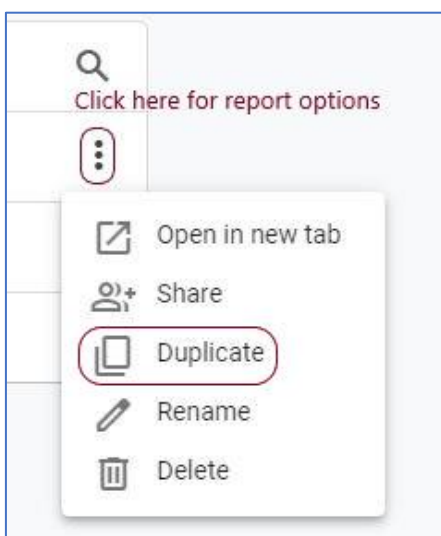
The report **R3-Organization Pages Only** is the one that we would mostly use and is the most appropriate for getting council data. (Equivalent to what we have been using in the older version of Google Analytics)

You may delete a copy of a report when you are done with it.

If you create a new type of report that may be useful for everyone else please mark it as a template; continue the R1, R2...R6 sequence.

Report purpose and usage.

These reports are designed to also work with our custom data. This will include such fields as DatasetID and Primary Category. Further custom fields that can be included are OrgType (Organization Type), State Electorate and Federal Electorate. Also, we can get an actual Council Name as opposed to just the DatasetID.

Most of the reports will have the following information:
- Page Title   - "Waikerie District Historical Society |SAcommunity - Connecting Up Australia"
- Page path and screen class - "/org/227303-Waikerie_Australia_Day_Committee"
- Sessions
- Event count   - With Event count is trackCustomData or "Event Label exactly
                                                matches trackCustomData" then this value is functionally identical to
                                                the number of page views.

Exclude (not set)

The reports will all also normally have a setting that removes the output (not set). Leaving the (not set) items will contaminate our results. Fortunately, they are easily filtered out. The (not set) items can be excluded via a Segment setting or you can get the same result by using a Filter instead.

All the reports have a date range option. Use that to select the time period for which to create an excel file and then a Power BI report,   e.g.,   July1, 2023 – June 30, 2024

R1-Custom Data-All Pages

This will list all SAcommunity pages that have been visited in a specified time period.

R2-Non-Organization Pages

This report is designed to get only the pages that are not an organisation listing.
This will include such pages as.

Page path and screen class	Page path and screen class
/ (*SAcommunity Home Page*)	/orglist/K
/thesaurus/13745-Members_of_Parliament_%28State%29	/orglist/L
	/orglist/M
/orglist	/node/856 (blog entry)
/thesaurus/14210-Stagecraft	/node/842 (blog entry)
/az	/taxonomy/term/16563

R3-Organization Pages Only

This report is optimized for extracting data about organization listings only. The reverse of the above report.: it will include entries such as below. Other dimensions are available to be included.

DatasetID	Page path and screen class
09COP17	/org/232872-Ellis%2C_Fraser_MP_-_State_Member_for_Narungga
09MIDM17	/org/208221-Mannum_LPO
09TTG17	/org/203988-O%27Grady_Drama_-_Wynn_Vale
09WATR17	/org/210800-Kangaroo_Inn_Area_School

What is inside an Exploration Report.

Variables Column: These are the data fields or Dimensions that you may use in the report.
Tab Settings Column: These are the data fields that are currently **active** or in use in the report.

Variables / Tab Settings Columns

1) Date Range – click on the down arrow next to a displayed date to open up a standard date selection window.

2) Segments
The first step in selecting the type of data that will appear in the report.
(see below - Create a segment)

Maximum of 10 segments allowed per exploration report.

3) Segment Comparisons
The segments that are currently active.

Drag and Drop from the list of defined segments onto the Segment Comparisons list to make a segment take effect.

4) Dimensions
These are the data fields that may be included in the report. (See image below for sample output.)

5) Rows
These are the dimensions currently active in the report. Maximum of 5 rows or dimensions usable at any one time.

6) Metrics
Counts of relevant events, summary, and totals figures for activity on the SAcommunity website.

Continuation of Variables and Tab Settings section.
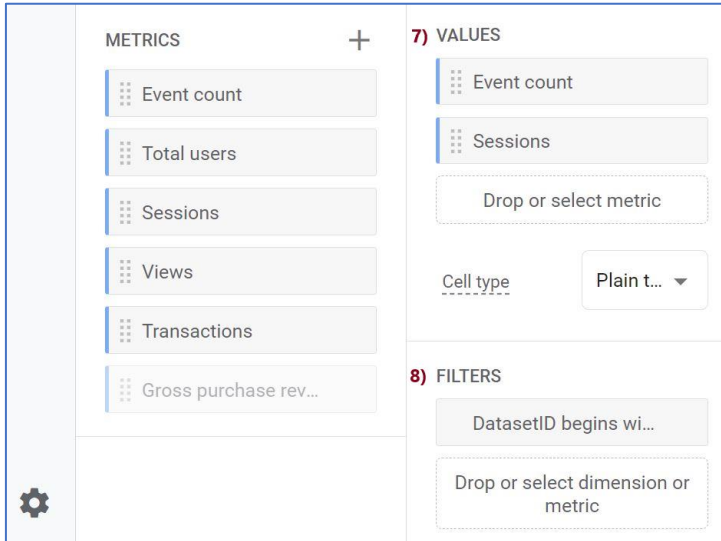
7) Values
Metrics that are currently active and that will appear in the report. The metrics listed here are standard predefined objects that are automatically collected by Google Analytics.

It is possible to create custom metrics, but we are not using any such in our reports.

8) Filters
The next step in refining the data that appears. See below for an example.

You can apply up to 10 filters per tab

Sample Output from the above report.
- The filter active in this example is "DatasetID begins with 53LOWA33" or Loxton Waikerie District Council.

- The event count shown here is our custom event **trackCustomData** that is activated via PHP & JavaScript code whenever any SAcommunity page is viewed. For our purposes this is effectively identical to page views.

	DatasetID	Page title	Page path and screen class	Primary Category	Org Listings Only Event count	Org Listings Only Sessions	Totals ↓ Event count	Totals Sessions
	Totals				2 100.0% of total	1 100.0% of total	2 100.0% of total	1 100.0% of total
1	53LOWA33	Waikerie Australia Day Committee	SAcommunity - Connecting Up Australia	/org/227303-Waikerie_Australia_Day_Committee	Community Organisation & Development	1	1	1	1
2	53LOWA33	Waikerie District Historical Society	SAcommunity - Connecting Up Australia	/org/194111-Waikerie_District_Historical_Society	Environment & Heritage	1	1	1	1

See, **Add a Dimension** further below on how to select dimensions (variables) to be included in a report.

See, **Exploration Report Filters** further below on how to create and use filters.

Create a Segment:

I am using segments to implement a subset of permanent filters on a report. Separate from any other filtering conditions we might want to use.

The main intended purpose for segments however is to create comparisons between, for example, different market areas for sales of products, or to compare different types of user activity etc.
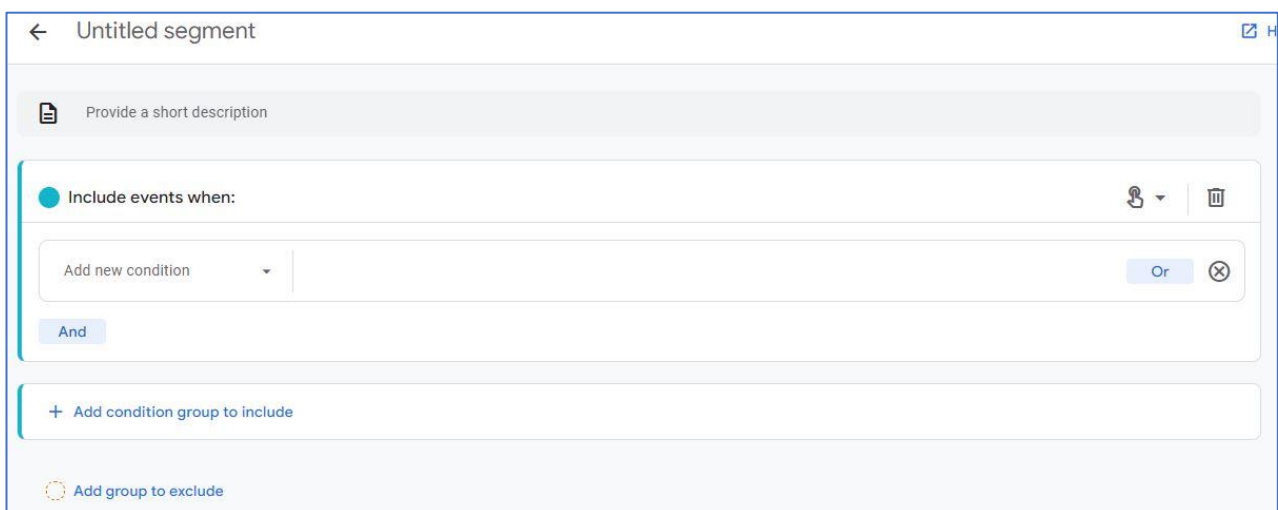
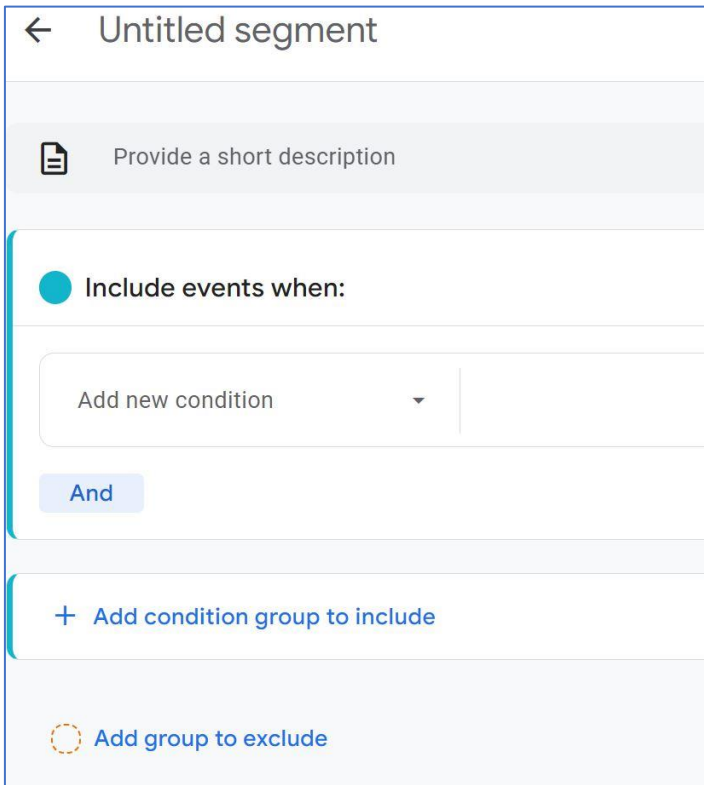1) Click on the cross next to Segments
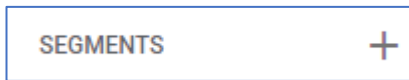
SEGMENTS   +

2) Select: Event Segment
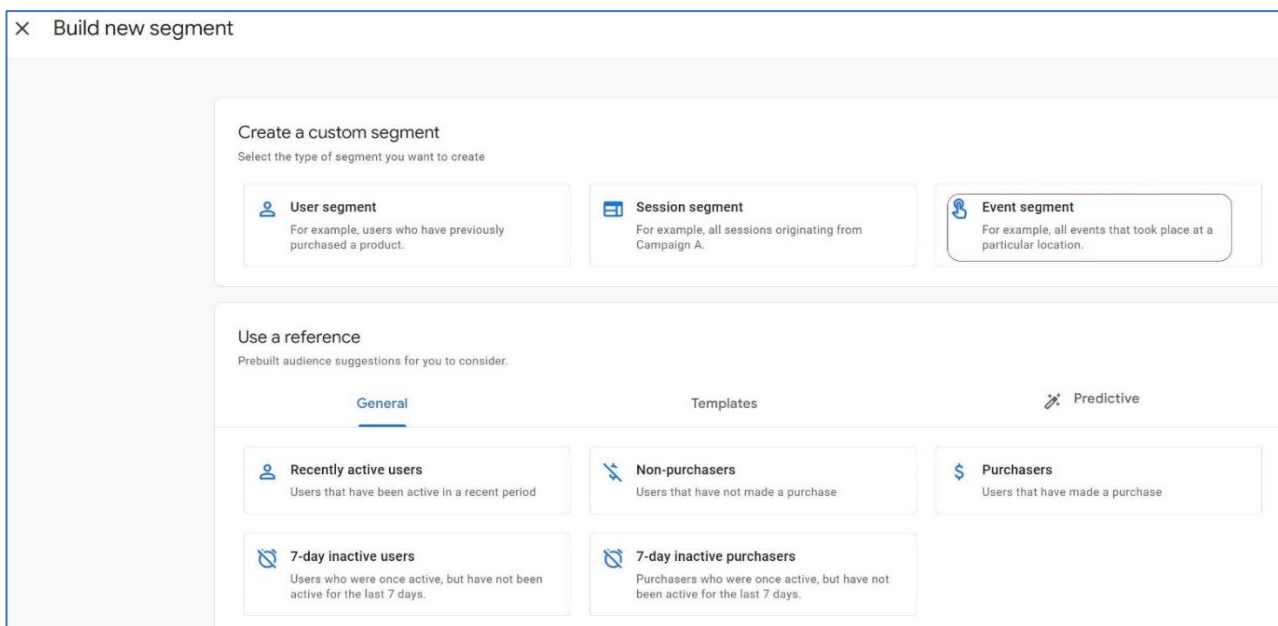
Typical segment setup page.

"**Untitled segment**"
Change this to a meaningful name.
Just overtype where it says "Untitled segment" with the new name.

Click on arrow next to **Add New Condition** to get a list of Dimensions (as below)

It is possible to get very complex combinations of conditions, using AND, OR. Include, Exclude, regex etc.

You can usually build up all required filter conditions within the one condition group.

The option "**Include events when**" can be changed to "**Exclude events when**" instead.

All the event scoped dimensions that are available to the report. We are mostly interested in our custom data dimensions.
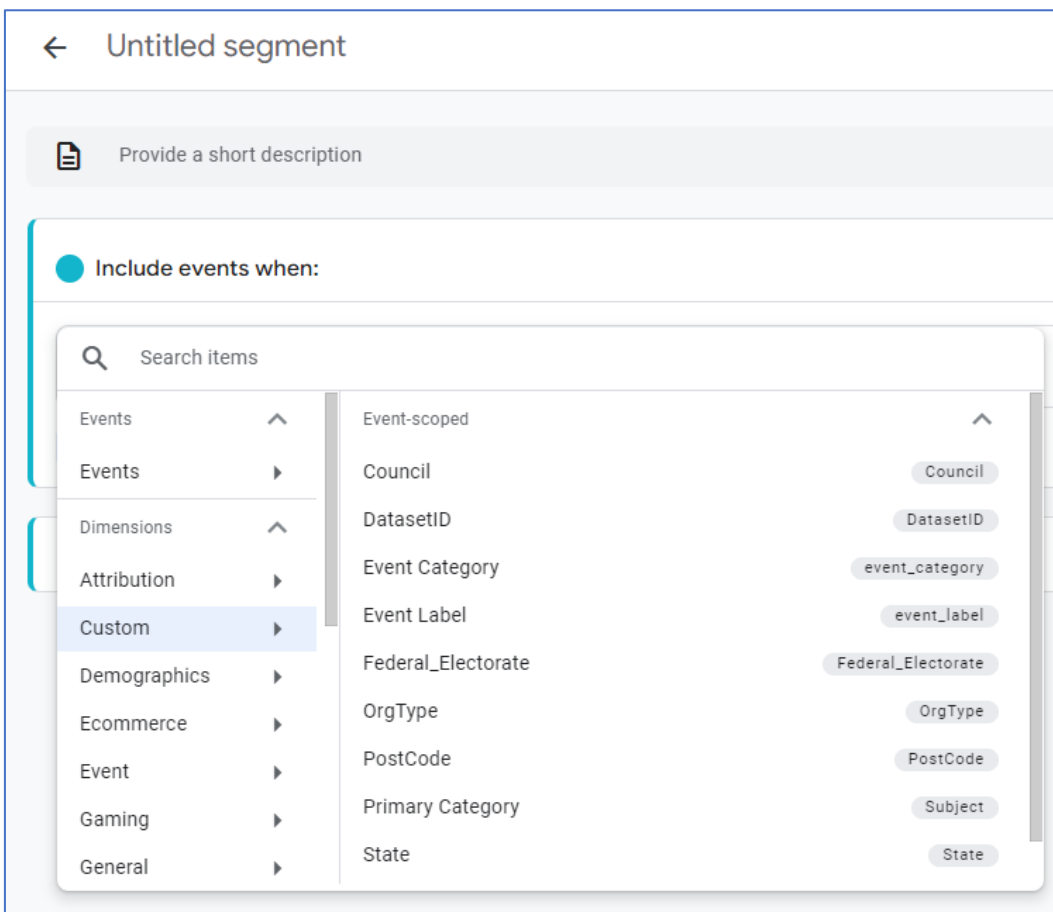
R3-Organization Pages Only

This segment based on DatasetID will retrieve only the data for organizations and none of the other pages with-in SAcommunity that people may have looked at.

regex = Regular Expression

^$ = blank field, no characters at all in the selected data field.

^/org/[0-9-].+$

This expression is designed to locate any Landing page + query string entries that have a pattern that matches   e.g.   **/org/195350-**
must include the text string **"/org/"** followed by a set of numbers, followed by the **"-"** dash symbol.

This will collect only the entries that are a direct page view of the organization listing itself and not any page views that may lead or have led to the organization page or any subsequent page that is not itself also an organization listing.

Will Output
   /org/195350-LIFE
   /org/194961-Para_Hills_Club_-_City_of_Salisbury
   /org/197115-Eureka_Care_Communities_-_Salisbury

Will NOT Output
   /az/14145-Crafts   Para Hills Club - City of Salisbury
   /thesaurus/14715-Community_Transport
   /az/14429-Table_Tennis   Mawson Lakes Sports Centre
   /user   Northern Futures Inc.

Filter from the custom Engagement section report

Landing Pages - Views

Or alternatively when we don't want to use a regular expression, we may use the simpler text pattern: **/org/**
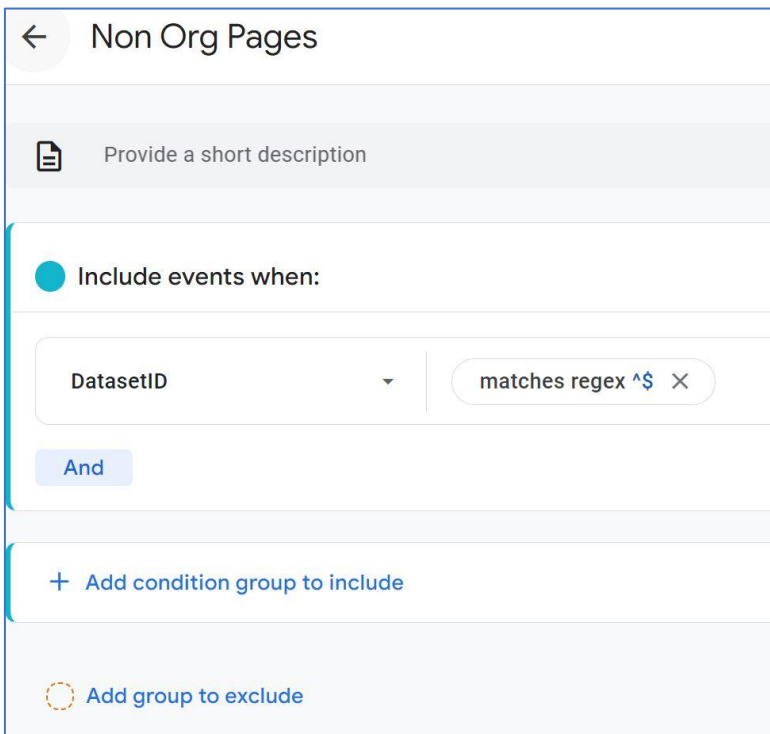
e.g., **Landing page + query string contains '/org/'**

Event Count as a substitute for Page Views

Some reports do not display the Views (Page Views) attribute in a way that is useful for us. But if there is an Event Count column then we can change that to show only the event **trackCustomData**. This will then operate identically to page views.

In some cases, we may need to use the filter:- "**Event Label exactly matches trackCustomData**".

R2-Non-Organization Pages

Any pages within SAcommunity that are not an actual organization listing.

The reverse of the above example.

This will include such pages as, thesaurus entries, A-Z lists, subject searches, blog entries, anything in the about section etc.
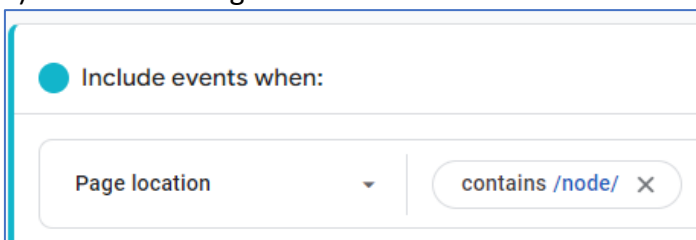
matches regex ^$
All non-organization pages will **not** have any data for the DatasetID variable. We are actually looking for blanks in this variable. This same condition will also automatically exclude any (not set) entries or other unwanted entries in this report.
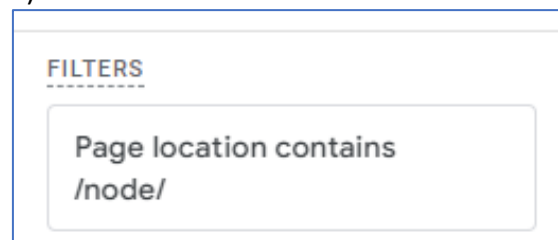
R5-Blog Entries

This report is for obtaining which blog entries have been viewed or edited. The only dimensions required are Page Location and Page Title. As usual the most useful metrics are Event Count and Sessions. All blog entries have the text pattern **/node/** and using this as a filter will exclude any result that is not a Blog page.

1) Use either a Segment

2) Or use a Filter

Typical Result

	Page location	Page title	Event count	Sessions
	Totals		3,580 100.0% of total	820 100.0% of total
1	https://sacommunity.org/ node/1054	Feature: K-pop - Modern Dancing in Adelaide | SAcommunity - Connecting Up Australia	155	64
2	https://sacommunity.org/ node/948/edit	Robe Council (District Council of Robe) | SAcommunity - Connecting Up Australia	136	8

{Data Field} does not match regex   (\(not set\)|(^$))

One very useful filter that can be applied to any data field is **(\(not set\)|(^$))**. It will find all entries that are either a blank or contain the string pattern (not set).

This must be inverted to work correctly. Use it with the "**does not match regex**" condition.

This will then filter out any entries in a data field that are either a blank or (not set) resulting in data field values that we actually want to see.
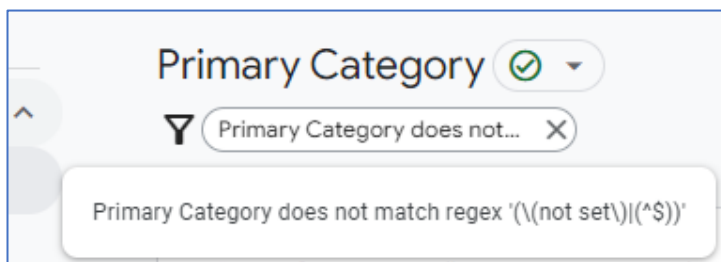
Edit a Segment

If you need to change a segment. You can do so by clicking on the three dots and then selecting "Edit".

You will get a warning about using an active segment if it is currently in use. If need be, hit Apply after you finish editing or drag and drop it again to the Segment Comparisons section.
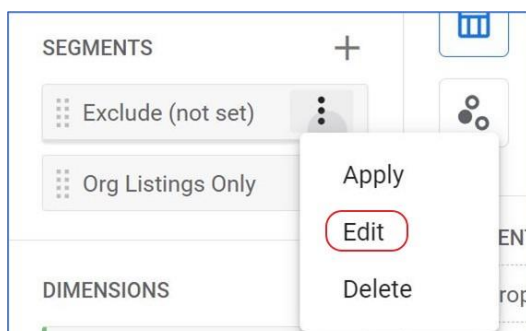
Segment Failure

If at any time you apply a segment and get this result, then you might be able use a filter or combination of filters instead to get the required result.

> **No data for this combination of segments, values, filters, and date range.**
> **Try editing the variables or settings or remove them.**

This usually occurs when the *combination* of data fields that you are trying to display may not actually have any data in one or some of the data fields, or it may just be GA4 being temporarily weird for no known reason at all.

Create a Dimension

   Click on the **+** symbol

This will open a window as below. In this example, some dimensions have already been added to this report. (indicated by the white tick in a blue box)
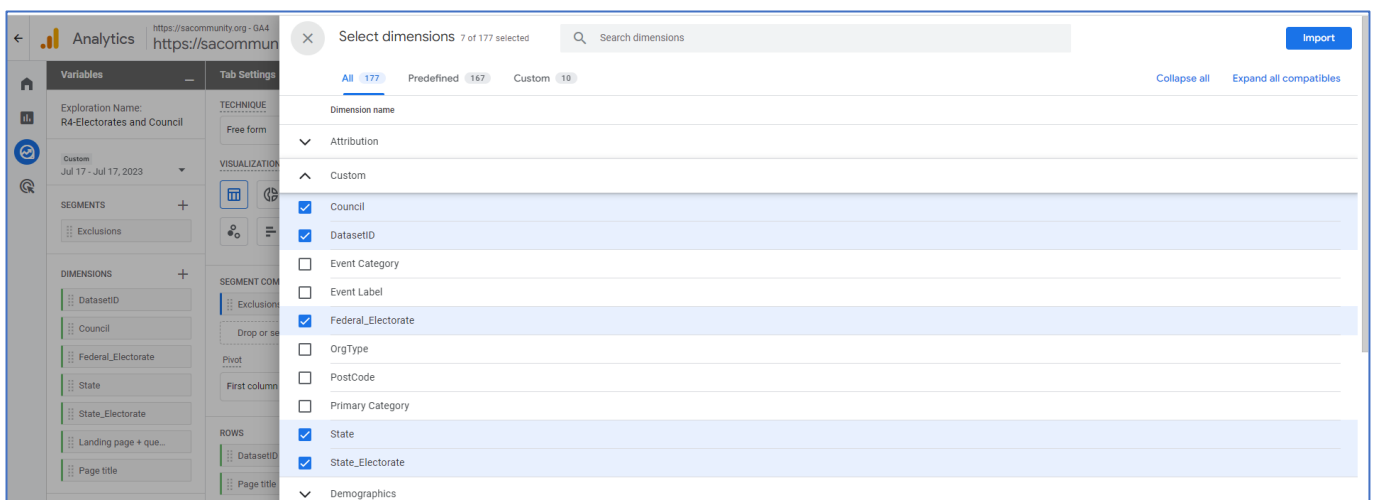
Landing page + query string already exists as a dimension in this report.
To add another dimension simply click on the relevant tick box, repeat as necessary.
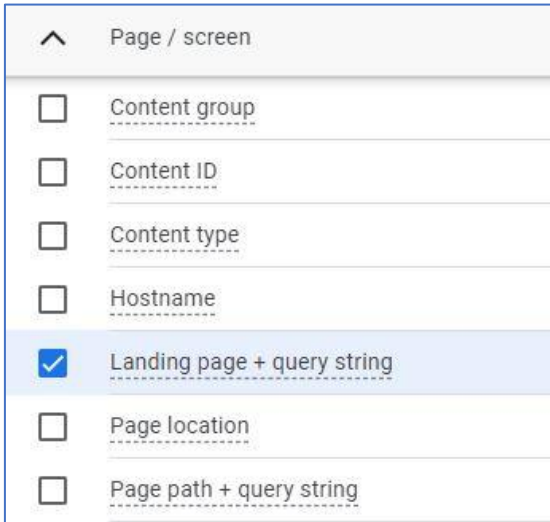
When you have selected the dimensions you need, click on the **Import** button.

The selected dimension/s will now be usable in the report.
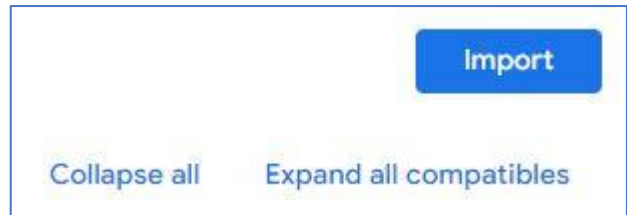
You can have many dimensions imported into a report **BUT**, there is a **maximum of 5 rows** (of dimensions) displayable or usable for any one report at any one time on any one tab.

You can get around this to some extent by adding a new tab or page to the report and including the additional dimensions on the new tab. See below: Tabbed Pages

----

Exploration Report Filters:

View Existing Filter:

To see how an existing filter is configured you can either.

1) Click on the filter dimension

2) hover the mouse over the existing filter.
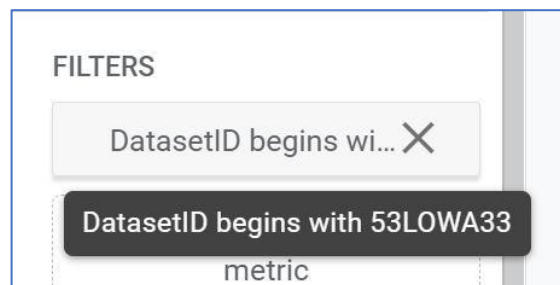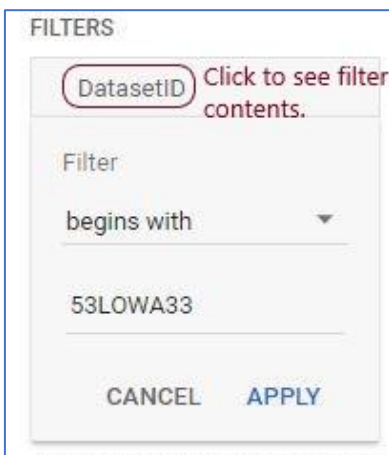
DatasetID
Could be instead any other dimension that exists
in this report.

Create a Filter:

1) Click on the Filters box.
2) Select a dimension from the list of dimensions that exist in the report.
   e.g.,   DatasetID
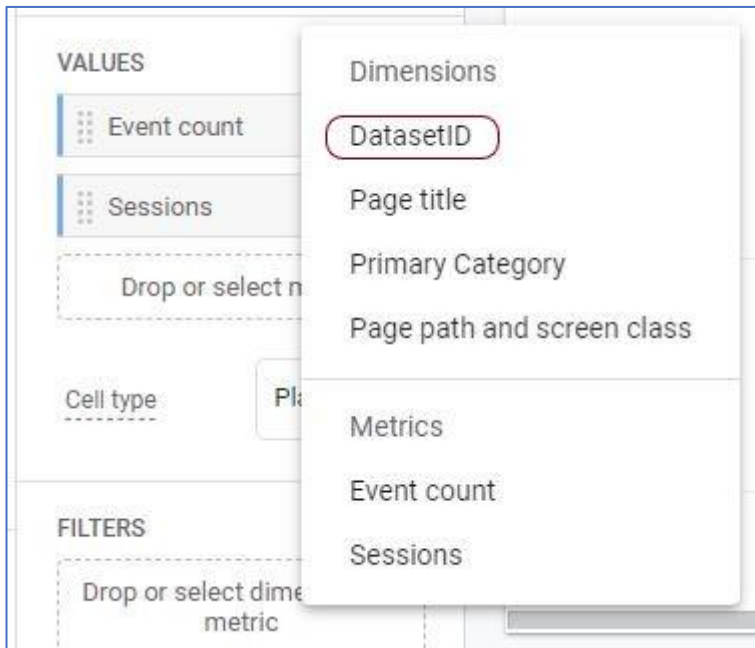
4) Once the dimension is selected then choose the match type

Not all match conditions will display a drop-down list.

5) Select the expression to filter against.

You can choose an expression from a drop-down list or type it in directly if it is not on the list.
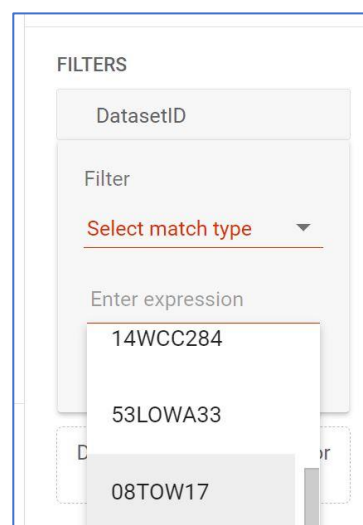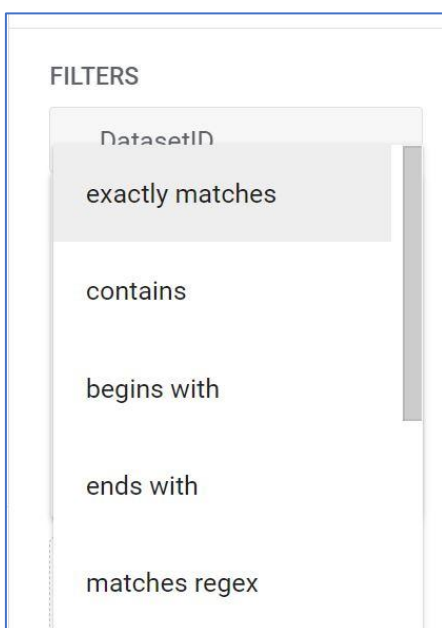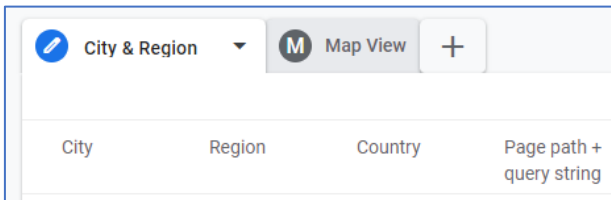

6) APPLY the filter

Tabbed Pages

Each Exploration Report can also have multiple tabs or pages showing different dimensions and / or types of objects and charts on each tab.

Example 1:   Report - **R8-External Page Referrers**
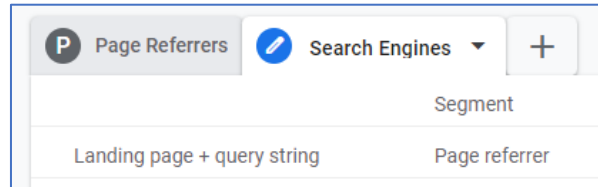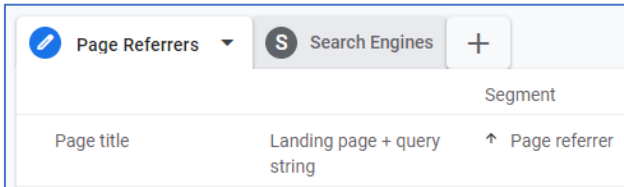
Example 2:   Report - **R6-International Searches**
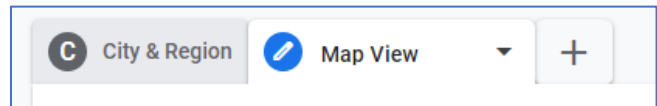
1:    Click on the down arrow next to a tab name to duplicate the page or to delete the page.

2:    Click on the cross at the end of the tab list to add a new page.

3:    You can rename the page by directly overwriting the default text that appears as the name of the an existing page or new page.
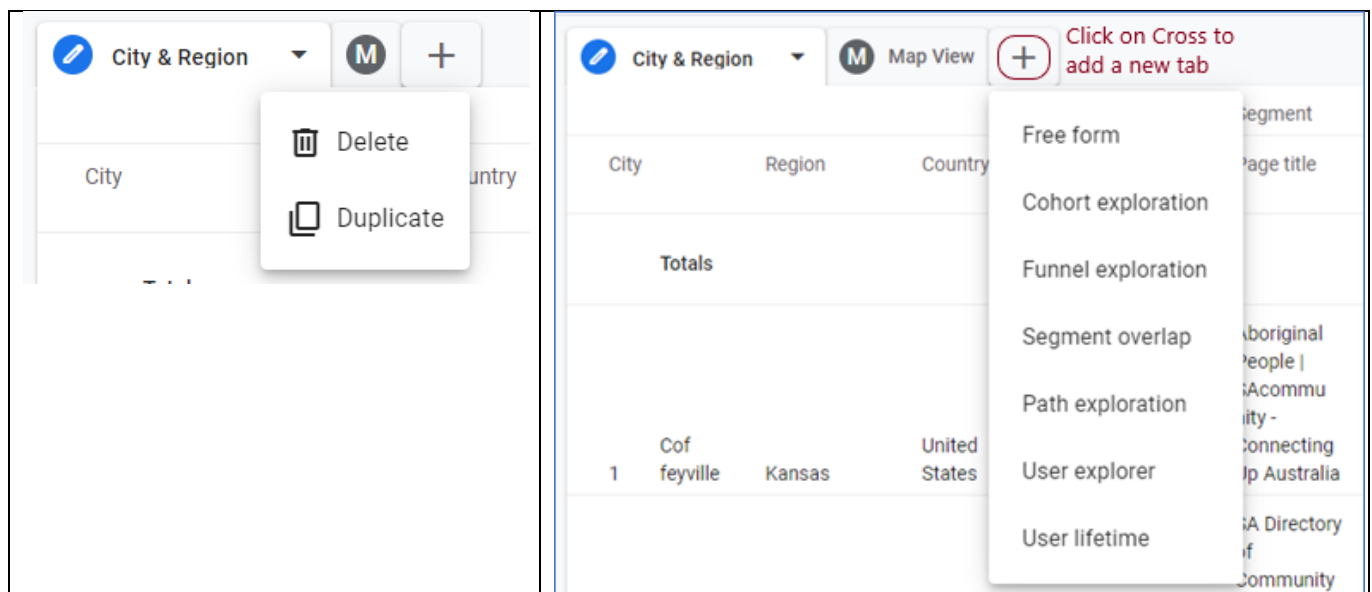
Part 3: Events
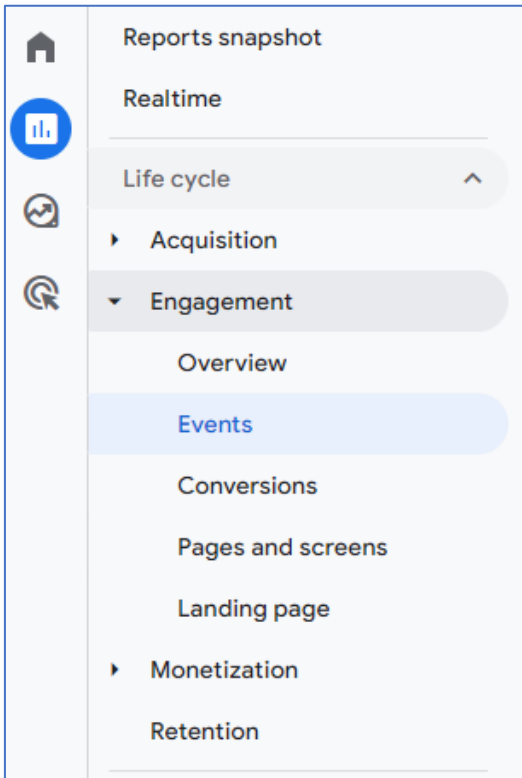
There are a number of standard events that take place as a web page is loaded and is viewed and interacted with by a user.

The parameters or variables related to an event can be seen in a summary page for that event.

Select the **Events** section to access the data for any standard event and also our custom event.

Use the other standard reports or create some exploration reports to work with this data in more detail or to export any of the selected data. Or copy and modify a standard report to display the exact data needed. See Modified Standard Reports below.

The CSV exports from the Events pages are not especially useful or easy to read and use.

Overview page for Events
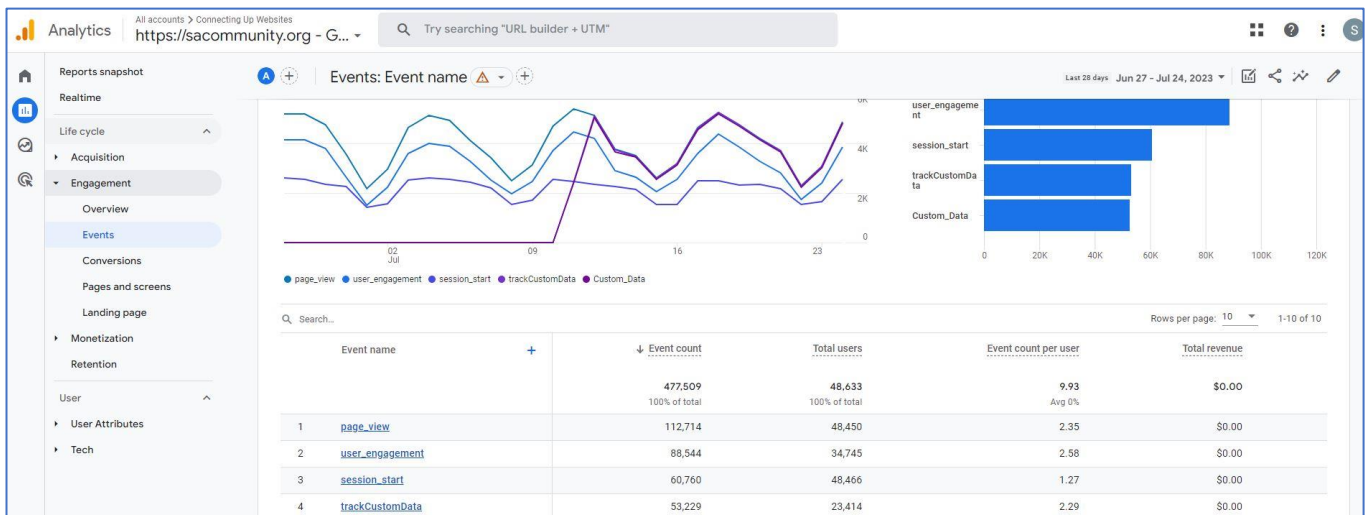
The 3 topmost occurring standard events for a webpage plus our custom event - trackCustomData. Click on any of the events to see a more detailed page for that event.

You can add a second field to the data view by clicking on the **+** symbol to the right of Event Name. e.g., include a breakdown by country.

	Event name	+	↓ Event count	Total users
			477,509 100% of total	48,633 100% of total
1	page_view		112,714	48,450
2	user_engagement		88,544	34,745
3	session_start		60,760	48,466
4	trackCustomData		53,229	23,414

The page view event – Overview report:
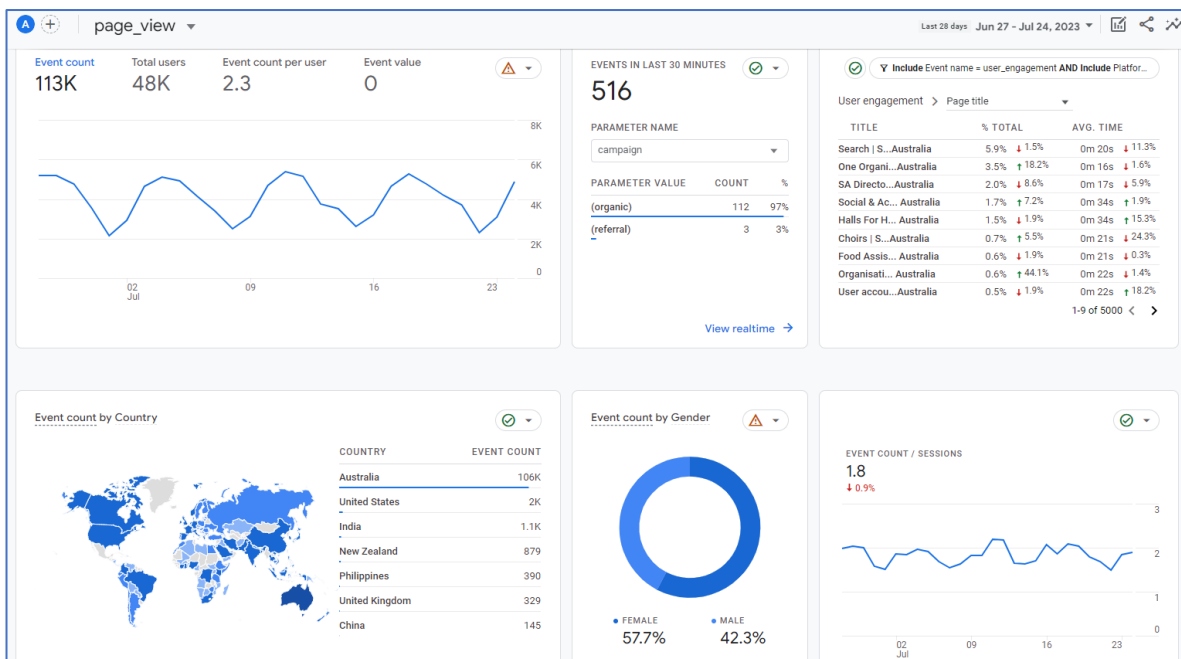
Custom Event: -- trackCustomData:

All of the custom data gathered by GA4 is based off a custom event called trackCustomData.

This event exists as a combination of PHP and JavaScript code that is implemented on every SAcommunity webpage. This code extracts the relevant data from the backend database and then pushes it through to GA4 itself via what is called the Global Site Tag, also a very specific piece of JavaScript code.

Parameter, Dimension and Variable all refer to the same piece of data depending on where you look at it from. It is called a variable in PHP and JavaScript code, a parameter in a GA4 summary page, or a dimension in GA4 reports.

For more information on tracking web page events see below; Part 6. Debugging & Event Tracking

Sample output from the code used to run this event, from any SAcommunity web page use "View page source" to see how it changes for each page.

```
<!-- Google tag (gtag.js) -->
<script async src="https://www.googletagmanager.com/gtag/js?id=G-0CKPXS6L80"></script>
<script>
    window.dataLayer = window.dataLayer || [];
    function gtag(){dataLayer.push(arguments);}
    gtag('js', new Date());

    gtag('config', 'G-0CKPXS6L80');
</script>

<!-- Google Analytics 4 - custom data event.  -->
<script>
    gtag('event', 'trackCustomData', {'event_label': 'trackCustomData',
      'DatasetID': '82PBAJI7',
      'PostCode': '5221',
      'State': 'South Australia',
      'Subject': 'Community Organisation & Development',
      'OrgType': 'Community',
      'Council': 'Kangaroo Island Council',
      'State_Electorate': 'Mawson',
      'Federal_Electorate': 'Mayo'
});
</script>
```

Overview Page; trackCustomData.

This overview page version is reached by going to the Engagement Section --> Events report and then clicking on the trackCustomData event.

Overview Page - trackCustomData: some standard data as provided by Google Analytics.
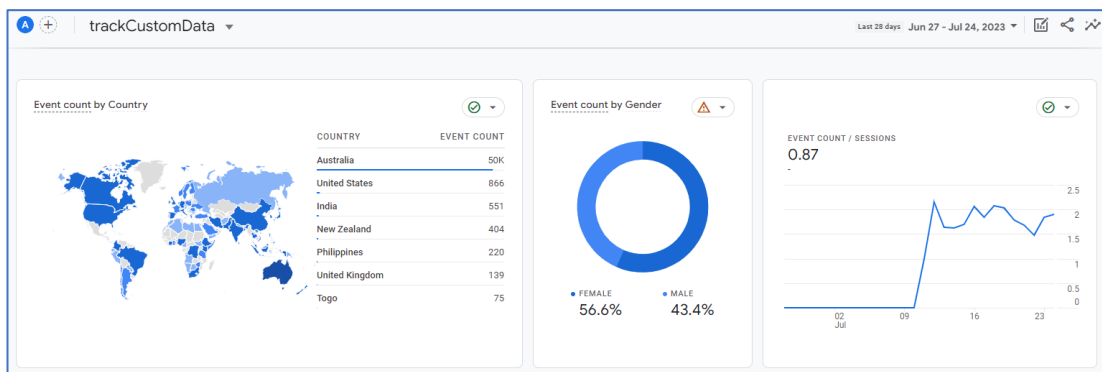
Overview Page - trackCustomData: Display of our custom parameters linked to this event.

Sample data fields. None of these displayed custom parameters link to a detail report.

Council

Federal Electorate

Custom Overview Page & Reports

This overview report and collection of detail reports is based on a set of custom reports and summary cards I have created and then added to a new collection in the library.

Unlike the summary cards that are shown in the standard GA4 overview reports the summary cards in this overview report also link to a Detail Report for each of the displayed data fields.

See below; Part 5: Library

Part 4: Modified & Custom Standard Reports

It is possible to modify the default pre-built Reports in the Acquisition, Engagement, Monetization, User Attributes and Tech sections.

<div align="center">

Do not permanently change the standard built-in reports
Make a copy, modify the copy, and then add the copy to the library of reports.

</div>

Existing reports may be found in the Library. This is also where you can begin to create new reports. See below: Part 5: Library

New Report

Option 1:   Make a copy of an existing report
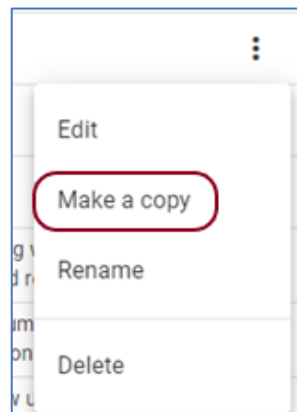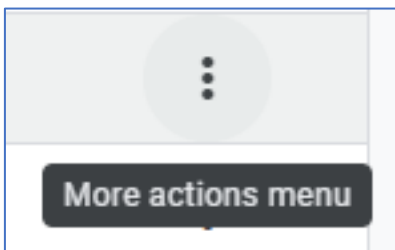
Option 2:   Start from the beginning

Two types of reports may be created: Overview reports or Detail reports. Look at the existing reports to get an understanding of the differences.
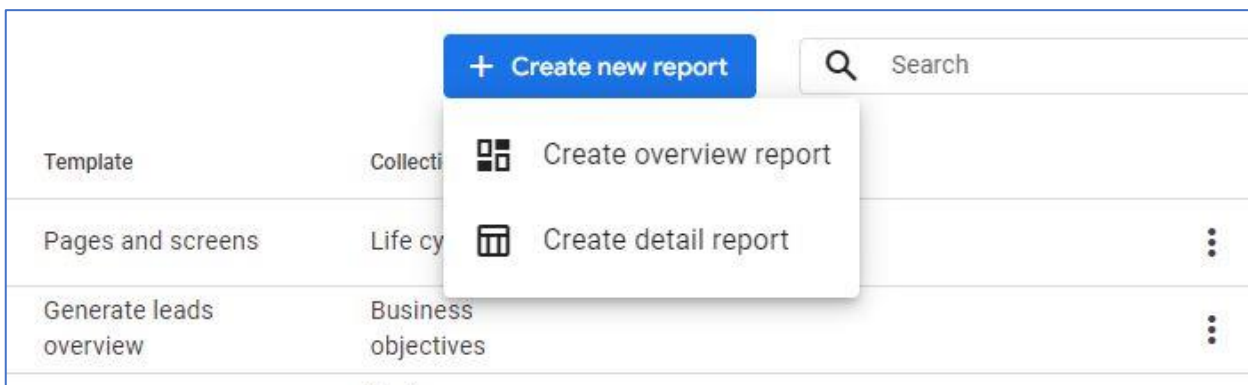
Detail Reports:

You may create a new blank report or use one of the existing report templates as the starting point for the new report.


https://www.infinity-group.pl/blog/en/2023/10/05/how-to-customize-the-reports-in-google-analytics-4/
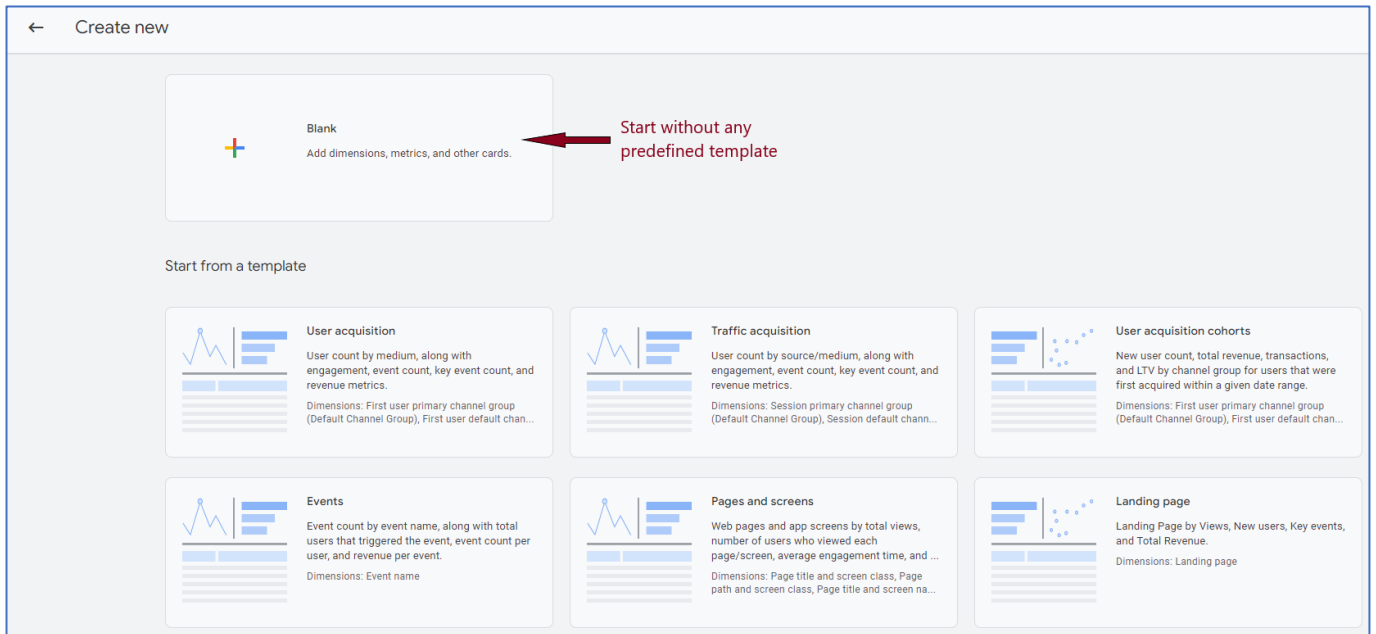
If you start with a blank report. You will see a space for two charts and a prompt to add Dimensions and Metrics.

All the elements that you can play around with are the same items that you would see in any of the prebuilt reports provided by Google Analytics.

If you have already used any filters and built your own Exploration reports, then all this should already be familiar to you.
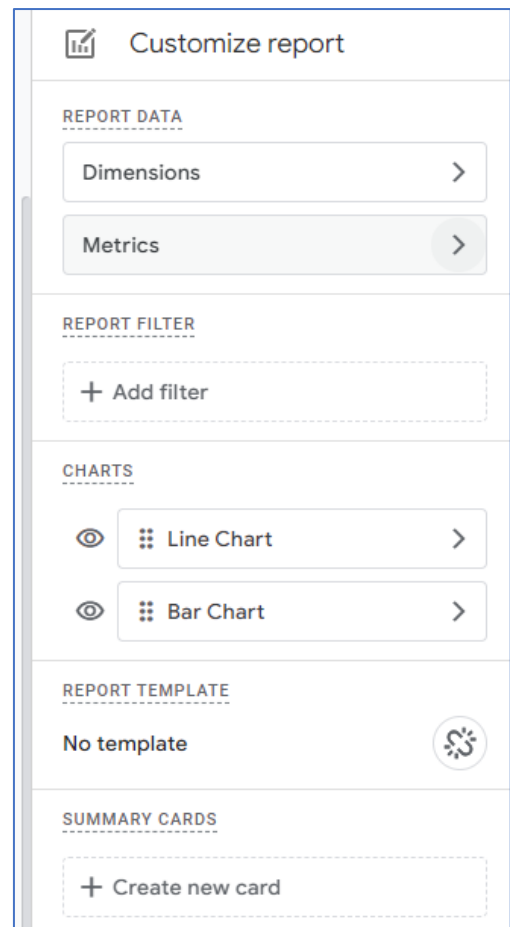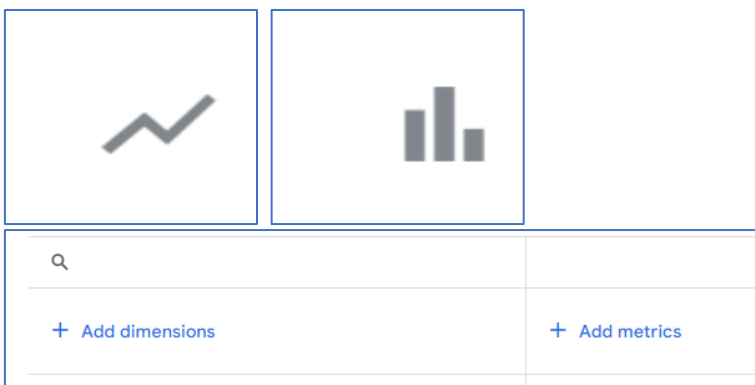
Summary Cards:

"A summary card is a visual element used to display information on an overview report. It typically includes one or more dimensions and metrics."

https://support.google.com/analytics/answer/13817100?hl=en
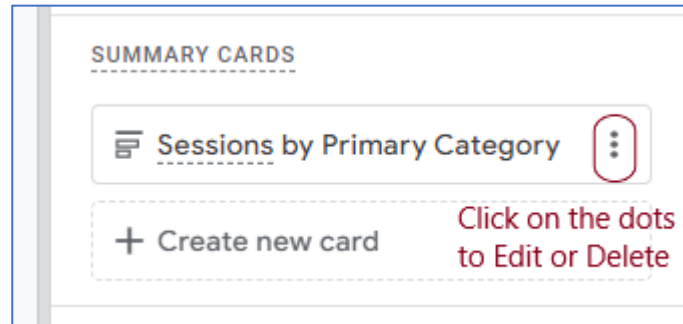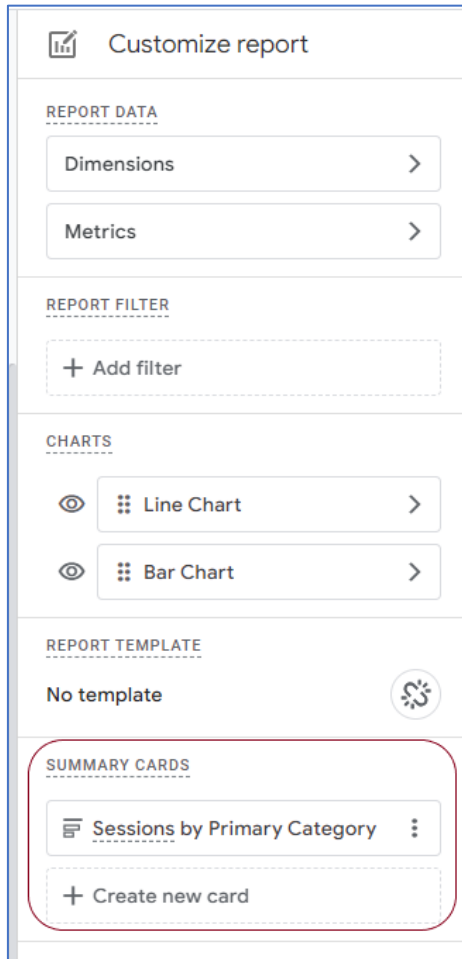
You need to have created a Detail Report before you can create a summary card. Any summary card you create in any detail report then becomes available to be included in any overview report.

This summary card is already complete. It is a section of the "Primary Category" detail report.

The dimensions and metrics used must already exist in the detail report to which the summary card is attached.

A name for the card is automatically generated. It takes the first metric and the first dimension listed as the name. Hence the one shown here became; "Sessions by Primary Category"

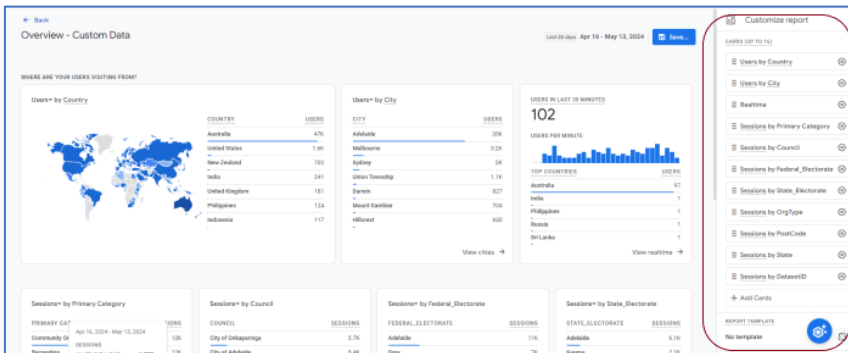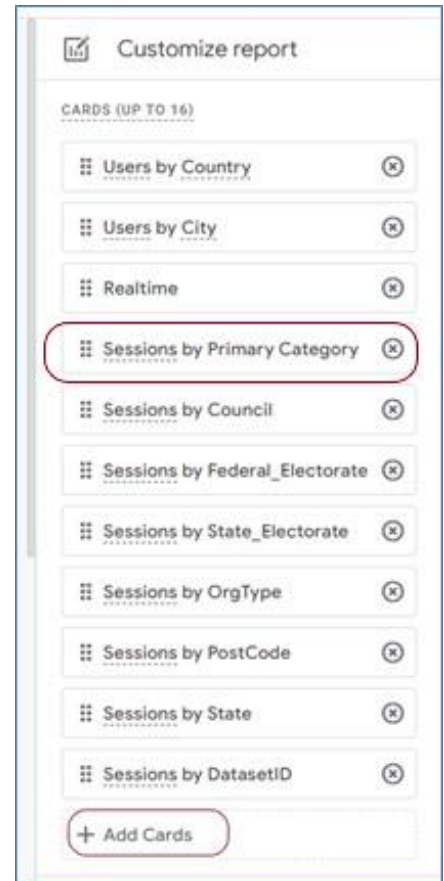Typical Summary Card -- "Sessions by Primary Category"

Overview Reports:

Overview - Custom Data

An overview report is made up from a set of summary cards. It has no data fields or filters of its own.

A maximum of 16 cards may be used in any one overview report.

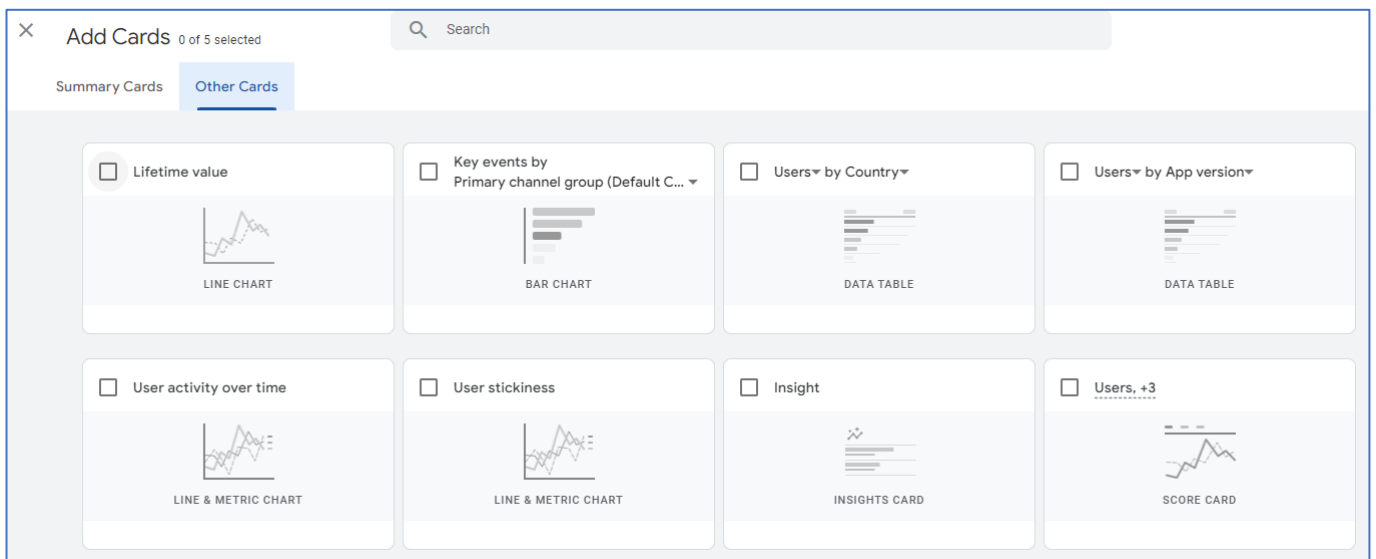Drag and drop cards to set the order in which they are displayed.
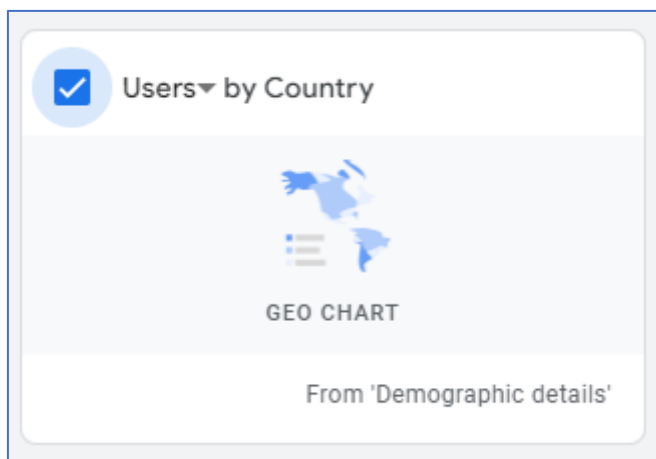

About overview reports
https://support.google.com/analytics/answer/13818312?hl=en&ref_topic=13818299

## Adding a Card to an Overview Report.

There are two sections: 1) Summary Cards and 2) Other Cards.

Any cards you have created in a detail report will normally be visible in the "Other Cards" section. Scroll down until you find the required card or use the search box at the top to find the card.

Click on the tick box next to the desired card or cards. This will activate the "Add Card" button.

Remember to save the changes to the overview report.
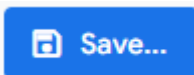
If a card you have created does not appear, you might need to add its parent detail report to a collection first. More information in the link below.

https://www.optizent.com/blog/how-to-create-a-custom-overview-report-in-ga4/


Part 5: Library

Click on the Library icon at the bottom left of the Google Analytics page.

The Library contains two sections, **Collections** and **Reports**.

Collections are where you customize what reports are visible to the users of GA4. You may also create new collections to organize the existing standard and/or custom reports in whatever way is useful.

The collection Custom Data Reports is one that I have created, along with the related overview report, detail reports and summary cards.
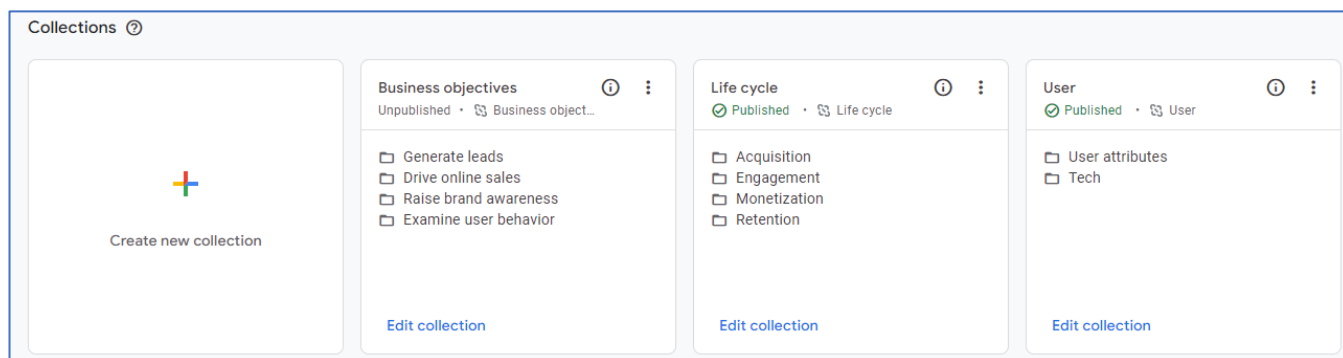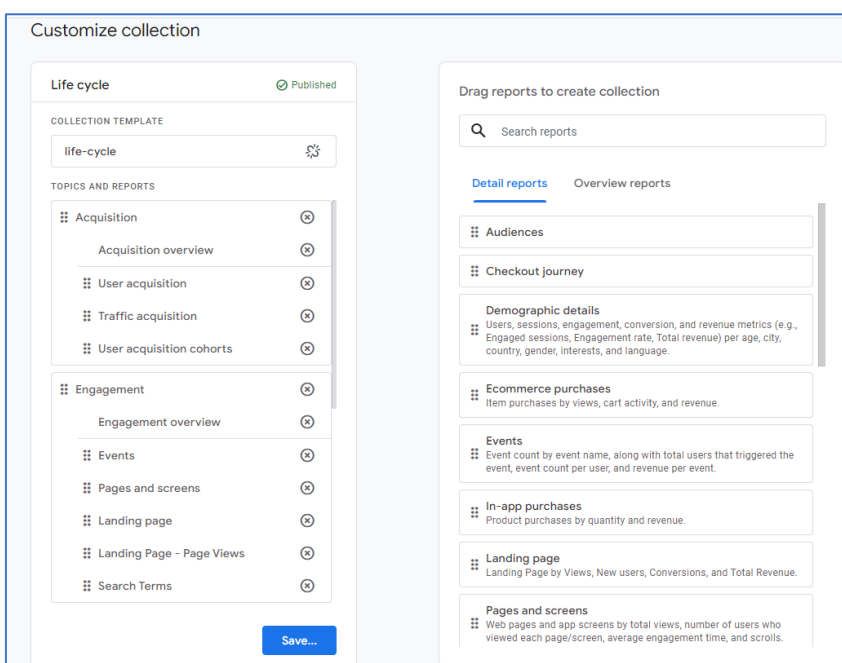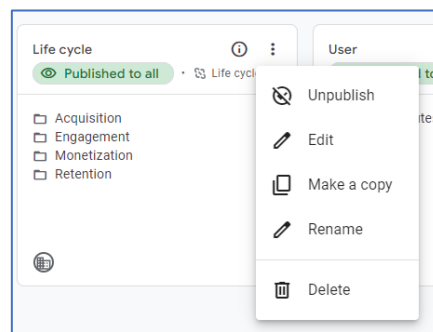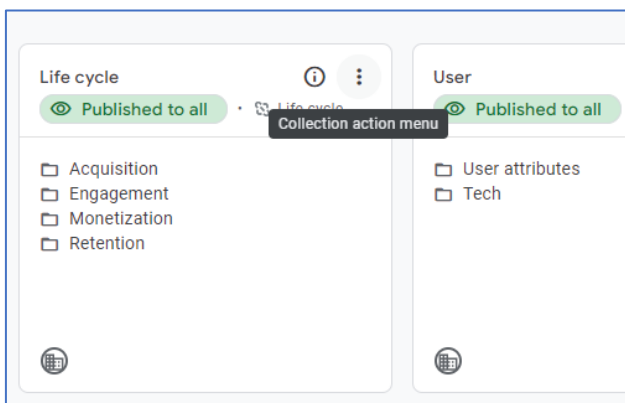
The **Reports** section contains the reports that can be added to any of the collections. It is also where you may copy existing reports, modify existing reports, or create entirely new reports.

Edit Collection

1) Click on a Collection action menu

2) Select Edit.

Left hand list:

A hierarchical list of the sections within the selected collection and the reports within each of these sections.
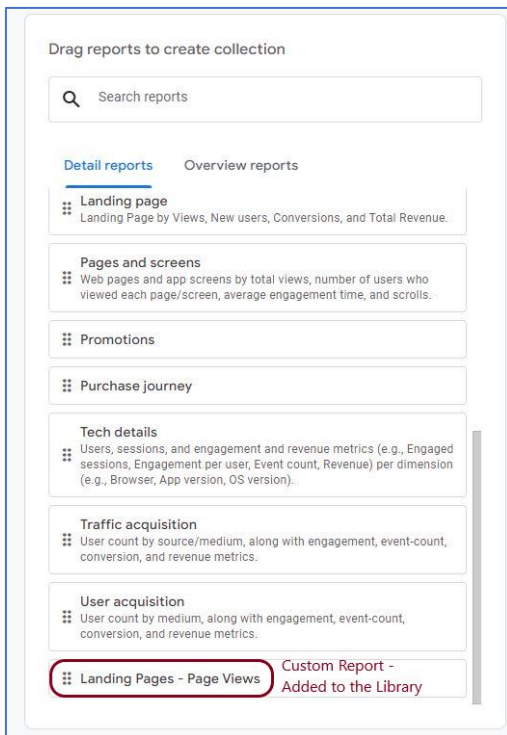
Right hand list:
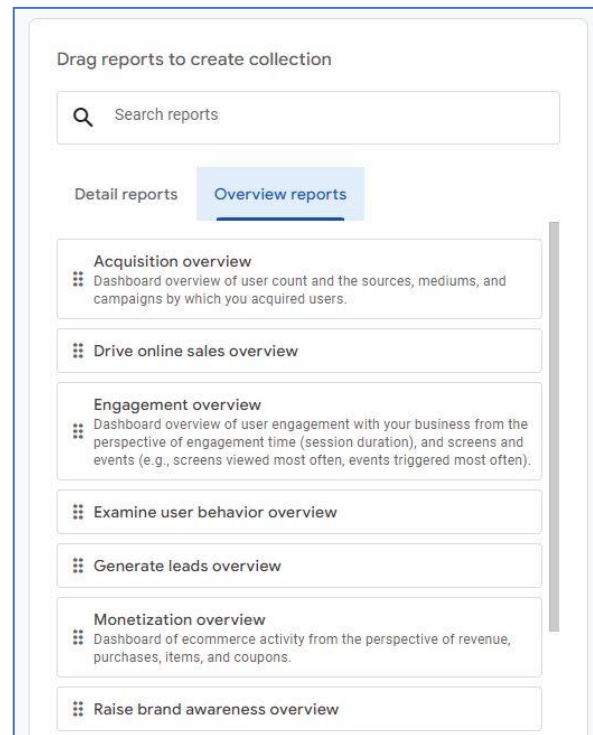
All reports that may be added to a collection.

This list is in turn separated into either Detail reports or Overview reports.

The **Landing Pages – Page View** custom report has already been added to the Detail reports list.

**Detail** Reports tab   **Overview** Reports tab

Drag and Drop a report to add it the collection section you want it to appear in, for example, the custom report **Landing Pages – Page View** report exists as a previously created report in the **Details** tab.

After the Drag and Drop operation, it became be a part of the **Engagement** section which in turn is part of the **Life Cycle** collection.
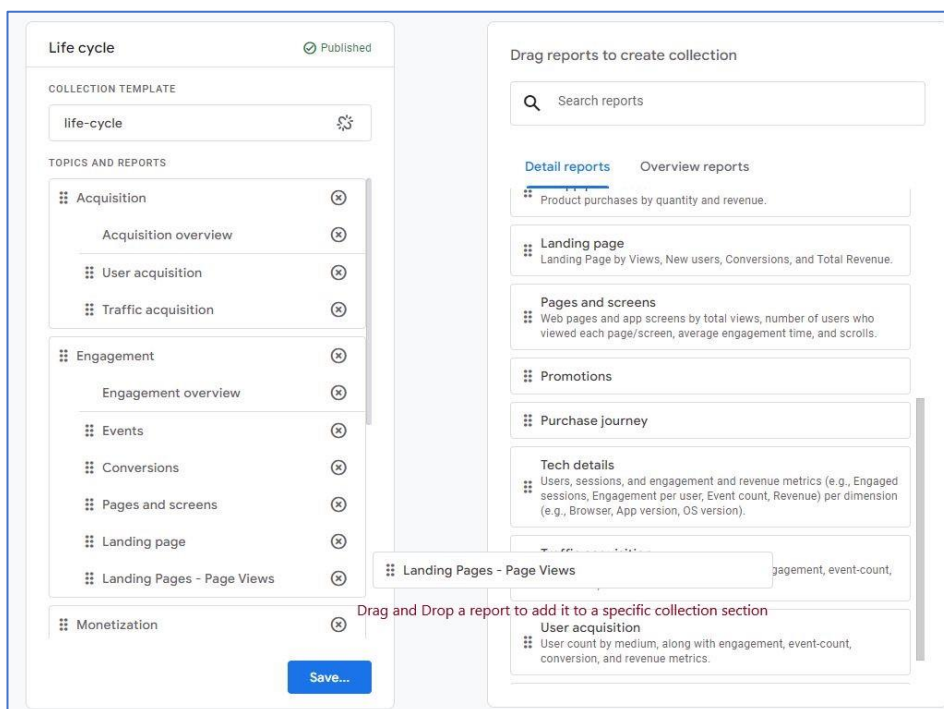
Additional Events Notes

page_view

There are a number of standard events recorded in GA4. The most useful of these events is page_view. This event triggers every time a person opens and views a web page. This is standard behaviour for all web browsers, independent of any custom code we have introduced.

Because of the way we have coded the SAcommunity website our custom event trackCustomData also triggers on every page view. So, the count for both of these events closely matches each other. Either of these measures can give a decent view of activity on the SAcommunity website.
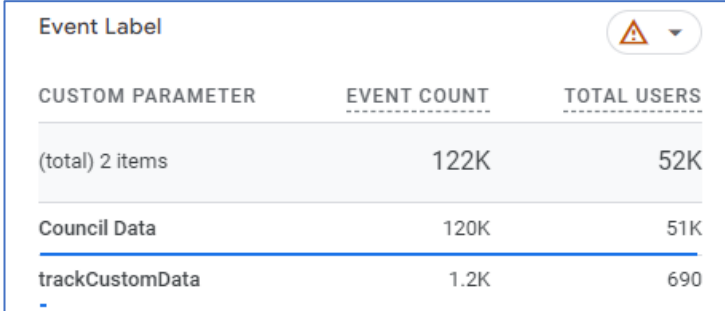
Custom_Data

This is an event which I have defined within GA4 itself. It is based on the event and event parameters of the trackCustomData event. The difference being that trackCustomData exists as code in the web page while the Custom_Data event exists as an attribute within the GA4 web application instead, specifically in the Google Tab Manager part of Google Analytics.

I had created this event when I was still learning what was useful or not in GA4. It turned out that the Custom Data event is redundant and unnecessary. Unfortunately, unlike most other items created within GA4 this is one of the few items that is not at all easy to delete and so for now it still continues to display data. For all practical purposes we can ignore it. It may be fixed at a later date.

Event Label

You may notice an item in any trackCustomData report called 'Event Label'. This is a result of an attribute set in the web page code.

Event Label	⚠ ▾	
CUSTOM PARAMETER	EVENT COUNT	TOTAL USERS
(total) 2 items	122K	52K
Council Data	120K	51K
trackCustomData	1.2K	690

During testing the label was called "Council Data" but I later changed it to "trackCustomData" on 28/09/2023. This is to better reflect the fact that we are collecting more than just council data and also to make things more consistent with the programming code throughout. In this context, the label trackCustomData is just a continuation of what was called "Council Data".

In the backend web page code:

This bit of code:	gtag('event', 'trackCustomData', {'event_label': 'Council Data',
Was changed to:	gtag('event', 'trackCustomData', {'event_label': 'trackCustomData',

Part 6: Debugging & Event Tracking

Should you be interested in understanding some of the background loading and interaction events in a web page, there are two tools that can help you track the changes as they occur.

These maybe of use in debugging the Google Analytics web page code and or testing any changes in the code if this ever becomes necessary.

Tag Assistant
This is a separate web page you can open in conjunction with GA4.

https://tagassistant.google.com/

Some more information here:
https://www.analyticsmania.com/post/track-site-search-with-google-tag-manager-and-google-analytics/

On the initial Tag Assistant page, we get a choice of available Google Analytics properties or domains we can access.

devcloud.click is the development server. Unless this has been activated for testing purposes you do not need to concern yourself with it. What you will see here is the same as you would on the live site.

The sacommunity.org property or domain is a connection to our website.

1) Select a domain
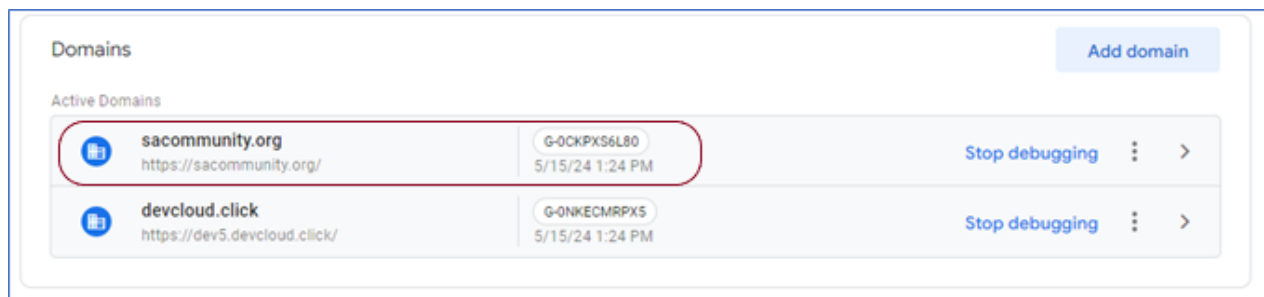
2) Tag Assistant page is now connected. This will open a new instance of the SAcommunity home page. Use this instance to navigate to different pages on the website as these pages will have the debug attribute activated.
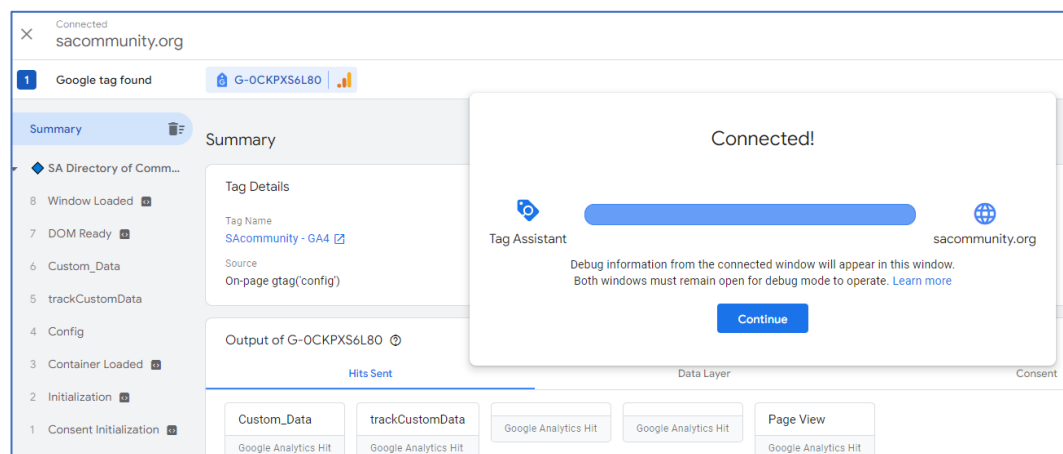
3) Looking at a fully loaded page. Hits sent is a list of events that have occurred. You can click on any of the hits to view additional information about the event.

22 Config		
21 Container Loaded	**Output of G-0CKPXS6L80** ⑦	
20 Initialization	Hits Sent	Data Layer
19 Consent Initialization		

| Custom_Data | trackCustomData | Page View | Google Analytics Hit | User Engagement |
| Google Analytics Hit | Google Analytics Hit | Google Analytics Hit | | Google Analytics Hit |

◆ Organisations A-Z | SA...
18 Link Click
17 Window Loaded

4) The trackcustomData event is selected. The Data Layer tab is selected, and the API Call section has been expanded.

Summary

▼ ◆ Alcoholics Anonymou...
26 Window Loaded
25 DOM Ready
24 Custom_Data
23 trackCustomData
22 Config
21 Container Loaded
20 Initialization
19 Consent Initialization ...
▼ ◆ Organisations A-Z | S...
18 Link Click
17 Window Loaded
16 DOM Ready
15 Custom_Data
14 trackCustomData
13 Config

API Call

```
gtag("event", "trackCustomData", {
    event_label: "trackCustomData",
    DatasetID: "1JCE7163",
    PostCode: "5700",
    State: "South Australia",
    Subject: "Health & Disability",
    OrgType: "Community",
    Council: "Port Augusta City Council",
    State_Electorate: "Giles",
    Federal_Electorate: "Grey"
})
```

Output of G-0CKPXS6L80 ⑦

| Hits Sent | Data Layer |

Data Layer values after this Message:

```
1  {
2     event: "trackCustomData",
3     gtm: {uniqueEventId: 8, start: 1716254004955},
4     eventModel: {
5        event_label: "trackCustomData",
6        DatasetID: "1JCE7163",
7        PostCode: "5700",
8        State: "South Australia",
9        Subject: "Health & Disability",
10       OrgType: "Community",
11       Council: "Port Augusta City Council",
12       State_Electorate: "Giles",
13       Federal_Electorate: "Grey",
14       send_to: "G-0CKPXS6L80"
15    }
16 }
```

5) The Custom_Data event is selected. The API Call section has been expanded and is showing a different set of information from the API Call section of the trackCustomData event.

Summary 🗑	API Call
◆ Alcoholics Anonymous ...	
26 Window Loaded ⟨⟩	
25 DOM Ready ⟨⟩	
24 Custom_Data	
23 trackCustomData	
22 Config	
21 Container Loaded ⟨⟩	
20 Initialization ⟨⟩	
19 Consent Initialization ⟨⟩	
◆ Organisations A-Z | SA...	
18 Link Click	
17 Window Loaded ⟨⟩	
16 DOM Ready ⟨⟩	
15 Custom_Data	
14 trackCustomData	
13 Config	

```
gtag("event", "Custom_Data", {
  event_label: "trackCustomData",
  DatasetID: "1JCE7163",
  PostCode: "5700",
  State: "South Australia",
  Subject: "Health & Disability",
  OrgType: "Community",
  Council: "Port Augusta City Council",
  State_Electorate: "Giles",
  Federal_Electorate: "Grey",
  client_id: "1592569024.1666064558",
  session_id: "1716249620",
  session_number: 43,
  session_engaged: 1,
  page_location: "https://sacommunity.org/org/207960-Alcoholics_Anony" +
                 "mous_-_Port_Augusta",
  page_referrer: "https://sacommunity.org/orglist",
  page_title: "Alcoholics Anonymous - Port Augusta | SAcommunity - Co" +
              "nnecting Up Australia",
  language: "en-us",
  screen_resolution: "1920x1080",
  _user_agent_architecture: "x86",
  _user_agent_bitness: "64",
  _user_agent_full_version_list: "Chromium;124.0.6367.119|Google%20Ch" +
                                 "rome;124.0.6367.119|Not-A.Brand;99." +
                                 "0.0.0",
  _user_agent_mobile: "0",
  _user_agent_model: "",
  _user_agent_platform: "Windows",
  _user_agent_platform_version: "10.0.0",
  _user_agent_wow64: "0",
  conversion_api: "1",
  _protected_audience_enabled: true,
  iframe_state: 0,
  cookie_deprecation: "noapi",
  send_to: "G-0CKPXS6L80"
})
```
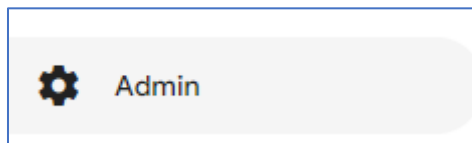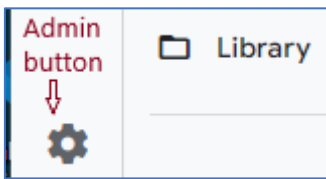
Debug View

Enable Debug View

Debug View needs tag assistant to be active or alternatively use the preview mode from Google Tag Manager.
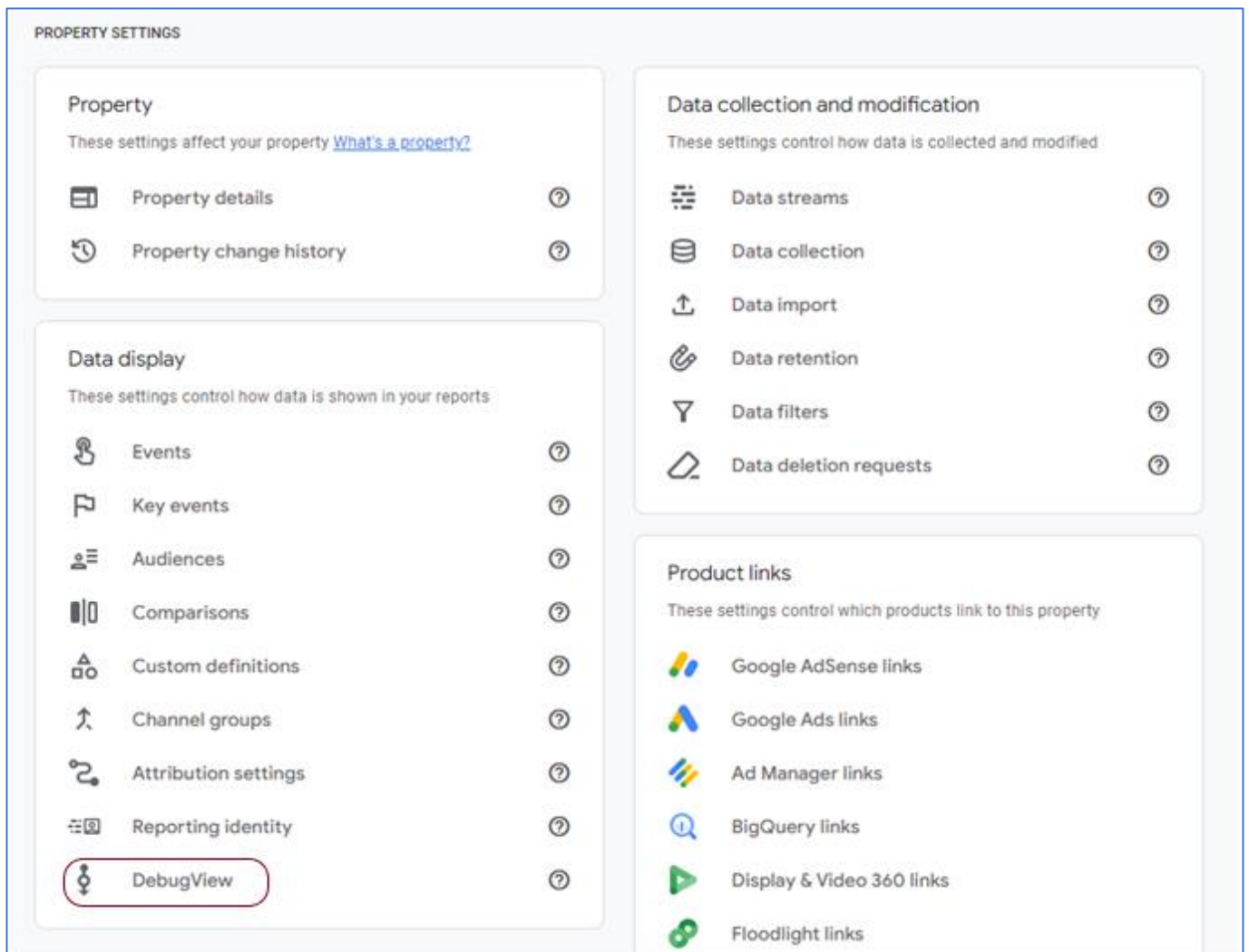
https://support.google.com/analytics/answer/7201382?hl=en&utm_id=ad

"To enable debug mode for your personal device, use the Google Tag Assistant through tagassistant.google.com or preview mode. Tag Assistant adds a parameter to your website address to enable debug mode."

This can be accessed via the Admin Button at the bottom left of GA4.

1) Select DebugView

2) Overview of Debug

This is a close to real time view, it can take a few moments before the first data appears.
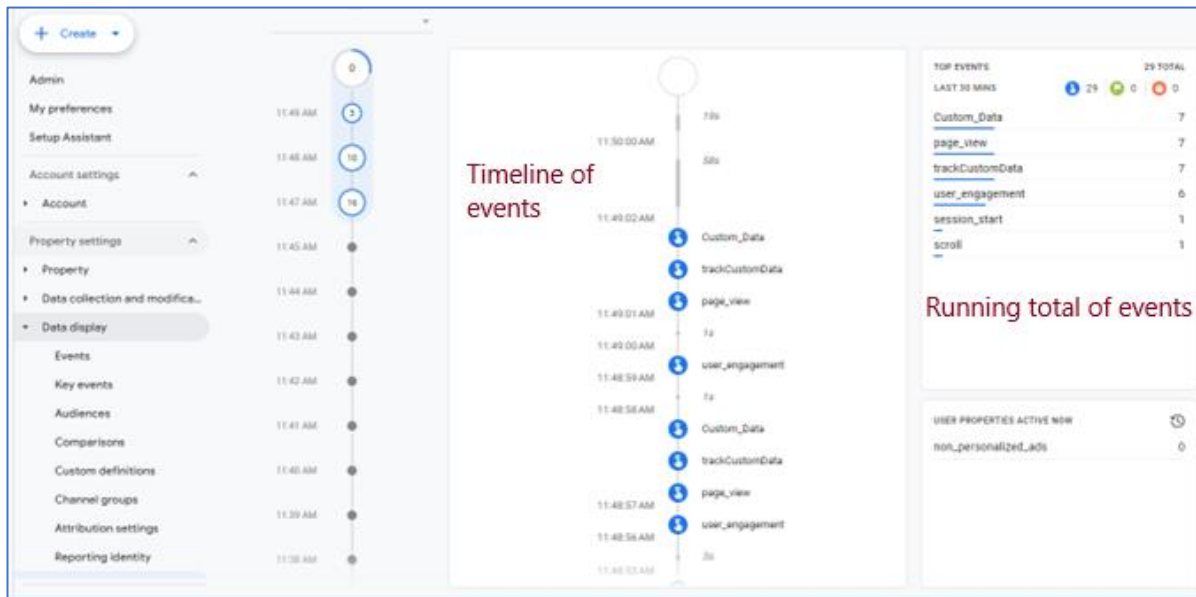
3) An instance of trackCustomData selected. (from one of the events shown in the timeline) The parameter "Subject" has been expanded.
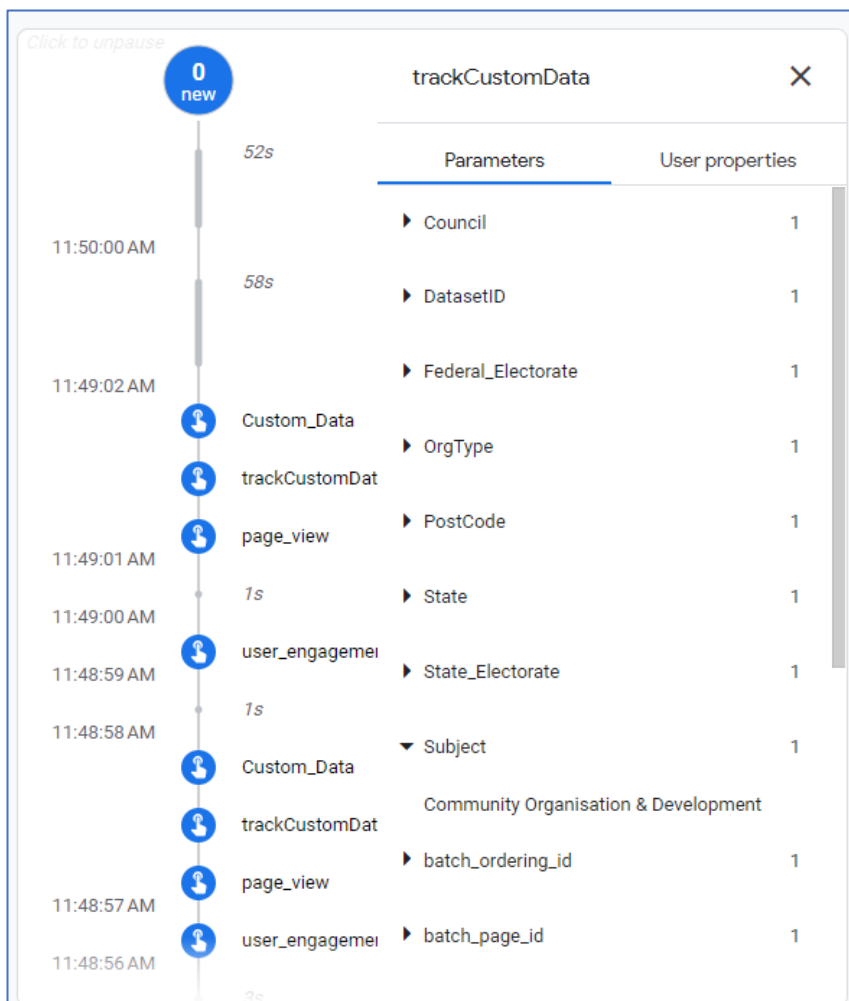
4) The "User Engagement" event selected, (from the running total section) letting us see several examples of this event that have occurred from the separate web pages that have recently been viewed. The parameter "page_title" has been selected,

5) A page_title parameter expanded to show even more information about that variable.