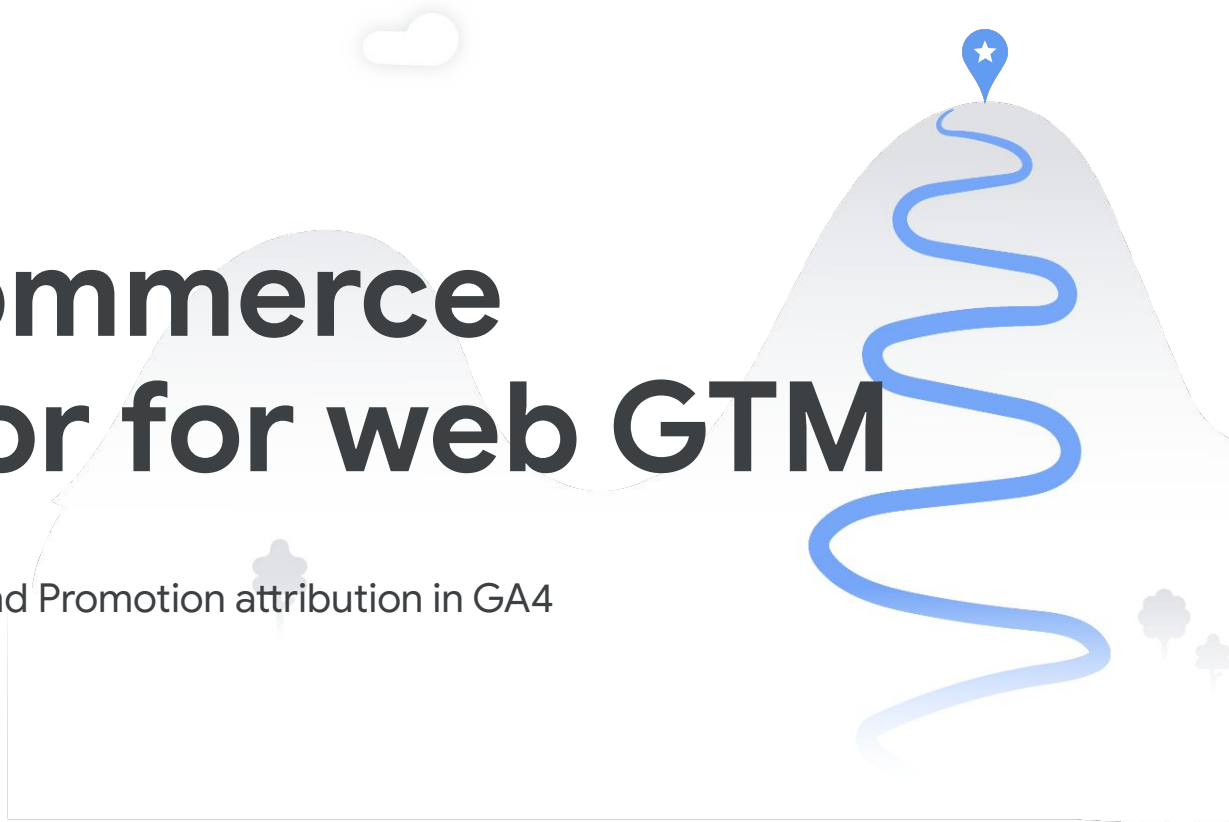




GA4 Ecommerce Attributor for web GTM

Helps you enable Item list and Promotion attribution in GA4



Agenda

01 One Pager

02 Resources

03 What Ecom Attributor
can do for you?

04 Technical solution
explanation

05 Implementation guide

06 FAQ

01

One Pager

Ecommerce Attributor for web GTM

Requirements:

 google/qa4-ecom-attributor

- Ecommerce measurement via Data Layer & web GTM
- Item ID available on every ecommerce event
- List information available on select_item, view_item or add_to_cart event

*Compatible only with UA & GA4 Data Layer schema

? Customer Challenge

Advertisers often in their ecommerce implementation have List information only available when user clicks on the item inside the Item List. Similar is for Promotion - information is usually available only when user clicks on specific Promotion.

In order to get full data in GA4 Item List & Promotion reports, Item List and Promotion data needs to be sent with all ecommerce events.

Often, due to the complexity of a website, it is hard for advertisers to provide this information with every single ecommerce event, which creates a challenge how to make these reports actionable.

≡ Solution Description

This solution is designed to pass List and Promotion data with every ecommerce event. Each time when user interacts with item or promotion (which contains List or Promotion information), List and Promotion information will be stored.

Depending on which version of solution you are using, information will be stored either in 1st party cookie or in Firestore. This data is then passed along with all subsequent ecommerce events to GA4.

⚡ Impact

Item List and Promotion attribution fully working in GA4, making Item List and Promotion reports fully populated with ecommerce data and ready to be used for analysis.

! Limitations

Not compatible with gtag.js (only works if ecommerce is implemented using Data Layer & web GTM).











Data is stored into the cookies - browser restrictions on 1st party cookies apply.

Item list name	Item-list view events	Item-list click events	Item list click- through rate	Add to baskets	Checkouts	E-commerce purchases	Item revenue
	27,137 100% of total	6,382 100% of total	47.31% Avg 0%	1,387 100% of total	2,351 100% of total	365 100% of total	€150,545.29 100% of total
Home - top products	10,543	312	5.58%	0	0	0	€0.00
Search results	4,554	2,246	57.41%	0	0	0	€0.00
On sale	3,943	308	15.68%	0	0	0	€0.00
You might also like	3,374	755	29.77%	0	0	0	€0.00
Top deals	2,505	1,382	58.61%	0	0	0	€0.00
Basket upsell	1,336	728	58.3%	0	0	0	€0.00
New products	540	208	46.79%	0	0	0	€0.00
(not set)	1	0	0%	1,387	1,999	364	€150,545.29



Item list name	Item-list view events	Item-list click events	Item list click- through rate	Add to baskets	Checkouts	E-commerce purchases	Item revenue
	3,725 100% of total	845 100% of total	47.41% Avg 0%	235 100% of total	398 100% of total	55 100% of total	€2,669.93 100% of total
Home - top products	1,364	40	6.47%	3	2	1	€3.32
Search results	696	317	61.26%	63	94	14	€506.09
On sale	638	143	35.34%	33	65	10	€382.86
You might also like	589	57	20.28%	9	41	4	€91.03
Top deals	178	106	58.33%	28	67	9	€391.79
Basket upsell	143	89	52.75%	12	24	4	€150.51
New products	59	33	61.76%	2	3	1	€10.47
(not set)	0	60	0%	83	194	28	€1,133.86

How to decide which version of solution is right for you?

	Ecom Attributor for web GTM (Github)	Ecom Attributor for sGTM (Github)
Ease of implementation	 Implementation in web GTM container. No changes required in the website code.	 Implementation in sGTM container. No changes required in the website code. Requires GCP billing enabled and setup of Firestore database.
Requirements	 Item ID present in each ecommerce event.	 Item ID present in each ecommerce event.
Measurement support	 Supports only Universal Analytics & GA4 Data Layer schema. Works only if ecommerce measurement is implemented via Data Layer and web GTM (based on official Google ecommerce implementation documentation). Data can still be sent to sGTM endpoint.	 Solution supports all types of ecommerce measurement implementation (gtag.js, web GTM, third party tag management system, custom implementation). Solution will work as long as ecommerce data received in sGTM respects GA4 ecommerce event data model (event and parameters naming).
Storage solution	 List and Promotion information is stored in 1st party cookie. Browser cookie limitations could apply (cross-domain measurement restriction, max number of cookies per domain, max cookie size etc.).	 List and Promotion information is stored in Firestore. Firestore quotas and limits apply.
Cost of Operation	 No additional cost.	 Additional cost could occur due to usage of sGTM and Firestore as a storage solution.

02

Resources

Resources



[group/ga4-ecom-attributor](#)



[google/ga4-ecom-attributor](#)

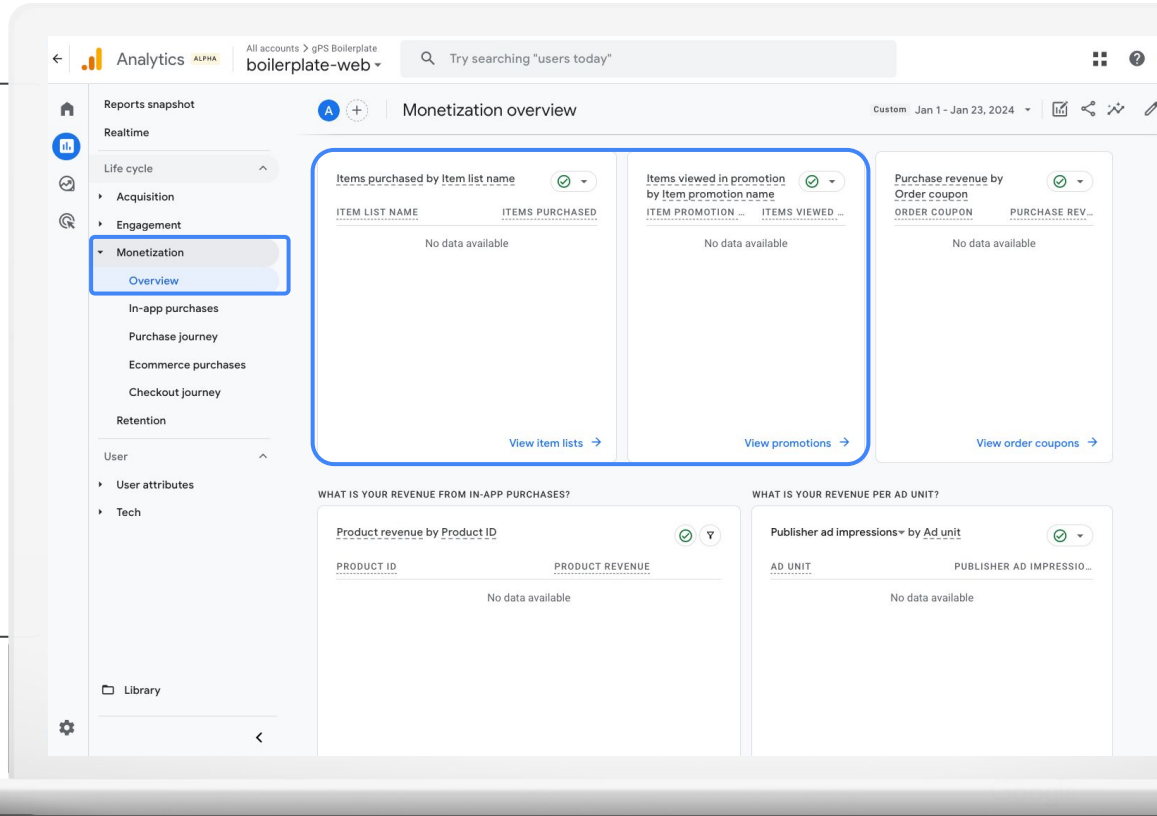
03

What Ecom Attributor can do for you?

Ecommerce measurement enables Item List & Promotion reports

With [GA4 ecommerce measurement](#), it is possible to send Item List and Promotion information.

Information will be populated in this two specific reports in GA4 and it enables you to analyze success of internal promotions and item lists on the website.

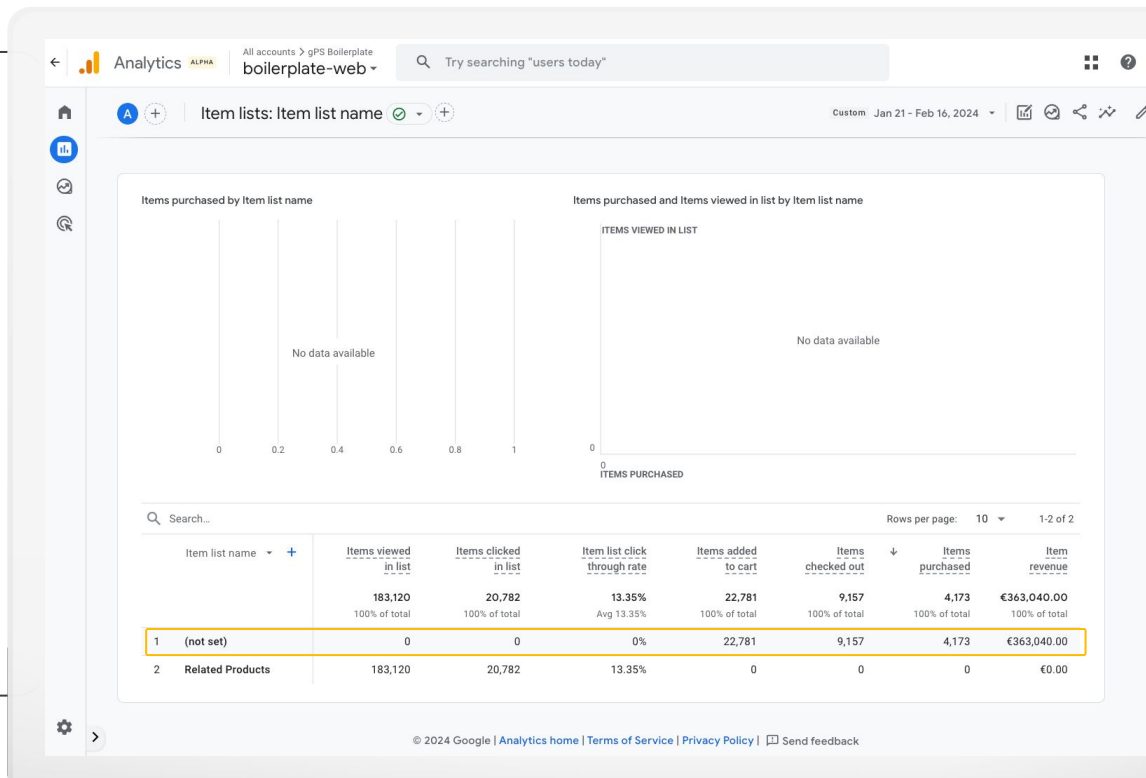


Item List report

How is report populated?

When user clicks on one of the items inside item list on the website (e.g. list of items on homepage that are on sale), Item List information needs to be sent with every ecommerce event in order to attribute Checkout and Revenue data to the appropriate Item List.

In case if List information is not sent with relevant ecommerce events, revenue data could be attributed to the (not set) value.

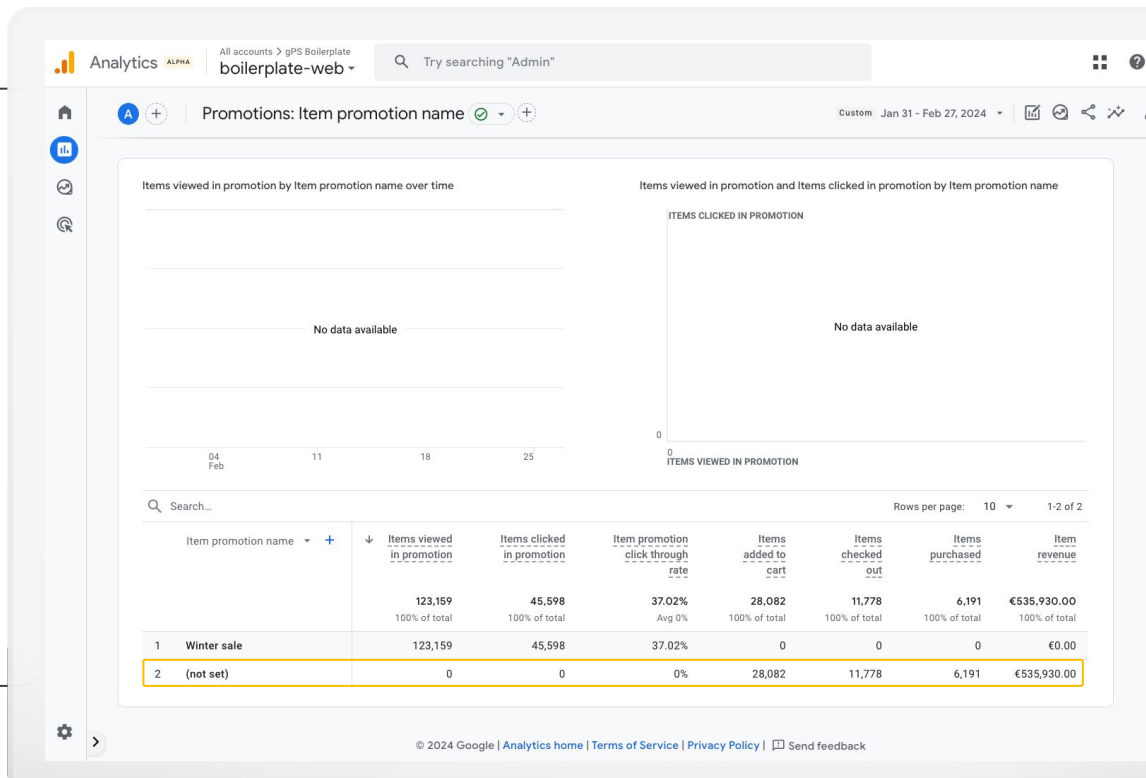


Promotions report

How is report populated?

When user clicks on one of promotions on the website, Promotion information needs to be sent with every ecommerce event in order to attribute Checkout and Revenue data to the appropriate Promotion.

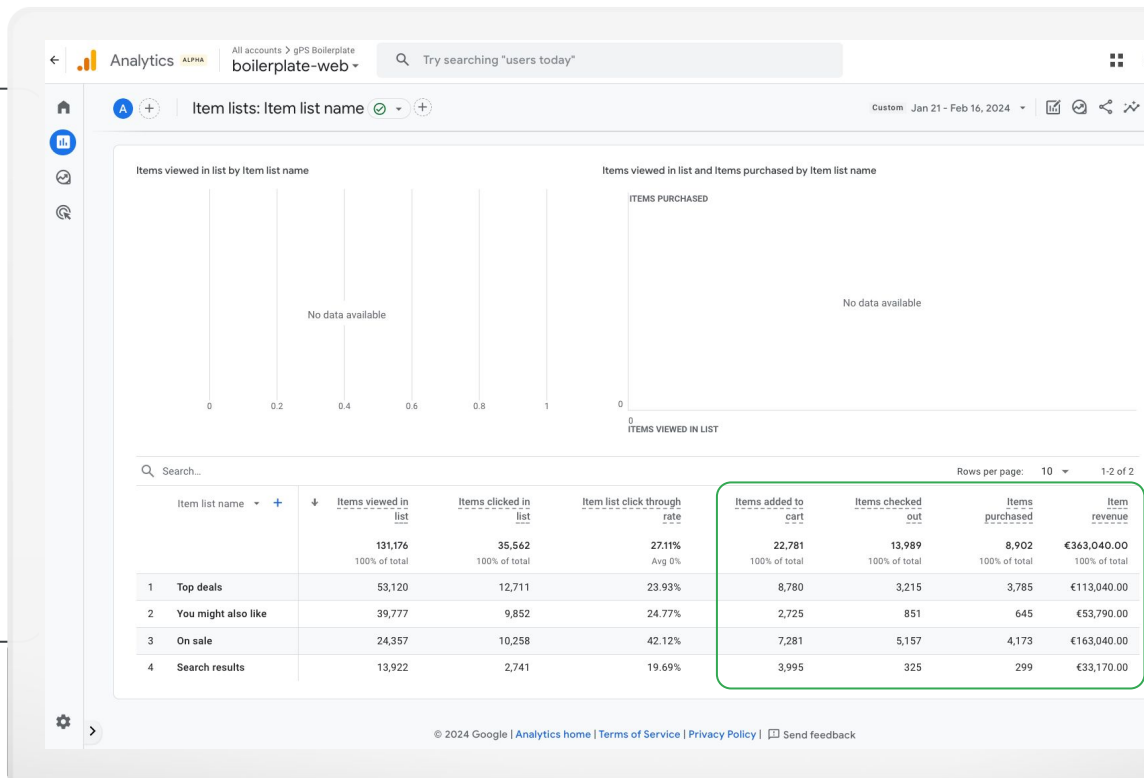
In case if Promotion information is not sent with relevant ecommerce events, revenue data could be attributed to the (not set) value.



Item List report with Ecommerce Attributor solution

Each time when user interacts with item (e.g. clicks on item inside the list), Ecommerce Attributor stores Item List information and sends it with all subsequent ecommerce events.

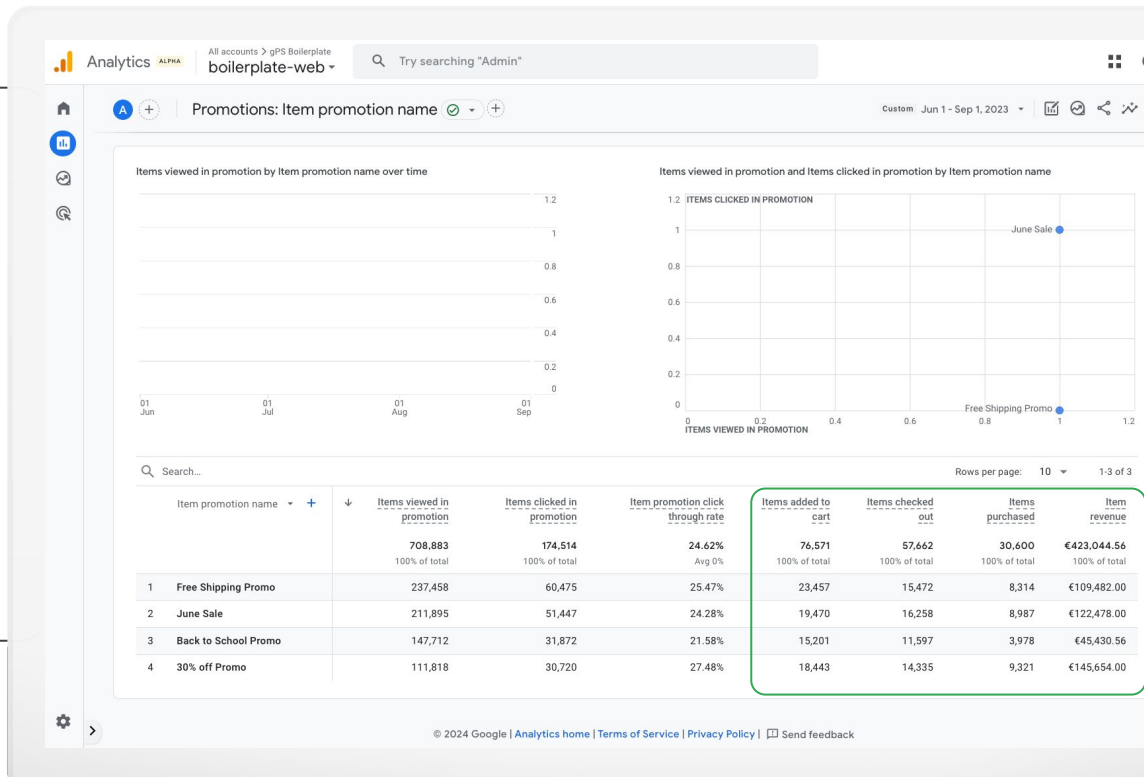
Data is populated in Item lists report and advertiser can start using report to make business decisions.



Promotions report with Ecommerce Attributor solution

Each time when user interacts with promotion (clicks on specific promotion on website), Ecommerce Attributor stores Promotion information and sends it with all subsequent ecommerce events.

Data is populated in GA4 Promotion report and advertiser can start using report to analyze Promotions and make business decisions.

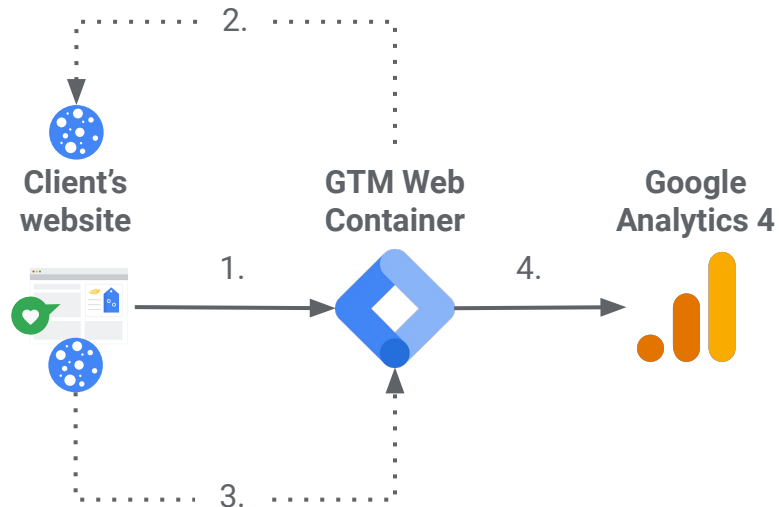


04

Technical solution explanation

Ecommerce Attributor for web GTM

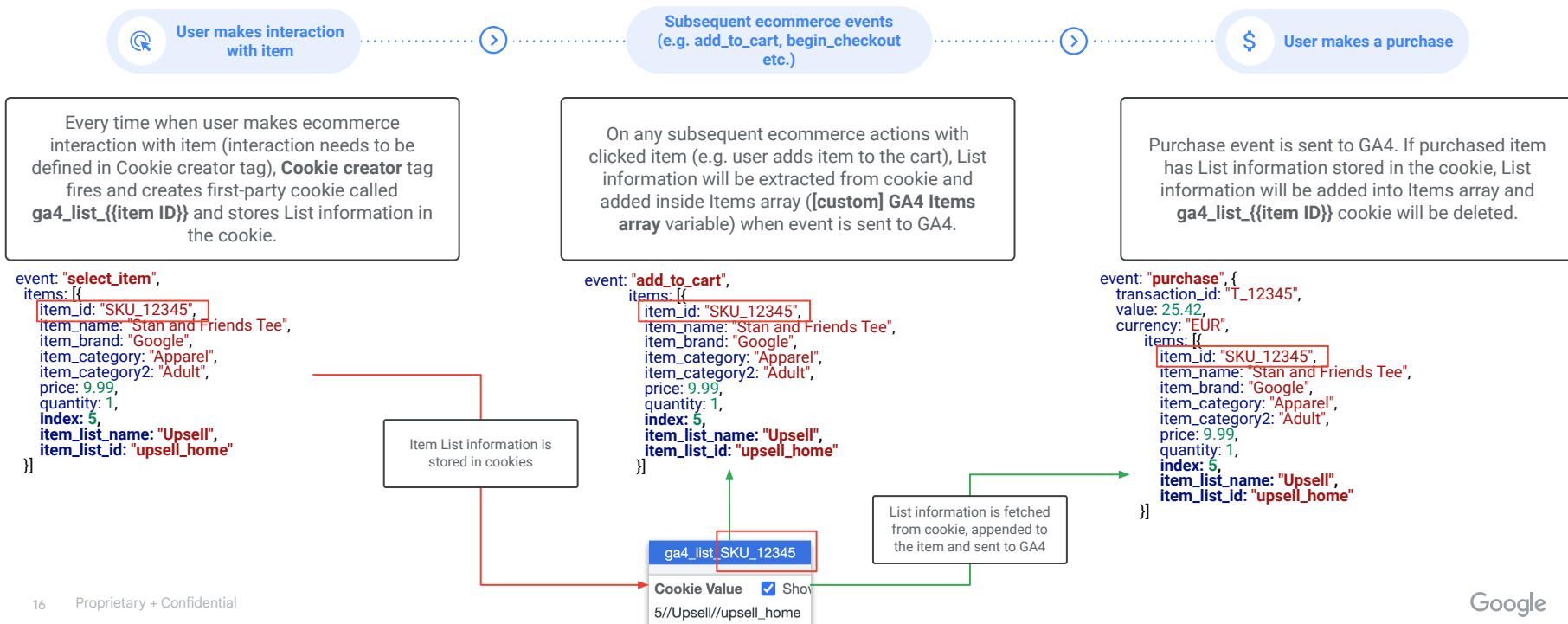
1. User interacts with items on website. Ecommerce events are triggered on website.
2. If ecommerce event contains List and/or Promotion data, data is stored in 1st party cookies on website.
3. When user progresses through the shopping funnel on website (e.g. triggers ecommerce checkout events or purchase event), List and Promotion data is fetched from 1st party cookies and appended to the item.
4. Item data is sent to GA4, Checkout and Revenue data is attributed to the appropriate List and Promotion.



Ecom Attributor for web GTM

How Item List attribution works

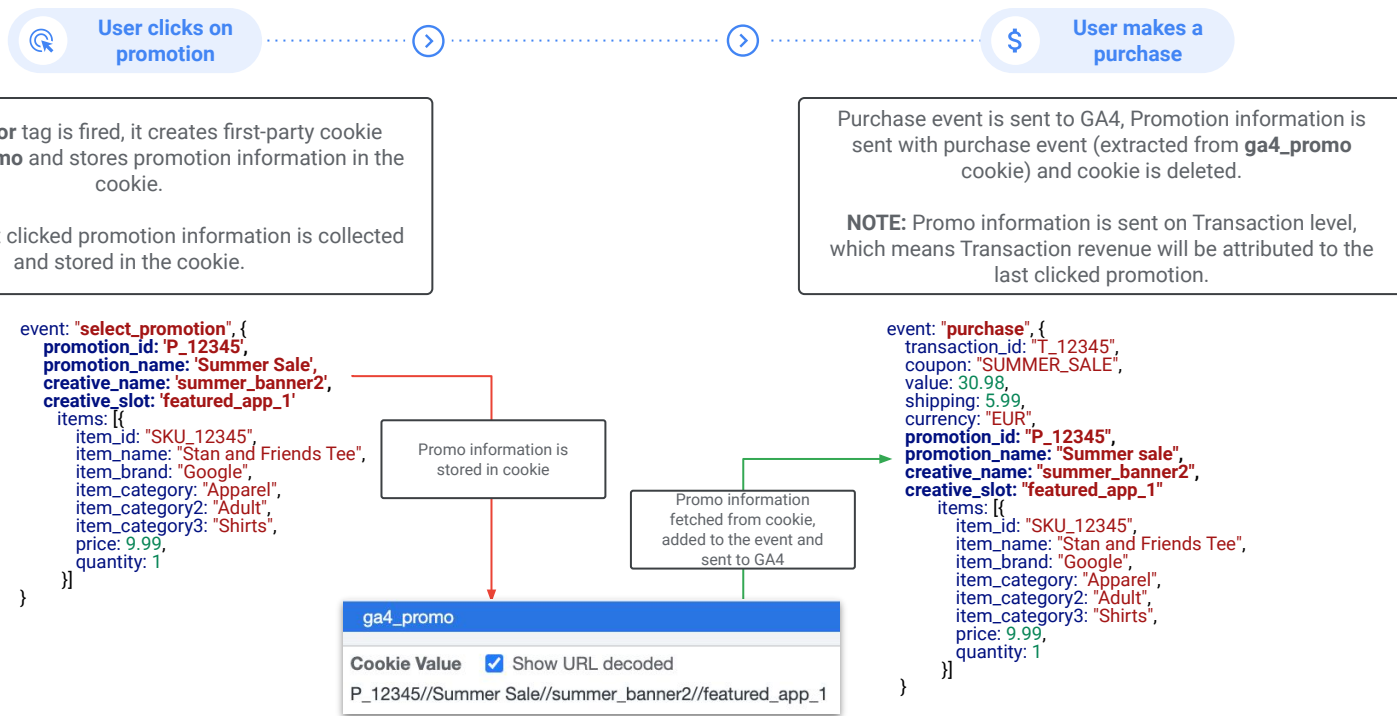
- List information is stored in 1st party cookies (cookies name: ga4_list_{{item ID}})
- With every subsequent ecommerce event, List info is fetched from cookie, added to the item and sent to GA4



Ecom Attributor for web GTM

How Promotion attribution works

- Promotion information is stored in 1st party cookie (cookie name: ga4_promo)
- With every subsequent ecommerce event, Promotion info is fetched from cookie, added to the event and sent to GA4



Cookies explanation

Following First party cookies are created and used by Ecom Attributor for web GTM solution

Cookie name	Cookie value
ga4_promo	<div>P_12345//Summer Sale//summer_banner2//featured_app_1</div> <div>Promotion ID Promotion name Creative name Creative slot</div>
ga4_list_{{item ID}}	<div>5//Upsell//upsell_home</div> <div>Item position Item list name Item list ID (only for GA4 Data Layer schema)</div>
<ul style="list-style-type: none">Cookie expiration - By default, cookies are browser session based, which means cookies will expire when browser session ends. Cookie expiration can be modified in Cookie Creator tag.If parameter is not available in Data Layer - When cookies are created, if certain List or Promotion parameter is not available in Data Layer, it simply won't be added to the cookie. For example, if you use UA Data Layer, Item List ID doesn't exist. In the cookie there won't be any value on Item List ID place (example: ga4_list_{{item ID}}=5//Upsell//).Parameters that don't have value in the cookie, won't be sent to GA4 (e.g. if there isn't Item List ID value in the cookie, this parameter won't be sent to GA4).	

05

Implementation guide

Pre-requisites



Web Google Tag Manager

Deployed a web GTM container on website



Ecommerce measurement

Ecommerce measurement implemented on website with List and/or Promotion data



Ecommerce implemented via Data Layer

Ecommerce measurement is implemented via Data Layer (based on official UA or GA4 Data Layer schema)

GTM import

Step 1

Join [Google Group](#), to be able to download JSON file and to get notifications about solution updates.

Download the [JSON file](#) (available on [Github](#)).

Make sure it is saved as **.json** file, otherwise it will not work.

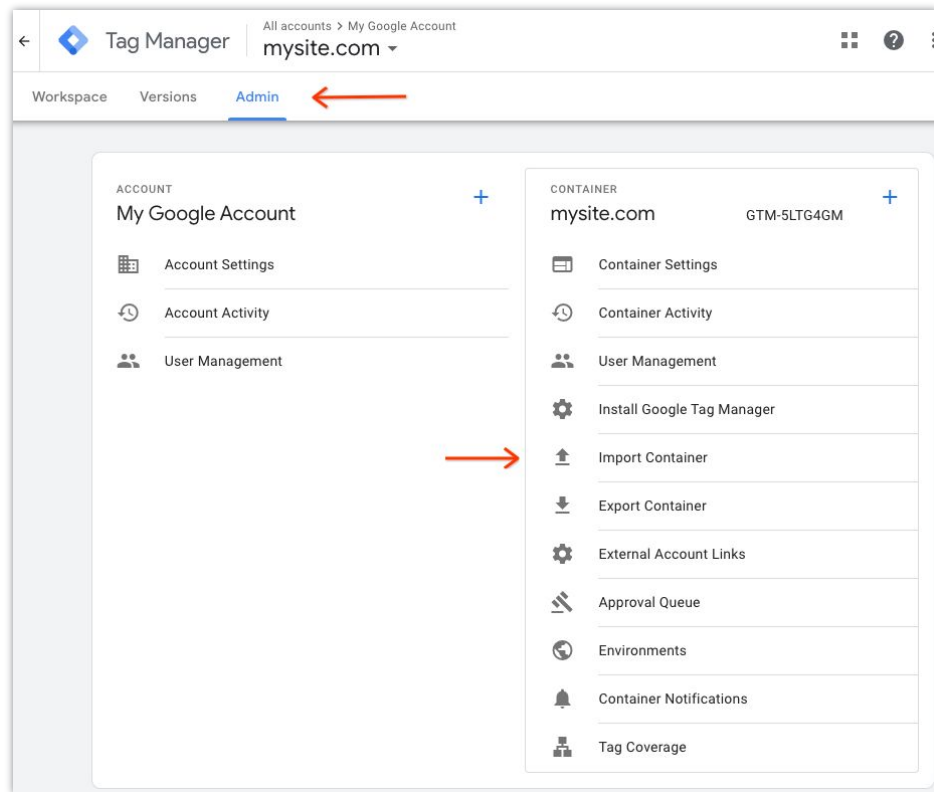
The file is exported GTM container, which contains tags, variables and custom built templates necessary for this solution to work.



GTM import

Step 2

1. Go to [Google Tag Manager](#)
2. Open your web GTM container where you want to implement solution
3. Click **Admin** → **Import Container**




GTM import

Step 3

1. Select downloaded JSON file to import
2. Select in which workspace you want to import the solution
3. Select **Merge** and then **Rename conflicting tags, triggers and variables**
4. Click on **Confirm** button


Overwrite or merge with the latest container version by importing a json file in the correct format.

Select file to import

 ecom-attributor-web-GTM.json

Choose workspace

[Default Workspace](#)

Choose an import option 

☐ **Overwrite**
Overwrite selected workspace with content of imported container GTM-MMH9BZ3P

☒ **Merge**
Merge selected workspace with content of imported container GTM-MMH9BZ3P

☐ Overwrite conflicting tags, triggers and variables.

☒ Rename conflicting tags, triggers and variables.

Preview and confirm your import

Tags	Triggers	Variables	Templates
1 0 0	0 0 0	5 0 0	2 0 0
New Modified Deleted	New Modified Deleted	New Modified Deleted	New Modified Deleted

[View Detailed Changes](#)

[Confirm](#) [Cancel](#)

GTM import Overview

After you import JSON file, you should see these changes in your workspace.

First, let's set up Cookie creator tag.

The screenshot displays the GTM interface with the 'Now Editing' workspace selected. The top left panel shows the 'New Tag' section with a button to 'Add a new tag'. The middle panel shows the 'Description' section with an 'Edit description' button. The right panel shows the 'Workspace Changes' section with a 'Manage workspaces' button. Below these panels is a table listing the changes in the workspace.

Name ↑	Type	Change
[custom JS] promo - creative_name	Variable	Added
[custom JS] promo - creative_slot	Variable	Added
[custom JS] promo - promotion_id	Variable	Added
[custom JS] promo - promotion_name	Variable	Added
[custom] GA4 Items array	Variable	Added
[GA4] Cookie creator for Item list & Promotion attribution	Tag	Added
Cookie creator for GA4 item list & Promotion attribution	Custom Template	Added
GA4 Items array	Custom Template	Added

Cookie Creator Tag

Step 1

Open imported tag called
[GA4] Cookie creator for Item list & Promotion attribution.

This tag is used for:

- Creating first-party cookies and storing List or Promotion information into the cookie
- Deleting the cookies after the Purchase

[GA4] Cookie creator for Item list & Promotion attribution

Save

C

Cookie creator for GA4 item list & Promotion attribution

Custom Template

Tag permissions

5 permissions

This tag is used to create/delete cookies that will help attribute ecommerce revenue in GA4 to appropriate List name or Promotion.

This tag is doing following actions:

- When user interacts with product (below, you must specify what this action is), it creates cookies and stores List information inside the cookies. Name of the cookie will be "ga4_list_{(item ID)}". For each product user interacts, tag will create new cookie and store List information in it
- When user clicks on promotion, tag creates cookie called "ga4_promo" and stores promotion information inside the cookie. Only last clicked promotion information is stored in the cookie.
- When user makes a purchase, "ga4_promo" cookie will be deleted and any "ga4_list_{(item ID)}" cookies with purchased item ID will be deleted

Data Layer Type

Google Analytics 4

Which information you want to collect?

☐ Promotion Attribution

☐ Product List Attribution

Purchase event

Purchase event name in Data Layer

e.g. purchase

By default, cookies are session based, which means cookies will be erased when browser session ends.

☐ Modify cookie expiration setting?

Cookie Creator Tag

Step 2

Under section **Data Layer Type**, select which type of Data Layer is implemented on your website:

- Universal Analytics or
- Google Analytics 4

Data Layer Type ?

Google Analytics 4 ▼

Cookie Creator Tag

Step 3

Next, select what do you want to measure:

- To measure only Promotion attribution, select **Promotion Attribution** checkbox
- To measure only List attribution, select **Product List Attribution** checkbox
- If you want to measure attribution for **Product Lists and Promotion**, select both checkboxes

Which information you want to collect?

☐ Promotion Attribution ?

☐ Product List Attribution ?

Cookie Creator Tag

Step 4

Skip this step if you didn't select checkbox to measure Promotion Attribution

Which information you want to collect?

☒ Promotion Attribution ?

Promotion Click event name in Data Layer ?

select_promotion



Put the name of event which is used to push Promotion Click information into Data Layer.

Example: if you are pushing Promotion Click information to Data Layer with event called "select_promotion", put select_promotion as value in the input field.

Example where you need to look for event which you have to specify in Cookie Creator tag:

```
dataLayer.push({
  'event': 'promotionClick',
  'ecommerce': {
    'promoClick': {
      'promotions': [
        {
          'id': "P_12345",
          'name': "Summer Sale",
          'creative': "summer_banner2",
          'position': "featured_app_1"
        }
      ]
    }
  }
});
```

UA Data Layer

```
dataLayer.push({
  event: "select_promotion",
  ecommerce: {
    items: [
      {
        item_id: "SKU_12345",
        item_name: "Stan and Friends Tee",
        affiliation: "Google Merchandise Store",
        coupon: "SUMMER_FUN",
        discount: 2.22,
        index: 0,
        item_brand: "Google",
        item_category: "Apparel",
        item_category2: "Adult",
        item_category3: "Shirts",
        item_category4: "Crew",
        item_category5: "Short sleeve",
        promotion_id: "P_12345",
        promotion_name: "Summer Sale",
        creative_name: "summer_banner2",
        creative_slot: "featured_app_1",
        price: 9.99,
        quantity: 1
      }
    ]
  }
});
```

GA4 Data Layer

Cookie Creator Tag

Step 5

Skip this step if you didn't select checkbox to measure Product List Attribution

Put the name of event which is used to fire Product List information into Data Layer.

If in some cases List name is available on Product Click, Detail View and Add to Cart, provide event name in all three fields.

If you are pushing List information to Data Layer only on one of these events (e.g. Product Click), provide event name only in that field. Rest of the fields leave empty.

In order for solution to work properly, at least one event needs to be provided.

Which information you want to collect?

☐ Promotion Attribution ⓘ

☒ Product List Attribution ⓘ

☒ Product List Attribution ⓘ

List information can be available on multiple ecommerce actions (e.g. Product List Click, Detail View or Add to Cart).

If you have List information available on multiple ecommerce actions, provide name of event in corresponding field below.

In case if you have List information available only on one ecommerce action (e.g. Product List Click), provide event name only in that field. Rest of the fields you can leave empty.

IMPORTANT: In order for solution to work, you must specify at least one ecommerce event which contains list information in Data Layer.

Product List Click event name in Data Layer (leave empty if you don't have List information available on Product List Click event) ⓘ

select_item



Product Detail View event name in Data Layer (leave empty if you don't have List information available on DetailView event) ⓘ

view_item



Product Add to Cart event name in Data Layer (leave empty if you don't have List information available on AddToCart event) ⓘ

add_to_cart



Example where you need to look for event which you have to specify in Cookie Creator tag:

```
dataLayer.push({
  'event': 'productClick',
  'ecommerce': {
    'currencyCode': 'EUR',
    'click': {
      'products': [{
        'name': 'Triblend Android T-Shirt',
        'id': '12345',
        'price': '15.25',
        'brand': 'Google',
        'category': 'Apparel',
        'list': 'Related products',
        'position': '1'
      }]
    }
  }
});
```

UA Data Layer

```
dataLayer.push({
  event: "select_item",
  ecommerce: {
    items: [
      {
        item_id: "SKU_12345",
        item_name: "Stan and Friends Tee",
        affiliation: "Google Merchandise Store",
        coupon: "SUMMER_FUN",
        discount: 2.22,
        index: 0,
        item_brand: "Google",
        item_category: "Apparel",
        item_category2: "Adult",
        item_category3: "Shirts",
        item_category4: "Crew",
        item_category5: "Short sleeve",
        item_list_id: "related_products",
        item_list_name: "Related Products",
        item_variant: "green",
        location_id: "ChIJIQ8pAG2ahYAR_61286cTUEo",
        price: 9.99,
        quantity: 1
      }
    ]
  }
});
```

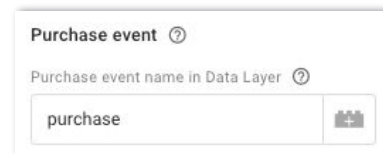
GA4 Data Layer

Cookie Creator Tag

Step 6

In Input field, provide exact event name of a purchase event (event which is used to push purchase information into Data Layer).

This is required so tag can know on which event cookies needs to be deleted.



Example where you need to look for event which you have to specify in Cookie Creator tag:

```
dataLayer.push({
  'event': 'purchase',
  'ecommerce': {
    'purchase': {
      'actionField': {
        'id': 'T12345',
        'affiliation': 'Online Store',
        'revenue': '35.43',
        'tax': '4.90',
        'shipping': '5.99',
        'coupon': 'SUMMER_SALE'
      },
      'products': [{
        'name': 'Triblend Android T-Shirt',
        'id': '12345',
        'price': '15.25',
        'brand': 'Google',
        'category': 'Apparel',
        'variant': 'Gray',
        'quantity': 1,
        'coupon': ''
      }]
    }
  }
});
```

UA Data Layer

```
dataLayer.push({
  event: "purchase",
  ecommerce: {
    transaction_id: "T_12345",
    affiliation: "Google Merchandise Store",
    value: 25.42,
    tax: 4.90,
    shipping: 5.99,
    currency: "USD",
    coupon: "SUMMER_SALE",
    items: [
      {
        item_id: "SKU_12345",
        item_name: "Stan and Friends Tee",
        coupon: "SUMMER_FUN",
        discount: 2.22,
        item_brand: "Google",
        item_category: "Apparel",
        item_category2: "Adult",
        item_category3: "Shirts",
        item_category4: "Crew",
        item_category5: "Short sleeve",
        item_variant: "green",
        price: 9.99,
        quantity: 1
      }
    ]
  }
});
```

GA4 Data Layer

Cookie Creator Tag

Step 7

By default, all cookies created by this tag are session based, which means they will be **deleted when browser session ends**. We recommend to keep it this way.


However, if you want, you can extend the cookie duration.


To do this, mark checkbox “**Modify cookie expiration setting**” and provide desired cookie duration in seconds.

Example: if you want for cookie to expire after 24 hours, the value should be 86400 (24 hours * 60 minutes * 60 seconds).

By default, cookies are session based, which means cookies will be erased when browser session ends.

☒ Modify cookie expiration setting?

Cookie expiration 

 seconds

Cookie Creator Tag

Step 8

Set up **triggers** for Cookie Creator tag.

Triggers for Cookie Creator tag should be exact events that you provided in tag setup:

- Event which is used to push Promotion Click information in Data Layer (if you selected to measure Promotion Attribution)
- Event (or events) which is used to push List information in Data Layer (if you selected to measure Product List Attribution)
- Event which is used to push Purchase information in Data Layer

The screenshot shows the configuration for a Cookie Creator tag. At the top, 'Data Layer Type' is set to 'Google Analytics 4'. Under 'Which information you want to collect?', 'Promotion Attribution' and 'Product List Attribution' are both checked. For 'Promotion Attribution', the 'Promotion Click event name in Data Layer' is 'select_promotion'. For 'Product List Attribution', the 'Product List Click event name in Data Layer' is 'select_item', the 'Product Detail View event name in Data Layer' is 'view_item', and the 'Product Add to Cart event name in Data Layer' is 'add_to_cart'. A 'Purchase event' is also configured with the event name 'purchase'. At the bottom, 'Modify cookie expiration setting?' is checked, and the 'Cookie expiration' is set to 86400 seconds. Below the configuration, a list of triggers is shown, each with a 'Custom Event' icon and a name: 'add_to_cart', 'purchase', 'select_item', 'select_promotion', and 'view_item'. Colored arrows connect the event names in the configuration to their corresponding triggers: a green arrow from 'select_promotion' to its trigger, a blue arrow from 'select_item' to its trigger, a yellow arrow from 'view_item' to its trigger, a black arrow from 'add_to_cart' to its trigger, and a red arrow from 'purchase' to its trigger.

Data Layer Type

Google Analytics 4

Which information you want to collect?

☒ Promotion Attribution

Promotion Click event name in Data Layer

select_promotion

☒ Product List Attribution

List information can be available on multiple ecommerce actions (e.g. Product List Click, Detail View or Add to Cart).
If you have List information available on multiple ecommerce actions, provide name of event in corresponding field below.

In case if you have List information available only on one ecommerce action (e.g. Product List Click), provide event name only in that field. Rest of the fields you can leave empty.

IMPORTANT: In order for solution to work, you must specify at least one ecommerce event which contains list information in Data Layer.

Product List Click event name in Data Layer (leave empty if you don't have List information available on Product List Click event)

select_item

Product Detail View event name in Data Layer (leave empty if you don't have List information available on Detail View event)

view_item

Product Add to Cart event name in Data Layer (leave empty if you don't have List information available on AddToCart event)

add_to_cart

Purchase event

Purchase event name in Data Layer

purchase

By default, cookies are session based, which means cookies will be erased when browser session ends.

☒ Modify cookie expiration setting?

Cookie expiration

86400 seconds

add_to_cart
Custom Event

purchase
Custom Event

select_item
Custom Event

select_promotion
Custom Event

view_item
Custom Event

Cookie Creator Tag

Overview

This is just an example of tag setup for this walkthrough.

Your configuration will be different based on data you want to collect and event names you use on your website to push ecommerce data to Data Layer.

If you use [Consent Mode in GTM](#), you can add “analytics_storage” as additional consent for tag to fire.

In case if you have custom CMS implementation, make sure Cookie Creator tag fires on same consent category as GA4 tags.

IMPORTANT: Don't remove Tag firing priority setting. This tag needs to have lower firing priority compared to GA4 ecommerce events tags.

Data Layer Type ⓘ
Google Analytics 4

Which information you want to collect?

☒ Promotion Attribution ⓘ
Promotion Click event name in Data Layer ⓘ
select_promotion

☒ Product List Attribution ⓘ
List information can be available on multiple ecommerce actions (e.g. Product List Click, Detail View or Add to Cart).
If you have List information available on multiple ecommerce actions, provide name of event in corresponding field below.

In case if you have List information available only on one ecommerce action (e.g. Product List Click), provide event name only in that field. Rest of the fields you can leave empty.

IMPORTANT: In order for solution to work, you must specify at least one ecommerce event which contains list information in Data Layer.
Product List Click event name in Data Layer (leave empty if you don't have List information available on Product List Click event) ⓘ
select_item
Product Detail View event name in Data Layer (leave empty if you don't have List information available on DetailView event) ⓘ
view_item
Product Add to Cart event name in Data Layer (leave empty if you don't have List information available on AddToCart event) ⓘ
add_to_cart

Purchase event ⓘ
Purchase event name in Data Layer ⓘ
purchase

By default, cookies are session based, which means cookies will be erased when browser session ends.

☒ Modify cookie expiration setting?
Cookie expiration ⓘ
86400 seconds

add_to_cart
Custom Event

OR

purchase
Custom Event

OR

select_item
Custom Event

OR

select_promotion
Custom Event

OR

view_item
Custom Event

OR

33

GA4 Ecommerce event tags

After setting up Cookie Creator tag, next step is to modify GA4 ecommerce events tags so that we can send this data to GA4.

In our example, we are using separate tag for each ecommerce event. Your ecommerce implementation can be different.

For example, you can use only 1 tag to send all ecommerce events to GA4 or you can use separate tag for each ecommerce event.

The changes that you need to make are exactly the same, it only depends on how many tags you need to make them.

NOTE: these changes are not necessary to do on promotion tags!

GA4 - add_payment_info	Google Analytics: GA4 Event	<> add_payment_info
GA4 - add_shipping_info	Google Analytics: GA4 Event	<> add_shipping_info
GA4 - add_to_cart	Google Analytics: GA4 Event	<> add_to_cart
GA4 - add_to_wishlist	Google Analytics: GA4 Event	<> add_to_wishlist
GA4 - begin_checkout	Google Analytics: GA4 Event	<> begin_checkout
GA4 - purchase	Google Analytics: GA4 Event	<> purchase
GA4 - remove_from_cart	Google Analytics: GA4 Event	<> remove_from_cart
GA4 - select_item	Google Analytics: GA4 Event	<> select_item
GA4 - view_cart	Google Analytics: GA4 Event	<> view_cart
GA4 - view_item	Google Analytics: GA4 Event	<> view_item
GA4 - view_item_list	Google Analytics: GA4 Event	<> view_item_list
GA4 Promotion - select_promotion	Google Analytics: GA4 Event	<> select_promotion
GA4 Promotion - view_promotion	Google Analytics: GA4 Event	<> view_promotion

Not necessary to do these changes on promotion tags!

GA4 Ecommerce event tags

Step 1

Modify all you ecommerce event tags in GTM.

Depending on your setup and how many ecommerce event tags you have in GTM, in every tag you need to:

- Disable “**Send Ecommerce data**” option
- Add “**items**” parameter, and as value provide variables that you imported: “**[custom] GA4 Items array**”

NOTE: It is not necessary to modify tags for Promotion tracking (view_promotion and select_promotion events)

The screenshot shows the configuration for a 'Google Analytics: GA4 Event' tag in Google Tag Manager. The 'Tag Type' is set to 'Google Analytics: GA4 Event' under the 'Google Marketing Platform'. The 'Measurement ID' is set to '{{GA4 - Measurement ID}}', and a green checkmark indicates 'Google tag found in this container'. The 'Event Name' is set to 'view_item_list'. Under 'Event Parameters', the 'Event Settings Variable' is set to 'None'. A red box highlights the 'items' parameter with the value '{{[custom] GA4 Items array}}', with a red annotation 'Add items array as event parameter'. Below it, the 'login_status' parameter is set to '{{dl - login_status}}'. The 'User Properties' section is empty. Under 'More Settings', the 'Ecommerce' section is expanded, and the 'Send Ecommerce data' checkbox is unchecked, highlighted with a red box and a red annotation 'If you have this option enabled, turn it off'.

Tag Type

Google Analytics: GA4 Event
Google Marketing Platform

Measurement ID

{{GA4 - Measurement ID}}

Google tag found in this container

Event Name

view_item_list

Event Parameters

Event Settings Variable

None

Add items array as event parameter

Event Parameter

Value

items

login_status

Add parameter

User Properties

Property Name

Add Row

More Settings

Ecommerce

Send Ecommerce data

If you have this option enabled, turn it off

GA4 Ecommerce event tags

Step 2

Provide additional information in purchase event tag.

Since now purchase tag will not pick information from Data Layer automatically, you also need to add event parameters like “transaction_id”, “value”, “tax”, “shipping”, “currency” and “coupon”.

Depending which information you have in dataLayer on purchase event, provide those event parameters in the purchase tag, and as value create variable to grab that data from your Data Layer.

The screenshot shows the configuration for a GA4 event tag named 'purchase'. The 'Event Parameters' section is expanded, showing a table of parameters to be added to the tag. A red box highlights this table. Below the table is an 'Add parameter' button. At the bottom of the configuration, the 'More Settings' section is expanded, and a red box highlights the 'Ecommerce' sub-section, which contains a checkbox for 'Send Ecommerce data'.

Event Parameter	Value
items	{{[custom] GA4 Items array}}
transaction_id	{{dl - transaction_id}}
value	{{dl - value}}
tax	{{dl - tax}}
shipping	{{dl - shipping}}
currency	{{dl - currency}}
coupon	{{dl - coupon}}

More Settings

- Ecommerce**
 - ☐ Send Ecommerce data

GA4 Ecommerce event tags

Overview

As an overview, following changes needed to be done on all your ecommerce event tags:

- 1) Disable “Send Ecommerce data” option
- 2) Add “items” parameter, and as value provide variables that you imported: “[custom] GA4 Items array”
- 3) On purchase tag, add additional event parameters (transaction_id, value, currency, shipping, coupon, tax) and grab that data manually from Data Layer

NOTE: It is not necessary to modify tags for Promotion tracking (view_promotion and select_promotion events)

GA4 - add_payment_info	Google Analytics: GA4 Event	<> add_payment_info
GA4 - add_shipping_info	Google Analytics: GA4 Event	<> add_shipping_info
GA4 - add_to_cart	Google Analytics: GA4 Event	<> add_to_cart
GA4 - add_to_wishlist	Google Analytics: GA4 Event	<> add_to_wishlist
GA4 - begin_checkout	Google Analytics: GA4 Event	<> begin_checkout
GA4 - purchase	Google Analytics: GA4 Event	<> purchase
GA4 - remove_from_cart	Google Analytics: GA4 Event	<> remove_from_cart
GA4 - select_item	Google Analytics: GA4 Event	<> select_item
GA4 - view_cart	Google Analytics: GA4 Event	<> view_cart
GA4 - view_item	Google Analytics: GA4 Event	<> view_item
GA4 - view_item_list	Google Analytics: GA4 Event	<> view_item_list

Next step (optional): Send promotion data to GA4

You need to do these modifications only if you:

- a) have Promotion data tracking on your website (promo Impression and promo Click actions) **AND**
- b) if you set up in Cookie creator tag to collect Promotion information in cookie.

In this case, you need to provide additional 4 variables in each ecommerce event tag:

- promotion_id
- promotion_name
- creative_name
- creative_slot

NOTE: these variables needs to be added only to the ecommerce event tags (do not add them to view_promotion and select_promotion tags).

GA4 - add_payment_info	Google Analytics: GA4 Event	<> add_payment_info
GA4 - add_shipping_info	Google Analytics: GA4 Event	<> add_shipping_info
GA4 - add_to_cart	Google Analytics: GA4 Event	<> add_to_cart
GA4 - add_to_wishlist	Google Analytics: GA4 Event	<> add_to_wishlist
GA4 - begin_checkout	Google Analytics: GA4 Event	<> begin_checkout
GA4 - purchase	Google Analytics: GA4 Event	<> purchase
GA4 - remove_from_cart	Google Analytics: GA4 Event	<> remove_from_cart
GA4 - select_item	Google Analytics: GA4 Event	<> select_item
GA4 - view_cart	Google Analytics: GA4 Event	<> view_cart
GA4 - view_item	Google Analytics: GA4 Event	<> view_item
GA4 - view_item_list	Google Analytics: GA4 Event	<> view_item_list

Next step (optional): Send promotion data to GA4

In each ecommerce event tag, add these 4 additional parameters:

- promotion_id
- promotion_name
- creative_name
- creative_slot

For each parameter, you should have imported variable that you need to set as value (just like on screenshot).

Event Name ⓘ

add_to_cart

Event Parameters

Event Settings Variable

None

Event Parameter	Value
items	{{[custom] GA4 Items array}}
promotion_id	{{[custom JS] promo - promotion_id}}
promotion_name	{{[custom JS] promo - promotion_name}}
creative_name	{{[custom JS] promo - creative_name}}
creative_slot	{{[custom JS] promo - creative_slot}}

Add parameter

User Properties

More Settings

Ecommerce

☒ Send Ecommerce data

Summary

Final checklist what you should have done using this step-by-step walkthrough:

01

Import solution in GTM container

- Join [Google Group](#)
- [Download JSON file](#) from Github
- Import in your web GTM container

02

Configure Cookie Creator tag

- Provide which type of Data Layer you use on website
- Provide which information you want to collect (Promotion, List information)
- Provide names of data layer events which push Promo and List information to Data Layer
- Set up triggers on Cookie Creator tag

03

Adjust all your ecommerce events tags in GTM (not necessary to do for Promotion tags)

- Disable “Send ecommerce data” option
- Add event parameter “items” and as value provide “[custom] GA4 Items array” variable
- For purchase event, add event parameters like transaction_id, currency, value, shipping, tax, coupon

04

Optional - send Promotion data to GA4*

- Provide additional 4 event parameters in every ecommerce event tag (not necessary to do for Promotion tags): promotion_id, promotion_name, creative_name, creative_id
- As value for these 4 parameters, provide variables that you imported

06

Frequently Asked Questions

Frequently Asked Questions

Are there any cookie restrictions applying for this solution?

- Regular 1st party browser cookie restrictions will apply. If you have cross-domain journey on your website (e.g. user journey starts on domainA and purchase is made on domainB), then 1st party cookies won't be shared across domains. Also, certain browsers has limits how many cookies can be created per domain, maximum number of cookie size etc.

I have custom ecommerce implementation, will this solution work?

- No, solution won't work with following ecommerce implementation: gtag.js, custom implementation or third party tag management systems. Solution will work only if you have ecommerce measurement implemented using web GTM and Data Layer (UA or GA4 Data Layer schema).

Does solution work with Advanced Consent Mode?

- Yes, solution will work with advanced Consent Mode implementation, data can be sent with unconsented pings.

Which List information will be collected?

- If you have Universal Analytics Data Layer, it will collect List name (**list** parameter) and Item Position in the list (**position** parameter). If you have GA4 Data Layer, it will collect List Name (**item_list_name**), List ID (**item_list_id**) and Item position (**index**).

Which Promotion information will be collected?

- If you have Universal Analytics Data Layer, it will collect promotion id, name, creative and position parameters. In GA4 Data Layer, it will collect promotion_id, promotion_name, creative_name and creative_slot parameters.

What if I do not have one of the collected parameters in Data Layer (e.g. I don't have position parameter for my items)?

- Missing parameter simply won't be collected and information won't be sent to GA4.

I have item-level custom dimensions/metrics. Will they still be sent to GA4?

- Yes, any item-level custom dimensions/metrics will still be sent to GA4.

Does List information needs to be available inside Items array or can it be also provided inside ecommerce object (for UA, inside ActionField object)?

- Solution is developed to work in both cases. First, it will check inside Items array. If List information is not available, it will check inside ecommerce object.

Why I need to have Item ID on every ecommerce event that is fired on my website?

- Item ID is required on every ecommerce event (except promotions events) because this is the key how List information is stored in the cookie and taken from the cookie. If you don't have Item ID on one of your ecommerce events (e.g. item ID missing on begin_checkout event), then List information won't be retrieved from cookie and sent to GA4.