

GA4 Ecom Attributor

Helps you enable Item list and Promotion attribution in GA4



Resources



groups.google.com/g/ga4-ecom-attributor



google/ga4-ecom-attributor

One Pager

GA4 Ecom Attributor

Before

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	6,382	47.31%	1,387	2,351	365	€150,545.29
	100% of total	100% of total	Avg 0%	100% of total	100% of total	100% of total	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

After

Item list name ▼ +		Item-list ew events	Item-list click events	Item list click- through rate	Add to baskets	Checkouts	E-commerce purchases	Item revenue
		3,725	845	47.41%	235	398	55	€2,669.93
	10	00% of total	100% of total	Avg 0%	100% of total	100% of total	100% of total	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

Requirements:

*Compatible with UA & GA4 Data Layer type

- Ecommerce via dataLayer & GTM with Item ID available on every ecommerce event
- List information available on Product List Click, Product Detail View or Add2Cart event

? Customer Challenge:

Universal Analytics has promotion attribution enabled by default. If user clicks on any promotion and ends up making a purchase, Order revenue will be attributed to last clicked Promotion.

For List attribution, list information needs to be sent to UA on at least one ecommerce action. In that case, the last Product List user interacted with will get Product revenue attributed if user makes purchase of a product from that List.

To be able to get this data in GA4, Promotion and List information needs to be sent with all ecommerce actions.

Solution Description:

This tool is designed to provide List and Promotion attribution in GA4. Each time when user interacts with product (with List information) or promotion, List and Promotion information will be stored in cookie and sent with all subsequent ecommerce events.

Limitations:

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

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



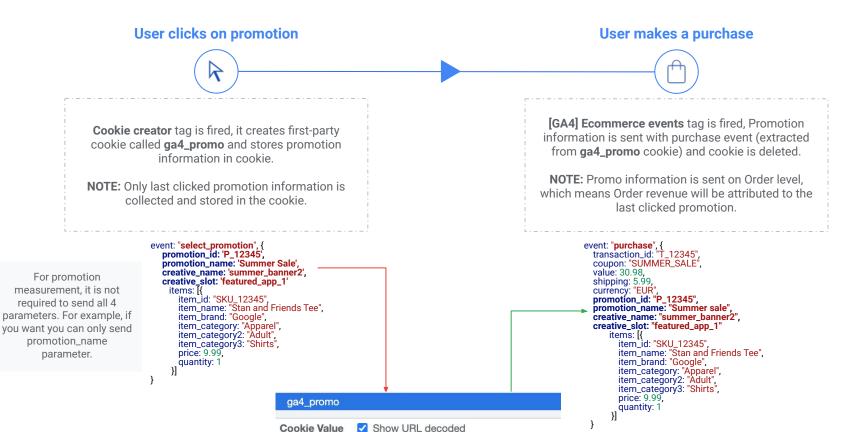
Impact:

Product List and Promotion attribution fully working in GA4, populating List Name and Promotion reports with all ecommerce data

Google

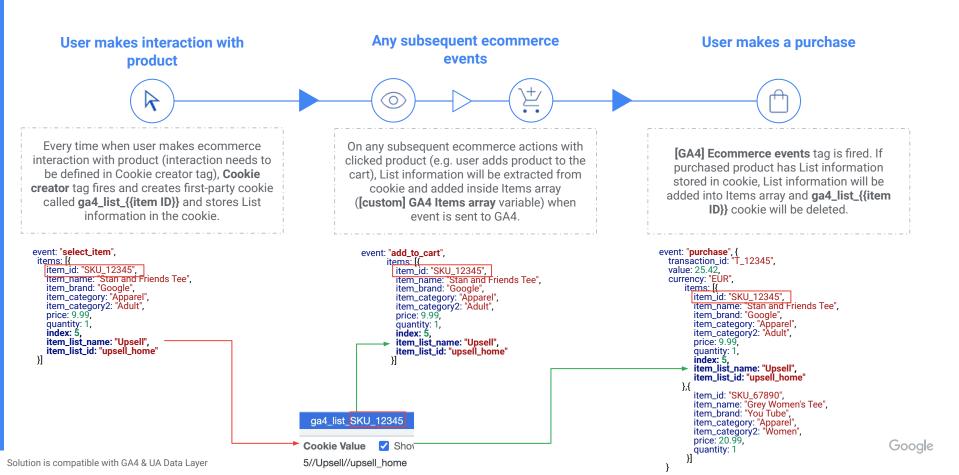
Solution explanation

How Promotion attribution solution works



P 12345//Summer Sale//summer banner2//featured app 1

How List attribution solution works



Cookie explanation

COOKIE NAME	COOKIE VALUE
ga4_promo	P_12345//Summer Sale//summer_banner2//featured_app_1 Promotion ID Promotion name Creative name Creative slot
ga4_list_{{item ID}}	5//Upsell//upsell_home Item list list list list list list list list

- ★ Cookie expiration By default, cookies are 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).

Implementation guide

GTM import: Step 1

Download the JSON file (available on Github).

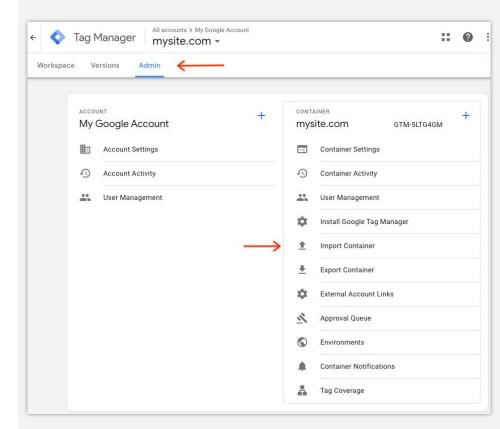
Make sure it is saved as **.json** file, otherwise it will not work.

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



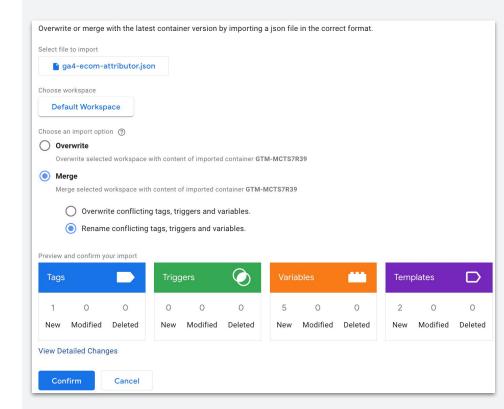
GTM import: Step 2

- 1. Go to Google Tag Manager
- 2. Open GTM container
- 3. Click Admin \rightarrow Import Container



GTM import: Step 3

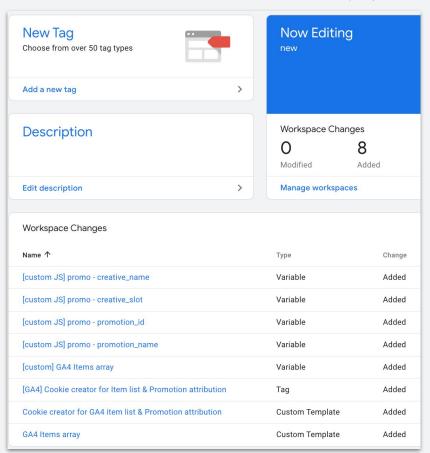
- Select downloaded JSON file to import
- 2. Select in which workspace you want to import the solution
- Select Merge and then Rename conflicting tags, triggers and variables
- 4. Click on **Confirm** button



GTM import: Overview

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

First, let's set up Cookie creator tag.

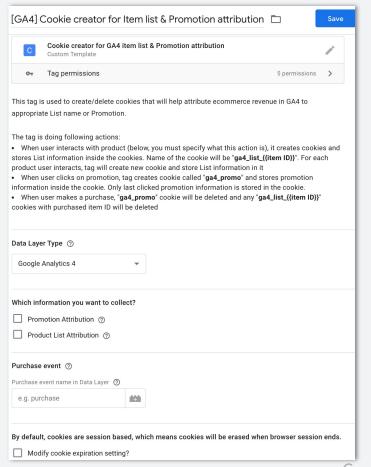


Open imported tag called

[GA4] Cookie creator for Item list & Promotion attribution.

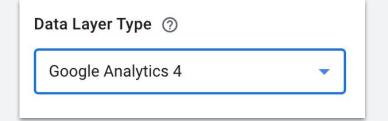
This tag is used for:

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



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

- Universal Analytics or
- Google Analytics 4



Next, select what do you want to measure:

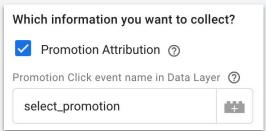
- To measure only Promotion attribution, select
 Promotion Attribution checkbox
- To measure only List attribution, select Product List
 Attribution checkbox
- If you want to measure attribution for Product Lists and Promotion, select both checkboxes

Whi	ch information you want to collect?
	Promotion Attribution ③
	Product List Attribution ③

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

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:

```
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.
     item_brand: "Google",
      item_category: "Apparel",
      item_categorv2: "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 Laver
});
```

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

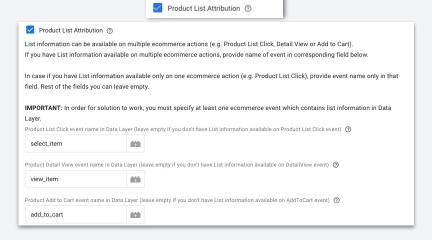
Product List Attribution.

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 ②

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_category: "Adult",
        item_category: "Adult",
        item_category3: "Shirts",
        item_category4: "Crew",
        item_list_id: "related_products",
        item_list_id: "related_products",
        item_list_id: "Greated Products",
        item_suriant: "green",
        location_id: "ChIJIOBpAG2ahYAR_6128GcTUEo",
        price: 9,99,
        quantity: 1
    }
}
```

GA4 Data Layer

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': 'Grav'.
        '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
});
```

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.

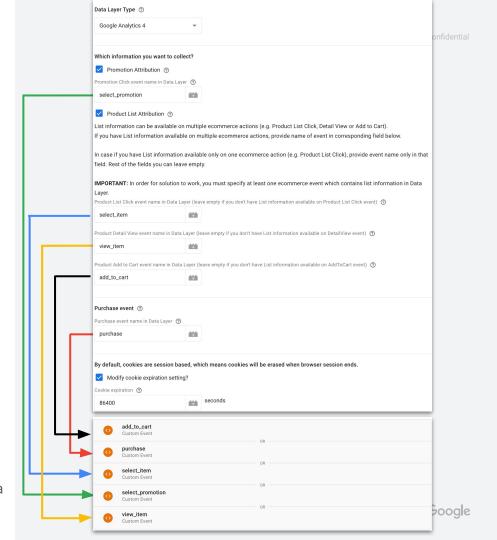
Example: if you want for cookie to expire after 24 hours, the value should be 86400 (24 hours * 60 minutes * 60 seconds).

By default, cookies are Modify cookie exp		ich means cookies will be erased when browser session ends.
Cookie expiration ②		
86400	100	seconds

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



Cookie Creator tag: Overview

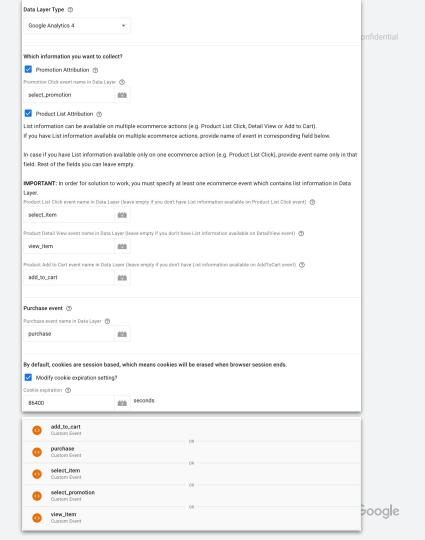
This is just an example of tag setup for this walkthrough.

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 <u>Consent Mode in GTM</u>, 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.



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 vary.

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 is 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	opurchase
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!

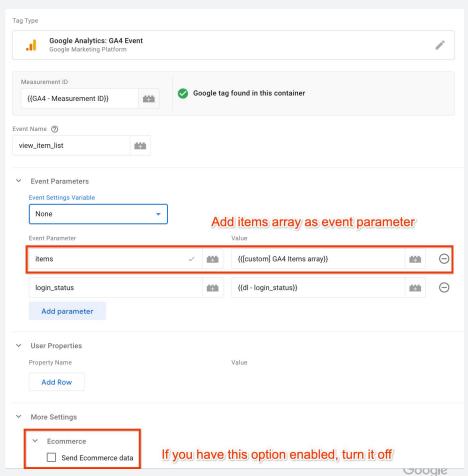
GA4 Ecommerce event tags: Step 1

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)

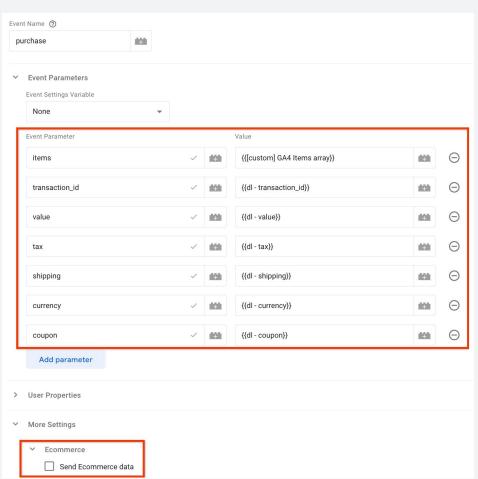


GA4 Ecommerce event tags: Step 2

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.



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

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	opurchase 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

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

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 (not necessary to add them to view_promotion and select_promotion tags).

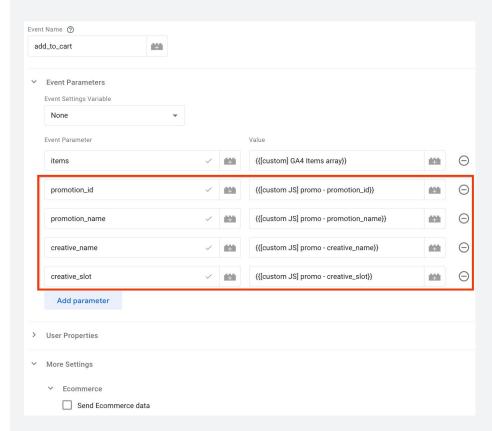
GA4 - add_payment_info	Google Analytics: GA4 Event	add_payment_info
GA4 - add_shipping_info	Google Analytics: GA4 Event	add_shipping_info
GA4 - add_to_cart	Google Analytics: GA4 Event	add_to_cart
GA4 - add_to_wishlist	Google Analytics: GA4 Event	add_to_wishlist
GA4 - begin_checkout	Google Analytics: GA4 Event	begin_checkout
GA4 - purchase	Google Analytics: GA4 Event	opurchase 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).



Summary

To summarize, here is a checklist what you should have done using this step-by-step walkthrough:

1.) Download and Import JSON file

2.) 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

3.) 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

4.) 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