

# GA4 Ecommerce Attributor for web GTM

Helps you enable Item list and Promotion attribution in GA4

# Agenda

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oprietary + Confidential Google

One Pager

## **Ecommerce Attributor** for web GTM

#### **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.

#### **Requirements:**



google/ga4-ecom-attributor

- Ecommerce measurement via Data Laver & 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

Item list name 💌 🕂	↓ Item-list view events	Item-list click events	Item list click- through rate	Add to baskets	Checkouts	E-commerce purchases	Item revenu
	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



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	845	47.41%	235	398	55	€2,669.93
	100% 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

02

# Resources

### Resources



group/ga4-ecom-attributor



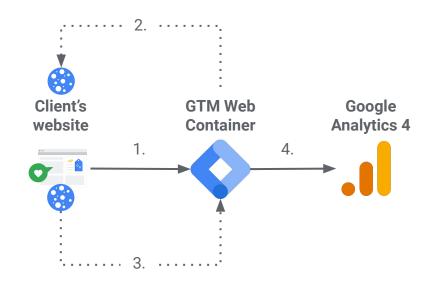
google/ga4-ecom-attributor

03

# Technical solution explanation

### **Ecommerce Attributor for web GTM**

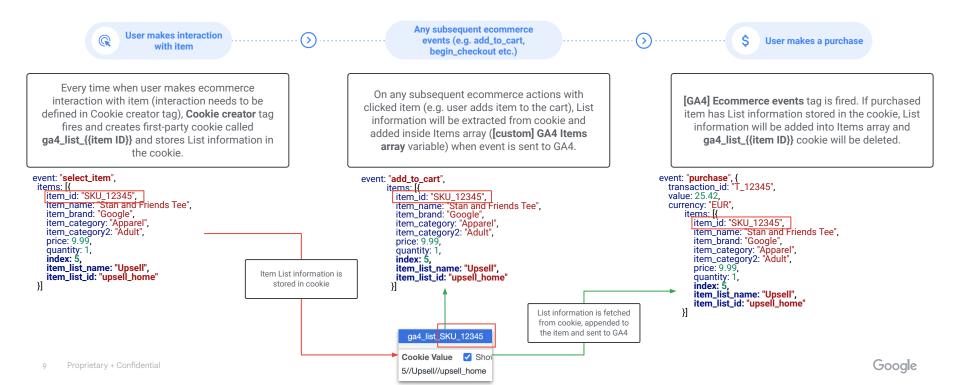
- 1. User interacts with items on website. Ecommerce events are triggered on website.
- 2. If ecommerce event contains List and/or Promotion data, data is stored in 1st party cookie on website.
- 3. When user progresses through the shopping funnel on website (e.g. triggers ecommerce checkout events or purchase event), List and Promotion data is fetched from 1st party cookie 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

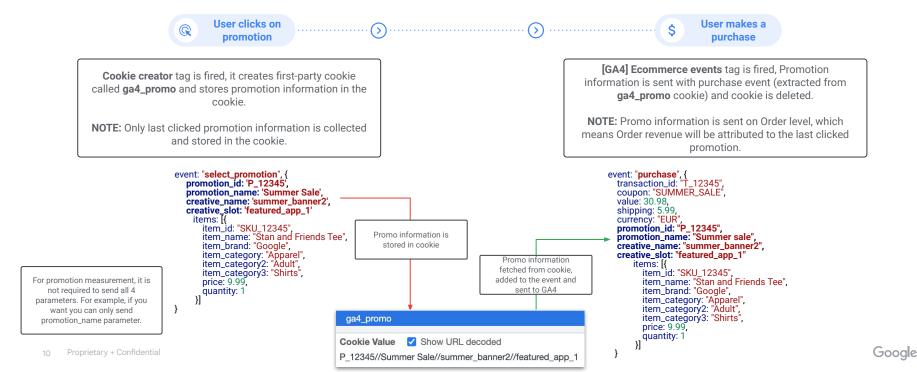
- List information is stored in 1st party cookie (cookie name: ga4\_list\_{{item ID}})
- With every subsequent ecommerce event, List info is fetched from cookie, added to the item and sent to GA4



### **Ecom Attributor for web GTM**

### **How Promotion attribution works**

- Promotion information in 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	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 lo (only for GA4 Data Layer schema)  Item list ID (only for GA4 Data Layer schema)

- 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//UpseII//).
- 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).

04 Implementation guide

### GTM import Step 1

Join <u>Google Group</u>, to be able to download JSON file and to get notifications about solution updates.

Download the JSON file (available on Github).

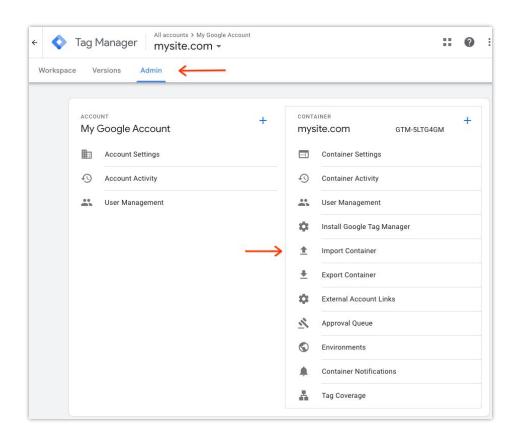
Make sure it is saved as .json file, otherwise it will not work.

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



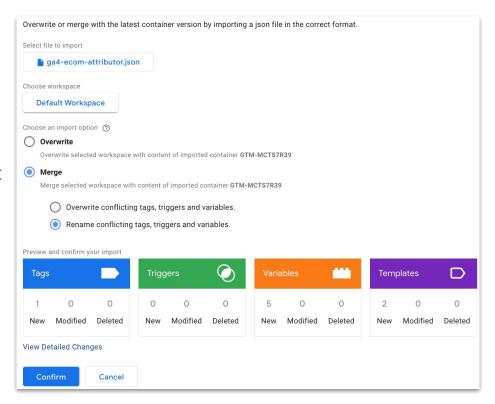
### GTM import Step 2

- Go to Google Tag Manager
- Open your web GTM container where you want to implement solution
- 3. Click **Admin** → **Import Container**



### GTM import Step 3

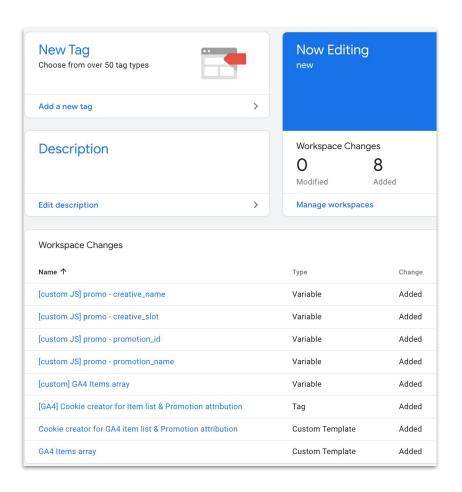
- 1. Select downloaded JSON file to import
- Select in which workspace you want to import the solution
- 3. Select **Merge** and then **Rename conflicting** tags, triggers and variables
- 4. Click on **Confirm** button



# GTM import Overview

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

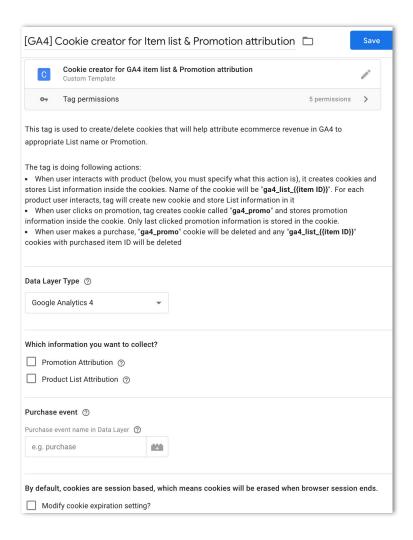
First, let's set up Cookie creator tag.



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

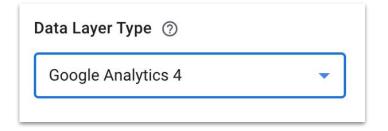
This tag is used for:

- 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

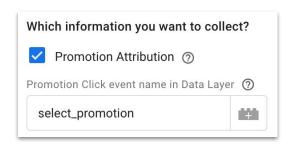
Whi	ch information you want to collect?
	Promotion Attribution ①
	Product List Attribution ②

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:

```
dataLaver.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.
    item_brand: "Google".
    item_category: "Apparel",
    item_categorv2: "Adult".
    item_categorv3: "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
```

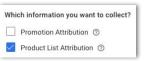
Skip this step if you didn't select checkbox to measure
Product List Attribution

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.



✓ Product List Attribution	0
List information can be avai	lable 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 infor field. Rest of the fields you o	mation available only on one ecommerce action (e.g. Product List Click), provide event name only in that can leave empty.
IMPORTANT: In order for so	lution 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	nen
Product Detail View event name	in Data Layer (leave empty if you don't have List information available on DetailView event)
view_item	nen
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	nen

Example where you need to look for event which you have to specify in

Cookie Creator tag:

```
event: "select_item"
  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_categorv2: "Adult"
    item_category5: "Short sleeve",
    item_list_id: "related_products".
    item_list_name: "Related Products",
    item_variant: "green",
    location id: "ChIJIOBpAG2ahYAR 6128GcTUEo'
    quantity: 1
                             GA4 Data Laver
```



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 Laver
```

```
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.

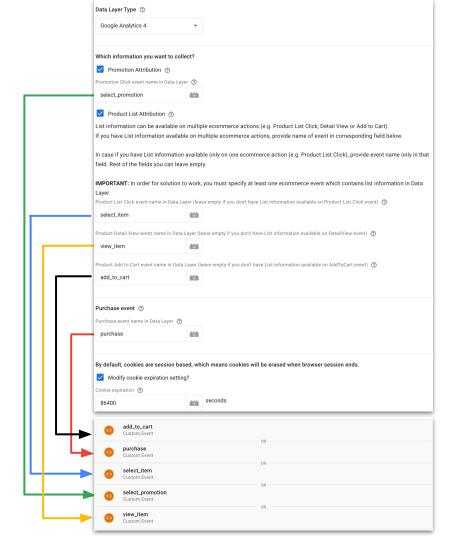
**Example:** if you want for cookie to expire after 24 hours, the value should be 86400 (24 hours \* 60 minutes \* 60 seconds).



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

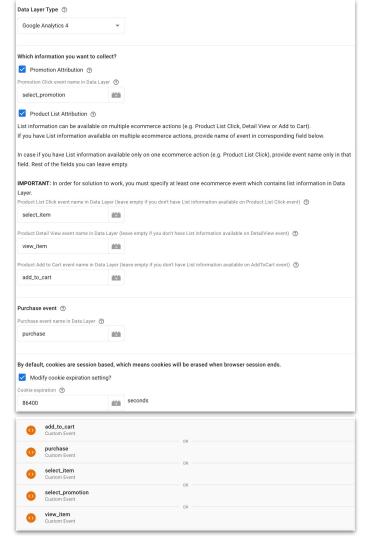
This is just an example of tag setup for this walkthrough.

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 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
OA4 add_payment_inio	Google Analytics. GA4 Event	add_payment_mio
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
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!

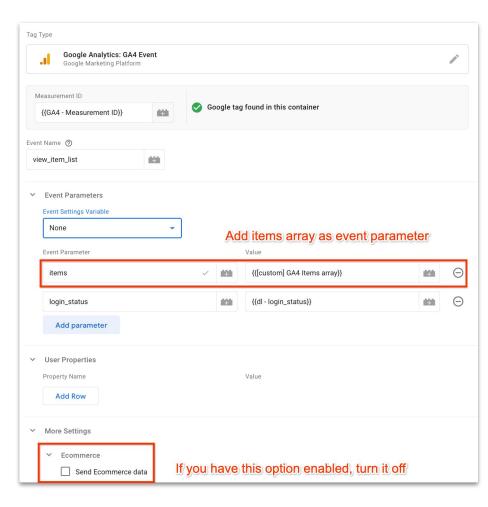
# GA4 Ecommerce event tags Step 1

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)

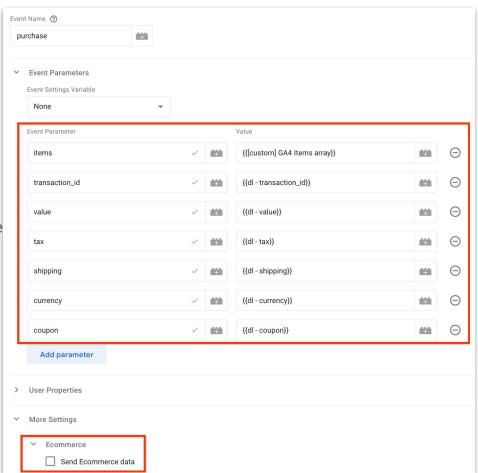


# GA4 Ecommerce event tags Step 2

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

**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 oadd_payment_info
GA4 - add_shipping_info	Google Analytics: GA4 Event oadd_shipping_info
GA4 - add_to_cart	Google Analytics: GA4 Event oadd_to_cart
GA4 - add_to_wishlist	Google Analytics: GA4 Event oadd_to_wishlist
GA4 - begin_checkout	Google Analytics: GA4 Event obegin_checkout
GA4 - purchase	Google Analytics: GA4 Event opurchase
GA4 - remove_from_cart	Google Analytics: GA4 Event or remove_from_cart
GA4 - select_item	Google Analytics: GA4 Event
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).

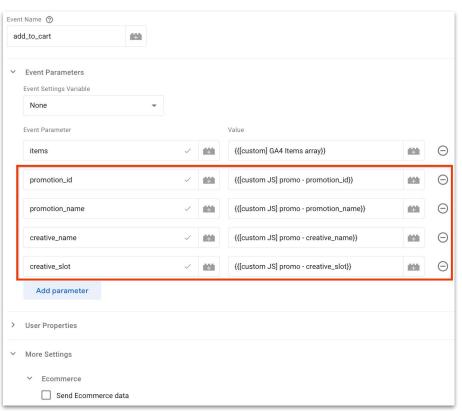
GA4 - add_payment_info	Google Analytics: GA4 Event (1) add_payment_info
GA4 - add_shipping_info	Google Analytics: GA4 Event (1) add_shipping_info
GA4 - add_to_cart	Google Analytics: GA4 Event oad_to_cart
GA4 - add_to_wishlist	Google Analytics: GA4 Event ( add_to_wishlist
GA4 - begin_checkout	Google Analytics: GA4 Event Obegin_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 oselect_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

#### 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