

Comprehensive Tagging and Data Layer Guide

Google Analytics Universal and Google Analytics 4



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Introduction

The amount of data you can collect has gotten so crazy, that businesses can spend more than \$50K implementing it. With all the budget gone, what budget is left to analyze it?

We're providing this free Google Analytics implementation guide to help you get a leg up and save budget for the actual insights. Follow it step by step to get all the data you need to analyze like a Fortune 500 enterprise.

But first, some critical concepts...

About Google Tag Manager

Google Tag Manager (GTM) is a free tag management system that we use exclusively to implement data collection tags. The concept of a GTM is to separate the tags from the core website source. This separation frees the developer from tagging, and instead, the analytics person can manage the tags she needs for insights.

GTM works like this:

- 1. The website pushes key data into a data layer (for example, a user ID, or product attribute)
- 2. Any tags implemented within GTM can then utilize the data within the data layer to populate analytics reports.
- 3. Interaction events (like element clicks, form submits, etc) can fire tags

GTM uses an event-driven model that we can utilize to track interactions as well. Below are examples for tracking AJAX requests and element clicks using jQuery

```
Example Chat Button Click
<script>
var dataLayer = dataLayer || [];
$('.chatBtn').click(function (e) {
dataLayer.push({
'event': 'chat-click' }); }); </script>
```

Example Login Tracking <script> var dataLayer = dataLayer || [];



\$.post("login", function (data) {
 dataLayer.push({
 'event': 'login-success', 'userID': data.userID }); }); </script>

What is the dataLayer?

A data layer is a layer of your website code which contains all of the data that gets generated by visitors engaging with your website. Not all websites have a data layer, but having one enables more reliable and flexible data collection.

Benefits of the Data Layer:

- When you update the site, the data is automatically updated too.
- Reduces tracking errors because it requires less management of GTM.
- Can be used by any marketing technology, facebook, linkedin, google analytics, etc.

How the Data Layer Works

- Instead of tracking clicks on a link that says "New Releases" or a button that says "Shop" (see example below), the data layer lets you track the type of link or button that is clicked.
- Elements are labeled in the data layer based on their tracking category--not on things like button text or URL, which will likely change with site updates.

EXAMPLE: Tracking Navigation & Call-To-Action Clicks



In the example above, changing the button from "Shop" to "Buy Now" would not disrupt tracking. The event is triggered when a user clicks a button labeled as a "Call-To-Action", not when the user clicks a button that says "Shop".



Install Google Tag Manager

Add Container Code All Pages

To install the GTM container, code must be added to every page. This container code has two snippets of code: **<script> tag** and **<iframe> tag**. The **<script> tag** must be rendered as high up as possible in the **<head>** section of the page and the **<iframe> tag** must be placed as close to the opening **<body>** tag as possible. Neither snippet should not be nested within any other element tags. The GTM container ID must be inserted where the example snippet contains the text **GTM-XXXXX**.

IMPORTANT NOTE: Many third party integrations are available that automatically add Google Tag Manager container code to all site pages. Do NOT duplicate container code on pages if you are already using a third party installation resource.

Deployment Example <script> tag:



</body>



Install Google Optimize

Google Optimize allows users to conduct 'experiments' that test out different variants of web pages by seeing how they perform against a goal that you specify. Before we can install Optimize through Google Tag Manager, the following items must be present and/or completed:

- Accounts created for: Google Analytics, Google Tag Manager, and Google Optimize
- Google Tag Manager container installed on your website
- Google Analytics property installed on your website (through GTM)
- Google Optimize account and container linked to your Google Analytics property

Setup Google Optimize in Google Tag Manager

- 1. Sign in to Google Tag Manager and open your container.
- 2. Click Tags > New.
- 3. Click Tag Configuration > Google Optimize.
- 4. Enter your Optimize container ID, which you can find under Container details in the container settings in Optimize.
- 5. Save the tag without triggers. Note: The pageview trigger must be configured in your Google Analytics: Universal Analytics configuration tag, which will fire the Optimize tag (see instructions in next step).



× Google Optimize 🗖

lag lype	
Google Optimize Google Marketing	e Platform
Optimize Container ID	
PUT OPTIMIZE ID HERE	
> More settings	
> Advanced Settings	
Triggering	
00 0	

- 6. Enable tag sequencing:
 - a. Open your Google Analytics: Universal Analytics configuration tag for the Google Analytics property that is linked to your Optimize container (our example tag in the screenshot below is called "UA - PV - All Pages")
 - b. Click Tag Configuration > Advanced Settings > Tag Sequencing
 - c. Check the box to fire a tag before this tag fires. Under the Setup Tag heading, click the menu and select the desired Optimize tag.
 - d. Configure the Optimize tag to fire once per page, then save it.



UA - PV - All Pages 🗈

{{Google Analytics Settings} (i)
Enable overriding settings in this tag <a>②
 ✓ Advanced Settings Tag firing priority ⑦
Enable custom tag firing schedule
Only fire this tag in published containers. ③
Tog firing options Once per page
✓ Tag Sequencing ⑦
 Fire a tag before UA - PV - All Pages fires Setup Tag Google Optimize > Don't fire UA - PV - All Pages if Google Optimize fails or is paused
Fire a tag after UA - PV - All Pages fires
> Additional Tag Metadata 💿
> Consent Settings (BETA) ⑦

7. Publish your Google Tag Manager container to complete the Optimize installation.

The anti-flicker snippet code

The **anti-flicker snippet** includes a settable timeout functionality that stops trying to apply the Optimize experiment changes if too much time has passed.

To add the anti-flicker snippet to your site, insert the following code just after the <head> section of every *page prior to any other code on the page. *



<style>.async-hide { opacity: 0 !important} </style>

<script>(function(a,s,y,n,c,h,i,d,e){s.className+=''+y;h.start=1*new Date;

h.end=i=function(){s.className=s.className.replace(RegExp('?'+y),")};

(a[n]=a[n]||[]).hide=h;setTimeout(function(){i();h.end=null},c);h.timeout=c;

})(window,document.documentElement,'async-hide','dataLayer',3000,

{'<mark>CONTAINER_ID'</mark>:true});</script>

NOTE: If you initialize Optimize from the GTM Container, the CONTAINER_ID should be the GTM ContainerID

The anti-flicker code sequence

When the anti-flicker snippet is on the site, the script sequence should be:

- 1. datalayer
- 2. Anti-flicker snippet
- 3. GTM container code



Data Layer Initialization

As the page loads, push the following to the dataLayer to set the pageType, which will make it available to Google Tag Manager. Any of these fields that are not applicable to the page can be omitted. Place this code above the first GTM container snippet in the <head> of the page.

<script> window.dataLayer = window.dataLayer || []; window.dataLayer.push({ 'pageType': '**[PAGE TYPE]**' }); </script>

Dynamic Parameters

1. **[PAGE TYPE]** : This identifies the content on the page. e.g. "Home", "Category Page", "Search Results", "Product Page", "Blog"...



Custom Events

Global Components

Navigation Clicks

Whenever a user clicks a menu item to navigate the site, push the **ce_navigationClick** event into the dataLayer, along with the **menu type** and the **menu item** name.

example: <script> dataLayer.push({ 'event': 'ce_navigationClick', 'menuType': '**[MENU TYPE]**', 'menuItemName': '**[MENU ITEM NAME]**' }); </script>

Dynamic Parameters: [MENU TYPE]: header, footer, left nav menu, right nav menu ... [MENU ITEM NAME]: The text of the menu item that was clicked.

Event Naming Convention for GA Universal

Category	Action	Label
navigation	{{DL - menuType}}	{{DL - menuItemName}}

Event Naming Convention for GA4

Event name: navigation_click

Parameter name	Value
event_cat	navigation
menu_type	{{DL - menuType}}
menu_item_name	{{DL - menultemName}}



Trigger

CE - ce_navigationClick Custom Event: Event name = ce_navigationClick | All Custom Events

CE - ce_navigationClick 🗀

Trigger (Configuration	
Trigger Typ	е	
0	Custom Event	
Event name	9	
ce_naviga	tionClick	
This trigge	r fires on	
All Custor	n Events	

Call-to-Action Clicks

Any buttons on the page that is meant to drive users to an action should be tracked as Calls To Action, please add the following data attributes to the <a> or <button> tags:

- data-click-category: 'call to action'
- data-click-action: '[CLICK TEXT]'
- data-click-label: '[CLICK URL]'

example:

 Read more

In cases where there are multiple CTA links with the same text and/or URL on a single page, you may add more information to the **data-click-action** attribute to differentiate them. See the following example for the screen-captured "Read More" CTA:

example:

 Read more

Category	Action	Label
{{AEV - Attribute - Click Category}}	{{AEV - Attribute - Click Action}}	{{AEV - Attribute - Click Label}}



Event Naming Convention for GA4

Event name: call_to_action

Parameter name	Value
event_cat	call to action
click_text	{{AEV - Attribute - Click Action}}
click_URL	{{AEV - Attribute - Click Label}}

Trigger

AEV - data-click-category - CTA Click - All Elements: AEV - Attribute - Click Category | contains | call to action



Social Media Actions

For any components that contain a social media action (share or link) please add the following data attribute to the <a> or <button> tags

- data-click-category: 'social'
- data-click-action: '['share' or 'link']'
- data-click-label:[SOCIAL MEDIA PROPERTY]'

Example:

<a href="https://www.facebook.com/mybiz" class="icon-link" aria-label="Facebook"



Page 16 www.clickvoyant.com data-click-category="social" data-click-action="link" data-click-label="facebook" rel="nofollow" target="_blank" > Facebook

Event Naming Convention for GA Universal

Category	Action	Label
{{AEV - Attribute - Click Category}}	{{AEV - Attribute - Click Action}}	{{AEV - Attribute - Click Label}}

Event Naming Convention for GA4

Event name: social_interact

Parameter name	Value
event_cat	{{AEV - Attribute - Click Category}}
social_action	{{AEV - Attribute - Click Action}}
social_platform	{{AEV - Attribute - Click Label}}

Trigger

AEV - data-click-category - social Click - All Events: AEV - Attribute - Click Category | contains | social

AEV - data	-click-category - social 🗖
	Trigger Configuration Trigger Type
	Click - All Elements
	This trigger fires on AEV - Attribute - Click Category contains social

Non-Tagged Links

This event will use the GTM container auto event variables to collect any link which may not fall under CTA, Social, or Navigation.



User-defined variable required in GTM:

AEV - Attribute - Click Category 📋

Variable Configuratio			
Variable Type			
Auto-Event V	iable		
Variable Type Element Attribute Attribute name ⑦ data-click-category			

Event Naming Convention for GA Universal

Category	Action	Label
non-tagged link	link	[CLICK TEXT] [CLICK URL]

Event Naming Convention for GA4

Event name: non_tagged_link

Parameter name	Value
event_cat	non-tagged link
click_text	{{Click Text}}
click_URL	{{Click URL}

Trigger

AEV - Attribute - Click Category | matches RegEx (ignore case) | ^(undefined|null|0|false|NaN|)\$



CL - Non Tagged Link Click 📋

Trigger Configuration	
Trigger Type	
Olick - Just Links	
This trigger fires on	
AEV - Attribute - Click Category	matches RegEx (ignore case) ^(undefined null 0 false NaN)\$



Chat Bots

Opens

Each time a chat window is opened, push the ce_chatOpen event to the dataLayer, along with the chat type.

example: <script> dataLayer.push({ 'event': 'ce_chatOpen', 'chatType': '[CHAT TYPE]' }); </script>

Dynamic Parameters: [CHAT TYPE]:

Event Naming Convention for GA Universal

Category	Action	Label
chat	open	{{DL - chatType}}

Event Naming Convention for GA4

Event name: chat_open

Parameter name	Value	
event_cat	chat	
chat_type	{{DL - chatType}}	

Trigger

CE - ce_chatOpen Custom Event: Event name = ce_chatOpen | All Custom Events





Closes

Each time a chat window is opened, push the ce_chatClose event to the dataLayer, along with the chat type.

example: <script>
dataLayer.push({
 'event': 'ce_chatClose', 'chatType': '[CHAT TYPE]' }); </script>

Dynamic Parameters: [CHAT TYPE]:

Event Naming Convention for GA Universal

Category	Action	Label
chat	close	{{DL - chatType}}

Event Naming Convention for GA4

Event name: chat_close

Parameter name	Value
event_cat	chat
chat_type	{{DL - chatType}}



Trigger

CE - ce_chatClose Custom Event: Event name = ce_chatClose | All Custom Events





Content Accordions

Each time an accordion is opened, push the **ce_expandList** event into the datalayer, along with the **list name** and **list item**.

Dynamic Parameters:

[LIST NAME]: Title of the block in the example this would be the value of the h3 in the div.sf-list-item

[LIST ITEM]: Value of the accordion item text, in the example this would be the text in i.text-muted sf-icon



Visual Example:

	School Info	5 Programs	
Overvi	Overview +		
Perfor	mance	-	
83%	of students graduate in four	years	
57%	of students enroll in college	or career programs	
86%	student attendance		
82%	of students feel safe in the h and cafeteria	allways, bathrooms, locker room,	
93%	of students feel that this sch programs, classes, and act school	ool offers a wide enough variety of i vities to keep them interested in	

Event Naming Convention for GA Universal

Category	Action	Label
expandable list	{{DL - listName}}	{{DL - listItem}}

Event Naming Convention for GA4

Event name: expand_list

Parameter name	Value
event_cat	expandable list
list_name	{{DL - listName}}



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list item	{{DL - listItem}}
list_itoin	

Trigger

CE - ce_expandList Custom Event: Event name = ce_expandList | All Custom Events





Click-To-Calls

For any buttons on the page that trigger a phone call, please add the following data attributes to the <a> or <button> element:

- data-click-category: 'phone'
- data-click-action: '[CLICK TEXT]'
- data-click-label: '[PHONE NUMBER]'

```
example:
<a href="https://api.whatsapp.com/send?phone=13122002000" target="_blank"
data-click-category="phone" data-click-action="WhatsApp (312) 200-2000"
data-click-label="13122002000"> WhatsApp (1) 312-200-2000 </a>
example:
<a href="tel:1-555-555-5555"
```

```
data-click-category="phone" data-click-action="Call Now!" data-click-label="1-555-555-5555"> Call Now! </a>
```

Event Naming Convention for GA Universal

Category	Action	Label
{{AEV - Attribute - Click Category}}	{{AEV - Attribute - Click Action}}	{{AEV - Attribute - Click Label}}

Event Naming Convention for GA4

Event name: click_to_call

Parameter name	Value
event_cat	phone
click_text	{{AEV - Attribute - Click Action}}
click_URL	{{AEV - Attribute - Click Label}}

Trigger

AEV - data-click-category - phone Click - All Elements: AEV - Attribute - Click Category | contains | phone



AEV - data-click-category - phone		
	Trigger Configuration Trigger Type Click - All Elements This trigger fires on AEV - Attribute - Click Category contains phone	
	References to this Trigger UA - Event - Click-to-Calls Tag	



Modals, PopUps, and Lightboxes

Any modal views or clicks should be tracked from the CSS selectors. Please add the **data-modal-id** and **data-modal-action** attributes to the <div> and <button> tags when applicable.

- data-modal-id: 'modal: [modal name]'
- data-modal-action: '[action type]'

Example:

```
<div class="my-modal" data-modal-id="modal: glossary">
<button data-modal-action="close" class="modal-close"></button>
<h1>Header here</h1>
Lorem ipsum dolor sit amet, consectetur adipiscing elit.
<br></div>
```

Event Naming Convention for GA Universal

Category	Action	Label
modal	{{AEV - Attribute - Data Modal ID}}	{{AEV - Attribute - Data Modal Action}}

Event Naming Convention for GA4

Event name: modal_interact

Parameter name	Value
event_cat	modal
modal_id	{{AEV - Attribute - Data Modal ID}}
modal_action	{{AEV - Attribute - Data Modal Action}}



Trigger

AEV - data-modal-id Click - All Elements: AEV - Attribute - Data Modal ID does not match RegEx (ignore case) ^(undefined|null|0|false|NaN|)\$

AEV - data-ı	modal-id 🗀
	Trigger Configuration
	Click - All Elements
	This trigger fires on AEV - Attribute - Data Modal ID does not match RegEx (ignore case) ^(undefined null 0 false NaN)\$



Search

Search Results

On the search results page, push the **ce_searchResults** event into the dataLayer, along with the search term and the number of results.

example: <script> dataLayer.push({ 'event': 'ce_searchResults', 'searchTerm': '[**SEARCH TERM]'**, 'results': '**[NUMBER OF RESULTS]**' }); </script>

Dynamic Parameters: [SEARCH TERM]: The search term that the user input to the search box. [NUMBER OF RESULTS]: The number of search results returned by the search.

Event Naming Convention for GA Universal

Category	Action	Label
search	results returned	{{DL - searchTerm}} ~ Results: {{DL - results}}

Event Naming Convention for GA4

Event name: view_search_results

Parameter name	Value
event_cat	search
search_term	{{DL - searchTerm}}
no_of_results	{{DL - results}}

Trigger

CE - ce_searchResults Custom Event: Event name = ce_searchResults | All Custom Events





Search Filter

On selection of a filter or faceted navigation, push the **ce_searchFilter** event into the dataLayer, along with the filter text and number of results.

Example

<script></th><th></th></tr><tr><td></td><td>dataLayer.push({</td></tr><tr><td></td><td>'event': 'ce_searchFilter',</td></tr><tr><td></td><td>'searchTerm': '[SEARCH FILTER]',</td></tr><tr><td></td><td>'results': '[NUMBER OF RESULTS]'</td></tr><tr><td></td><td>});</td></tr><tr><td></script> <td>></td>	>
--	---

Dynamic Parameters

[SEARCH FILTER]: The filter term that the user clicked on. [NUMBER OF RESULTS]: The number of search results returned by the search.

Event Naming Convention for GA Universal

Category	Action	Label
search	filter	{{DL - searchTerm}} ~ Results: {{DL - results}}

Event Naming Convention for GA4

Event name: search_filter

Parameter name	Value
----------------	-------



event_cat	search
search_term	{{DL - searchTerm}}
no_of_results	{{DL - results}}

Trigger

CE - ce_searchFilter Custom Event: Event name = ce_searchFilter | All Custom Events

CE - <u>ce_searchFilter</u>		
	Trigger Configuration	
	Trigger Type	
	Custom Event	
	Event name de_searchFilter Use regex matching	
	This trigger fires on All Custom Events Some Custom Events 	



Forms

Submissions

When a form is submitted, push the **ce_formSubmit** event into the dataLayer along with the **form name**.

example: <script>
dataLayer.push({
 'event': 'ce_formSubmit', 'formName': '[FORM NAME]' }); </script>

Dynamic Parameters: [FORM NAME]: The unique name that identifies the form

Event Naming Convention for GA Universal

Category	Action	Label
form	submitted	{{DL - formName}}

Event Naming Convention for GA4

Event name: form_submit

Parameter name	Value
event_cat	form
form_name	{{DL - formName}}

Trigger

CE - ce_formSubmit Custom Event: Event name = ce_formSubmit | All Custom Events





Field Input

After a form is submitted. Collect the user input or selection. Push the **ce_formField** event into the dataLayer, along with the **form name**, **field name** and the **field value**.

```
example: <script>
dataLayer.push({
'event': 'ce_formField', 'fieldName': '[FIELD NAME]', 'formName': '[FORM NAME]', 'fieldValue': '[FIELD
VALUE]' }); </script>
```

Dynamic Parameters: [FIELD NAME]: The name of the field populated [FORM NAME]: The name of the form that was submitted [FIELD VALUE]: The text that the user input or selected

Event Naming Convention for GA Universal

Category	Action	Label
form	input ~ {{DL - formName}}	{{DL - fieldName}}: {{DL - fieldValue}}

Event Naming Convention for GA4

Event name: form_input



Parameter name	Value
event_cat	form
form_name	{{DL - formName}}
field_name	{{DL - fieldName}}
field_value	{{DL - fieldValue}}

Trigger

CE - ce_formField Custom Event: Event name = ce_formField | All Custom Events

CE - ce_formField 🗖		
	Trigger Configuration	
	Custom Event	
	Event name ce_formField	
	This trigger fires on All Custom Events	

Multipage Form Usage

For multi-page forms, each time a page is submitted, push the **ce_formPageSubmit** event into the dataLayer along with the **form name**, **form page** and **form step number**.



Page 35 www.clickvoyant.com example: <script>

dataLayer.push({

'event': 'ce_formPageSubmit', 'formName': '**[FORM NAME]**', 'formPage': '**[FORM PAGE]**', 'formStepNumber': **[FORM STEP NUMBER]** }); </script>

Dynamic Parameters: [FORM PAGE]: The name of the form page that was completed (e.g. 'Personal Information', 'Contact Info', 'Interests'). [FORM NAME]: The name of the form in progress [FORM STEP NUMBER]: If the form contains 4 pages, and the user has just completed the 2nd page, then this value will be 2.

Event Naming Convention for GA Universal

Category	Action	Label
form	page completed	{{DL - formName}} {{DL - formPage}} Step {{DL - formStepNumber}}

Event Naming Convention for GA4

Event name: form_page_submit

Parameter name	Value
event_cat	form
form_page	{{DL - formPage}}
form_name	{{DL - formName}}
form_step_no	{{DL - formStepNumber}}

Trigger

CE - ce_formPageSubmit Custom Event: Event name = ce_formPageSubmit | All Custom Events







User Variables

Registration

When a user registers their account, push the **ce_accountRegistration** event into the dataLayer.

example: <script>

dataLayer.push({

'event': 'ce_accountRegistration', 'userId': '[USER ID]', 'loginStatusSession': true }); </script>

Dynamic Parameters:

[USER ID]: the user id number for the new account.

Event Naming Convention for GA Universal

Category	Action	Label
account	register	{{DL - userID}}

Event Naming Convention for GA4

Event name: account_register

Event parameter name	Value
event_cat	account
user_id	{{DL - userId}}
login_status	{{DL - loginStatusSession}}

User property name	Value
user_id	{{DL - userId}}

Trigger

CE - ce_accountRegistration Custom Event: Event name = ce_accountRegistration | All Custom Events





Logout

When a user logs out of their account, push the **ce_accountLogout** event into the dataLayer.

```
example: <script>
    dataLayer.push({
    'event': 'ce_accountLogout', 'userId': '[USER ID]', 'loginStatusSession': false
}); </script>
```

Dynamic Parameters: [USER ID]: The user id number for the account.

Event Naming Convention for GA Universal

Category	Action	Label
account	logout	-

Event Naming Convention for GA4

Event name: account_logout

Event parameter name	Value
event_cat	account
user_id	{{DL - userId}}
login_status	{{DL - loginStatusSession}}



User property name	Value
user_id	{{DL - userId}}

Trigger

CE - ce_accountLogout Custom Event: Event name = ce_accountLogout | All Custom Events



Login

When a user logs in to their account, push the **ce_accountLogin** event into the dataLayer.

```
example: <script>
    dataLayer.push({
    'event': 'ce_accountLogin', 'userId': '[USER ID]', 'loginStatusSession': true
}); </script>
```

Dynamic Parameters: [USER ID]: the user id number for the new account.

Event Naming Convention for GA Universal

Category	Action	Label
account	login	-



Event Naming Convention for GA4

Event name: login

Event parameter name	Value
event_cat	account
user_id	{{DL - userId}}
login_status	{{DL - loginStatusSession}}

User property name	Value
user_id	{{DL - userId}}

Trigger

CE - ce_accountLogin Custom Event: Event name = ce_accountLogin | All Custom Events



Cookie Permissions

When the user indicates cookie access on the "Cookies Allowed" popup, push the **ce_cookiesAllowed** event to the dataLayer along with the **cookiesAccepted** field.

```
example: <script>
    dataLayer.push({
    'event': 'ce_cookiesAllowed',
    'cookiesAccepted': '[COOKIES ACCEPTED]'
```



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}); </script>

Dynamic Parameters:

[COOKIES ACCEPTED]: "Cookies Allowed" if the user chose to allow cookies, "Cookies Denied" otherwise.

Event Naming Convention for GA Universal

Category	Action	Label
cookie permissions	{{DL - cookiesAccepted}}	-

Event Naming Convention for GA4

Event name: cookie_permissions

Parameter name	Value
event_cat	cookie permissions
cookies_accepted	{{DL - cookiesAccepted}}

Trigger

CE - ce_cookiesAllowed Custom Event: Event name = ce_cookiesAllowed | All Custom Events





Ecommerce

Ecommerce actions are implemented primarily by pushing ecommerce event details into the dataLayer as JSON objects according to the format laid out by Google. The following sections will describe in more detail how to implement each of the Enhanced Ecommerce events.

Product Tracking

Product Impressions

Measure product impressions by using the **ee_productImpression** event and an impressions array containing one or more products. A product impression is fired when a product thumbnail link is visible to the user.

```
example:
 <script>
 dataLayer.push({
          'event': 'ee_productImpression',
           'ecommerce': {
                   'currencyCode': '[CURRENCY CODE]', // (ex. 'USD')
                   'impressions': [{
                          'name': '[PRODUCT NAME]', // Name or ID is required.
                          'id': '[PRODUCT ID]', // Name or ID is required.
                          'price': '[PRODUCT PRICE]',
                          'category': '[PRODUCT TYPE]',
                          'list': '[PRODUCT LIST]',
                          'position': '[PRODUCT POSITION]'
                  },{
                          name': '[PRODUCT NAME]', // Name or ID is required.
                          'id': '[PRODUCT ID]', // Name or ID is required.
                          'price': '[PRODUCT PRICE]',
                          'category': '[PRODUCT TYPE]',
                          'list': '[PRODUCT LIST]',
                          'position': '[PRODUCT POSITION]'
                  }]
         }
});
</script>
```

Dynamic Parameters:



[CURRENCY CODE]: Identifies the currency of the product values, such as 'USD' or 'BRL'.

[PRODUCT NAME]: The name of the product. This is required.

[PRODUCT ID]: A unique identifier of the product, if available.

[PRODUCT PRICE]: The price of the product, ex. '274.00'.

[PRODUCT CATEGORY]: The type of product, ex. 'Outerwear', 'Shoes', 'Accessories' [PRODUCT LIST]: The name of the list where the product is shown, ex. 'Featured Products', 'Related Products'. If applicable.

[PRODUCT POSITION]: The position of the product in the list, represented by an integer starting with '1'. If applicable.

Event Naming Convention for GA Universal

Category	Action	Label
ecommerce	product impression	-

More settings > Ecommerce: true > Use Data Layer

Event Naming Convention for GA4

Event name: view_item_list

Parameter name	Value
event_cat	ecommerce
items	{{DL - ecommerce.impressions}}

Trigger

CE - ee_productImpression Custom Event: Event name = ee_productImpression | All Custom Events



CE - ee_pr	oductImpression 🗀
	Trigger Configuration
	Custom Event
	Event name ee_productImpression
	This trigger fires on All Custom Events

Product Clicks

Measure clicks on product links by pushing the **ee_productClick** action to the data layer, along with a products array, as in the example below. The product array must match to the product the user clicked on.

code example:

```
<script>
dataLayer.push({
       'event': 'ee_productClick',
        'ecommerce': {
                  'click': {
                  'actionField': {'list': '[PRODUCT LIST]' }, // List if applicable
                           'products': [{
                                     'name': '[PRODUCT NAME]', // Name or ID is required.
                                     'id': '[PRODUCT ID]', // Name or ID is required.
                                     'price': '[PRODUCT PRICE]',
                                     'category': '[PRODUCT CATEGORY]',
                                     'position': '[PRODUCT POSITION]'
                           }]
                  }
         }
});
</script>
```

Dynamic Parameters: [PRODUCT NAME]: The name of the product. This is required. [PRODUCT ID]: A unique identifier of the product, if available. [PRODUCT PRICE]: The price of the product, ex. '274.00'. [PRODUCT CATEGORY]: The type of product, ex. 'Outerwear', 'Shoes', 'Accessories'



Page 45 www.clickvoyant.com [PRODUCT LIST]: The name of the list where the product is shown, ex. 'Featured Products', 'Related Products'. If applicable.

[PRODUCT POSITION]: The position of the product in the list, represented by an integer. If applicable.

Event Naming Convention for GA Universal

Category	Action	Label
ecommerce	product click	-

More settings > Ecommerce: true > Use Data Layer

Event Naming Convention for GA4

Event name: select_item

Parameter name	Value
event_cat	ecommerce
items	{{DL - ecommerce.click.products}}

Trigger

CE - ee_productClick Custom Event: Event name = ee_productClick | All Custom Events





Product Detail Views

Measure a view of product details (i.e. the product details page) by pushing a **ee_productDetailView** action to the data layer, along with the products array containing the product being viewed.

code example

```
<script> dataLayer.push({
    'event': 'ee_productDetailView',
    'ecommerce': { 'detail': {
        'actionField': {'list': '[PRODUCT LIST]'}, // List if applicable
        'products': [{
            'name': '[PRODUCT NAME]', // Name or ID is required.
            'id': '[PRODUCT ID]', // Name or ID is required.
            'id': '[PRODUCT ID]', // Name or ID is required.
            'price': '[PRODUCT PRICE]',
            'category': '[PRODUCT CATEGORY]'
            ]]
        }
});
<</pre>
```

Dynamic Parameters

[PRODUCT NAME]: The name of the product. This is required.
[PRODUCT ID]: A unique identifier of the product, if available.
[PRODUCT PRICE]: The price of the product, ex. '274.00'.
[PRODUCT CATEGORY]: The type of product, ex. 'Membership', 'Subscription', 'Exam Prep', 'Book', 'Event Registration'.
[PRODUCT LIST]: The name of the list where the product is shown, ex. 'Featured Products', 'Related Products'. If applicable.

Event Naming Convention for GA Universal

Category	Action	Label
ecommerce	pdp view	-

More settings > Ecommerce: true > Use Data Layer

Event Naming Convention for GA4

Event name: view_item



Parameter name	Value
event_cat	ecommerce
items	{{DL - ecommerce.detail.products}}

Trigger

CE - ee_productDetailView Custom Event: Event name = ee_productDetailView | All Custom Events



Cart Tracking

Add to cart

When a user adds a product to the cart, push the **ee_addToCart** event into the dataLayer, along with the ecommerce add action and products array. code example

```
<script>
```

dataLayer.push({

'event': 'ee_addToCart',

'ecommerce': {

'currencyCode': '[CURRENCY CODE]',

'add': {

'Products': [{

'name': '**[PRODUCT NAME]**', // Name or ID is required. 'id': '**[PRODUCT ID]**',// Name or ID is required.



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```
'price': '[PRICE]',
'category': '[CATEGORY]',
'quantity': '[PRODUCT QTY]',
'coupon': '[COUPON CODE]' // if applicable
'variant': '[VARIANT]'
},
{.... additional products}
]
};
</script>
```

Dynamic Parameters

- [PRODUCT NAME]: The name of the product. This is required.
- [PRODUCT ID]: A unique identifier of the product, if available.
- [PRODUCT PRICE]: The price of the product, ex. '274.00'.
- [PRODUCT CATEGORY]: The type of product, ex. 'Outerwear', 'Shoes', 'Accessories'
- [PRODUCT QTY]: The number of products added to the cart.
- [COUPON CODE]: If a promo code applies to the product.

Event Naming Convention for GA Universal

Category	Action	Label
ecommerce	add to cart	-

More settings > Ecommerce: true > Use Data Layer

Event Naming Convention for GA4

Event name: add_to_cart

Parameter name	Value
event_cat	ecommerce
items	{{DL - ecommerce.add.products}}

Trigger

CE - ee_addToCart Custom Event: Event name = ee_addToCart | All Custom Events





Remove from the cart

When a user removes a product from the cart, push the **ee_removeFromCart** event into the dataLayer, along with the ecommerce remove action and products array. code example

```
<script>
dataLayer.push({
         'event': 'ee_removeFromCart',
         'ecommerce': {
                 'currencyCode': '[CURRENCY CODE]',
                  'remove': {
                           'products': [{
                                    'name': '[PRODUCT NAME]', // Name or ID is required.
                                    'id': '[PRODUCT ID]',// Name or ID is required.
                                    'price': '[PRICE]',
                                    'category': '[CATEGORY]',
                                    'quantity': '[PRODUCT QTY]',
                                    'coupon': '[COUPON CODE]' // if applicable'
                          }]
                  }
        }
});
</script>
```

Dynamic Parameters

[PRODUCT NAME]: The name of the product. This is required. [PRODUCT ID]: A unique identifier of the product, if available. [PRODUCT PRICE]: The price of the product, ex. '274.00'. [PRODUCT CATEGORY]: The type of product, ex. 'Outerwear', 'Shoes', 'Accessories'



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[PRODUCT QTY]: The number of products removed from the cart.

Event Naming Convention for GA Universal

Category	Action	Label
ecommerce	remove from cart	-

More settings > Ecommerce: true > Use Data Layer

Event Naming Convention for GA4

Event name: remove_from_cart

Parameter name	Value
event_cat	ecommerce
items	{{DL - ecommerce.remove.products}}

Trigger

CE - ee_removeFromCart Custom Event: Event name = ee_removeFromCart | All Custom Events



Adding a discount

If a user adds a coupon code to the order, push the **ee_orderDiscount** event to the dataLayer along with the name and code of the discount. code example



Page 51 www.clickvoyant.com 'discountCode': '[DISCOUNT CODE]', 'discountName': '[DISCOUNT NAME]'

});

Dynamic Parameters

• [DISCOUNT CODE]: The discount code that was applied.

• [DISCOUNT NAME]: the name of the promotion or discount, ex. "20% Off For New Students"

Event Naming Convention for GA Universal

Category	Action	Label
order discount	order discount	{{DL - discountName}} ~ {{DL - discountCode}}

Event Naming Convention for GA4

Event name: apply_discount

Parameter name	Value
event_cat	ecommerce
discount_name	{{DL - discountName}}
discount_code	{{DL - discountCode}}

Trigger

CE - ee_orderDiscount Custom Event: Event name = ee_orderDiscount | All Custom Events





Checkout Tracking

To measure the checkout process, which might include a checkout button and one or more checkout pages where users enter shipping and payment information, use the checkout action and the step field to indicate which stage of the checkout process is being measured. code example

```
<script>
dataLayer.push({
         'event': 'ee_checkout',
         'ecommerce': {
                  'checkout': {
                           'actionField': {'step': [CHECKOUT STEP], // integers that begin with '1'
                           'option': '[PAYMENT METHOD]'}, //'option' field used for user selections in this
                           step
                           'products': [{
                                    'name': '[PRODUCT NAME]', // ID or Name is required.
                                     'id': '[PRODUCT ID]', // ID or Name is required.
                                    'price': '[PRODUCT PRICE]',
                                     'category': '[PRODUCT CATEGORY]',
                                    'quantity': '[PRODUCT QTY]',
                                    'coupon': '[PROMO CODE]'
                           }] //Multiple Products if applicable
                  }
         }
});
</script>
```

Dynamic Parameters

• [CHECKOUT STEP]: The step completed, represented by an integer starting with '1' (These will be mapped to the step name in the Google Analytics Ecommerce reports).



• [PAYMENT METHOD]: The payment method as selected by the user. Omit if this payment has been chosen yet. Examples: 'Visa', 'Mastercard', 'Financing' ...

• [PROMO CODE]: If a promo code applies to the product.

Event Naming Convention for GA Universal

Category	Action	Label
ecommerce	checkout step	{{DL - ecommerce.checkout.actionField.st ep}}

More settings > Ecommerce: true > Use Data Layer

Event Naming Convention for GA4

Event name: checkout_step

Parameter name	Value
event_cat	ecommerce
step	{{DL - ecommerce.checkout.actionField.step}}

Trigger

CE - ee_checkout Custom Event: Event name = ee_checkout | All Custom Events





Checkout Options

If you have already measured a checkout step, but you would like to capture additional information about the same step, you may use **ee_checkoutOption** event with the **checkout_option** action.

Example:

Event Naming Convention for GA Universal

Category	Action	Label
ecommerce	checkout option	-

More settings > Ecommerce: true > Use Data Layer

Event Naming Convention for GA4

Event name: checkout_option

Parameter name	Value
event_cat	ecommerce
step	{{DL - ecommerce.checkout.actionField.step}}
option	{{DL - ecommerce.checkout.actionField.option}}

Trigger

CE - ee_checkoutOption Custom Event: Event name = ee_checkoutOption | All Custom Events





Purchase Tracking

To track a purchase, the transaction details must be pushed into the dataLayer using the ecommerce **ee_purchase** action. The **actionField** object contains details about the transaction itself, and the **products** list contains a list of purchased products.

```
example:
         dataLayer.push({
                  'event': 'ee purchase',
                  'ecommerce': {
                           'purchase': {
                                    'actionField': {
                                             'id': '[TRANSACTION ID]', // Transaction ID. Required for purchases
                                             and refunds.
                                             'revenue': [REVENUE], // Total transaction value (incl. tax and shipping)
                                             'tax':'[TAX]',
                                              'shipping': '[SHIPPING]'
                                    },
                                    'Products': [{ // List of productFieldObjects
                                             'name': '[PRODUCT NAME]', // One of Name or ID is required.
                                             'id': '[PRODUCT ID]',
                                             'price': '[PRICE]',
                                             'category': '[CATEGORY]', // Category of the product i.e "Books",
                                             "Membership", "Conference" ...
                                             'quantity': [QUANTITY],
                                             'coupon': '[COUPON CODE]' // if applicable
                                    }]
                           }
                  }
        });
```

Dynamic Parameters



• [REVENUE]: The total amount paid for the transaction. Including tax, shipping and discounts

- [TAX]: The amount of taxes paid on the purchase.
- [SHIPPING]: The amount paid for shipping
- [TRANSACTION ID]: The unique identifier for the transaction.
- [COUPON CODE]: Add a promo code if one is applied.

Event Naming Convention for GA Universal

Category	Action	Label
ecommerce	transaction complete	-

More settings > Ecommerce: true > Use Data Layer

Event Naming Convention for GA4

Event name: purchase

Parameter name	Value
event_cat	ecommerce
items	{{DL - ecommerce.purchase.products}}
currency	USD
value	{{DL - ecommerce.purchase.actionField.revenue}}
tax	{{DL - ecommerce.purchase.actionField.tax}}
shipping	{{DL - ecommerce.purchase.actionField.shipping}}
transaction_id	{{DL - ecommerce.purchase.actionField.id}}
coupon	{{DL - ecommerce.purchase.actionField.coupon}}

Trigger

CE - ee_purchase Custom Event: Event name = ee_purchase | All Custom Events





Purchasing with a discount

When a user completes a purchase with a coupon code applied, push the **ee_discountPurchased** event to the dataLayer along with the name and code of the discount.

example:

Dynamic Parameters [DISCOUNT CODE]: The discount code that was applied. [DISCOUNT NAME]: The name of the promotion or discount, ex. "20% Off For New Students" [TRANSACTION ID]: The unique identifier for the transaction.

Event Naming Convention for GA Universal

Category	Action	Label
order discount	discount purchased	{{DL - discountName}} ~ {{DL - discountCode}}

More settings > Ecommerce: true > Use Data Layer



Event Naming Convention for GA4

Event name: purchase_discount

Parameter name	Value
event_cat	ecommerce
discount_code	{{DL - discountCode}}
discount_name	{{DL - discountName}}
transaction_id	{{DL - transactionID}}

Trigger

CE - ee_discountPurchased Custom Event: Event name = ee_discountPurchased | All Custom Events





Refund Tracking

A full refund can be tracked by pushing the **ee_refund** event and the ecommerce refund action into the dataLayer with the transaction id and no other information.

```
example

dataLayer.push({

    'event': 'ee_refund',

    'ecommerce': {

        'refund': {

            'actionField': {'id': '[TRANSACTION ID]'} // Transaction ID Required

            }

        });

        Dynamic Parameters
```

• [TRANSACTION ID]: The same unique ID that was included with the original purchase.

To track **partial refund** of only a few products from a transaction, include the list of products to be refunded alongside the transaction data.

example

Dynamic Parameters

- [PRODUCT ID]: Must include either the product id or the product name.
- [QUANTITY]: The number of items that were refunded.

Event Naming Convention for GA Universal

Category	Action	Label
ecommerce	refund processed	-



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More settings > Ecommerce: true > Use Data Layer

Event Naming Convention for GA4

Event name: refund

Parameter name	Value
event_cat	ecommerce
items	{{DL - ecommerce.refund.products}}
transaction_id	{{DL - ecommerce.refund.actionField.id}}

Trigger

CE - ee_refund Custom Event: Event name = ee_refund | All Custom Events



