



Empirical Path

Google Tag Manager dataLayer Design Documentation for ReCharge

March 2020

DIGITAL ANALYTICS CONSULTING

We tell the story behind
your numbers.

Overview

This document details the specification for a standard data layer that collects desired user interaction information for subsequent use in analysis and reporting. The information in this document will be relevant to digital analysts and website implementation engineers, as well as to marketing professionals who need to understand user experience data that is being gathered

The proposed standard data object is a JavaScript object because of ubiquitous support for JavaScript in web browsers and web-based applications, as well as in other forms of digital properties like mobile devices, kiosks, and other digital content.

The use of a JavaScript object means that the data is not embedded in the HTML markup and would not affect the rendering of a page or performance. Developers will need only to populate the data fields in the object that are applicable to the page, keeping the size and complexity of the object to a minimum. This coding will never change regardless of vendor additions or deletions unless new data elements were required.

Google Analytics Enhanced Ecommerce

The below Google Analytics enhanced e-commerce events should fire when the functionality exists on the site. Ecommerce Events that take place prior to ReCharge checkout (view list, view product details, add/remove from cart, and cart pages) will need to be enabled in [Shopify](#) or require editing the Shopify Liquid theme.

Common Enhanced Ecommerce Issues

Issue	Solutions
Google Analytics View filters are excluding the ReCharge hostname or only including only their stores hostnames	Ensure that view filters are either including recharge hostname or not excluding the recharge hostname
Enhanced ecommerce reports are not visible in the Google Analytics reporting interface	Ensure that enhanced ecommerce is enabled in GA view settings. https://www.screencast.com/t/7ltbWSi14P3
Seeing paypal or recharge as source/medium that is driving revenue in your marketing channels?	Ensure you exclude those hosts from your referral exclusions property settings

Google Tag Manager & GA Setup

The ReCharge dataLayer will be available to all customers, users who want to leverage the dataLayer to send data to Google Analytics tracking can do so by:

- 1) Ensuring Google Tag Manager is enabled in your Shopify Store
- 2) Import and merge GTM container into your container
- 3) Configure GA Admin setting if necessary.

Google Tag Manager Code

Add your Google Tag Manager code to all pages, including the ReCharge cart. Using one of two methods:

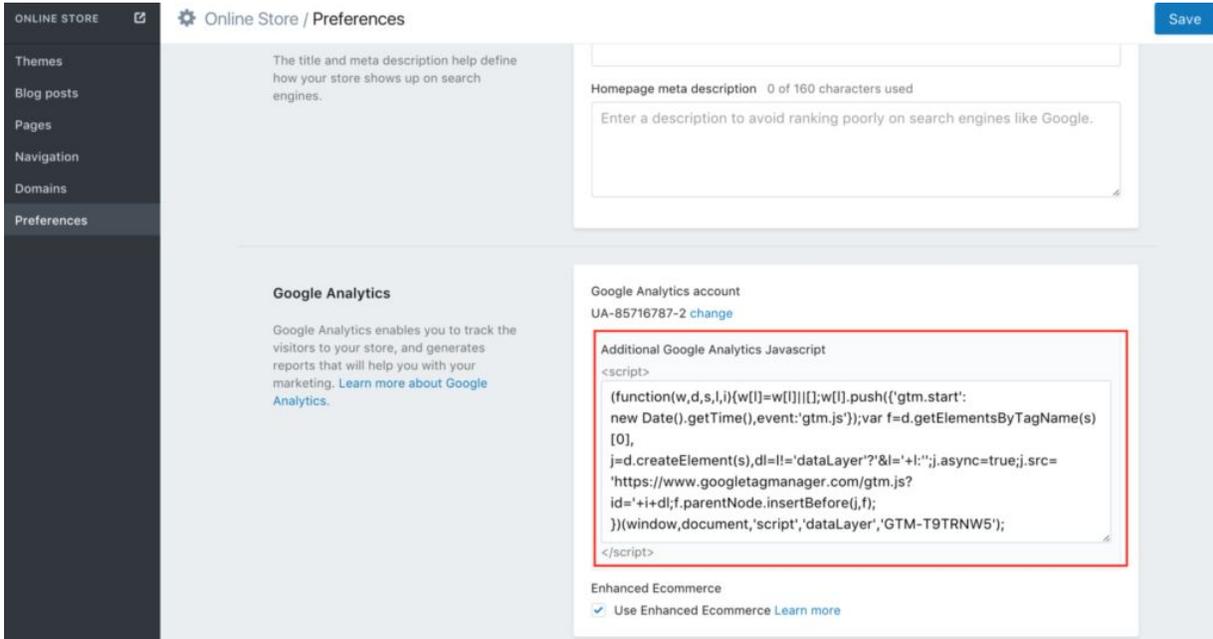
```
//Paste the below code as high in the <head> of the page as possible:
```

```
<script>(function(w,d,s,l,i){w[l]=w[l]||[];w[l].push({'gtm.start':
new Date().getTime(),event:'gtm.js'});var
f=d.getElementsByTagName(s)[0],
j=d.createElement(s),dl=l!='dataLayer'?'&l='+l:'';j.async=true;j.src=
'https://www.googletagmanager.com/gtm.js?id='+i+dl;f.parentNode.inser
tBefore(j,f);
})(window,document,'script','dataLayer','GTM-XXXXX');</script> //
replace GTM-XXXXX with your container id.
```

```
//Additionally, paste this code immediately after the opening <body>
tag:
```

```
<noscript><iframe
src="https://www.googletagmanager.com/ns.html?id=GTM-XXXXX"
height="0" width="0"
style="display:none;visibility:hidden"></iframe></noscript>
```

- 1) Add GTM code through customization area in your preference (exclude `<script>` and `</script>`)



ONLINE STORE Online Store / Preferences Save

The title and meta description help define how your store shows up on search engines.

Homepage meta description 0 of 160 characters used

Enter a description to avoid ranking poorly on search engines like Google.

Google Analytics

Google Analytics enables you to track the visitors to your store, and generates reports that will help you with your marketing. [Learn more about Google Analytics.](#)

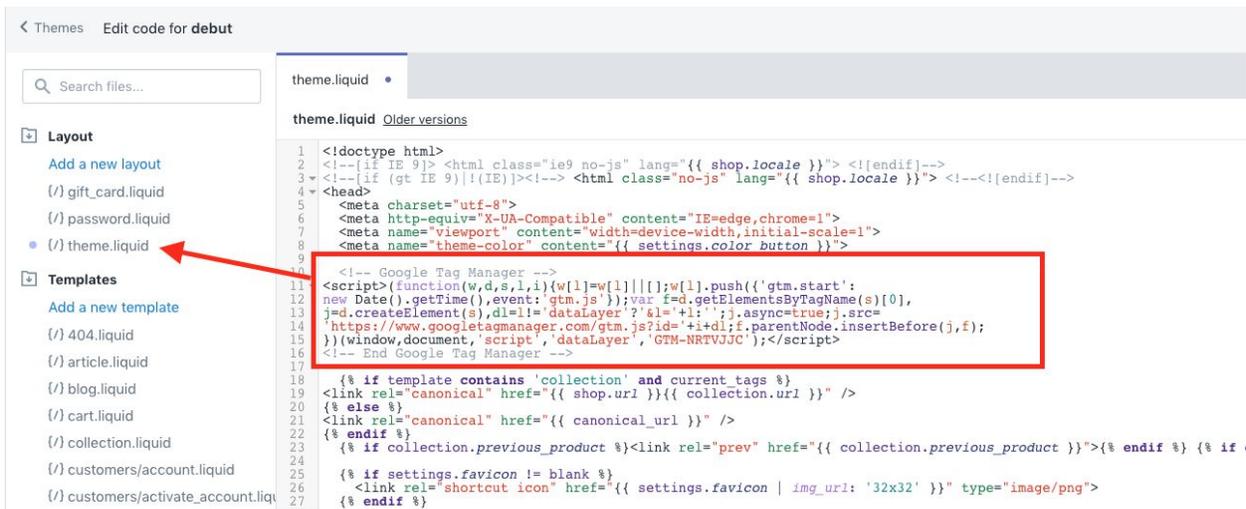
Google Analytics account
UA-85716787-2 [change](#)

Additional Google Analytics Javascript

```
<script>
(function(w,d,s,l,i){w[l]=w[l]||[];w[l].push({'gtm.start':
new Date().getTime(),event:'gtm.js'});var f=d.getElementsByTagName(s)
[0],
j=d.createElement(s),dl=!l?'dataLayer':'&l='+l';j.async=true;j.src=
'https://www.googletagmanager.com/gtm.js?id='+i+dl;f.parentNode.insertBefore(j,f);
})(window,document,'script','dataLayer','GTM-T9TRNW5');
</script>
```

Enhanced Ecommerce
 Use Enhanced Ecommerce [Learn more](#)

- 2) Add to theme.liquid



Themes Edit code for **debut**

Search files...

Layout

- Add a new layout
- (/) gift_card.liquid
- (/) password.liquid
- (/) theme.liquid

Templates

- Add a new template
- (/) 404.liquid
- (/) article.liquid
- (/) blog.liquid
- (/) cart.liquid
- (/) collection.liquid
- (/) customers/account.liquid
- (/) customers/activate_account.liquid

theme.liquid

theme.liquid Older versions

```
1 <!doctype html>
2 <!--[if IE 9]> <html class="ie9 no-js" lang="{{ shop.locale }}"> <![endif]-->
3 <!--[if (gt IE 9)!!(IE)]><!-- <html class="no-js" lang="{{ shop.locale }}"> <!--<![endif]-->
4 <head>
5   <meta charset="utf-8">
6   <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
7   <meta name="viewport" content="width=device-width,initial-scale=1">
8   <meta name="theme-color" content="{{ settings.color_button }}">
9
10 <!-- Google Tag Manager -->
11 <script>(function(w,d,s,l,i){w[l]=w[l]||[];w[l].push({'gtm.start':
12 new Date().getTime(),event:'gtm.js'});var f=d.getElementsByTagName(s)[0],
13 j=d.createElement(s),dl=!l?'dataLayer':'&l='+l';j.async=true;j.src=
14 'https://www.googletagmanager.com/gtm.js?id='+i+dl;f.parentNode.insertBefore(j,f);
15 })(window,document,'script','dataLayer','GTM-NRTVJJC');</script>
16 <!-- End Google Tag Manager -->
17
18 {% if template contains 'collection' and current tags %}
19 <link rel="canonical" href="{{ shop.url }}{{ collection.url }}" />
20 {% else %}
21 <link rel="canonical" href="{{ canonical_url }}" />
22 {% endif %}
23 {% if collection.previous_product %}<link rel="prev" href="{{ collection.previous_product }}">{% endif %} {% if
24
25 {% if settings.favicon != blank %}
26 <link rel="shortcut icon" href="{{ settings.favicon | img_url: '32x32' }}" type="image/png">
27 {% endif %}
```

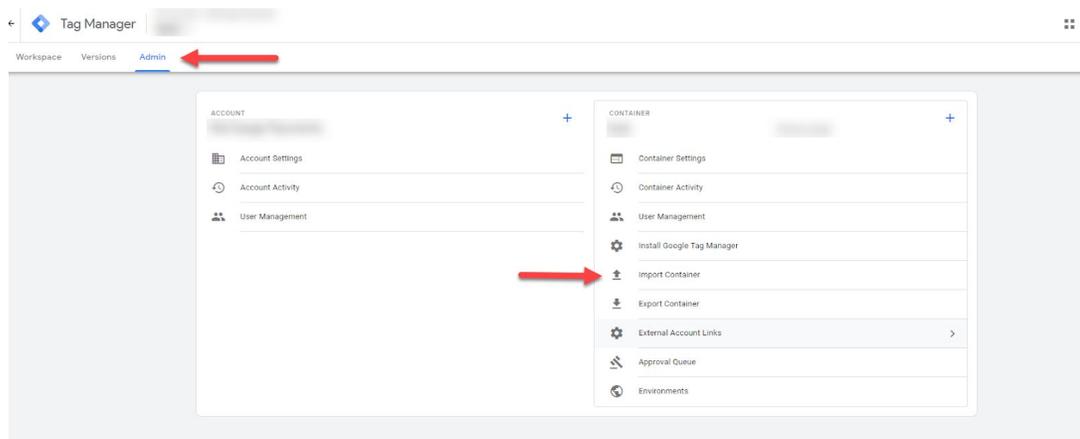
Import Container

Import this [JSON file](#) into the GTM container that is being used on your site. The file includes:

- 2 tags
 - ReCharge - Enhanced Ecommerce - Checkout = this is a GA event tag that feeds both event and standard EEC reports. It captures both steps in checkout (/r/checkout and /r/pay) along with the product array.
 - ReCharge - Enhanced Ecommerce - Transaction = this is a GA event tag that feeds both event and standard EEC reports. It captures successful transactions.
- 2 triggers
 - ReCharge - Enhanced Ecommerce - Checkout = this trigger coincides with the two checkout steps. A custom event-based trigger on the ReCharge dataLayer push that happens onLoad of each page.
 - ReCharge - Enhanced Ecommerce - Transaction = this trigger coincides with the transaction page. A custom event-based trigger on the ReCharge dataLayer push that happens onSuccessful completion of a transaction.
 - **Note: If you already have tracking on the transaction page, you could pause this tag to prevent duplication.**
- 3 variables
 - ReCharge - LUT - Enhanced Ecommerce - Action = a look-up table variable that holds the two triggers and converts them to friendly names to pass into the action variable of each tag.
 - ReCharge - LUT - Enhanced Ecommerce - Interaction = a look-up table variable that holds the interaction status (T|F) for each event.
 - GA Property ID - **INPUT YOUR GA ID** = a constant variable where you would input your Google Analytics Property ID (UA-NNNNNNNNN-N). This variable feeds into the two ReCharge tags.

Import Instructions:

1. In the top navigation, click Admin.
2. In the *Container* section, click Import Container.



3. Click Choose container file and select the [Recharge Checkout GTM JSON](#) file to import.
4. Select if you would like to add the imported file to a new or existing workspace. **We**

recommend a new workspace.

- a. To add the file to a new workspace:
 - i. Under Choose workspace, click New.
 - ii. Enter a title and description for your workspace.
 - iii. Click Save.
 - b. To add the file to an existing workspace:
 - i. Under Choose workspace, click Existing.
 - ii. Select the desired workspace.
5. Select Merge.
- a. To Merge, select whether you want to overwrite or rename conflicting variables, triggers, and tags. **We recommend rename.**
 - i. Overwrite conflicting tags, triggers, and variables: If a variable, tag, or trigger in the new container has the same name but the contents are different, overwrite the old one with the new one. (If the contents are the same, there is no conflict.)
 - ii. Rename conflicting tags, triggers, and variables: if a variable, tag, or trigger in the new container has the same name but the contents are different, rename the new one. (If the contents are the same, there is no conflict.)

← Import Container

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

Select file to import

ReCharge_Checkout_GTM.json

Choose workspace

ReCharge

Choose an import option ⓘ

Overwrite
Overwrite selected workspace with content of imported container GTM-WJLX486

Merge
Merge selected workspace with content of imported container GTM-WJLX486

Overwrite conflicting tags, triggers and variables.

Rename conflicting tags, triggers, and variables.

Preview and confirm your import

Tags	Triggers	Variables	Templates
2	2	3	0
0	0	0	0
0	0	0	0
New Modified Deleted	New Modified Deleted	New Modified Deleted	New Modified Deleted

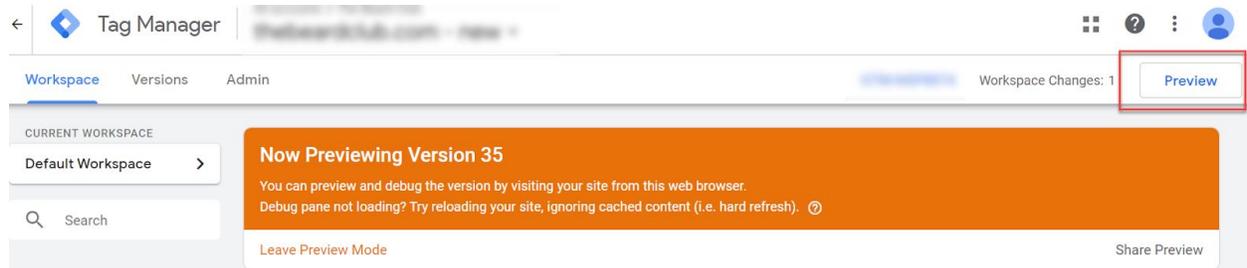
View Detailed Changes

Confirm Cancel

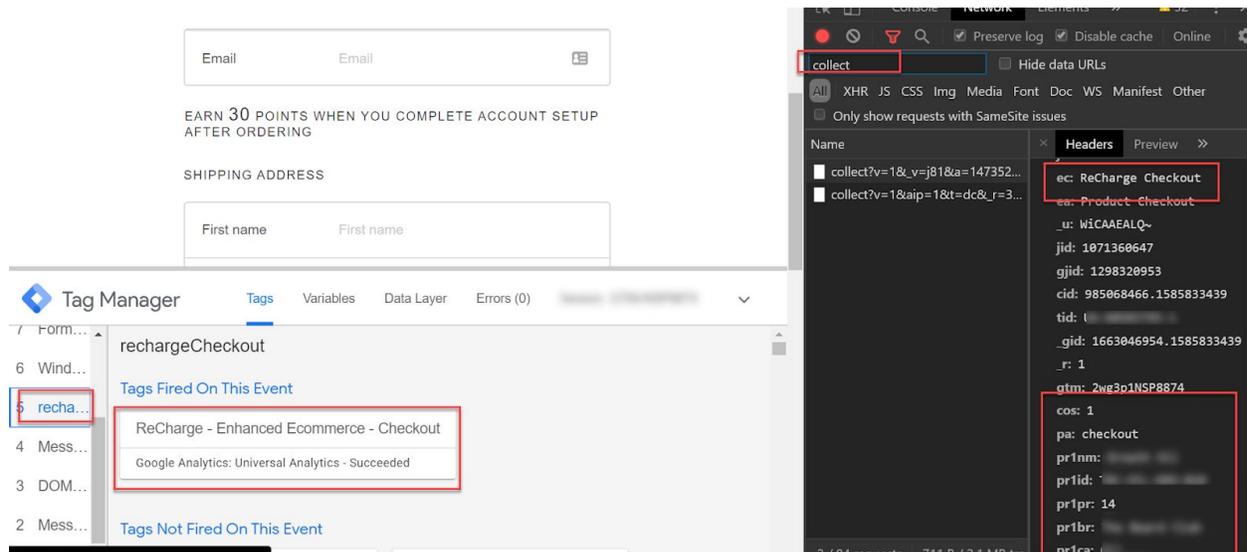
6. Click Continue. The preview dialog shows how many tags, triggers, and variables will be added, modified, or deleted. Click View Detailed Changes to see a list of all the items that will be affected.
7. Once you are satisfied with the changes that will be made, click Confirm.
8. After confirmation navigate to your variables and update the value in the 'GA Property ID - INPUT YOUR GA ID' variable with your GA Property ID.

Validation

Put yourself in GTM Preview mode to validate the above-imported file. Be cognizant that any existing tags in your GTM container are working as expected and there is no duplication due to other Shopify Integrations.



Checkout Pages



Transaction



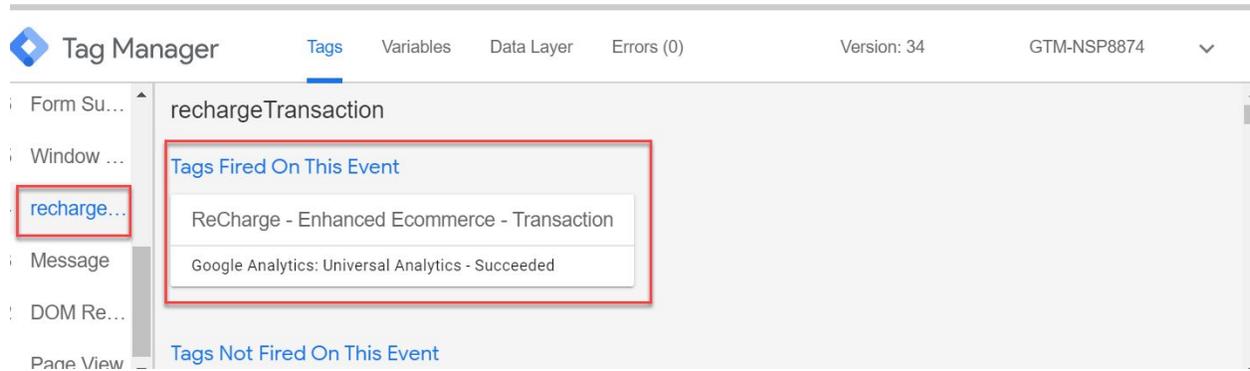
Thank you for your purchase!

A confirmation email has been sent to [redacted]

Order #156513

[Continue shopping](#)

[Print receipt](#)



The screenshot shows the Google Tag Manager interface. The top navigation bar includes 'Tag Manager', 'Tags', 'Variables', 'Data Layer', 'Errors (0)', 'Version: 34', and 'GTM-NSP8874'. The left sidebar lists various triggers: 'Form Su...', 'Window ...', 'recharge...', 'Message', 'DOM Re...', and 'Page View'. The main content area is titled 'rechargeTransaction' and is divided into two sections: 'Tags Fired On This Event' and 'Tags Not Fired On This Event'. Under 'Tags Fired On This Event', two tags are listed: 'ReCharge - Enhanced Ecommerce - Transaction' and 'Google Analytics: Universal Analytics - Succeeded'. The 'recharge...' trigger in the sidebar and the 'Tags Fired On This Event' section are highlighted with red boxes.

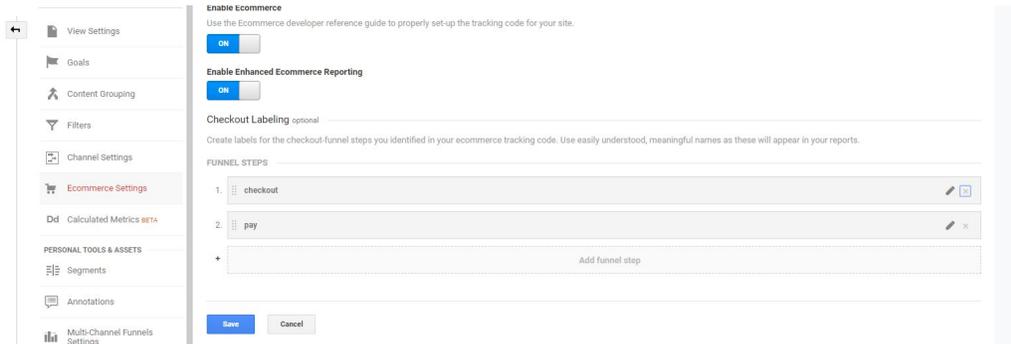
GA Admin Configuration

If you haven't already turned on Google Analytics Enhanced E-commerce then follow the below steps.

1. [Sign in to Google Analytics](#).
2. Click **Admin**, and navigate to the [view for which you want to turn on Enhanced Ecommerce](#).
3. In the **VIEW** column, click **Ecommerce Settings**.
4. Under **Step 1, Enable Ecommerce**, set the status to **ON**.
5. Click **Next step**.
6. Under **Step 2, Enhanced Ecommerce Settings**, set the status to **ON**.

When you turn this option on:

- a. You can then see the Enhanced Ecommerce reports in the **Conversions** section
 - b. The other, older category of Ecommerce reports is no longer visible
7. You can turn this option off to restore the older category of Ecommerce reports.
 8. Optionally, enter labels for the checkout steps you have defined in your ec.js tagging. These labels are for display purposes only, so that Analytics can create a meaningful funnel visualization of your checkout path.
 - a. Click a funnel step, enter a label name, then click **Done**. Repeat for each step you defined in your tagging.
 - b. The label names appear in the **Checkout Behavior** report (e.g., **Log In/Create Account**, **Shipping Address**, **Billing Information**, **Review Order**, **Place Order**).

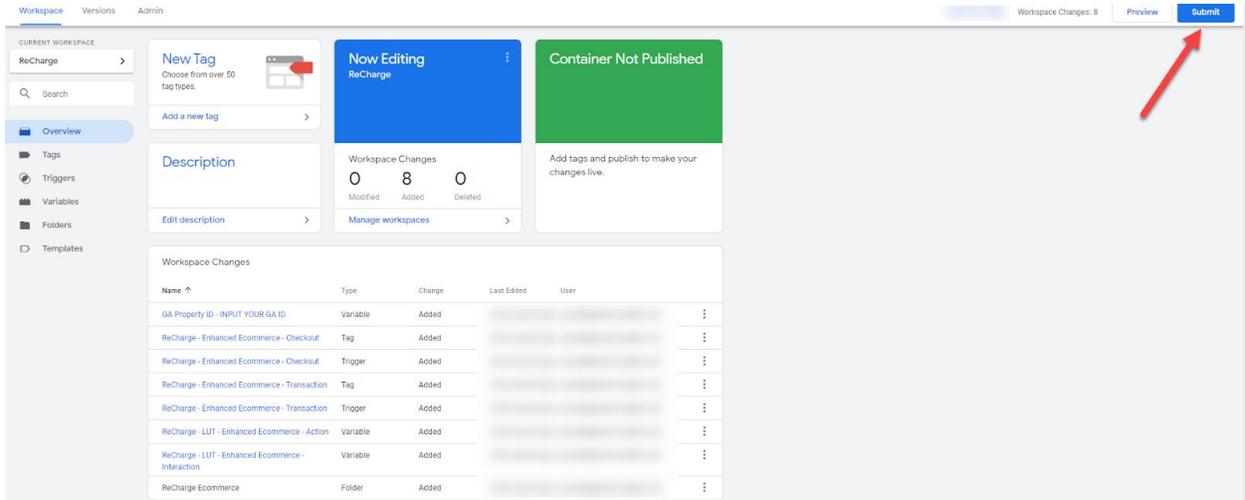


The screenshot shows the Google Analytics Admin interface for Ecommerce Settings. On the left is a navigation menu with options like View Settings, Goals, Content Grouping, Filters, Channel Settings, and Ecommerce Settings (highlighted). The main content area is titled 'Enable Ecommerce' and includes a toggle switch set to 'ON'. Below this is 'Enable Enhanced Ecommerce Reporting', also set to 'ON'. The 'Checkout Labeling optional' section provides instructions to create labels for checkout-funnel steps. A 'FUNNEL STEPS' list contains two items: '1. checkout' and '2. pay', each with an edit icon. An 'Add funnel step' button is at the bottom of the list. At the very bottom of the form are 'Save' and 'Cancel' buttons.

9. Click **Submit**.

GTM Publish

Once you have validated in GTM Preview mode and checked your GA admin setting you are ready to publish the workspace containing the ReCharge tags.



The screenshot displays the Google Tag Manager workspace interface. At the top right, there are three buttons: 'Workspace Changes: 8', 'Preview', and 'Submit'. A red arrow points to the 'Submit' button. The main workspace area is divided into several sections:

- Left Sidebar:** Contains navigation options: Overview (selected), Tags, Triggers, Variables, Folders, and Templates.
- Top Left:** 'CURRENT WORKSPACE' section with 'ReCharge' selected and a search bar.
- Top Middle:** 'New Tag' section with a sub-header 'Choose from over 50 tag types.' and an 'Add a new tag' button.
- Top Right:** 'Now Editing ReCharge' (blue box) and 'Container Not Published' (green box) status indicators.
- Middle:** 'Description' section with an 'Edit description' button.
- Bottom:** 'Workspace Changes' table showing a list of changes.

Name	Type	Change	Last Edited	User
GA Property ID - INPUT YOUR GA ID	Variable	Added		
ReCharge - Enhanced Ecommerce - Checkout	Tag	Added		
ReCharge - Enhanced Ecommerce - Checkout	Trigger	Added		
ReCharge - Enhanced Ecommerce - Transaction	Tag	Added		
ReCharge - Enhanced Ecommerce - Transaction	Trigger	Added		
ReCharge - LUT - Enhanced Ecommerce - Action	Variable	Added		
ReCharge - LUT - Enhanced Ecommerce - Interaction	Variable	Added		
ReCharge Ecommerce	Folder	Added		