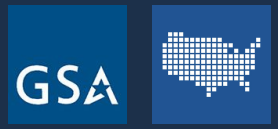
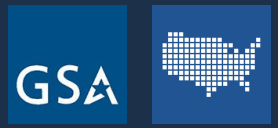
DAP Learning Series:
Tag Managers Part 2
Configuration Framework

Freddie Blicher, DAP Analyst



Agenda

1. Brief recap of Tag Manager Systems (TMS)
2. Datalayer Variables, Triggers and Tags
3. 3 path configuration framework and best practices on when to configure them.
4. Examples
5. Q & A



This hour is designed to be conceptual rather than technical.

Different tools will have different ways of implementing the processes I talk about today. Also, I am not a developer. If I have something incorrect, please tell me.

How to get value out of today's webinar

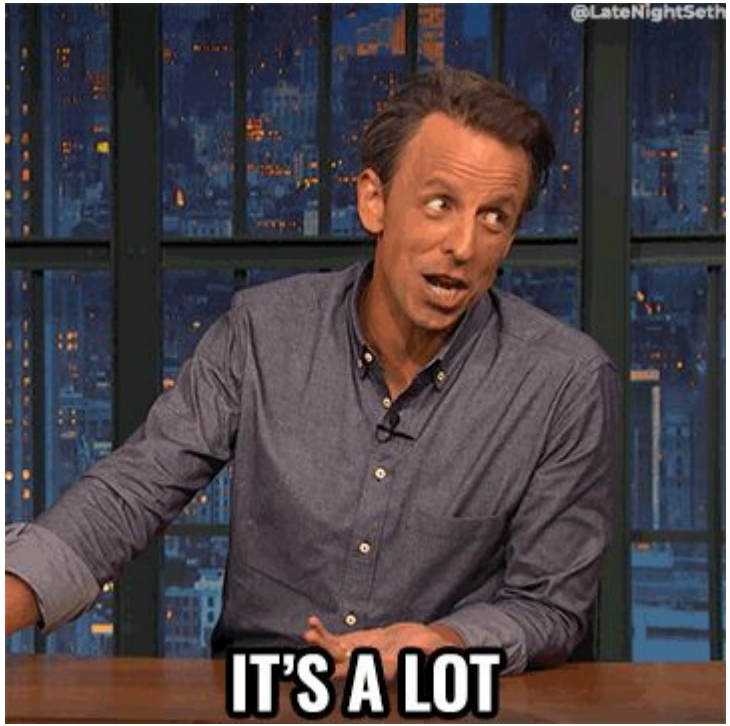
- Advanced topic
- Intermediate level in Google Analytics
- Some experience with TMS Data layer variables, triggers and tags
- Know your Goals & KPIs

This is a lot

If you're new to GA and TMS, you'll get more value out of learning the basics first with these webinars:

DAP 101

DAP 201



Why are we here today?

Using a TMS can feel like figuring out what came first - the chicken or the egg?

Figuring out “when” and “how” to implement a TMS is challenging, but half the battle.

Our goal is to help demystify this more for you!

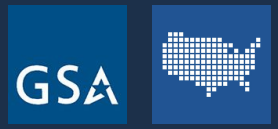
What makes this challenging

How you implement a TMS is entirely specific to your website technology/CMS

- Different developers
- Different CMS platform (Wordpress, Drupal, etc.)
- Which means different code, elements, data layers, etc.

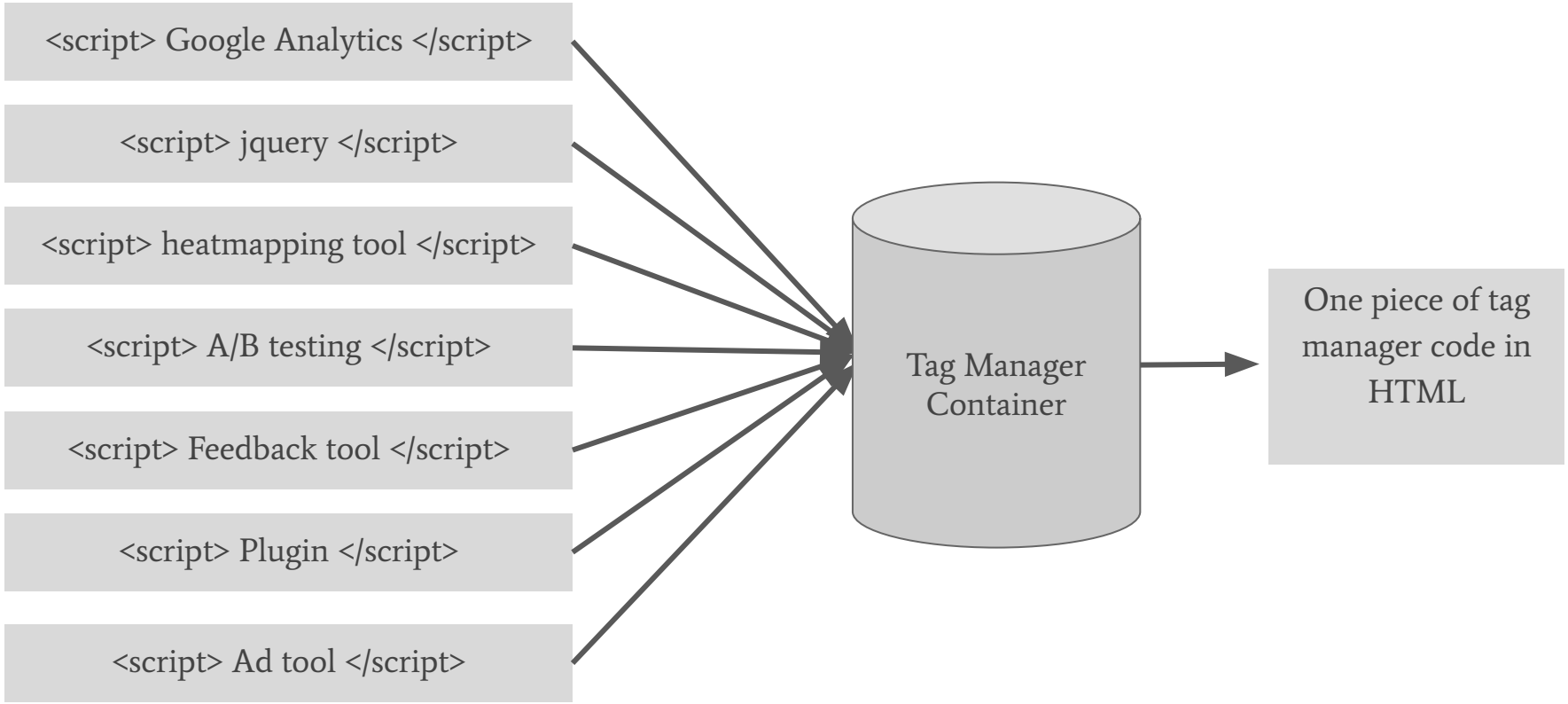
Let’s do a quick recap of Tag Managers

Tag Manager Systems (TMS) allow you to deploy scripts, trigger actions, and store data for use in a central place without touching page source-code



Why use Tag Managers?

- Track interactions at scale
  - Example - PDF downloads
  - PDF download conversion rate
- Get really customized with what you want to track
- Lessen the burden on your development team



This is what a tag manager does...

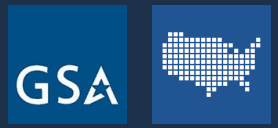
What’s required?

Knowing your:

- Website mission
- Goals
- KPIs

See our previous webinar

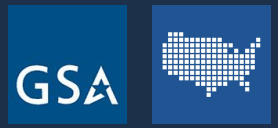
Tag Managers Part 1



If you want to know more about the data layer...

See DAP's Part 1 of this webinar series

Let's unpack some terminology



Data layer

- Invisible layer into which your developer or CMS plugins, or Google Tag Manager can push, or reference information about different interactions, or to trigger some piece of data to be collected and sent to Google Analytics.
- Previous webinar: "The Data Layer is an invisible place you can send and temporarily store data that your tag manager* can use. The tag manager can send it to application(s) or use it to trigger other things" --Tim Lowden
- Not every website has a data layer
- Developers sometimes aren't familiar with it

Tag

- Tracking code you implement on your site
  - Google Analytics Event Tag
  - Facebook pixel tag
  - Google Ads Conversion Tag

- The “What" → What do you want TMS to do?

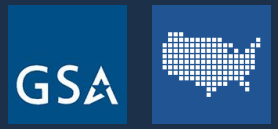
Trigger

- Rules you define for when your tags fire
  - For example:
    - Fire an event tag when a user clicks a button
    - Fire an event tag when a user scrolls down 75% of the page
- The "When" → When do you want to track some interaction using a tag?
- Triggers aren’t just used for sending data to Google Analytics!

Variables

- Information you can use in Tags or Triggers
- The "What" or "When" or the "How"
- Multipurpose - make a trigger more specific

How should we think about configuring a TMS?



How do we even start?

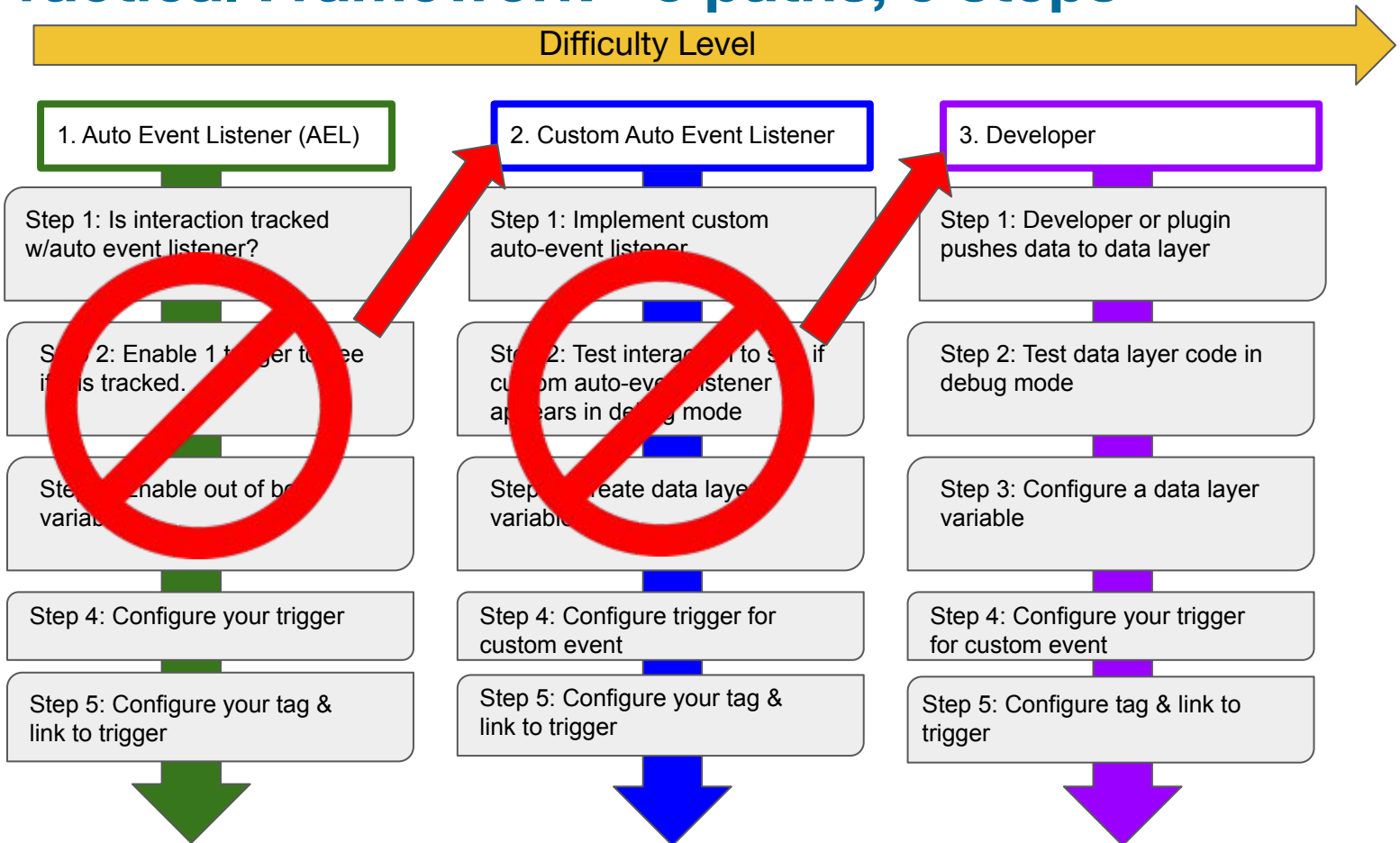
- What's the thought process of deciding how to get data into the data layer into Google Tag Manager and into GA?
- What is our mental model?

Mental Model

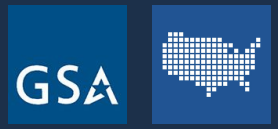
The Goal:

- Get the data in the data layer.
- Using either a **standard auto-event listener**, **custom auto event listener**, **developer/CMS plugin**
- Once you have the data available in the data layer, then you can configure TMS
- Then you read data with variables, define your trigger and then create a tag
- Examples: Link clicks, PDF downloads, Video plays, Login status, scroll depth, custom interactions.

Practical Framework - 3 paths, 5 steps



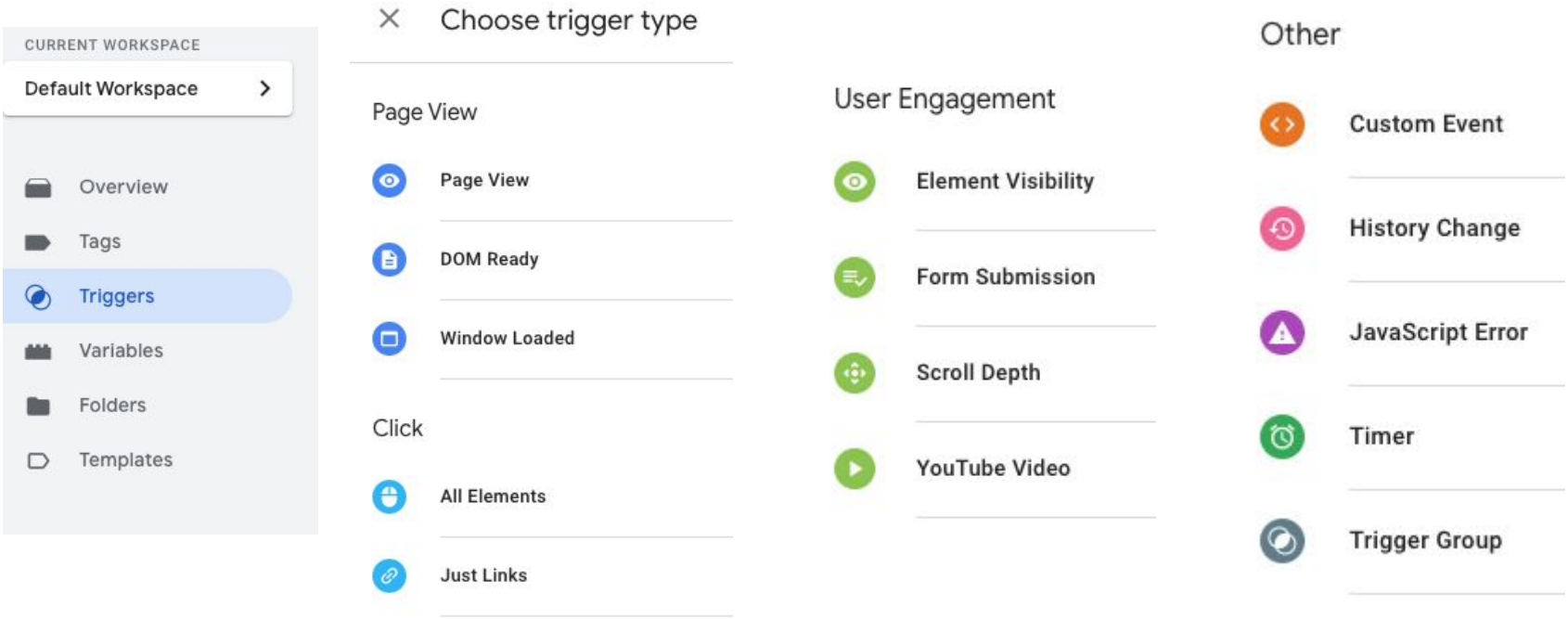
Path 1 - Auto Event Listener



What is an auto event listener?

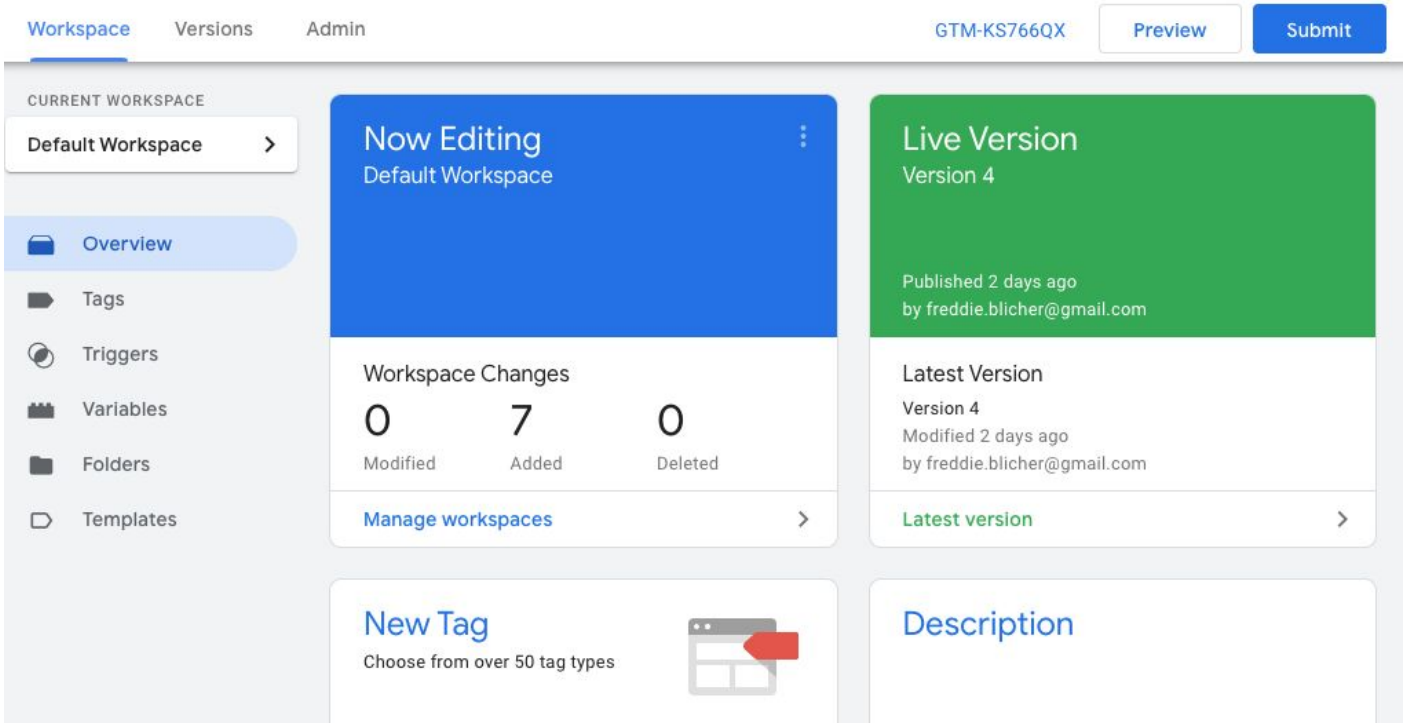
- Functions (or set of functions) out of the box that are created to track certain interactions.
- When they spot that particular interaction, you can see it (and its data) in the debug mode of Google Tag Manager
- ***Enable triggers, to enable auto event listeners***
- What can you track? Automatically track events - PDFs, Outbound link clicks, etc.

Let’s look at our triggers in a TMS



Today's examples

Using GTM



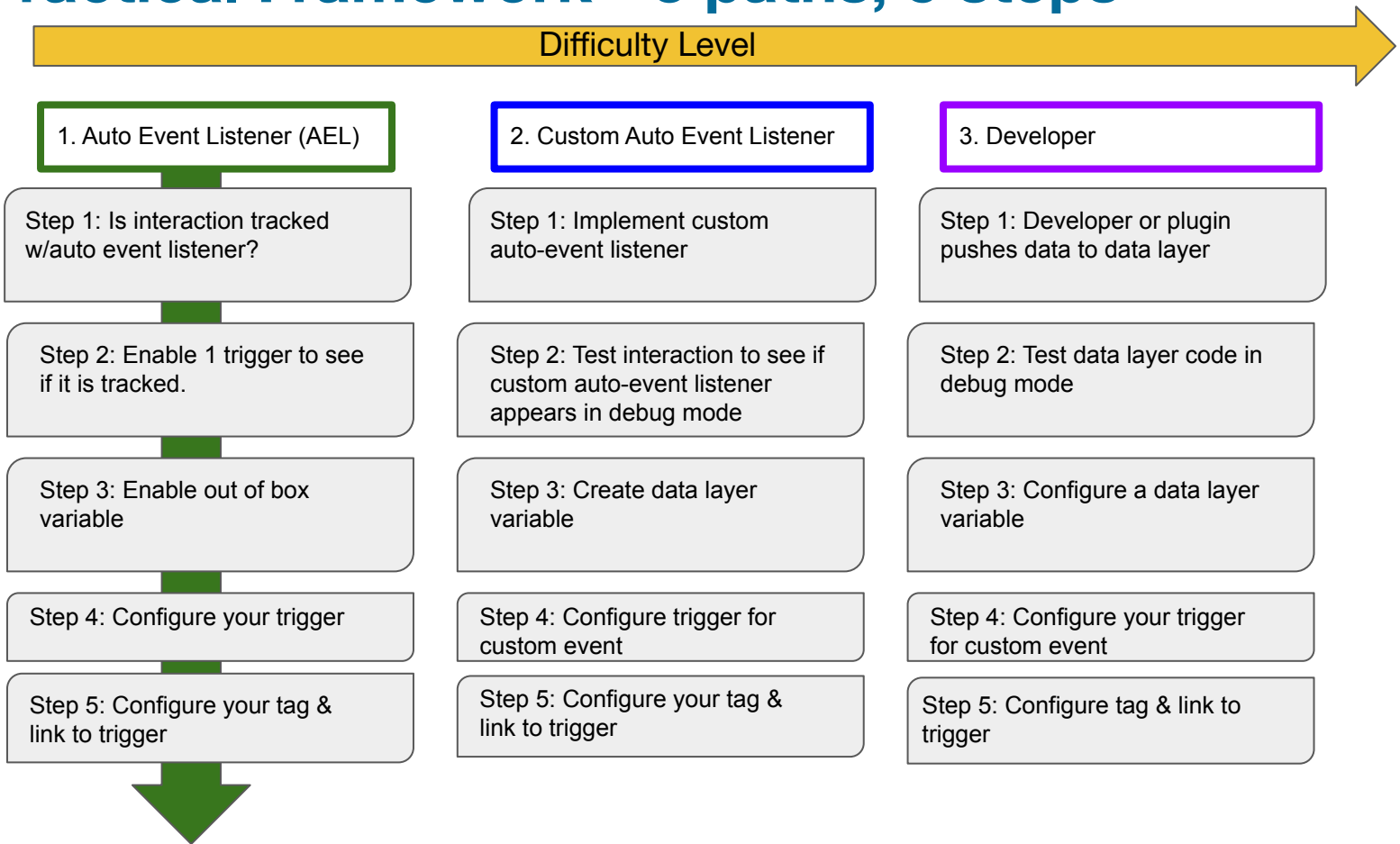
Let's look at an example - Auto event listener

Let's say we want to track the number of PDF downloads of the document on

https://www.fedramp.gov/2021-03-16-Vulnerability-Scanning-doc/

The Federal Risk and Authorization Management Program (FedRAMP) is pleased to announce the release of the Vulnerability Scanning Requirements for Containers document. This document addresses FedRAMP compliance pertaining to the processes, architecture, and security considerations specific to vulnerability scanning for cloud systems using container technology. Prior to this release, the document was reviewed by Cloud Service Providers (CSPs) in a Technical Exchange Meeting and was provided to our stakeholders for public comment to ensure the guidance met CSPs' needs.

Practical Framework - 3 paths, 5 steps

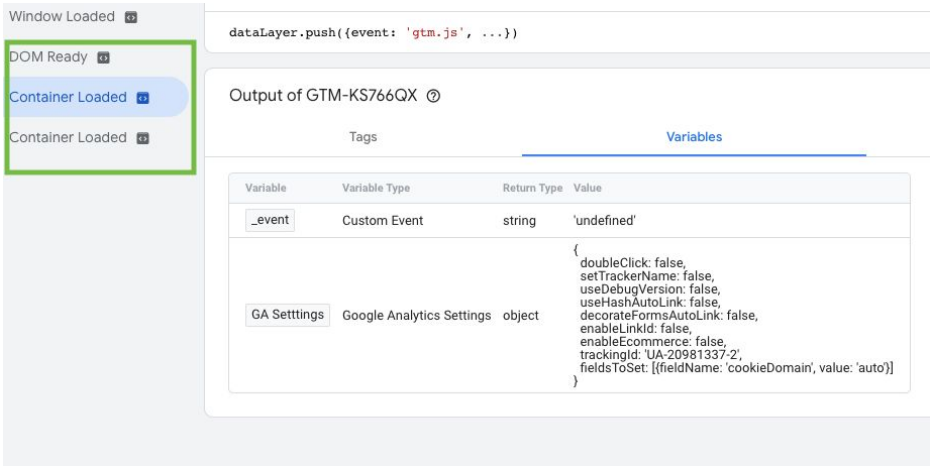


Path 1, Step 1

Step 1: Is interaction tracked w/auto event listener in GTM debug mode?

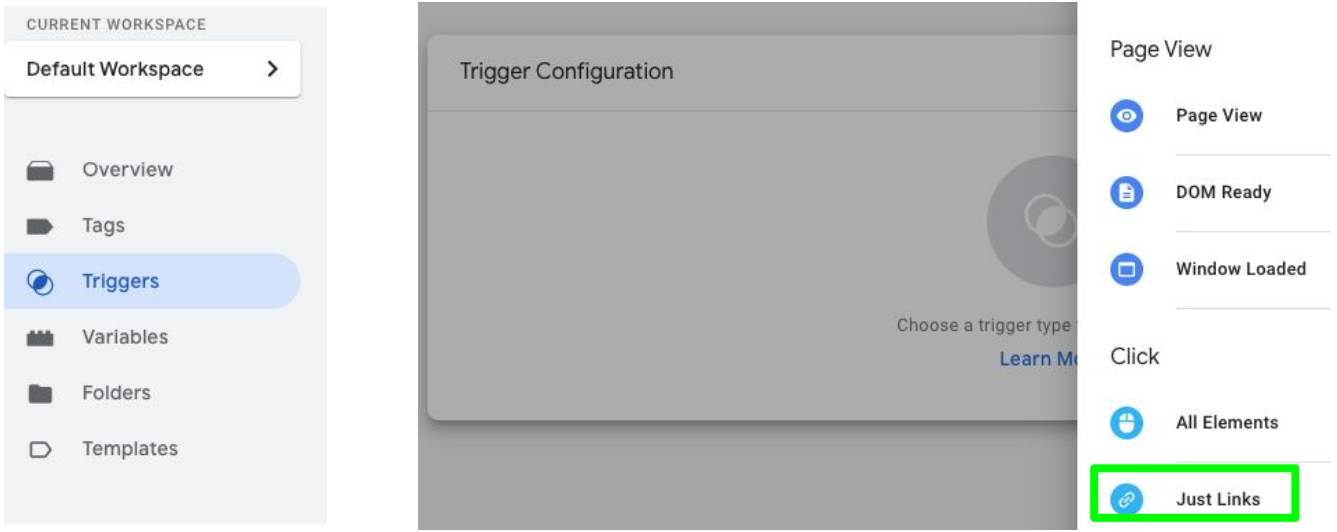
We click the PDF link and don't see link clicks enabled.

No, it does not fire in the data layer



Path 1, Step 2

Determine which out of the box auto event listener you need to enable to see the link click for the pdf in the data layer.



Path 1, Step 2 cont.

Preview in GTM debug mode to see if link click appears in data layer

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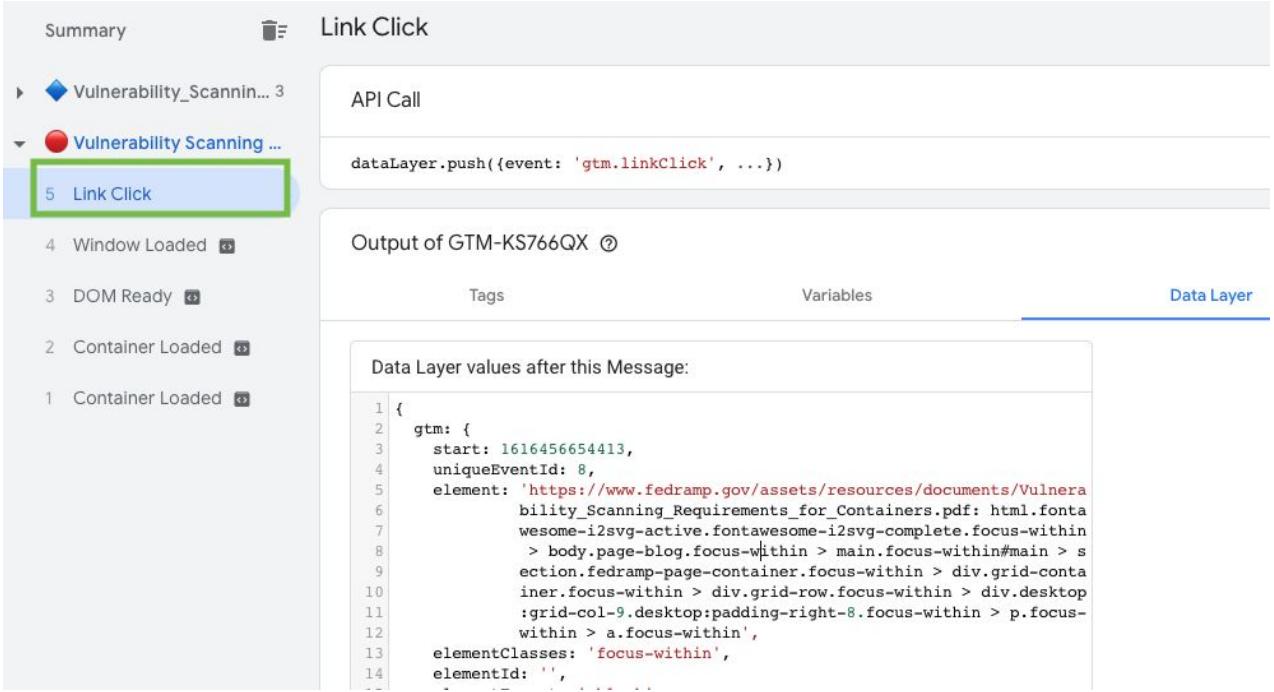
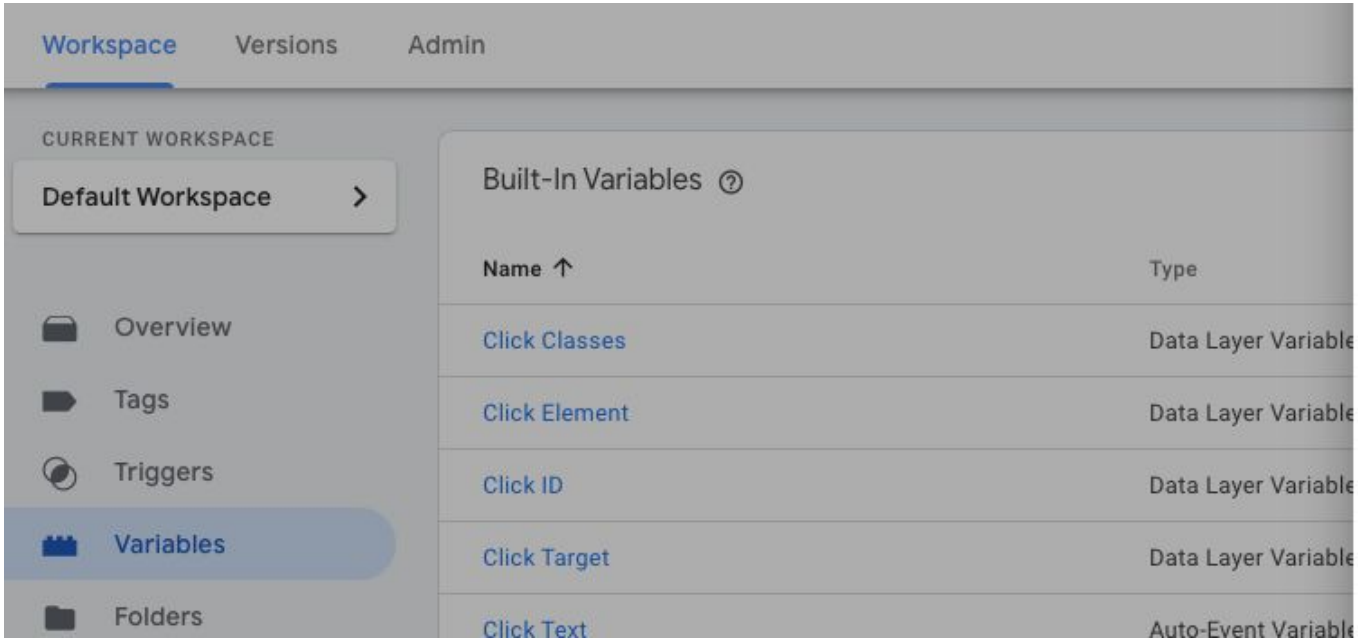
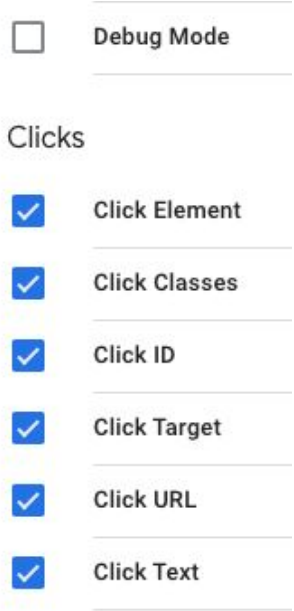


Path 1, Step 3

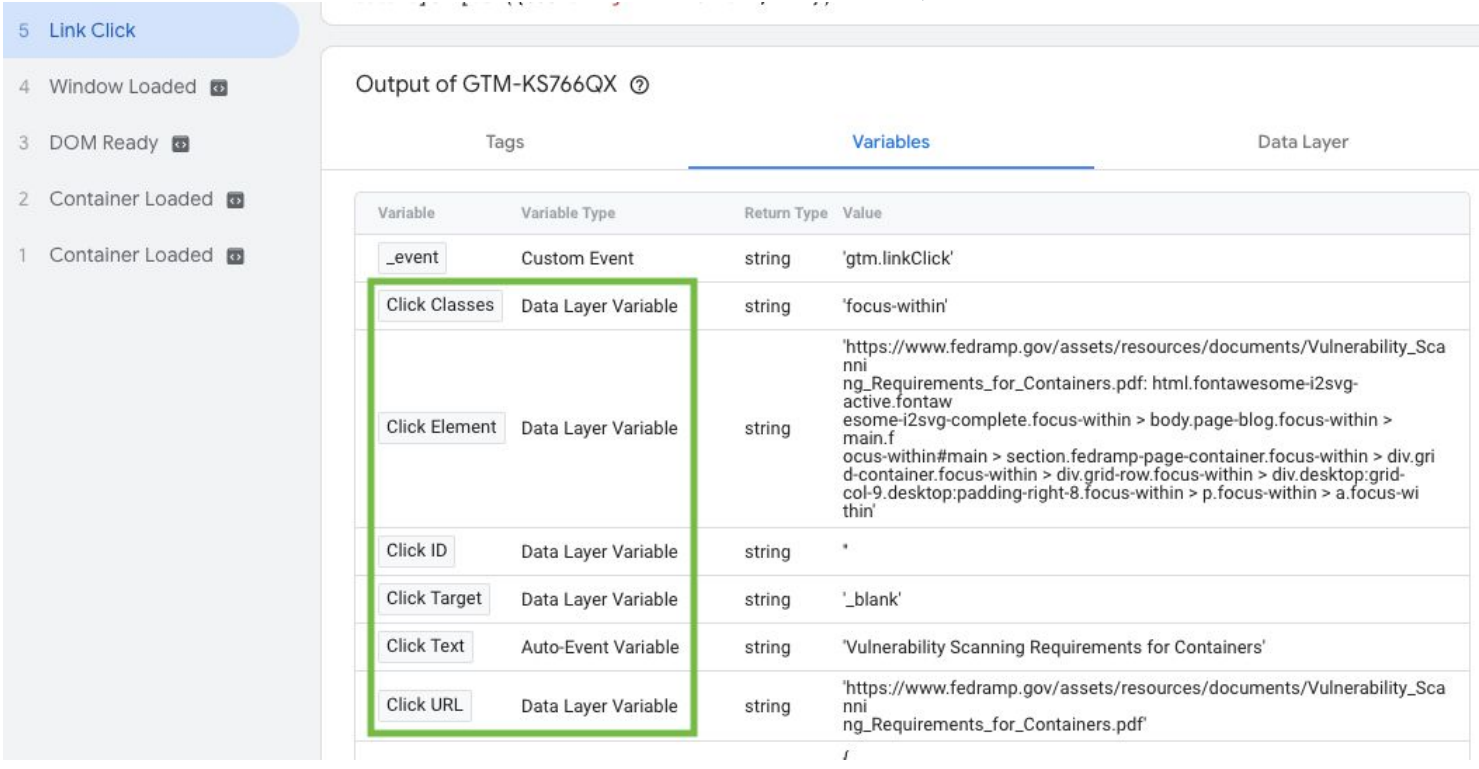
Enable out of box variables





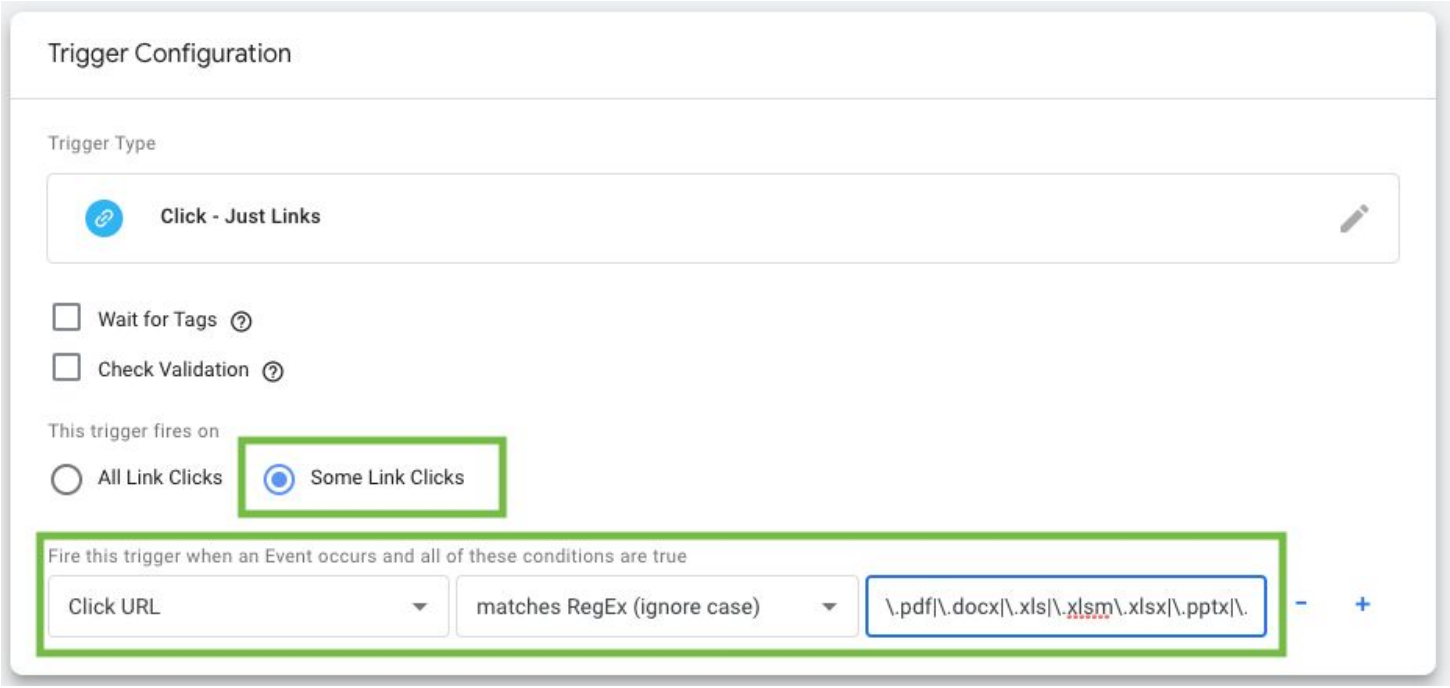
Path 1, Step 3 cont.

Check variables in GTM debug mode data layer



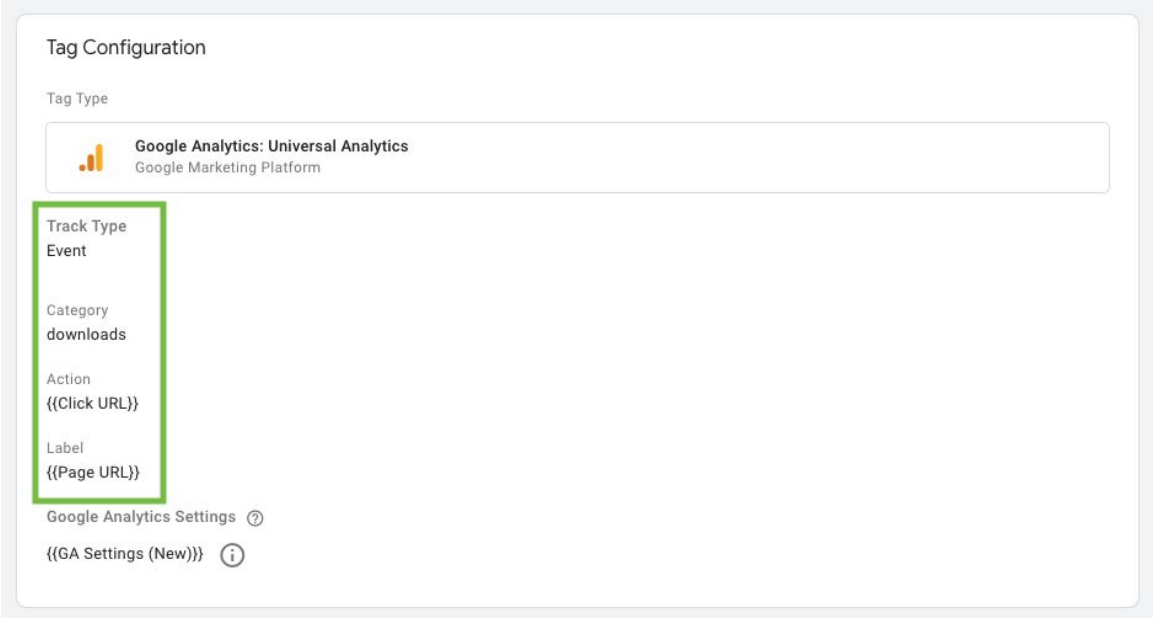
Path 1, Step 4

Update your trigger



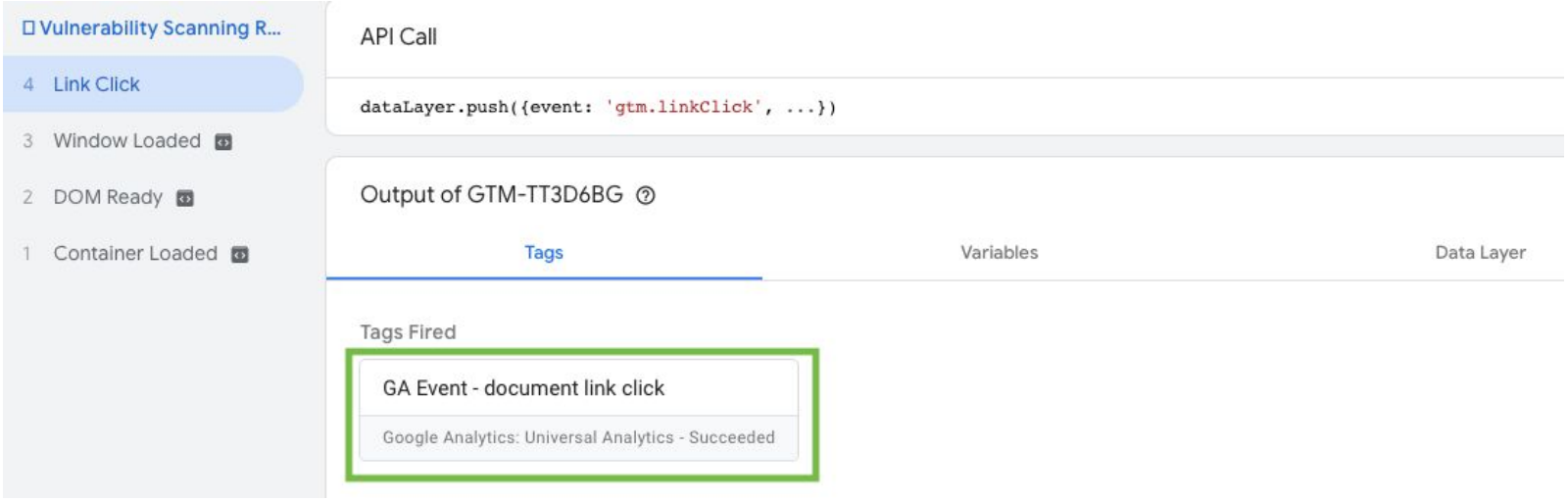
Path 1, Step 5

Create a tag

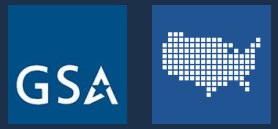


Path 1, Step 5 cont.

Confirm tag fires in GTM debug mode



Path 2 - Custom Auto Event Listener

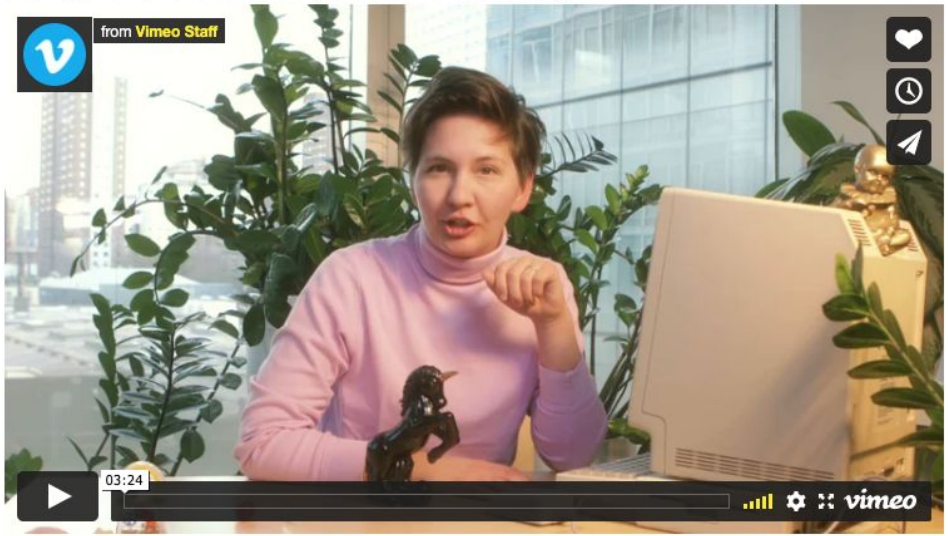


What is a custom auto event listener?

- Similar concept as auto event listener, but must be custom configured
- ***Enable custom event listeners using Custom HTML tags***
- ***Custom listener adds data about the interaction into the data layer. You access it with Data Layer Variables.***
- Example: Click play button on a Vimeo embedded video

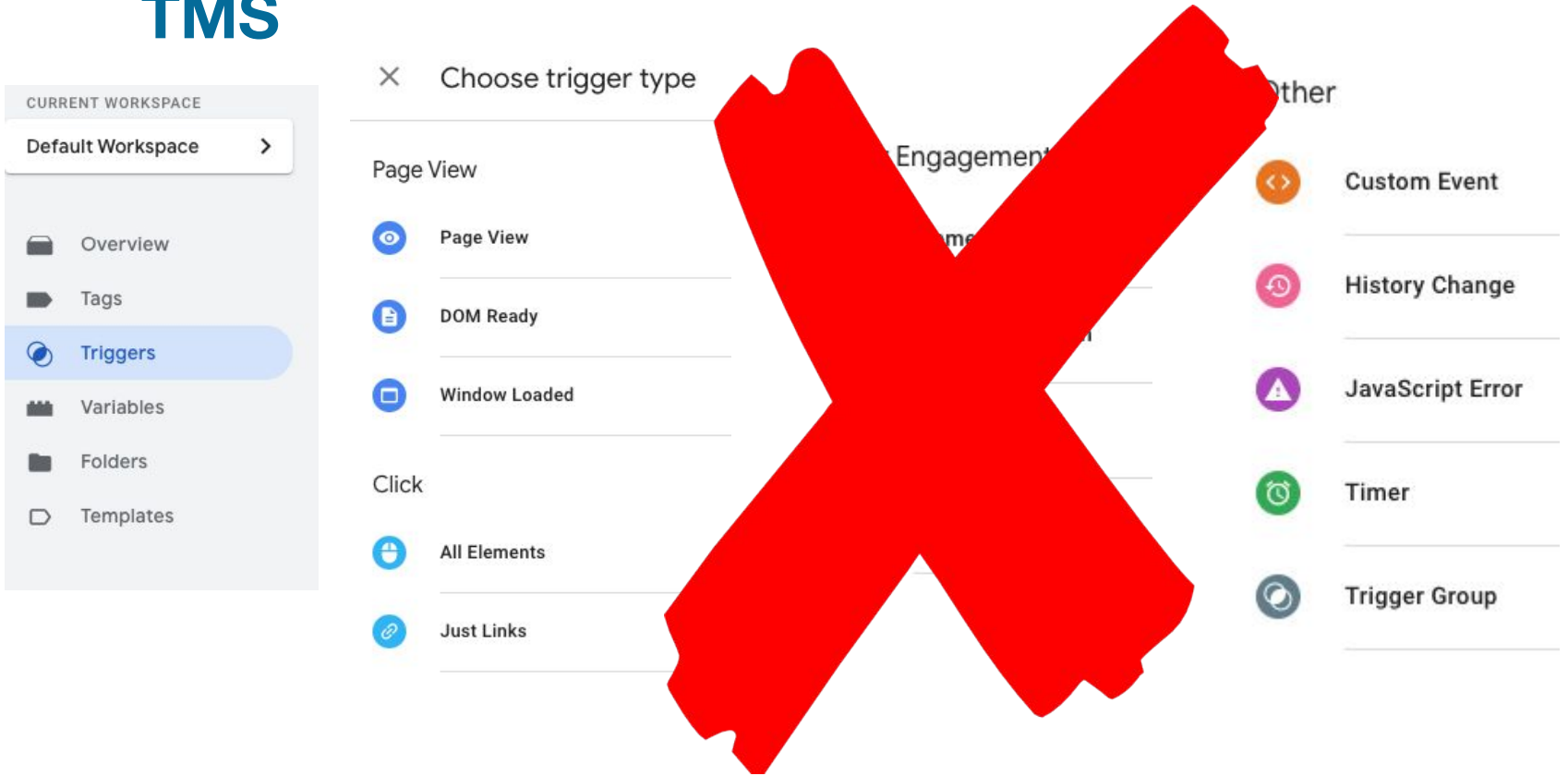
Let's look at an example - Custom auto event listener

Let's say we want to track an embedded Vimeo video. This is similar to you a YouTube video, but it’s from a different company.

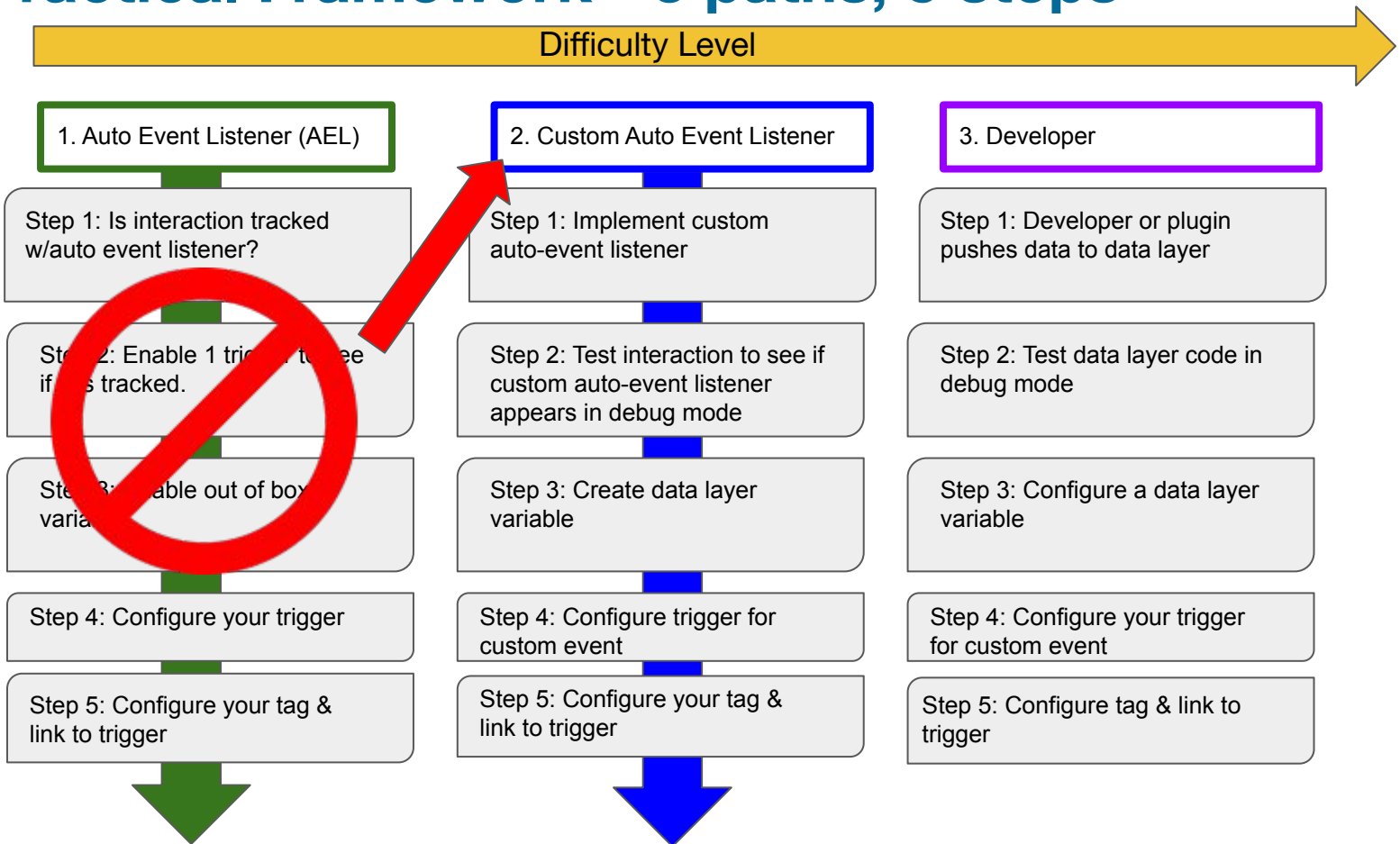


Learning Vimeo – Basic Embed Customization for Sharing Videos from Vimeo Staff on Vimeo.

Let’s look at our auto event listeners in our TMS

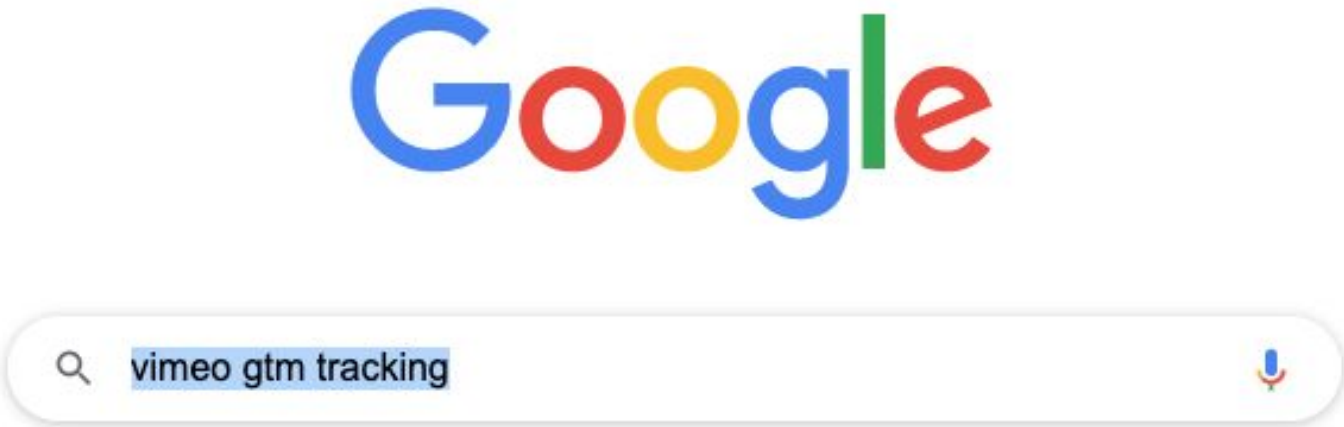


Practical Framework - 3 paths, 5 steps



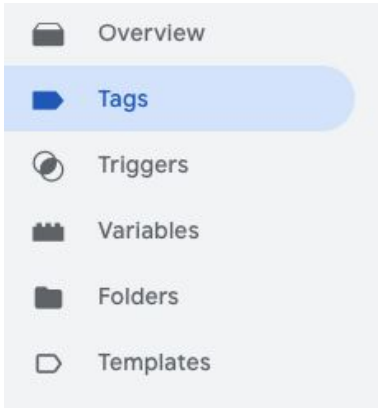
Path 2, Step 1

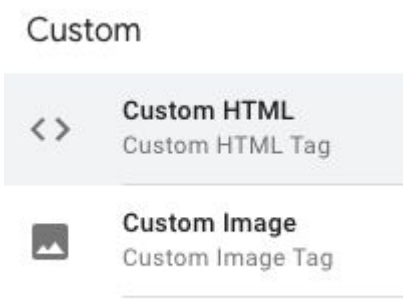
Implement custom auto-event listener

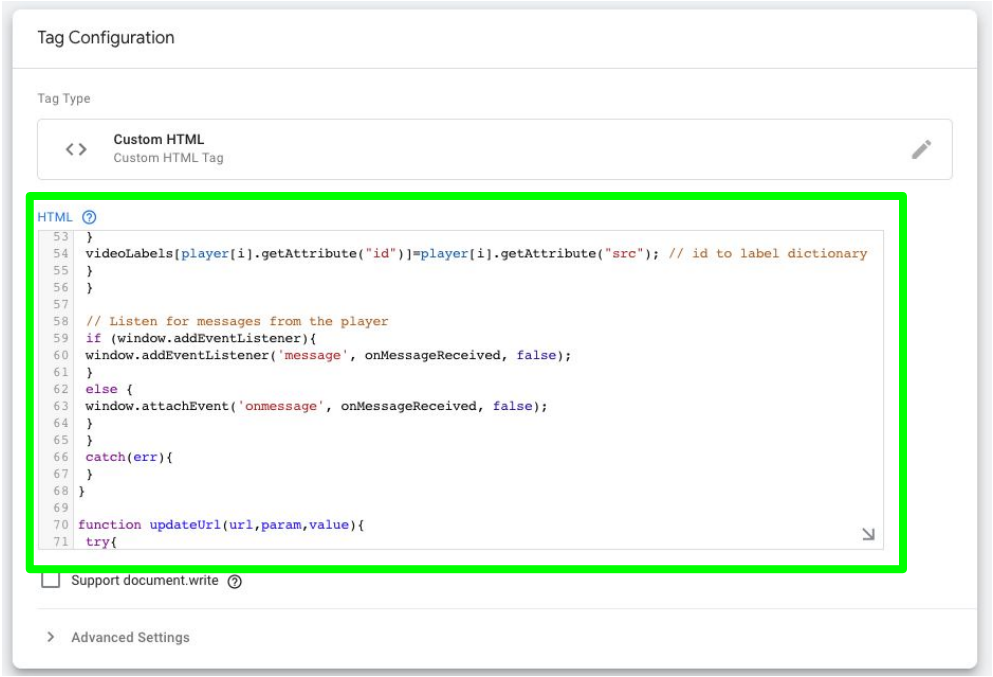


Path 2, Step 1

Implement custom auto-event listener using custom html tag

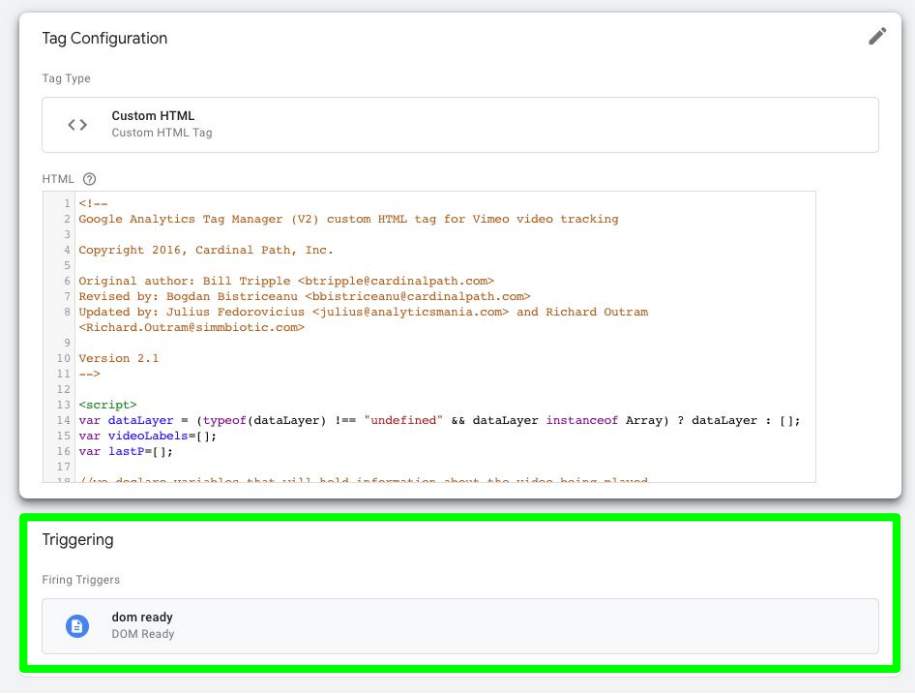


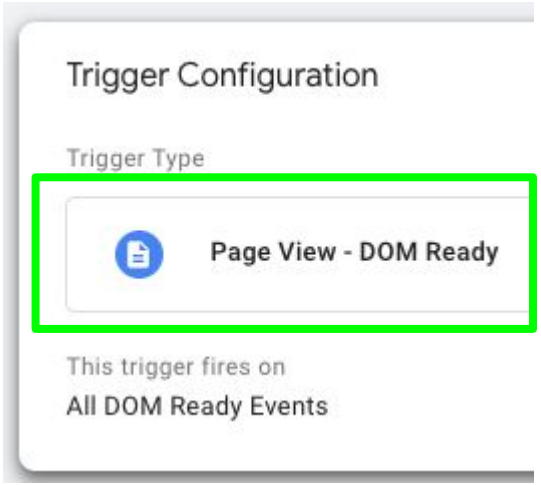




Path 2, Step 2

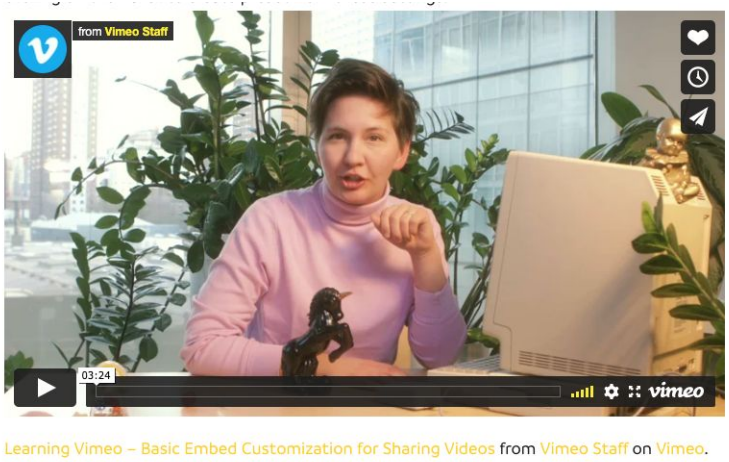
Add a trigger to the custom html tag

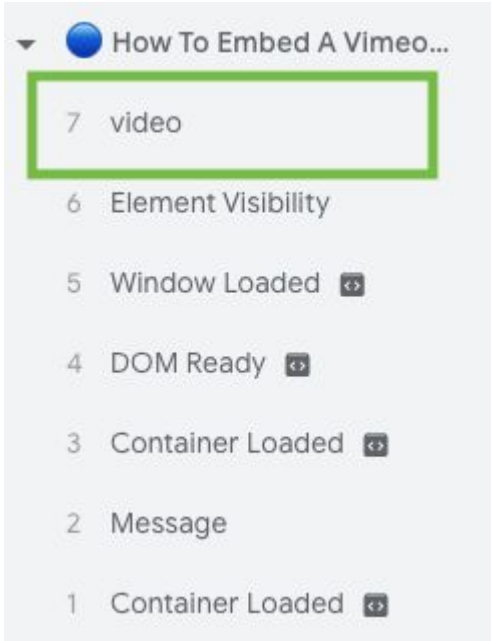




Path 2, Step 2

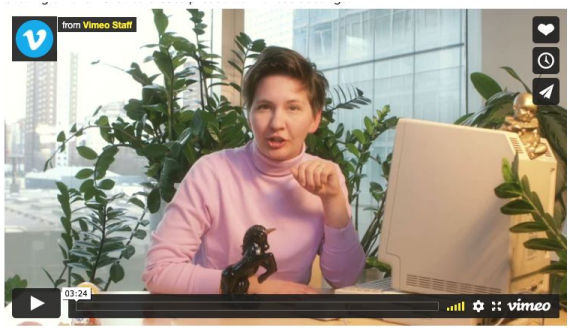
Now let's test the custom auto event listener by using TMS's preview and debug mode





Path 2, Step 2

We see data layer info on vimeo in the data layer.



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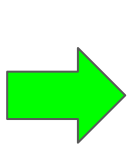
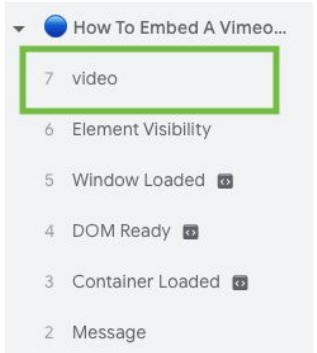
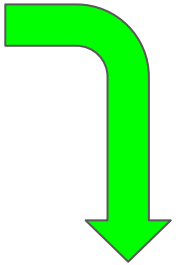


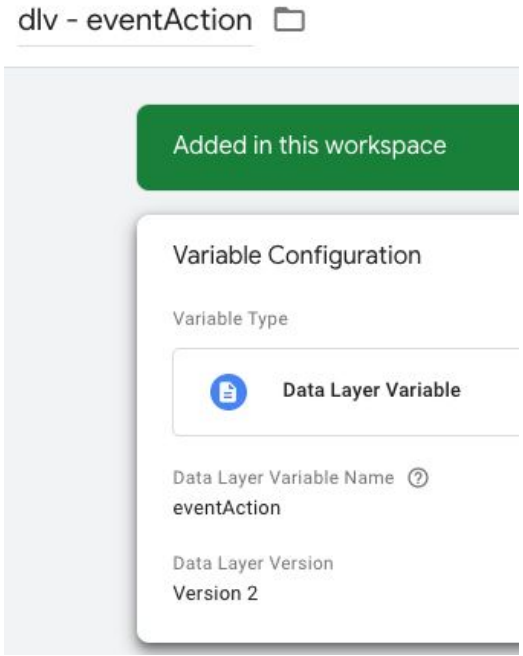


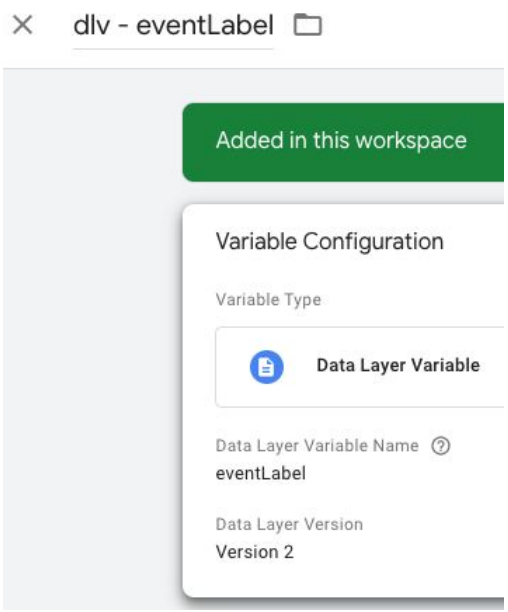


```
eventCategory: 'vimeo',
eventAction: 'vimeo play',
eventLabel: 'learning vimeo - basi  embed customization for sharing vi
            deos - 92060045',
vimeo_playerID: '92060045',
vimeo_playerTitle: 'learning vimeo - basic embed customization for sha
                   ring videos',
vimeo_playerAuthor: 'vimeo staff',
vimeo_playerAuthorURL: 'https://vimeo.com/staff',
vimeo_playerUploadDate: '2014-04-15 13:36:20',
nonInteractive: true
```

Path 2, Step 3

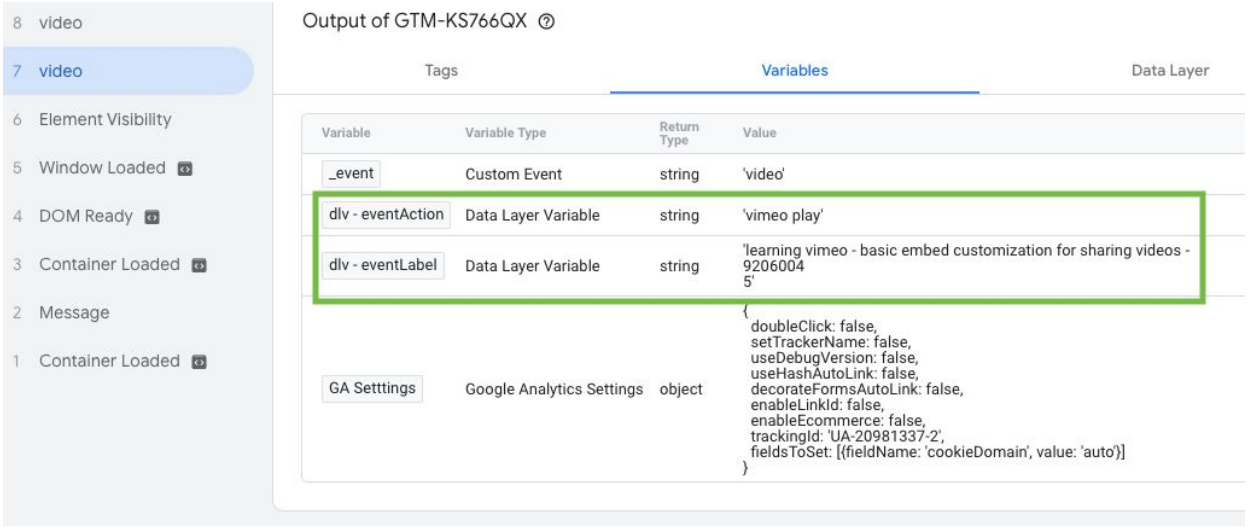
Now we have to create data layer variables for eventAction & eventLabel variables in the data layer.





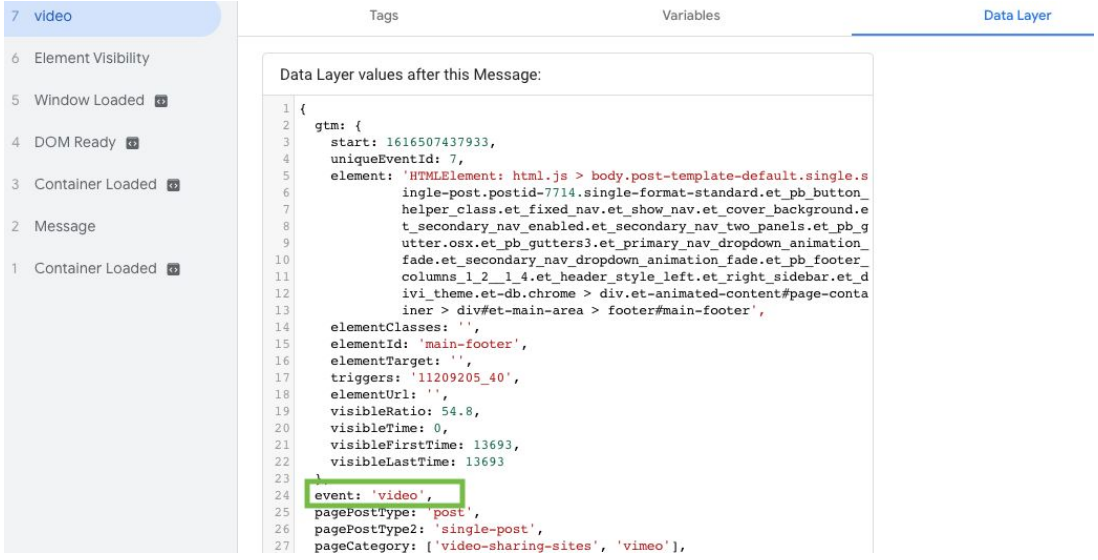
Path 2, Step 3

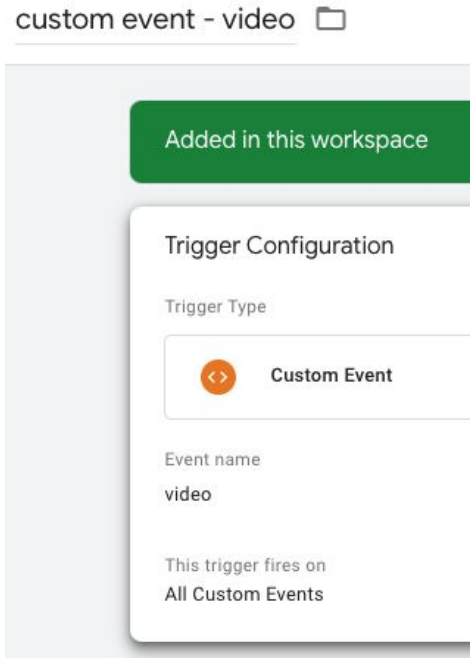
Next, refresh GTM debug mode to check to see that variables are working. Both variables contain values.



Path 2, Step 4

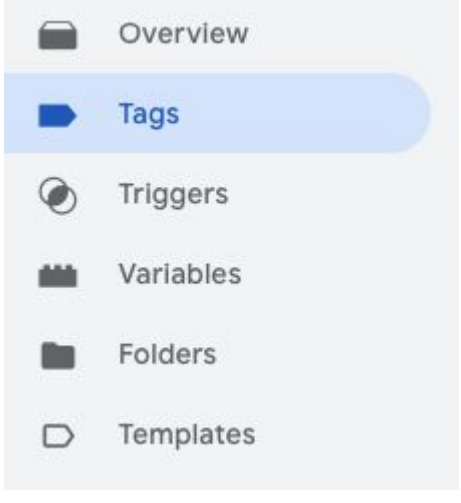
Configure trigger for custom event for whenever a vimeo data layer push occurs on the page. Use the ‘video’ event in the data layer.

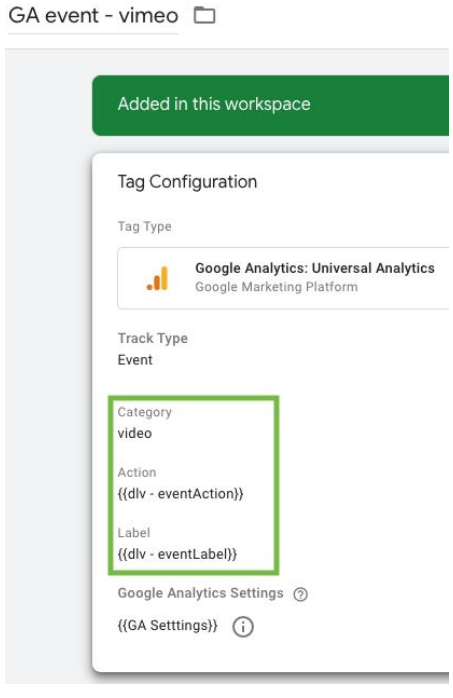




Path 2, Step 5

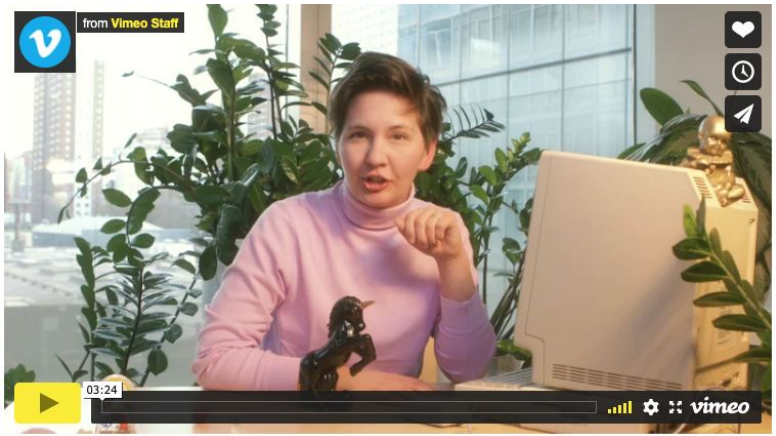
Configure your tag & link to trigger

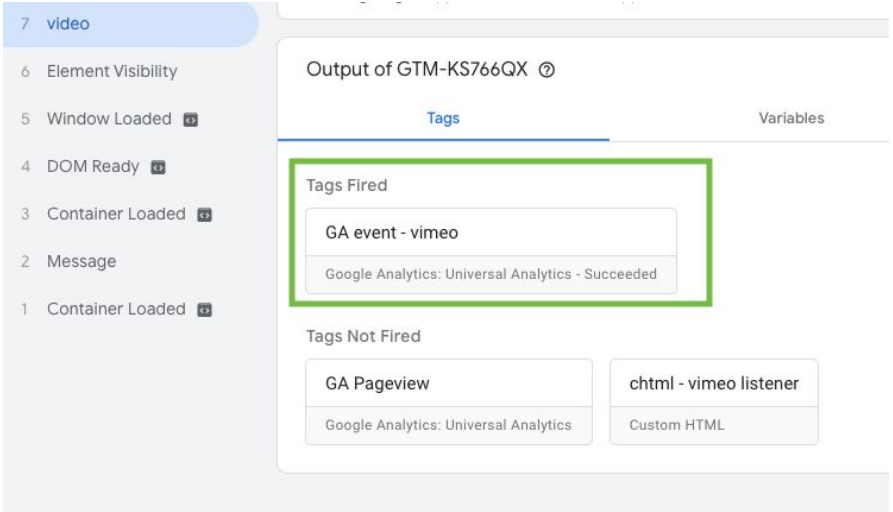




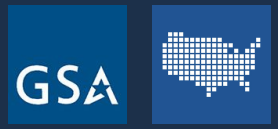
Path 2, Step 5

Next we test the tag in debug mode in TMS

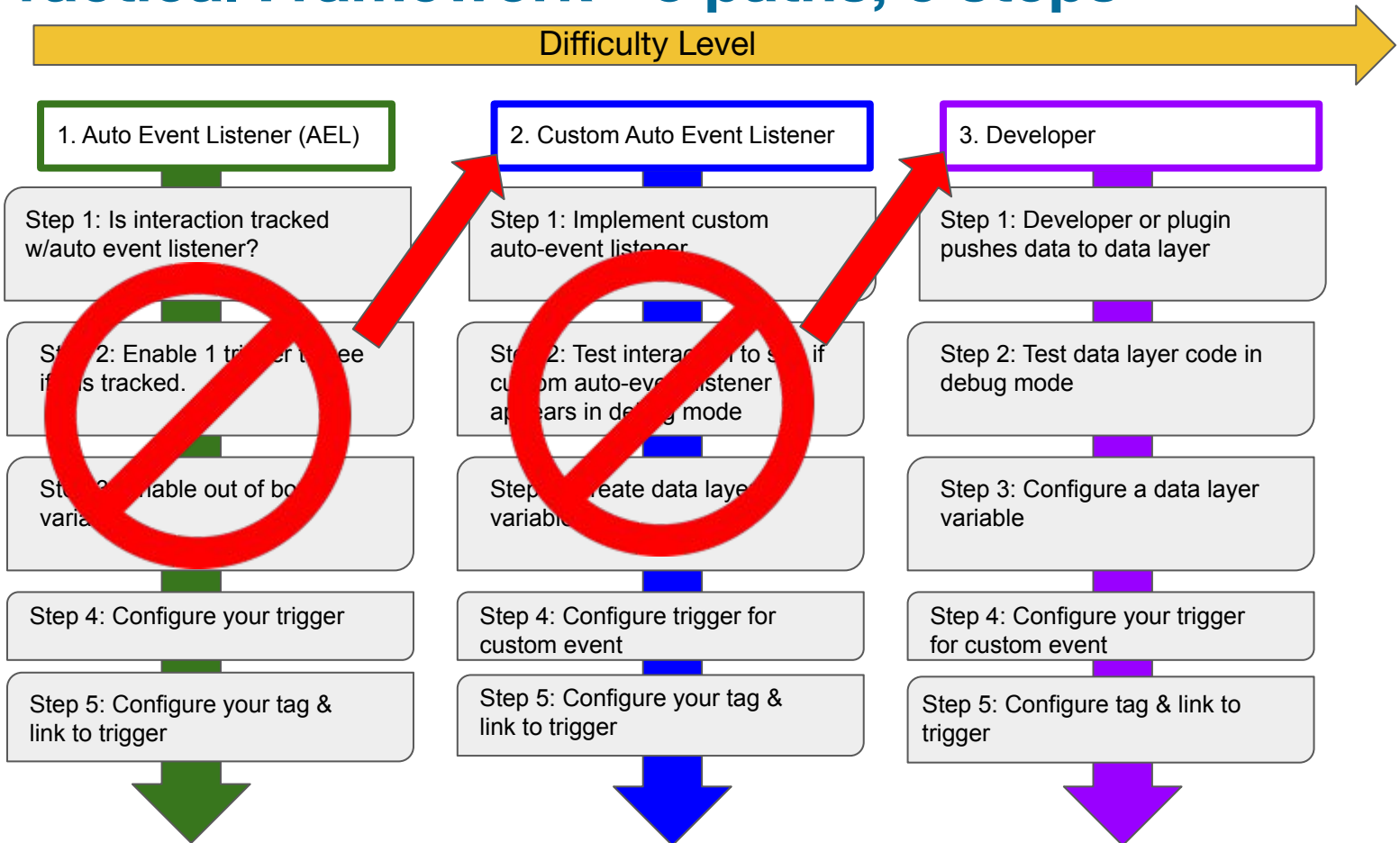




Path 3 - Datalayer



Practical Framework - 3 paths, 5 steps



Send data to the data layer

```
<script>

window.dataLayer = window.dataLayer || [];

window.dataLayer.push({

"loginStatus":"Not Logged In",

"customerTransactions":0,

"accountStartDate":"2021-03-18 11:51:18.78"

});

</script>
```

Custom data about an interaction gets inserted here by your developer or plugin

Let’s look at an example - usps.com


```
<script type="text/javascript">var dataLayer = window.dataLayer =
window.dataLayer || [];dataLayer.push({
"loginStatus":"Not Logged In",
"accountType":"Guest",
"customerID":"2204872731",
"customerTransactions":0,
"accountStartDate":"2021-03-24 10:41:31.277",
"pageSubsection":"shoppingcart",
"pageName":"store.shoppingcart.review",
"event":"ecomListImpression",
"pageSection":"store",
"pageSubSubsection":"review",
"ecommerce":{"cart":{"products":[{"product":"U.S. Flag",
"dimension102":"Book of 20",
"name":"U.S. Flag - Book of 20",
"category":"Philatelic",
"Price":"11.0","quantity":1,
"Id":"682304",
"dimension101":"In Stock",
"Quantity":1}]},
"Impressions":[]}
});
</script>
```

For more info on this approach

Refer to DAP's Part 1 webinar

Takeaways

- Figuring out how to configure a TMS is challenging
- Use 3 path configuration framework
- Path 1 is the easiest and path of least resistance for most people
- Paths 2 & 3 require significantly more thought and development work
- Choose your path wisely

Questions?

As always, reach out to us with questions at dap@support.digitalgov.gov

Helpful Links

- Simo Ahava
- Analytics Mania