Google Tag Manager for actionable metrics - Beyond basic Google Analytics

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Overview

- Google Analytics

- Google Tag Manager

- Common Google Tag Manager Patterns

- Customization and Testing

- Conclusion

Who am I?

- Account Manager at DesignHammer

- Working on Drupal sites for ~10 years

- Head up analytics implementations for our projects

- Not a JavaScript developer ;-)

Who are you?

- Developers?

- Site Builders?

- Project Managers?

- Site Owners?

- Who else?

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BUILDING SMARTER WEBSITES

Google Analytics/Google Tag Manager Experience

- Who has used Google Analytics?

- Who as used Google Tag Manager?

Home

Customization

REPORTS

Realtime

Audience

Overview

Active Users

Lifetime Value BETA

Cohort Analysis BETA

Audiences

User Explorer

Demographics

Interests

Geo

Behavior

Technology

Attribution BETA

Discover

Admin

Audience Overview ✓

SAVE   EXPORT   SHARE   INSIGHTS

Google Analytics

All Users
100.00% Users

Jun 1, 2020 - Jun 30, 2020

Overview

Users   VS.   Select a metric
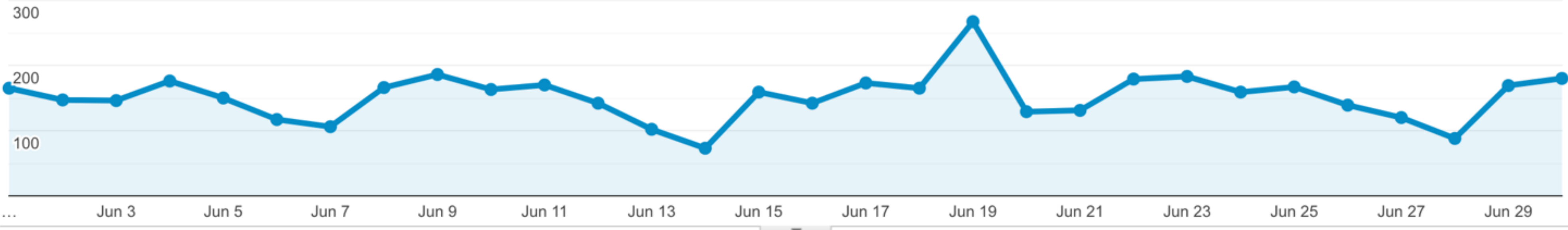
Hourly Day Week Month

● Users

300

200

100

Jun 3   Jun 5   Jun 7   Jun 9   Jun 11   Jun 13   Jun 15   Jun 17   Jun 19   Jun 21   Jun 23   Jun 25   Jun 27   Jun 29

■ New Visitor ■ Returning Visitor
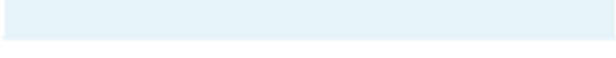
Users
4,293

New Users
4,219

Sessions
4,880

8.3%

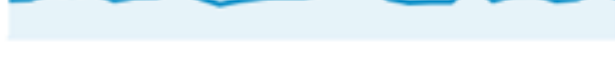Number of Sessions per User
1.14

Pageviews
7,374

Pages / Session
1.51

91.7%

Avg. Session Duration
00:02:01

Bounce Rate
25.61%

What is Google Analytics

- Google provided web analytics service

- Launched in 2005

- Free to use

- According to Built With's data, Google Analytics is used on over 29M sites worldwide

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BUILDING SMARTER WEBSITES

Out of the Box Functionality

- Tracks pageviews

- Cookie tracking of users, including:

  - Unique visitors

  - Sessions

- Inferred user behavior metrics based on pageviews and cookie interpretation

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Inferred Metrics

- Users vs. New Users

- Sessions / User

- Pages / Session

- Avg. Session Duration

- Bounce Rate

- Etc.

Are these metrics useful?

- What is your site trying to accomplish?

- Can these metrics tell you which users are "converting" on your site?

- What can these metrics tell you about which users are not "converting"?

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Some "conversions" not tracked by Google Analytics

- Form submissions

- File downloads

- Off-site link clicks

- Interactions with specific page elements

- …basically any user behavior that is not a pageview

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Custom Events

- Google Analytics provides the ability to track other user interactions using custom events

- Flexible in what can be tracked and how the data can be analyzed

- While Google Analytics can interpret custom events that it receives, your site still needs to submit the events

Custom Events

- Event components:

  - Event Category (text) [required]

  - Event Action (text) [required]

  - Event Label (text) [optional]

  - Event Value (integer) [optional]

Google Analytics Module

- The Drupal Google Analytics module provides some custom event tracking through module configuration:

  - Clicks on outbound links

  - Clicks on mailto links

  - Clicks on downloads

Additional Events in Drupal

- Traditionally two main options:

  - Custom JavaScript

  - Google Analytics Event Tracking module

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Custom JavaScript Events

- Very customizable

- Required a developer to implement and/or update

Google Analytics Event Tracking Module

- Customizable but requires implementing custom modules based on the provided example module

- Minimally maintained

- Prod release for D7, alpha release for D8

So what's the problem?

- Depending upon your development capacity and development workflow, you may need to wait on developer availability to implement or adjust custom event tracking

- Not interesting development work, so may not be prioritized if MarComm does not drive development priorities
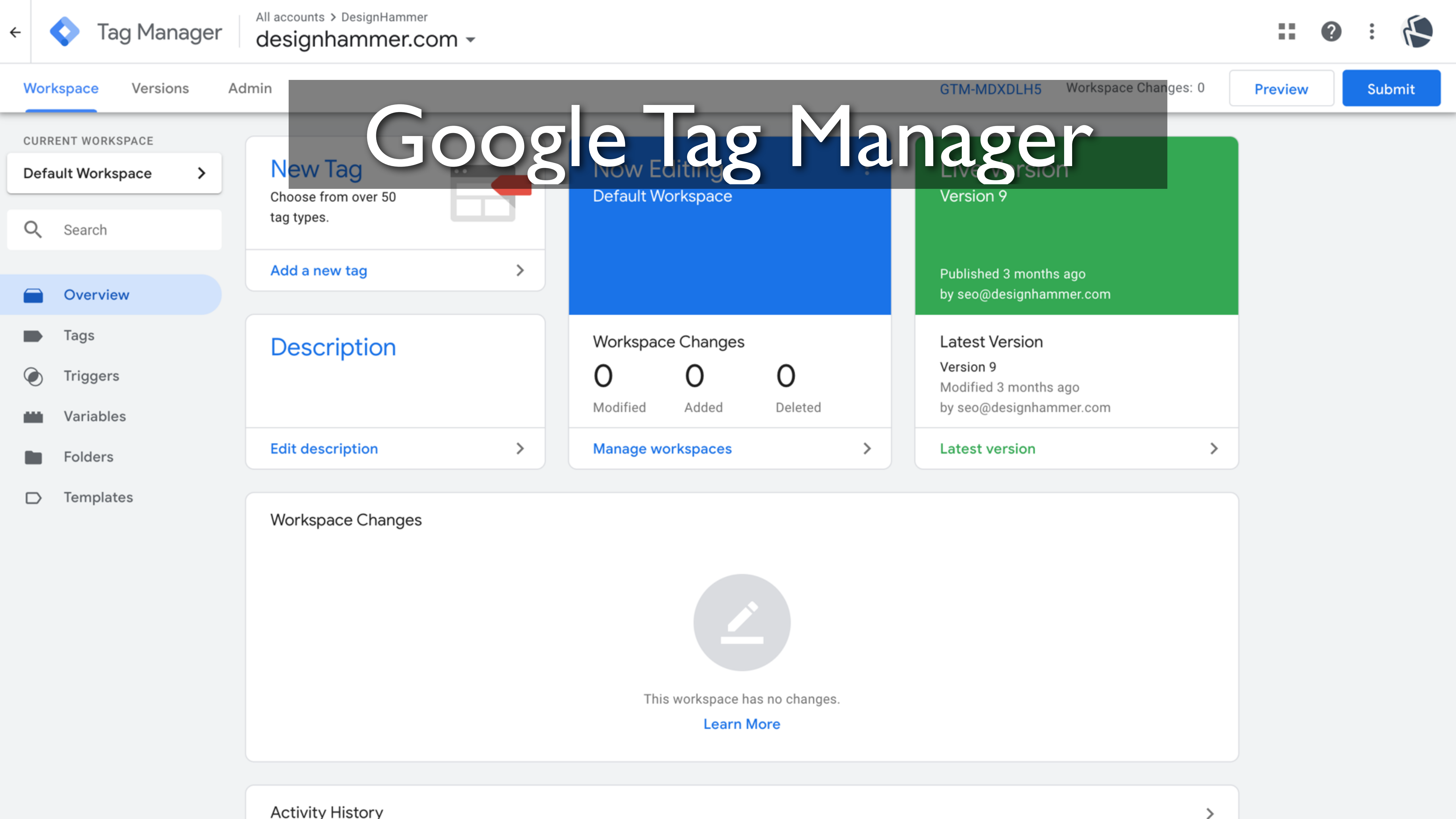
Google Tag Manager

What is Google Tag Manager?

- Tag Management System (TMS) provided by Google in 2012

  - TMSs are implemented to deploy and manage various marketing tags on websites

- Based on W3Techs, GTM is used by 99.3% of all the websites with a TMS (~29.5% of sites)

- Not a replacement for GA, but simplifies implementing custom events as tags

How does GTM work?

- GTM Container [required]

- Tags [required]

- Triggers [required]

- Variables [if necessary]
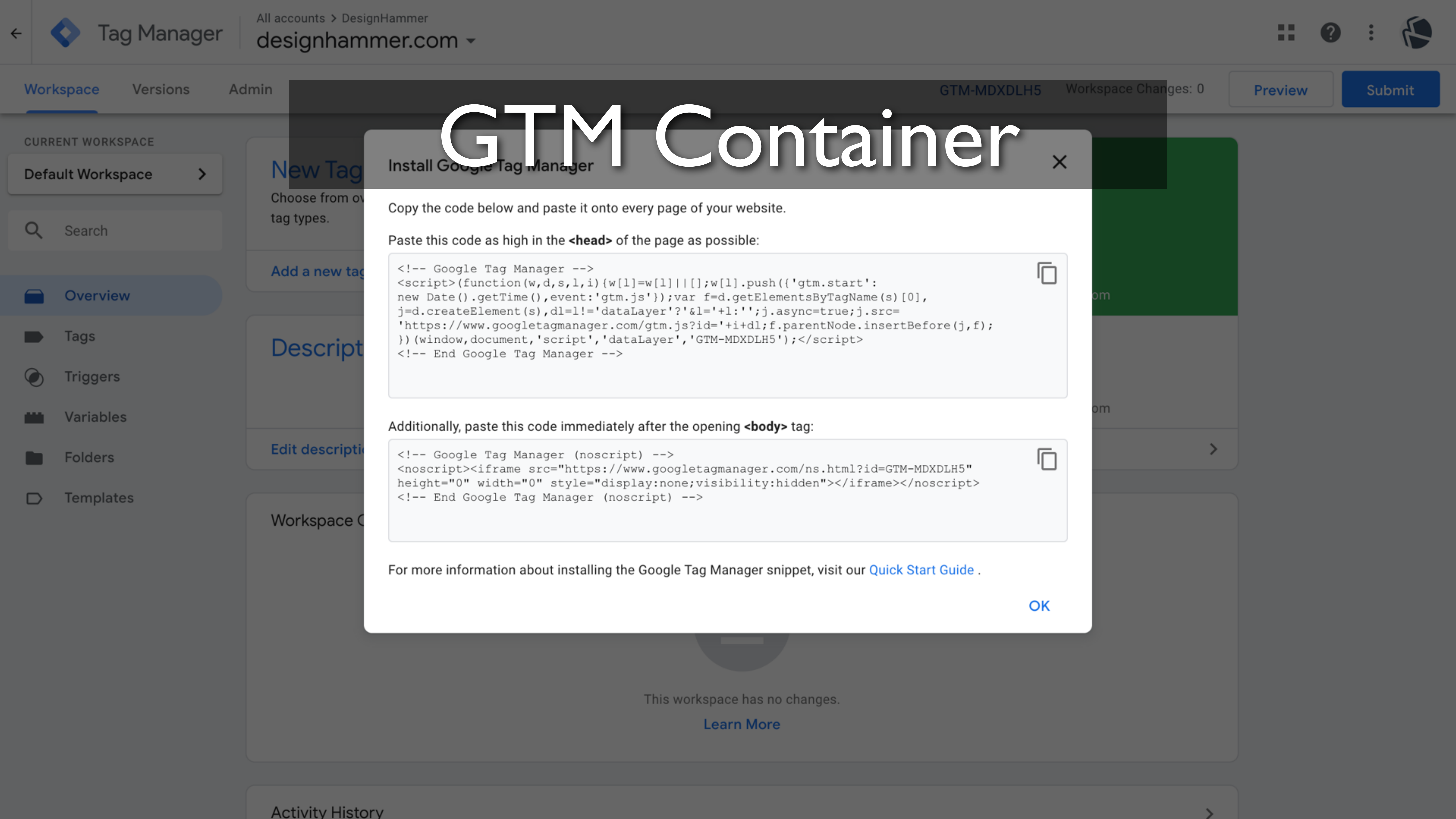
GTM Container

Install Google Tag Manager

Copy the code below and paste it onto every page of your website.

Paste this code as high in the **<head>** of the page as possible:

```
<!-- Google Tag Manager -->
<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-MDXDLH5');</script>
<!-- End Google Tag Manager -->
```

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

```
<!-- Google Tag Manager (noscript) -->
<noscript><iframe src="https://www.googletagmanager.com/ns.html?id=GTM-MDXDLH5"
height="0" width="0" style="display:none;visibility:hidden"></iframe></noscript>
<!-- End Google Tag Manager (noscript) -->
```

For more information about installing the Google Tag Manager snippet, visit our Quick Start Guide .

OK

GTM Container

- Needs to be added to the website

- GTM dynamically serves configured tags to the container on page load to allow tracking of user activity

Google Analytics Page Views 📁

Save ⋮

Workspace   Versions

CURRENT WORKSPACE

Default Workspace →

🔍 Search

📁 Overview

🏷️ Tags

◉ Triggers

🎞️ Variables

📁 Folders

🏷️ Templates

GTM Tag

Tag Configuration

Tag Type

Google Analytics: Universal Analytics
Google Marketing Platform

Track Type
Page View

Google Analytics Settings ❓
{{Production Google Analytics Variable}}

Triggering

Firing Triggers

All Pages
Page View

GTM Tags

- Piece of code usually intended to send information to a system

- Fire in response to certain events (triggers)

- GTM has many provided tags (e.g. Google Analytics, Crazy Egg, LinkedIn Insights, etc.)

- Tags also support custom HTML/JavaScript

GTM Triggers

- Listens for certain types of events (e.g. form submissions, button clicks, etc.)

- A trigger tells a tag to fire when the specified event is detected

- Every tag must have at least one trigger in order to fire

GTM Variables

Tag Manager

designhammer.com

| Workspace | Versions | Admin |

GTM-MDXDLH5   Workspace Changes: 0   Preview   Submit

CURRENT WORKSPACE

Default Workspace >

Search

- Overview
- Tags
- Triggers
- Variables
- Folders
- Templates

Built-In Variables ⓘ

Configure

Name ↑	Type
Click Classes	Data Layer Variable
Click Element	Data Layer Variable
Click ID	Data Layer Variable
Click Target	Data Layer Variable
Click Text	Auto-Event Variable
Click URL	Data Layer Variable
Event	Custom Event
Form Classes	Data Layer Variable
Form Element	Data Layer Variable
Form ID	Data Layer Variable
Form Target	Data Layer Variable
Form Text	Auto-Event Variable
Form URL	Data Layer Variable
On-Screen Duration	Data Layer Variable

Variables

- Named placeholder for a value that will change, such as a product name, a price value, or a date

- Tag manager implements a data layer to temporarily hold values in the client so that they can be used by tags, triggers, and variables

Implementing GTM in Drupal

- Create a GTM account

- Get your GTM container code

- Install your GTM container code on your Drupal site either via the Google Tag Manager module or by adding the GTM container code directly to your templates

Common GTM Patterns

- Webform submissions

- Off-site link clicks

- File downloads

- Embedded YouTube Video Interactions

Webform Submissions: Tag

- Google Analytics: Universal Analytics

- Event

- Event Category: "Form Submission"

- Event Action: {{Form URL}} (GTM Variable)

- Event Label: {{Form ID}} (GTM Variable)

- Google Analytics Settings (Custom Variable)

Tag Type

Google Analytics: Universal Analytics
Google Marketing Platform

Form Submission Tag

Track Type

Event

Event Tracking Parameters

Category

Form Submission

Action

{{Form URL}}

Label

{{Form ID}}

Value

Non-Interaction Hit

False

Google Analytics Settings ⓘ

{{Production Google Analytics Variable}}

Webform Submissions: Trigger

- Form submission

Form Trigger

Google Analytics F... [×]

Tag Config...

Tag Type

Event

Track Type
Event

Category
Form Submi...

Action
{{Form URL}

Label
{{Form ID}}

Google Anal...
{{Production...

Triggering...

Firing Trigger...

Form Submission [folder] [×] **Save** ⋮

Trigger Configuration

Trigger Type

| ✓ | Form Submission | ✏ |

☐ Wait for Tags ⌀

☐ Check Validation ⌀

This trigger fires on

◉ All Forms   ○ Some Forms

References to this Trigger

Google Analytics Form Submissions
Tag

How to track only certain forms?

- Add exceptions to the trigger:

  - Form submissions for specific Form ID

  - Form submissions on specific page paths

  - Depending on your GTM container implementation, exclude /admin and /user

Off-Site Link Clicks: Tag

- Google Analytics: Universal Analytics

- Event

- Event Category: "Offsite Link Click"

- Event Action: {{Click URL}} (GTM Variable)

- Event Label: {{Page URL}} (GTM Variable)

- Google Analytics Settings (Custom Variable)

Tag Type

Google Analytics: Universal Analytics
Google Marketing Platform

Off-Site Link Click Tag

Track Type

Event

Event Tracking Parameters

Category

Offsite Clicks

Action

{{Click URL}}

Label

{{Page URL}}

Value

Non-Interaction Hit

False

Google Analytics Settings ⓘ

{{Production Google Analytics Variable}}

Off-Site Link Clicks: Trigger

- Click - Just Links

- Some Link Clicks

- Click URL does not contain <your website domain>

- Click URL does not contain :tel if you have tel links

Off-Site Clicks Trigger

Off-Site Link Clicks Considerations

- Multiple domains

- Cross-domain tracking

- Subdomains

- Tracking some subdomains but not others

File Downloads: Tag

- Google Analytics: Universal Analytics

- Event

- Event Category: "File Download Click"

- Event Action: {{Click URL}} (GTM Variable)

- Event Label: {{Page URL}} (GTM Variable)

- Google Analytics Settings (Custom Variable)

Tag Type

Google Analytics: Universal Analytics
Google Marketing Platform

File Download Tag

Track Type

Event

Event Tracking Parameters

Category

File Clicks

Action

{{Click URL}}

Label

{{Page URL}}

Value

Non-Interaction Hit

False

Google Analytics Settings ?

{{Production Google Analytics Variable}}

File Downloads: Trigger

- Click - Just Links

- Some Link Clicks

- Click URL matches RegEx: \.(doc|pdf|ppt|xls|docx|pptx|xlsx)

File Downloads Trigger

File Downloads Caveats

- You are really tracking clicks on links with file extensions in the link URL on your webpages, not file downloads

- If you have, for example, links directly to file URLs in PDFs you distribute, those downloads are not tracked by this method

- Could require extra filtering if you have off-site file download links to exclude

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YouTube: Lookup Table

- Enable built-in video variables

- Lookup Table (used to both make default Video Statuses more human readable and allow use to use a single Event tag)

- Input Variable: Video Status

- Configure Lookup Table as desired for Video Status event and labels

Variable Configuration

YouTube Lookup Table

Variable Type

⚙️ Lookup Table ✏️

Input Variable ❓

{{Video Status}} ▼

Lookup Table ❓

Input		Output		
start	🧱	Start Playing	🧱	-
pause	🧱	Pause	🧱	-
seek	🧱	Skipped Forward (or Back)	🧱	-
buffering	🧱	Buffering	🧱	-
complete	🧱	Reached the End	🧱	-
progress	🧱	Reached{{Video Percent}} %	🧱	-

+ Add Row

YouTube: Trigger

- YouTube Video

- Capture: Start, Complete, Progress (as desired)

- All Videos

YouTube Trigger

Tag Config

Tag Type

Track Type
Event

Category
YouTube

Action
{{YouTube V

Label
{{Video Title

Google Anal
{{Google An

YouTube Video

Added in this workspace   Abandon changes

Save

Trigger Configuration

Trigger Type

▶ **YouTube Video**

✓ Start

✓ Complete

✓ Pause, Seeking, and Buffering

✓ Progress ⓘ
      Percentages
      25,50,75 percent

✓ Add JavaScript API support to all YouTube videos ⓘ

This trigger fires on
All Videos

Triggering

Firing Trigger

▶

Add Exce

References to this Trigger

▣ **Google Analytics YouTube Videos**
   Tag

YouTube: Tag

- Google Analytics: Universal Analytics

- Event

- Event Category: "YouTube Video Actions"

- Event Action: [your_lookup_table_variable]

- Event Label: {{Video Title}} - {{Video URL}} (GTM Variables)

- Google Analytics Settings (Custom Variable)

YouTube Tag

Tag Type

.il   **Google Analytics: Universal Analytics**
       Google Marketing Platform   ✏

Track Type

Event   ▾

Event Tracking Parameters

Category

YouTube   🧱

Action

{{YouTube Video Actions}}   🧱

Label

{{Video Title}} - {{Video URL}}   🧱

Value

                                                             🧱

Non-Interaction Hit

False   ▾

Google Analytics Settings ⍰

{{Google Analytics Tracking ID}}   ▾

YouTube Considerations

- Leverages GTM's built in support for YouTube videos

- Other video providers require a different approach

WE EMPOWER CLIENTS BY BUILDING SMARTER WEBSITES

Since 2001 we've been helping people overcome obstacles through Drupal, WordPress, and custom CMS

Customize & Test

What is your greatest obstacle?

◆ Tag Manager   **Tags**   Variables   Data Layer   Errors (0)   Version: QUICK_PREVIEW   GTM-MDXDLH5   ⌄

Summary

Summary

Tags Fired

| 6 Scroll Depth |
| 5 Scroll Depth |
| 4 Scroll Depth |
| 3 Window Loa... |

Google Analytics Page Views	Google Analytics Page Scroll Depth
Google Analytics: Universal Analytics - Fired 1 time(s)	Google Analytics: Universal Analytics - Fired 3 time(s)

Custom HTML - Twitter Listener

Identify User Interaction You Want to Track

- Specific CTA click

- Specific form interaction

- Scroll depth

- …the possibilities are nearly endless.

What Can GTM "See?"

- GTM "Built in" triggers

- Custom event triggers

- Trigger groups

Other User Behavior Related GTM Triggers

- Page view trigger

- History change trigger

- Scroll Depth trigger

- Timer trigger

Custom Event Trigger

- Can trigger on interactions with the GTM Data Layer

- Common approach is to use a Custom HTML tag to insert data into specific Variables in the data layer and trigger based on those changes

Trigger Group

- Set dependencies between multiple triggers

- The Trigger Group does not fire the tag until every trigger in the group has fired at least once

Event Construction

- Use the built in GTM variables (e.g. Page path, Click URL, etc.) to populate your custom event properties with useful info

- Remember how events will be parsed by Google Analytics for actionable metrics

- Consistency with other custom events is a good idea for cross event analysis

Use Preview & Debug Mode for Testing

- Enabled in Google Tag Manager

- Allows you to test unsubmitted changes in your workspace

- Load site in another tab or window of the same browser

- Provides insight into which tags are firing and when they fire

Live Demo
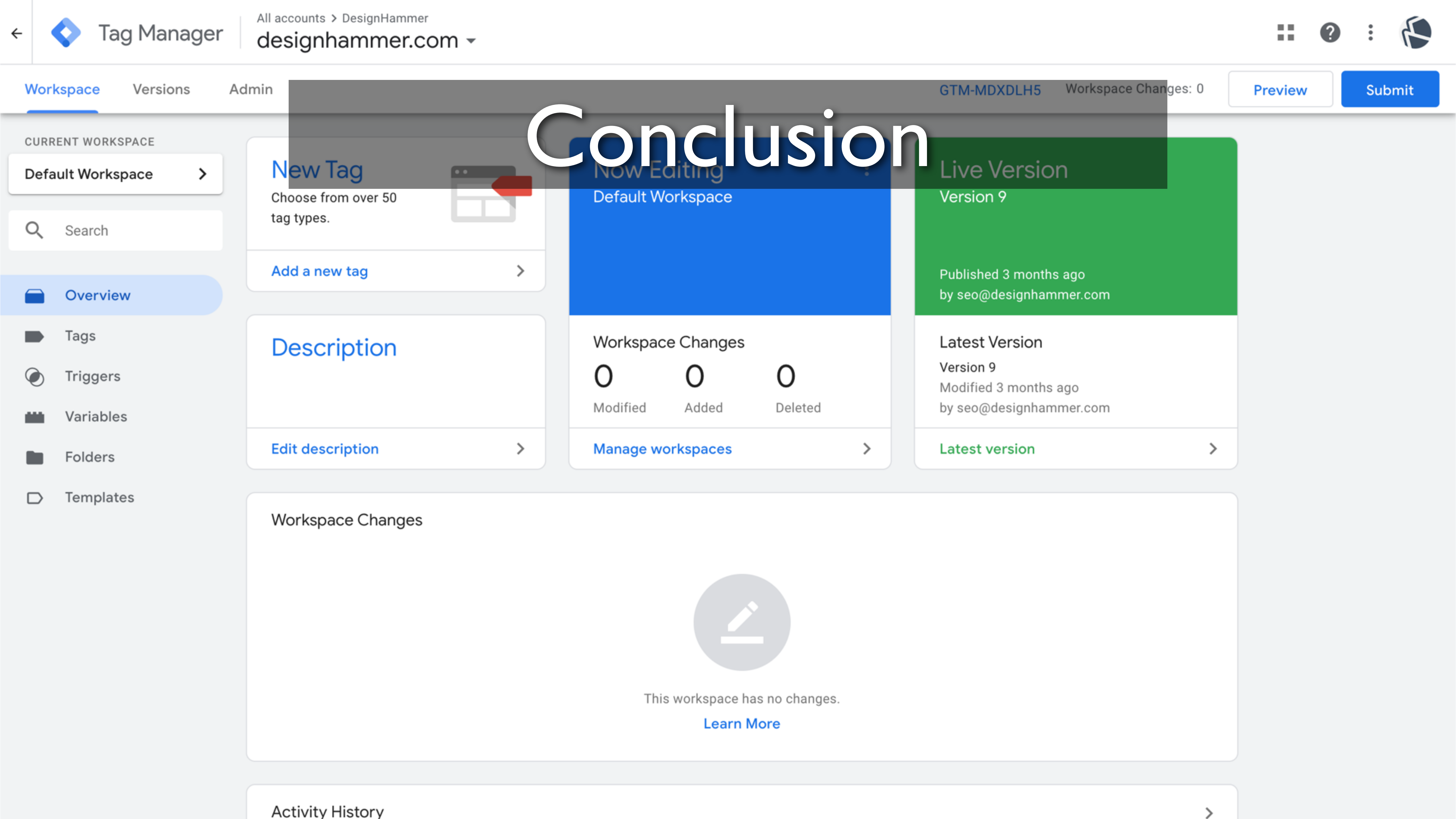
Conclusion

Closing Thoughts

- GTM makes is easy to extend GA to gain actionable metrics

- Well chosen and well constructed metrics improve visibility on how successful a website

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Tags		
Triggers		
Variables		
Folders		
Templates		

Click ID	Data Layer Variable
Click Target	Data Layer Variable
Click Text	Auto-Event Variable
Click URL	Data Layer Variable
Event	Custom Event
Form Classes	Data Layer Variable
Form Element	Data Layer Variable
Form ID	Data Layer Variable
Form Target	Data Layer Variable
Form Text	Auto-Event Variable
Form URL	Data Layer Variable
On-Screen Duration	Data Layer Variable
Page Hostname	URL
Page Path	URL
Page URL	URL
Percent Visible	Data Layer Variable
Referrer	HTTP Referrer
Scroll Depth Threshold	Data Layer Variable
Scroll Depth Units	Data Layer Variable
Scroll Direction	Data Layer Variable

Questions?

Special thanks

Stephen Pashby

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