

Introduction to Google Tag Manager

Demo app:

<https://gtm-sample-app.herokuapp.com/>

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About me

- ▶ This is my first time speaking at a conference!
- ▶ Back-end developer at Andrews McMeel Universal
- ▶ Ruby on Rails, JavaScript (analytics and advertising)
- ▶ I love powerlifting, cute animals, and dessert
- ▶ GitHub: <https://github.com/lafentres>

Overview

- ▶ What is GTM?
- ▶ Pros/Cons
- ▶ Interface
- ▶ Containers/Tags/Triggers/Variables/Folders
- ▶ Data layer
- ▶ Considerations

Overview (continued)

- ▶ GA Implementation Examples:
 - ▶ Basic setup
 - ▶ Custom Dimensions
 - ▶ Custom Events
 - ▶ Virtual pageviews
- ▶ Additional resources

Google Tag Manager is:

- ▶ AKA GTM
- ▶ A tool to help manage tags
 - ▶ Tags are basically snippets of JavaScript/HTML, generally for:
 - ▶ Analytics
 - ▶ Remarketing
 - ▶ Conversion tracking
 - ▶ Etc

Google Tag Manager is:

- ▶ A way to organize and create complicated analytics tracking
- ▶ Not a way to circumvent the dev team and code standards/processes
- ▶ Not the same thing as Google Analytics (GA)
 - ▶ Can have GTM configured but still not send anything to GA

Pros

- ▶ Less reliance on devs* for certain tasks
- ▶ Faster to make some updates because there might not be a code deploy necessary
- ▶ Free version available
- ▶ Many built-in templates for 3rd party tags and certain types of tracking

Pros (continued)

- ▶ Support for custom tags
- ▶ Different levels of access so you can create workflows
- ▶ Can provide structure and clarity to your measurement plan

Cons

- ▶ (Subjective) Not the most intuitive
- ▶ Not necessarily faster if you need more complex tracking, as you will still need devs to implement code
- ▶ Still need technical knowledge or supervision

Cons (continued)

- ▶ No good way to connect to code deploys
- ▶ Many types of tracking still require code updates on page as well
- ▶ Not a lot of automation available
- ▶ Documentation can be unhelpful or non-existent (getting better though!)

Interface: Workspaces

- ▶ 3 in free version (including default)
- ▶ Basically like branches (master = default)
- ▶ Try to do all of your work in separate workspace (not in default)

Interface: Overview

- ▶ Convenience page
- ▶ Quick place to add a new tag
- ▶ Shows which workspace you are in, version, history of changes

Interface: Versions

- ▶ Shows the complete publish history
- ▶ Can revert back to previous versions
- ▶ Also edit, share, and preview previous versions

Interface: Admin

- ▶ Can manage user permissions at account (user, admin) and container level (read, edit, approve, publish)
- ▶ Import/export container (handy for reusing a certain setup across sites)
- ▶ Access basic setup code

Interface: Preview/Submit

- ▶ Preview allows you to test out your container on your site (any version of your site, including production) and gives you a very useful debug window
- ▶ Submit publishes your changes

Container

- ▶ Set of tags/variables/triggers/config
- ▶ Can be reused across multiple sites or duplicated for structure

Tags

- ▶ Snippets of JavaScript or HTML
- ▶ Support for custom tags
- ▶ Many built-in templates for common tags
 - ▶ Various GA tags (pageview, event, etc)
 - ▶ Twitter, Facebook, Quantcast, comScore, etc

Tags (continued)

- ▶ For GA tags, these are like the `ga('send', ...)` command in Universal Analytics
- ▶ This is where you set the variables, custom metrics, custom dimensions, triggers, etc for your GA tags

Triggers

- ▶ Events or conditions
- ▶ Custom triggers
- ▶ Many built-in triggers
 - ▶ Scrolling
 - ▶ Link clicks, element clicks
 - ▶ History change

Variables

- ▶ Built-in variables
 - ▶ Page info (URL, path, hostname)
 - ▶ Scroll (depth, direction)
 - ▶ Click info (classes, id, element, URL)
- ▶ Custom variables
 - ▶ Data layer: pulled from data layer
 - ▶ Auto-event: pulled when event fires on elements, history changes, etc
 - ▶ Constants, JS, look up tables, etc

Folders

- ▶ Nice way to organize all of your tags, triggers, and variables

Data Layer

- ▶ Basically a JavaScript array you can push information to
 - ▶ Key-value pairs
 - ▶ Gets processed and passed along to different sources (GA, 3rd party tags, etc)
- ▶ Called dataLayer by default, you can override this if you need to

Basic Set-up

- ▶ Container script in head
- ▶ Noscript in body
- ▶ Data layer above container script
- ▶ Create a variable in GTM for your GA tracking ID:
 - ▶ Lookup table
 - ▶ GA Settings
- ▶ Set up pageview tag

Container Tag

```
<!-- Google Tag Manager -->
<script>
(function(w,d,s,l,i){w[l]=w[l] || [];w[l].push({'gtm
.start': newDate().getTime(),event:'gtm.js'});var
f=d.getElementsByTagName(s)[0],
j=d.createElement(s),dl=(!('dataLayer'?'&l='+'+l:''
;j.async=true;j.src='https://www.googletagma
nager.com/gtm.js?id='+i+dl;f.parentNode.inse
rtBefore(j,f);})(window,document,'script','dataL
ayer','GTM-XXXXXXX');
</script>
<!-- End Google Tag Manager -->
```

Noscript tag

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

Data Layer

```
<script>
  window.dataLayer=window.dataLayer||[];
  window.dataLayer.push({
    'event':'dataLayer-loaded',
  });
</script>
```

Custom Dimensions

- ▶ Put what you want to track in data layer
 - ▶ On initial page load (if you can) or via data layer push
- ▶ Create custom dimension in GA
- ▶ Create 2 variables
 - ▶ 1: store the index
 - ▶ 2: get the value
- ▶ Set the custom dimension on tags (pageview, events, etc)

Custom Events

- ▶ Push relevant data to the data layer when the event happens
- ▶ Figure out what you'll store in the category/action/label fields
 - ▶ If you need to capture more information, you might need to create extra custom dimensions
- ▶ Create trigger
- ▶ Create tag

Virtual Pageviews

- ▶ Ideal for infinite scroll, slideshows, etc
- ▶ Basically just adding another trigger to the pageview event
- ▶ Push virtual pageview event to data layer
- ▶ Create trigger for this data layer push
- ▶ Add trigger to pageview tag (and any other tags that fire every pageview)

Testing

- ▶ Use preview mode
- ▶ Also check network requests and/or extension to check that hits are actually going to GA
- ▶ Can also check things by looking at the real-time data in GA

Considerations

- ▶ Workflow
- ▶ Naming conventions
 - ▶ Variables/Triggers/Tags in GTM
 - ▶ Events/Custom Dimensions in GA
- ▶ How to migrate
 - ▶ Go in phases
 - ▶ Start with what you have now and go from there

Things to investigate

- ▶ customTask
 - ▶ API for Universal Analytics & GTM
- ▶ Organization strategy
- ▶ How data layer works under the hood
- ▶ Possibilities for automation/tying to code deploys

Resources

- ▶ Simo Ahava:
 - ▶ <https://www.simoahava.com/>
 - ▶ <https://www.simoahava.com/analyticse/awesome-google-tag-manager-resources/>
- ▶ LunaMetrics:
 - ▶ <https://www.lunametrics.com/blog/category/products/google-tag-manager/>

Resources

- ▶ Google:
 - ▶ <https://developers.google.com/tag-manager/quickstart>
 - ▶ <https://analytics.google.com/analytics/academy/course/5>
 - ▶ <https://support.google.com/tagmanager#topic=3441530>
 - ▶ <https://plus.google.com/communities/104865292981489764063>

Resources

- ▶ Moz:
 - ▶ <https://moz.com/blog/an-introduction-to-google-tag-manager>
- ▶ Extensions:
 - ▶ [Google Analytics Debugger \(Chrome\)](#)
 - ▶ [Tag Assistant by Google \(Chrome\)](#)