imagine
2019

Adobe Experience Platform Launch & Magento

Intro to Client-Side Development on the Adobe Experience Platform

Lab Manual

Abstract

Mobile and web marketing technologies are growing by leaps and bounds. Learn how to simplify your use of JavaScript tags, advertising measurement tech, and marketing pixels using brand new tools now available to Magento Enterprise customers through the Adobe acquisition. While the principles we learn can apply to any Tag Management Platform, this lab will use Adobe Launch to install and practice the basics of Tag Management on a sample Magento website.

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Table of Contents

Implementing the Adobe Experience Cloud in Websites with Adobe Experience Platform Launch

Lab Overview

This lab is geared toward those that are interested in the first integration between Magento and Adobe's Marketing and Advertising Products.

Time permitting, by the end of this lab you should be able to:

- Login into the Adobe Experience Cloud

- Become familiar with Adobe.io Developer Portal

- Have an understanding of how Tag Management works and how to use them on Magento

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Prerequisites

Some things you'll need in order to complete this lab.

- A stable test instance of Magento 2.2 or higher
- NPM version 5.2.0 or higher
- Node.js version 10.x.x or higher
- Access and login credentials to Adobe Experience Cloud

Also, it is assumed that you are familiar with front-end development languages like HTML and JavaScript. You do not need to be a master of these languages to complete the lessons, but you will get more out of them if you can comfortably read and understand code.

About Launch

Launch, by Adobe is the next generation of website tag and mobile SDK management capabilities from Adobe. Launch gives customers a simple way to deploy and manage all of the analytics, marketing, and advertising solutions necessary to power relevant customer experiences. There is no additional charge for Launch. It is available for any Adobe Experience Cloud customer.

About the Lessons

We plan to cover some of the basics of Tag Management and will be suing Adobe's Tag Management Platform, however the principles should apply to any Tag Management system available on the market. We also plan to do a brief overview of Extension Development on Adobe's Tag management Platform and give you the basics to get started building your own Extensions for the product

Exercise 1: Install the Embed Code

Login to the Adobe Experience Cloud

In this exercise, you will create your first Launch property and deploy it to Magento.

A "property" is basically a container that you fill with extensions, rules, data elements, and libraries as you deploy tags to your site.
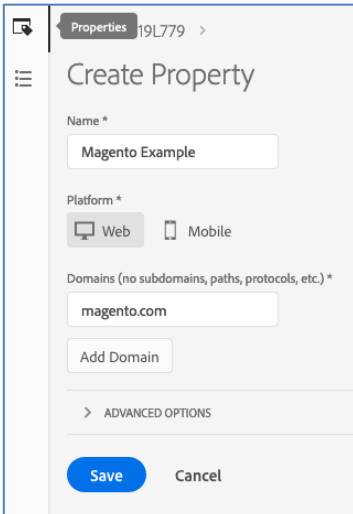
Prerequisites

In order to complete the next few lessons, you must have access to Adobe Experience Cloud and by assigned permissions to Develop, Approve, Publish, Manage Extensions, and Manage Environments in Launch. If you are unable to complete any of these steps because the user interface options are not available to you, reach out to your Experience Cloud Administrator to request access. For more information on Launch permissions, see the documentation.
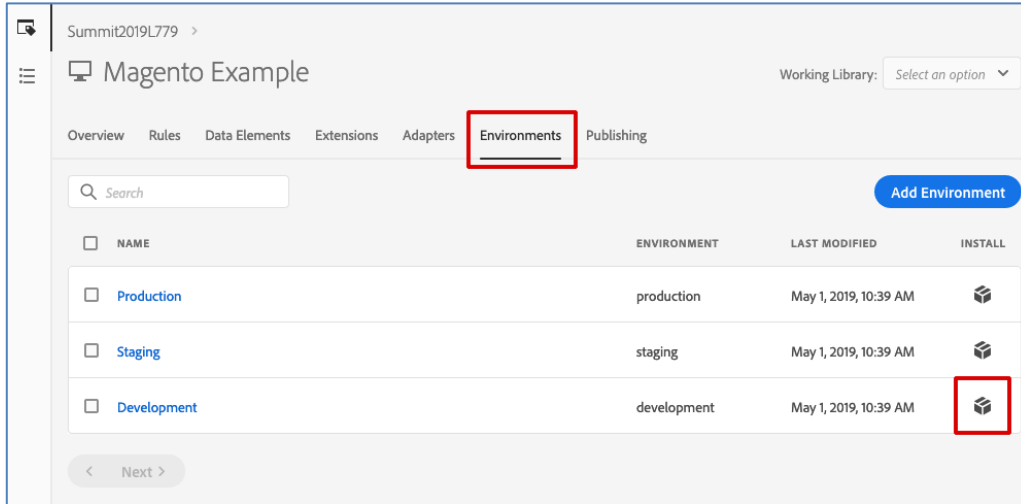
Go to Launch

To get to Launch

1. Log into the Adobe Experience Cloud

2. Click the ▦ icon to open the solution switcher and choose "Activation"

3. Click on the icon to go to "Launch"

4. Give the Property a Name and your domain and hit "Save"

5. Search or click on the newly Created property

6.   Navigate to the "Environments" tab

7.   Click the "Install Icon to show the JavaScript Embed Code

8.   Copy the code snippet

Go to Magento

9.   Login to your Magento Admin Console

10. Navigate to "Content" => Design, "Configuration" => Select your Store View and click "Edit"

11. With your correct Theme applied, expand the "HTML Head" section

12. Paste the code snippet into the "Scripts and Sheets" field
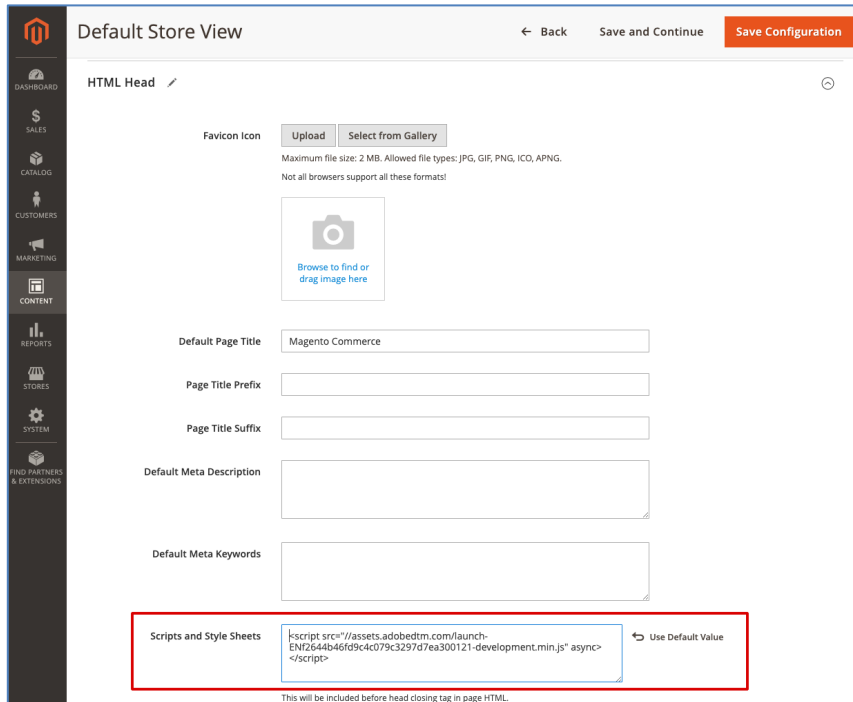
13. Clear or flush your Magento cache if necessary and confirm the Storefront now has the new code snippet.
     NOTE: the URL in the embed code does not yet have a file to be downloaded. This will be covered later in the lab.
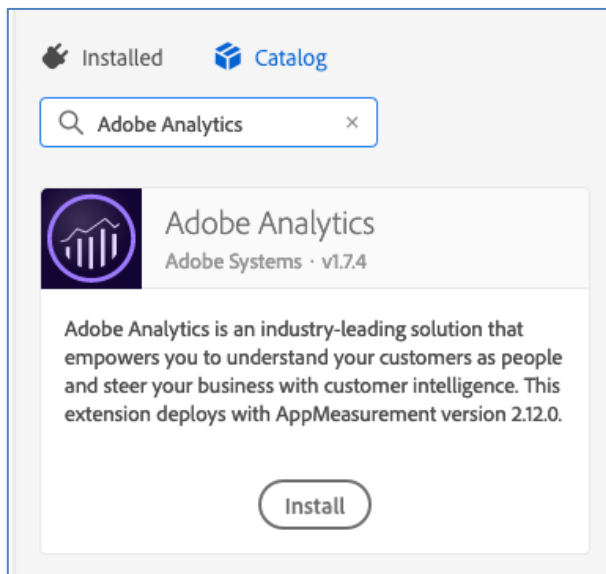
Exercise 2: Install Analytics

Go Back to Launch

1. Navigate back to Launch *(shortcut: https://launch.adobe.com/)*

2. Navigate to the "Extensions" tab

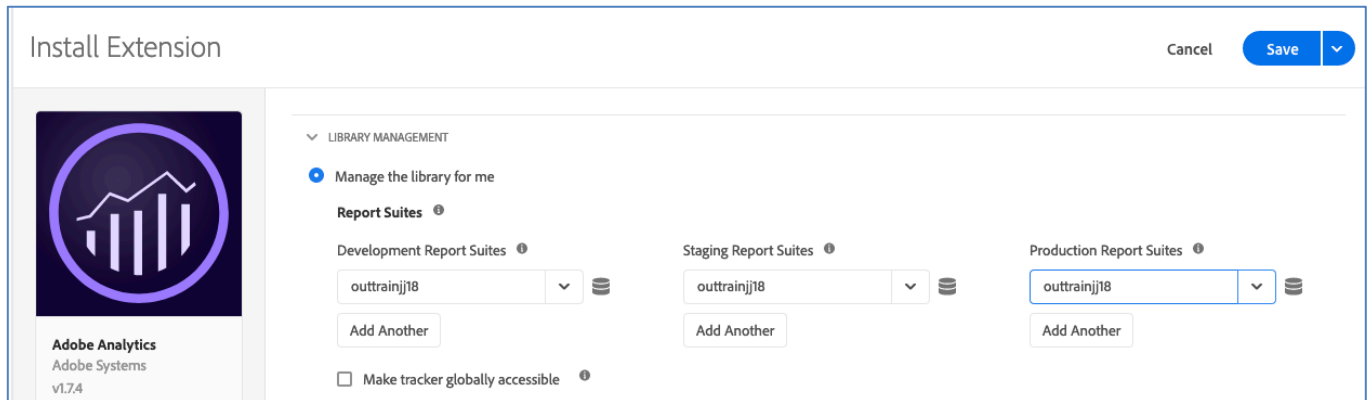3. Click on the "Catalog" button
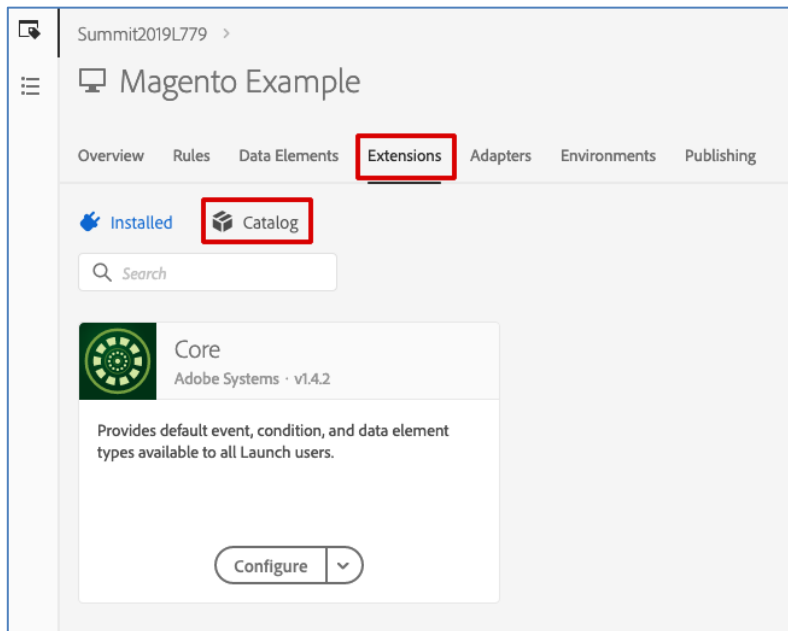
4. Search or locate the "Adobe Analytics Extension"


5. Click "Install"

6. In the "Report Suite" sections enter the following string for all 3 development, staging, and production:
   outrainjj18

7. Click 'Save"

8. Navigate back to the "Catalog" and this time search for "Google" You will notice there are multiple Google Extensions

9. Click "Install" on the one labeled "Google Global Site Tag"
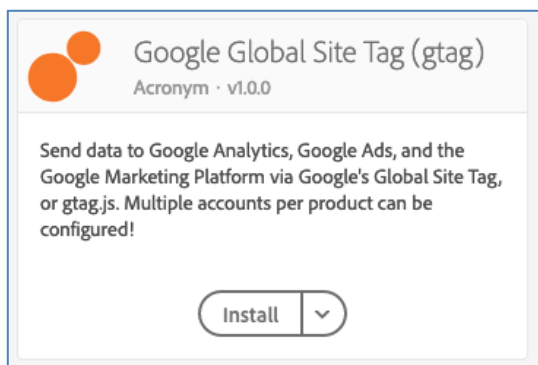
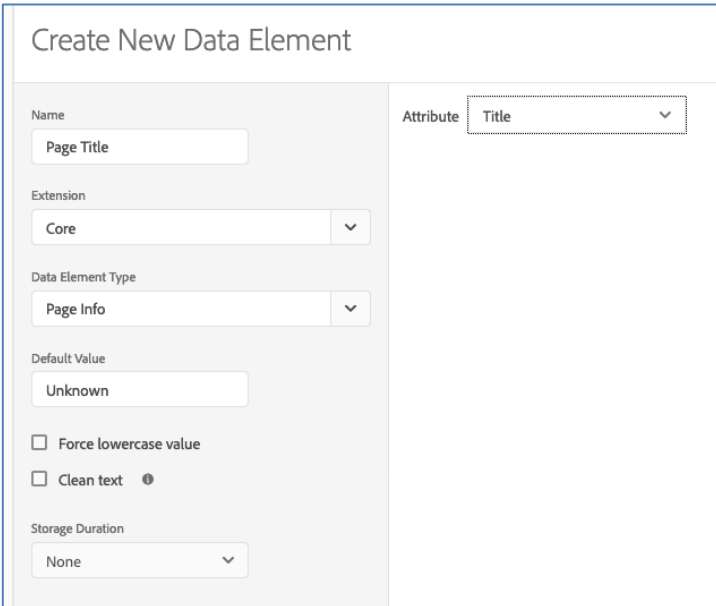10. Click "Add Account" to add your Google Analytics Account
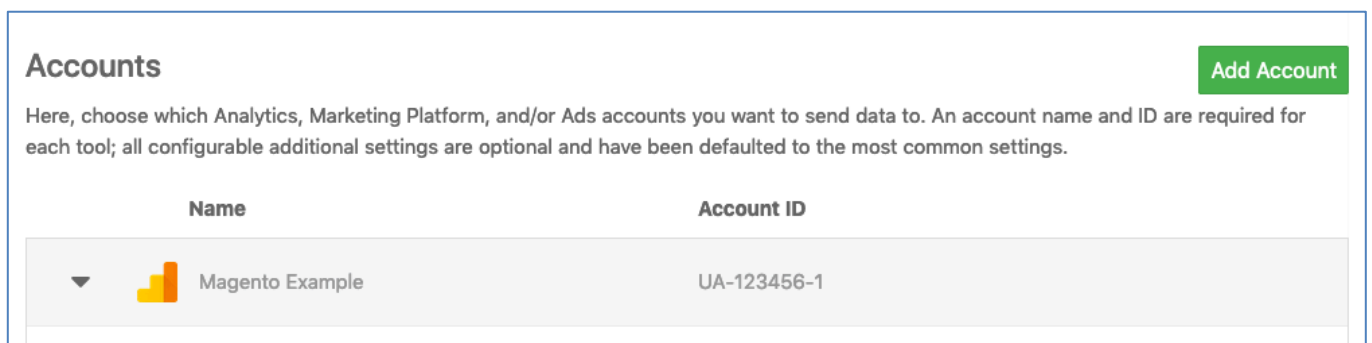
11. Click Save

Exercise 3: Create a Data Element

Go Back to Launch

1. Navigate back to Launch and select the "Data Elements"

2. Create a New Data Element

3. Give it a name like "Page Title"

4. Leave the Extension as "Core"

5. From the drop-down labeled "Data Element Type" Select "Page Info

6. Enter a default value of "Unknown"

7. From the drop-down labeled 'Attribute" select the option "Title"

8. Click the "Rules" tab and then click the button to "Create New Rule"
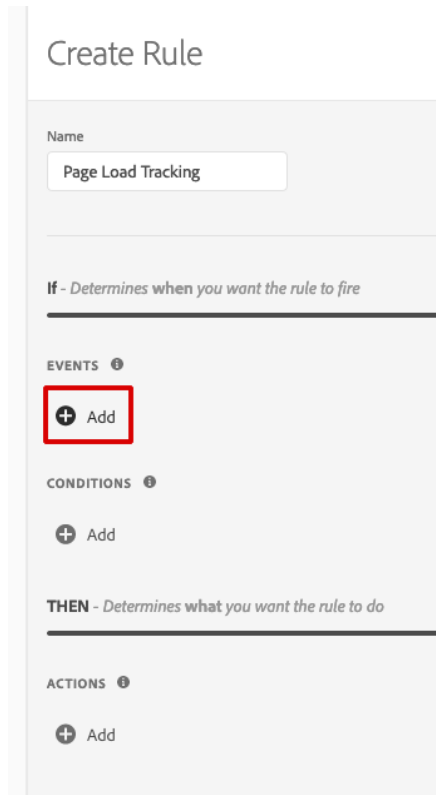
9. Give the Rule a name like "Page Load Tracking"

10. Click "Save"

[SEE APPENDIX ABOUT DATA LAYERS & BEST PRACTICES]

Exercise 4: Create a Rule to Fire Beacons

Go Back to Launch

1. Navigate back to Launch *(shortcut: https://launch.adobe.com/)*

2. Click the "Rules" tab and then click the button to "Create New Rule"

3. Give the Rule a name like "Page Load Tracking"

4. Under the "IF" section add a new Event to trigger this rule

5. Leave the "Extension" as Core but for the "Event Type" on the left select "Library Loaded (Page Top)"

6. Click "Keep Changes"

7. Click to add an "Action" under the 'Then' section

8. From the Extension drop-down choose "Adobe Analytics"

9. In the Action Type choose "Set Variable"

10. Scroll down to the field labeled "Page Name" an click the DB icon to set the value
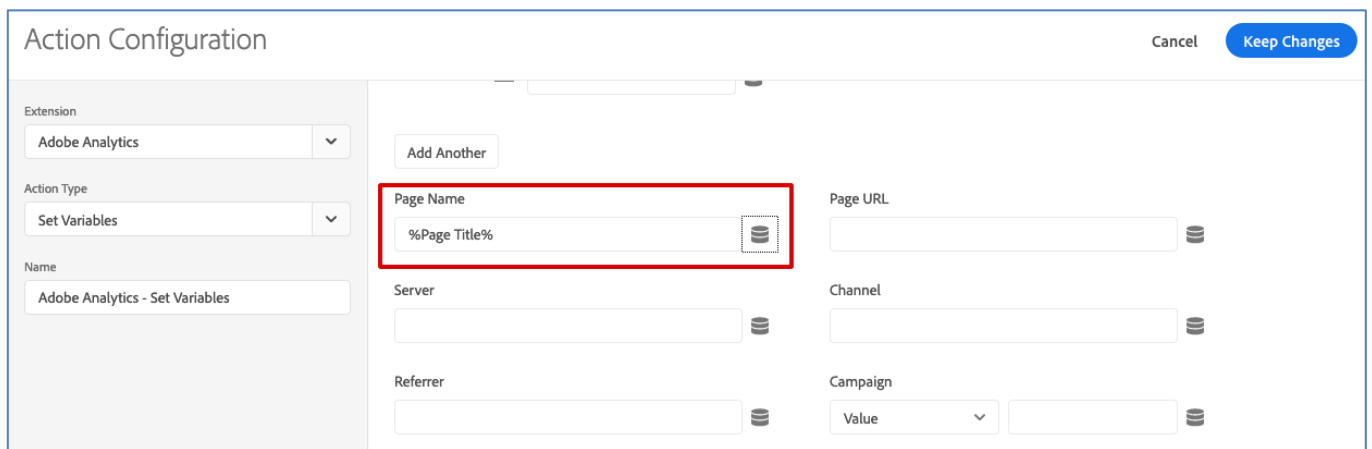
11. Choose the Data Element you created in the previous exercise

Select Data Element

🔍

Page Title   ✓

Cancel   (Select)
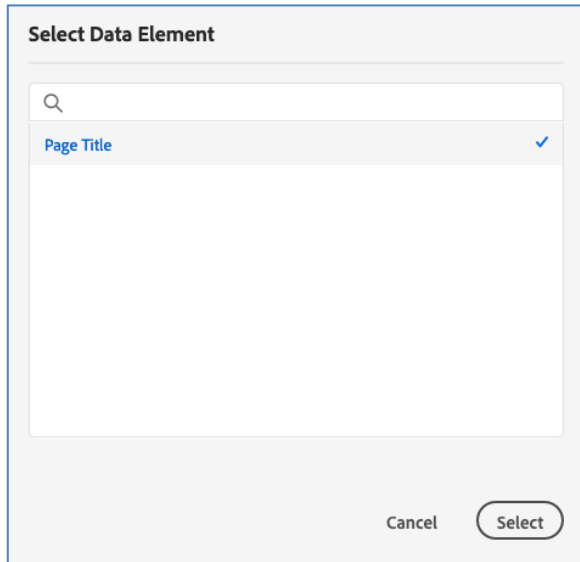
12. Click "Select" and then "Keep Changes"

Action Configuration   Cancel   **Keep Changes**

Extension
Adobe Analytics   ⌄

                                    Add Another

Action Type
Set Variables   ⌄

                        Page Name   Page URL
                        %Page Title%   🗄   🗄

Name
Adobe Analytics - Set Variables

                        Server   Channel
                                                      🗄   🗄

                        Referrer   Campaign
                                                      🗄   Value   ⌄   🗄

13. Now add a new action to send the beacon. Click the ⊕ to add an additional action to the rule.

14. Again Select "Adobe Analytics" as the Extension

15. Choose "Send Beacon" as the action type and leave the default settings and click save.

16. Add yet another action to the rule by again clicking the plus sign.

17. This time choose "Google Global Site Tag" as the Extension and choose "Send a page view"

18. Enter the variable name of "page_title" and once again click the Data Element Viewer to set the value to the Data Element we created.
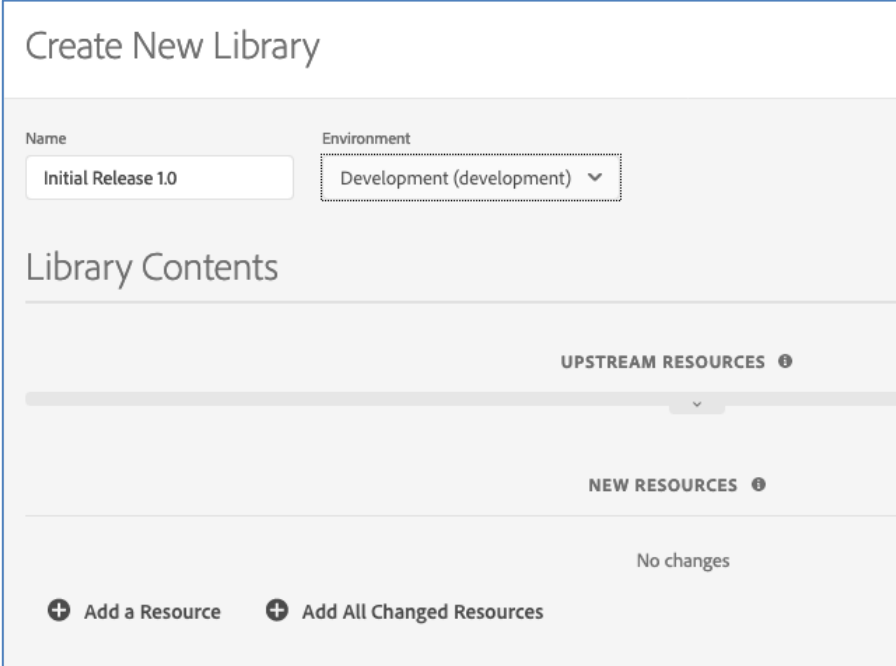
19. Click "Keep Changes"

20. Click "Save" to save this new rule.

Exercise 5: Publish Your Changes

Go Back to Launch

1. Navigate back to Launch and click on the "Publishing" tab

2. Click "Add New Library" button

3. Give the library a name similar to what you might put for a GitHub release tag like "Initial Release 1.0"

4. Select the "Development" environment

5. Click the button at the bottom called: "Add All Changed Resources"

6. Click the blue button called "Save and Build for Development"

7. When the icon turns "Green" the Library has been built and deployed to Akamai's global CDN in your development environment.

Go Back to Magento Store
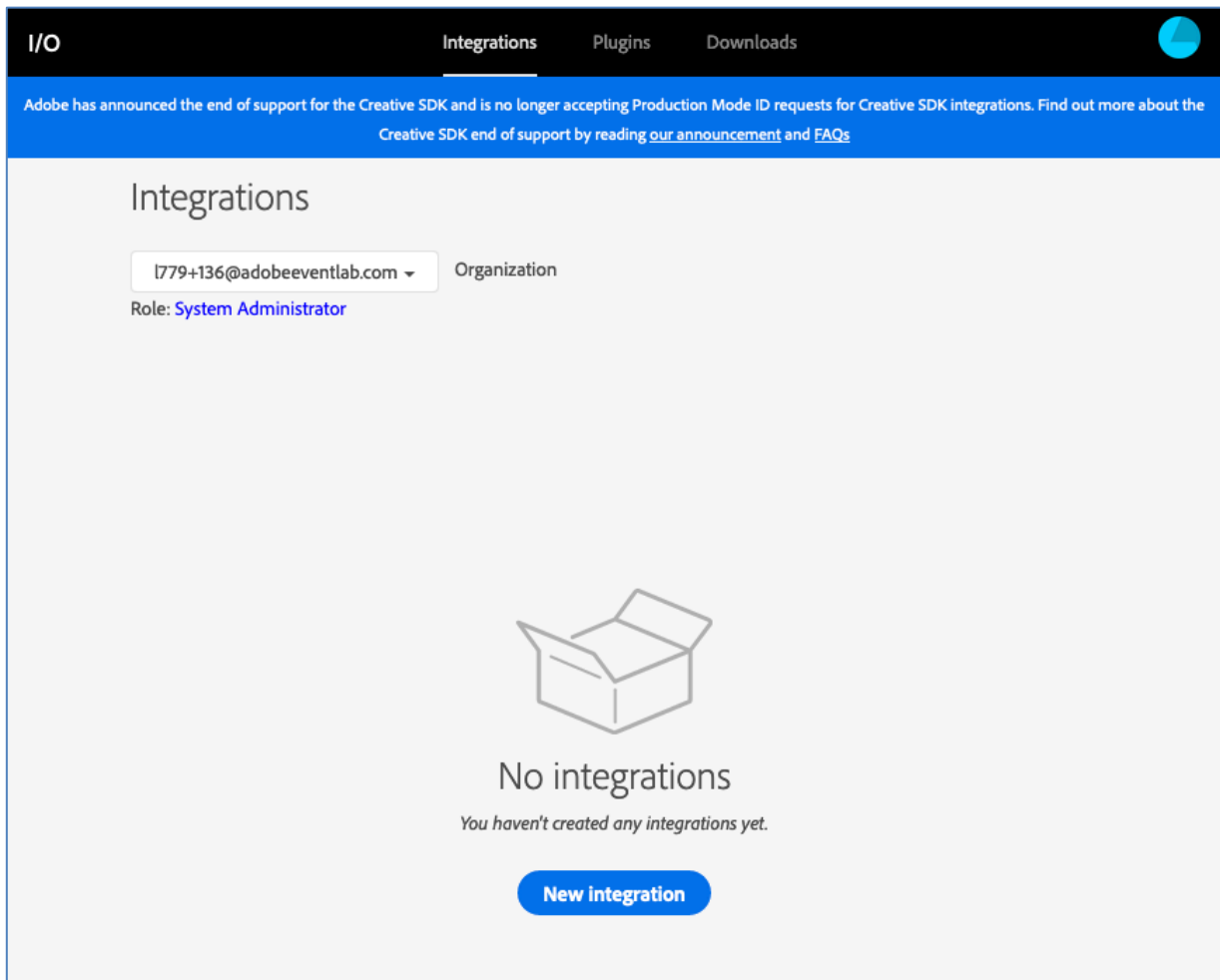
8. Navigate to the Magento Store Front and use the Browser Developer Tools/Console to confirm the beacon calls being sent.

Exercise 6: Publish Your Changes

Go Back to Launch

1. Navigate to https://www.adobe.io/

2. Click the button to the Developer Console

3. Click the link to go to the "Integrations" and then the button to create a new integration

4. Choose "Access an API"

5. Choose "Experience Platform Launch API" and click "Continue"
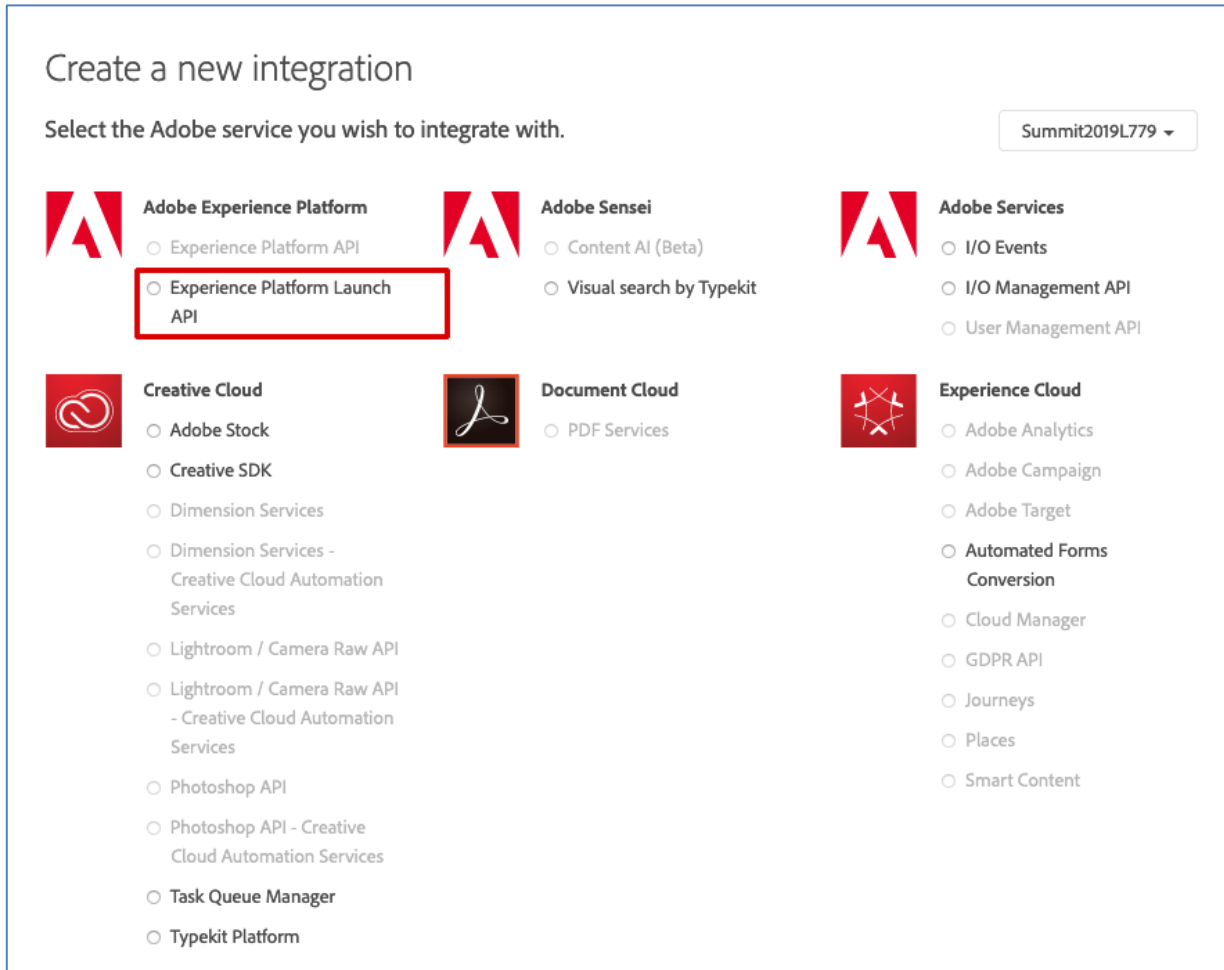
6. Open a Terminal Window

7. Navigate to where you want to store your key and execute the following command:
    ```
    openssl req -x509 -sha256 -nodes -days 365 -newkey rsa:2048 -keyout private.key -out
    adobe-io-public.crt
    ```

8. Complete all of the terminal prompts

9. Upload your CRT file to the Adobe.io console

Create a new integration

Integration Details

Name

Magento Lab Demo

6 to 25 characters

Description

Magento Lab Demo

6 to 1000 characters

Public keys certificates ❓

Drag and drop your file or
Select a File from your computer

You can add 1 more file(s)

Certificates

Name	Size	Actions
adobe-io-public.crt	0.001 MB	🗑 Remove

Experience Platform Launch API Configuration

Select a role for Experience Platform Launch API

👤 Admin ☑	👤 IT Admin	👤 Developer
👤 Approver	👤 Publisher	🔌 Extension Developer

10. Select "Admin" as the permission group or role to assign to this integration

11. Select the "Launch Lab User" user product profile to give this integration access to.

12. Click "Create Integration" and "Continue to Integration"

Go Back to Magento Admin

13. Leave this window open and launch a new browser tab

14. Navigate the new tab to the Magento Admin and login

15. Navigate to "Stores" => "Configuration"

16. See that the "Adobe Experience Platform" Extension for Magento is installed. Select it to show the configuration

17. Paste the details from the Adobe.io Console Window into the configuration fields in Magento

18. For the JWT Token field, navigate in Adobe.IO to the tab labeled "JWT"

19. In the bottom field, you need to paste in the contents of your PRIVATE key that we generated in terminal in the previous steps

20. Click "Generate JWT" button

21. Paste the token back in the Magento Admin Console

22. Click "Save Config"

23. Expand the "Launch Configuration" and the Analytics Configuration Sections

24. Give the Property a Name like "Luma Store"

25. Enter the same Analytics report suite ID we used in the previous exercise: ***outrainjj18***

26. Click "Save Config"

27. Click on the left side to go to "Launch Provisioning"

28. Click the "Create Launch Property" button.   You will see it is using the APIs to setup and provision an installation of Adobe tools

> Create Launch Property
>
> **Creating data elements**
>
> Be sure to save the configuration first if any changes have been made, then click to create a new Launch property.
>
> For additional information about where to find the required values, please look here.
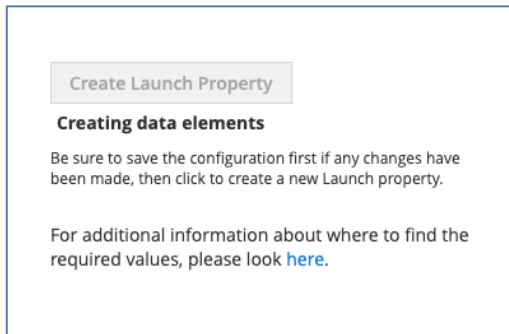
29. If everything worked, you should get a success message

> Create Launch Property
>
> Provisioning has successfully completed. You can retrieve the embed code from your environment here. Click the install link next to the environment that you choose.
>
> Be sure to save the configuration first if any changes have been made, then click to create a new Launch property.
>
> For additional information about where to find the required values, please look here.

Go Back to Launch

30. Navigate back to the Launch UI and search for the new property you just provisioned

31. Click through and see all the entries that were setup and created for you.

32. Click on the "Environment" tab and click the install icon 📦 for the "Development" environment.

33. Copy the code snippet from this new property

Go Back to Magento Admin

34. Click on the "Module Configuration" option in the left-hand navigation

35. Paste the code snippet in the field labeled "Launch Script URL" and enable the module.

36. Navigate back to "Content" => "Design Configuration" and edit your store front theme

37. Delete the embed code we placed previously in an earlier exercise. (We do not want two installations on the same site)

38. Clear the Magento Cache

Go Back to Magento Storefront

39. Refresh the page and confirm you are seeing network calls to Adobe Analytics

Appendix

Implementation Best Practices

Let's take a moment to review some of the Launch implementation best practices which are demonstrated in the sample page:

- **Data Layer**:

  - We *strongly* recommend creating a digital data layer on your site containing all of the attributes needed to populate variables in Analytics, Target, and other marketing solutions. This sample page only contains a very simple data layer, but a real data layer might contain many more details about the page, the visitor, their shopping cart details, etc. For more info on data layers, please see [Customer Experience Digital Data Layer 1.0](#)

  - Define your data layer before the Launch embed code, in order to maximize what you can do in Target, Customer Attributes, and Analytics.

- **JavaScript helper libraries**: If you already have a library like JQuery implemented in the `<head>` of your pages, load it before Launch in order to leverage its syntax in Launch and Target

- **HTML5 doctype**: The HTML5 doctype is required by Target

- **preconnect and dns-prefetch**: Use preconnect and dns-prefetch to improve the page load time. See also: https://w3c.github.io/resource-hints/

- **pre-hiding snippet for asynchronous Target implementations**: You will learn more about this in the Target lesson, but when Target is deployed via asynchronous Launch embed codes, you should hardcode a pre-hiding snippet on your pages before the Launch embed codes in order to manage content flicker

Here is a summary what these best practices look like in the suggested order. Note that there are some placeholders for account specific details:

```html
<!doctype html>
<html lang="en">
<head>
    <title>Basic Demo</title>
    <!--Preconnect and DNS-Prefetch to improve page load time. REPLACE "techmarketingdemos" WITH YOUR OWN AAM PARTNER ID, TARGET CLIENT CODE, AND ANALYTICS TRACKING SERVER-->
    <link rel="preconnect" href="//dpm.demdex.net">
    <link rel="preconnect" href="//fast.techmarketingdemos.demdex.net">
    <link rel="preconnect" href="//techmarketingdemos.demdex.net">
    <link rel="preconnect" href="//cm.everesttech.net">
    <link rel="preconnect" href="//techmarketingdemos.tt.omtrdc.net">
    <link rel="preconnect" href="//techmarketingdemos.sc.omtrdc.net">
    <link rel="dns-prefetch" href="//dpm.demdex.net">
    <link rel="dns-prefetch" href="//fast.techmarketingdemos.demdex.net">
    <link rel="dns-prefetch" href="//techmarketingdemos.demdex.net">
    <link rel="dns-prefetch" href="//cm.everesttech.net">
    <link rel="dns-prefetch" href="//techmarketingdemos.tt.omtrdc.net">
```

```html
    <link rel="dns-prefetch" href="//techmarketingdemos.sc.omtrdc.net">
    <!--/Preconnect and DNS-Prefetch-->
    <!--Data Layer to enable rich data collection and targeting-->
    <script>
    var digitalData = {
        "page": {
            "pageInfo" : {
                "pageName": "Home"
                }
            }
    };
    </script>
    <!--/Data Layer-->
    <!--jQuery or other helper libraries-->
    <script src="https://code.jquery.com/jquery-3.3.1.min.js"></script>
    <!--/jQuery-->
    <!--prehiding snippet for Adobe Target with asynchronous Launch deployment-->
    <script>
        (function(g,b,d,f){(function(a,c,d){if(a){var e=b.createElement("style");e.i
d=c;e.innerHTML=d;a.appendChild(e)}})(b.getElementsByTagName("head")[0],"at-body-sty
le",d);setTimeout(function(){var a=b.getElementsByTagName("head")[0];if(a){var c=b.g
etElementById("at-body-style");c&&a.removeChild(c)}},f)})(window,document,"body {opa
city: 0 !important}",3E3);
    </script>
    <!--/prehiding snippet for Adobe Target with asynchronous Launch deployment-->
    <!--Launch Header Embed Code: REPLACE LINE 39 WITH THE INSTALL CODE FROM YOUR OW
N DEVELOPMENT ENVIRONMENT-->
    <script src="//assets.adobedtm.com/launch-EN93497c30fdf0424eb678d5f4ffac66dc.min
.js" async></script>
    <!--/Launch Header Embed Code-->
</head>
<body>
    <h1>Launch by Adobe: Basic Demo</h1>
    <p>This is a very simple page to demonstrate basic concepts of Launch by Adobe</
p>
</body>
</html>
```

Resources and Links

Resource	URL
Adobe Experience Cloud Login	https://experiencecloud.adobe.com/
Adobe Launch Login	https://launch.adobe.com/
Adobe Launch User Documentation	https://docs.adobelaunch.com/
Adobe Launch Developer Docs	https://developer.adobelaunch.com/
Adobe Launch User Forums	https://forums.adobe.com/community/experience-cloud/platform/launch
Adobe Debugger	http://bit.ly/AdobeDebugger
Magento Extension Project	https://github.com/magento/aep-launch
Online Version of this Guide	