

# Module 1 - Analytics in the Adobe Experience Cloud ecosystem

This toolkit is designed for [Professional Developer Exam Aspirants](#). There are **six** Modules. Study Each module per week to stick to schedule. Technical Parts of applications are depicted in Videos, you can learn more about them from experience League. You can visit [Get prep page](#) to understand the contents and anticipate the learning journey.

This is Professional Exam, Developer toolkit Module 1. This module contains six sections.

## 1.1 Adobe Experience Cloud Identity Service

The Experience Cloud Identity Service enables the common identification framework for Experience Cloud Application and Services. It works by assigning a unique, persistent ID known as the Experience Cloud ID (ECID) to a site visitor.

Understanding the main entities of identity

To better understand how Adobe helps uniquely identify visitors and resolves identity information, read the breakdown below:

- **Experience Cloud Identity Service:** The Experience Cloud Identity Service is **responsible for setting the Experience Cloud ID (ECID)**. For more information, read the [Experience Cloud Identity Service overview](#).
- **Experience Cloud ID (ECID):** The ECID is a shared identity namespace used across Adobe Experience Platform and Adobe Experience Cloud applications to identify people and devices. For more information on the ECID, read the [ECID overview](#).
- **Experience Platform Identity Service:** The Experience Platform Identity Service provides you with a comprehensive view of your customers and their behavior by bridging identities across devices and systems. For more information, read [Experience Platform Identity Service overview](#).

- **[Experience Cloud Identity Service overview](#)**

The Experience Cloud Identity Service enables the common identification framework for Experience Cloud Application Services. You can use the Experience Cloud Identity Service to set the [Experience Cloud ID \(ECID\)](#).

The ECID is a shared identity namespace used across Adobe Experience Platform and Experience Cloud applications to track visitor behavior and ensure that each device has a unique identifier that can persist across multiple sessions.

- **[Implementation methods](#)**

You can choose a standard Experience Cloud ID Service implementation method using Experience Platform Launch or a non-standard method.

- **[ID Service API](#)**

Properties, methods, and configurations that let you work programmatically with the Experience Cloud Identity Service.

- **[Reference](#)**

Information about other Experience Cloud Identity Service features and functions.

## **[1.2 FAQs](#)**

Frequently asked questions about the Experience Cloud Identity Service itself along with sections about the ID service and other Experience Cloud solution combinations.

- [ID Service FAQs](#)
- [Analytics and ID Service FAQs](#)
- [FAQs for Other Experience Cloud Solutions](#)

## **[1.3 AEM 6.5 Authoring User Guide](#)**

Explore the key concepts of creating content and authoring in AEM 6.5. You will also find information around using tags, templates, and other page features.

Key AEM articles

- [Getting Started with AEM](#)
- [AEM 6.5 Release Notes](#)
- [Recent Documentation Updates](#)
- [AEM Security Checklist](#)

## AEM 6.5 user guides

<b>User Guide</b>	<b>Description</b>
<a href="#">Release Notes</a>	Provides important information about the latest release of AEM, including what's new, supported platforms, deprecated and removed features, and known issues.
<a href="#">Assets User Guide</a>	Learn how to create, manage, deliver, and optimize digital assets.
<a href="#">Forms User Guide</a>	This guide describes how to create, manage, publish, and update digital forms.
<a href="#">Communities User Guide</a>	Create online experiences such as forums, user groups, learning resources, and other social features.
<a href="#">Administering Guide</a>	Understand how to administer AEM
<a href="#">Authoring Guide</a>	This guide explains the concepts of authoring in AEM.
<a href="#">Classic UI Authoring Guide</a>	This guide explains the concepts of authoring in AEM in the classic user interface.
<a href="#">Screens User Guide</a>	Learn about the digital signage solution to publish dynamic and interactive digital experiences.
<a href="#">Deploying User Guide</a>	This guide shows you the basics of AEM.
<a href="#">Developing User Guide</a>	Learn how to build out your AEM instance.
<a href="#">Managing User Guide</a>	This guide describes how to manage an AEM project successfully.
<a href="#">Commerce User Guide</a>	Learn about Commerce Integration Framework on AEM.
<a href="#">Mobile User Guide</a>	This guide describes how to create and manage content for mobile applications.

- **Essential tasks, tools and concepts for AEM**  
**Authoring**

This section gives you an overview of the main tasks that you will be using when [starting to author content](#) with Adobe Experience Manager (AEM).

- **Authoring**

The authoring environment of AEM provides various mechanisms for organizing and editing your content. The tools provided are accessed from the various consoles and page editors.

- **Site and Page Features**

Tags are a quick and easy method of classifying content within a website. Tags may be thought of as keywords or labels that can be attached to a page, an asset, or other content to enable searches to find that content and related content.

- **Projects**

Projects let you group resources into one entity. A common, shared environment makes it easy to manage your projects. The types of resources you can associate with a project are referred to in AEM as Tiles. Tiles may include project and team information, assets, workflows, and other types of information, as described in detail in [Project Tiles](#).

- **Launches**

Launches enable you to efficiently develop content for a future release.

- **Workflows**

**AEM Workflows let you automate a series of steps that are performed on (one or more) pages and/or assets.**

- **Page Performance**

Content Insight provides information about page performance using web analytics and SEO recommendations. Use Content Insight to make decisions about how to modify pages, or to learn how previous changes have changed performance. For every page that you author, you can open Content Insight to analyse the page.

- **Personalization**

AEM provides a framework of tools for authoring targeted content and presenting personalized experiences.

- **AEM and Adobe Campaign**

Adobe Campaign is a set of solutions that lets you personalize and deliver campaigns across all of your online and offline channels.

## **1.4 Overview**

*Implement the Experience Cloud in Websites with Tags* is the perfect starting point for front-end developers or technical marketers who want to learn how to implement the Adobe Experience Cloud solutions on their website.

Each lesson contains how-to exercises and foundational information to help you implement the Experience Cloud and understand its value. Demo sites are provided for you to complete the tutorial, so you can learn the underlying techniques in a safe environment. After completing this tutorial, you should be ready to start implementing all of your marketing solutions through tags on your own website.

- **Configure tags**

In this lesson, you will create your first tag property.

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

- **Implement Solutions**

This lesson will guide you through the steps required to implement the [Adobe Experience Platform Identity Service extension](#) and send customer ids.

- **[Publish your property](#)**

Now that you have implemented some key solutions of the Adobe Experience Cloud in your Development environment, it's time to learn the publishing workflow.

## 1.5 **[Tags overview](#)**

Tags in Adobe Experience Platform are the next generation of tag management capabilities from Adobe. Tags give customers a simple way to deploy and manage all of the analytics, marketing, and advertising tags necessary to power relevant customer experiences.

Tags empower anyone to build and maintain their own integrations, called *extensions*. These extensions are available to Adobe Experience Cloud customers in an app-store experience so they can quickly install, configure, and deploy their tags.

Tags are offered to Adobe Experience Cloud customers as an included value-add feature.

### Key benefits

- Faster time to value.
- Trustworthy data through centralized collection, organization, and delivery using data elements.
- Compelling experiences through the integration of data and marketing technology using rule builder.

### Key features

#### Extensions

An extension is a package of code (JavaScript, HTML, and CSS) that extends the tags functionality. Build, manage, and update your integrations using a virtually self-service interface. You can think of extensions as apps you use to achieve your tasks.

#### Extension catalog

Browse, configure, and deploy marketing/advertising tools built and maintained by independent software vendors.

#### Rule builder

Create robust rules that combine multiple events, sequenced in the way that you determine using if/then logic with conditions and exceptions. Rules provide options for:

- Events
- Conditions
- Exceptions
- Actions

The rule builder includes real-time error checking and syntax highlighting for your custom code.

When the criteria outlined in your rules are met and conditions are satisfied, the actions you define are executed in order.

### Data elements

Collect, organize, and deliver data across web-based marketing and advertising technology.

### Enterprise publishing

The publishing process enables teams to publish code to pages. Different people can create an implementation, approve it, and publish it on your pages.

- Changes to your code are encapsulated within the libraries you define.
- You specify where and when you want your code deployed.
- Multiple libraries can be built in parallel by different teams.
- Unlimited development environments.
- A deliberate, permission-based process for merging libraries together.

### Open APIs

Automate implementations of individual technologies or a group of technologies.

- Tags interact with the Reactor API.
- Deployments can be automated through APIs.
- Integrate the APIs with your own internal systems.
- You can build your own user interface if desired.

### Light, modular container tag

The content of your container is minified, including your custom code. Everything is modular. If you don't need an item, it is not included in your library. The result is an implementation that is fast and compact. See [Minification](#).

### Other highlights

Tags provide several improvements over similar systems, including:

- No use of `document.write ()` where Chrome doesn't allow it.
- The Page Top and Page Bottom rules are bundled into the main library to minimize unnecessary HTTP calls.

- Custom action scripts within a rule can be loaded in parallel, but are executed sequentially.
- If you avoid Page Top and Page Bottom rules, the code is mostly asynchronous, with a path to getting fully async.

## • Getting started

Tags are Adobe Experience Platform's next generation of tag management technology. It is built from the ground up to support an open and sustainable ecosystem where anyone can build their own integrations that Adobe customers can deploy to their sites. It is an API first application so anything you can do through the UI you can also do programmatically through an API.

## • UI guides

In the context of tags in Experience Platform, the word "resources" refers to any of the following:

- [Extensions](#) - Extensions provide data element types and rules for you to work with
- [Data Elements](#) - Data elements are an easy way to reference any data that exists elsewhere. They create shortcuts that can be used within rules and extension configurations. When the location of the underlying data changes, they can be updated to point to the new location without having to update individual rules or extensions.
- [Rules](#) - Rules are a collection of rule components (events, conditions, and actions) that control the behavior of the deployed tags.

## • Publishing

Adobe Experience Platform allows you to encapsulate changes to your tag-management code within individual libraries. As multiple libraries can now be developed in parallel by different teams, these libraries must follow a deliberate, permissioned process for merging changes together before being pushed to your production environment.

## • Client-side information

This section contains information that is useful when managing client-side tag operations in Adobe Experience Platform.

## • Event forwarding

Event forwarding in Adobe Experience Platform allows you to send collected event data to a destination for server-side processing. Event forwarding decreases web page and app weight by using Adobe Experience Platform Edge Network to execute tasks normally done



on the client. Implemented in a similar manner to tags, event forwarding rules can transform and send data to new destinations, but instead of sending this data from a client application like a web browser, it is sent from Adobe's servers.

## • Administration

The following documents contain information that is useful for tag administrators in Adobe Experience Platform:

- [User permissions](#): Learn about the user management process and the available access rights for tags.
- [Companies and properties](#): A property, or web property, is a collection of rules, data elements, configured extensions, environments, and libraries.

## • Extensions

An extension is a packaged set of code that extends the functionalities provided by tags or event forwarding. If you install an extension in a library, the extension adds a set of unique events, conditions, and/or actions that can be employed in that library's [rule configurations](#).

## • Extension development

One of the primary goals of tags in Adobe Experience Platform is to create an open ecosystem where engineers outside of Adobe can expose additional functionalities on their websites and mobile applications. This is accomplished through tag extensions. Once an extension has been installed on a tag property, that extension's functionality then becomes available for use by all users of the property.

## • Reactor API

The Reactor API provides several endpoints that allow you to programmatically manage all resources for tags in Adobe Experience Platform.

These endpoints are outlined below. Please visit the individual endpoint guides for details and refer to the [getting started guide](#) for important information on how to authenticate to the API.

To view all available endpoints and CRUD operations, visit the [Reactor API reference](#).

## • FAQ

- [Terminology updates](#)
- [Deprecating support for Internet Explorer 10 and 11](#)
- [Release notes](#)

## 1.6 [Implement Adobe Analytics](#)

Adobe requires code on your site or app to send data to Adobe's data collection servers. The following steps indicate how a typical implementation works.

1. When a visitor comes to your site, a request is made to your web server.
2. Your site's web server sends the page code information, and the page displays in the browser.
3. The page loads, and the Analytics JavaScript code runs.  
The JavaScript code sends an image request to Adobe data collection servers. Page data that you defined in your implementation are sent as part of a query string in this image request.
4. Adobe returns a transparent pixel image.
5. Adobe servers store collected data in one or more *report suites*.
6. Report suite data populates the reports that you can access in a web browser.

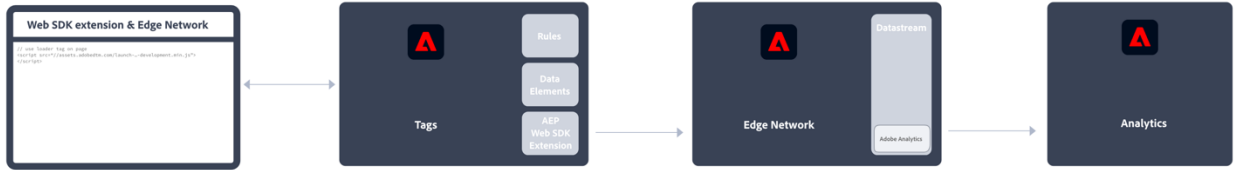
The JavaScript code execution occurs quickly and does not noticeably affect page load times. This approach allows you to count pages that were displayed when a visitor clicked **Reload** or **Back** to reach a page, because the JavaScript runs even when the page is retrieved from cache.

Adobe Analytics requires code within your website, mobile app, or other application to send data to data collection servers. There are several methods to implement this code, depending on platform and your organization's needs.

### Website implementation methods

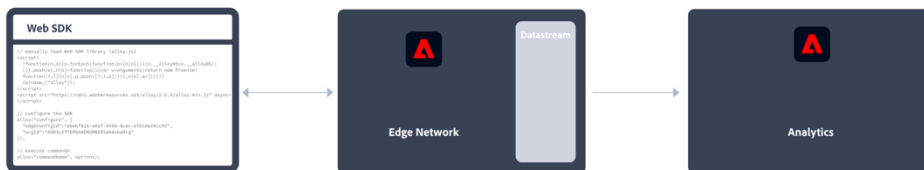
For your **website**, the following implementation methods are available:

- **Web SDK extension:** The standardized and recommended method to implement Adobe Analytics for new customers. Install the **Adobe Experience Platform Web SDK extension** in Adobe Experience Platform Data Collection **Tags**, use a loader tag on each page, and send data to Adobe Experience Platform **Edge Network** in a format convenient to your organization. The Edge Network forwards incoming data to Adobe Analytics in the correct format.



See [How to implement Adobe Analytics using the Adobe Experience Platform Web SDK extension](#) for more information.

- **Web SDK:** You can manually load the Web SDK libraries on your site if you do not want to use Adobe Experience Platform Data Collection. Reference the Web SDK library (`alloy.js`) on each page, and send the desired tracking calls to the Adobe Experience Platform **Edge Network** in a format convenient to your organization. The Edge Network forwards incoming data to Adobe Analytics in the correct format.



See [How to implement Adobe Analytics using the Adobe Experience Platform Web SDK](#) for more information.

- **Analytics extension:** Install the **Adobe Analytics extension** in Adobe Experience Platform Data Collection **Tags**. Place a loader tag on each page, and use the Adobe Analytics extension to determine how each variable is defined. Use this implementation method if you do want the convenience of Tags, but not want to use the Edge Network infrastructure.



See [How to implement Adobe Analytics using the Analytics extension](#) for more information.

- **Legacy JavaScript:** The historical manual method to implement Adobe Analytics. Reference the AppMeasurement library (`AppMeasurement.js`) on each page and then outline variables and settings used in an implementation.



This implementation method can be useful for implementations using custom code and is still recommended when you (want to) use:

- [activity map data](#),

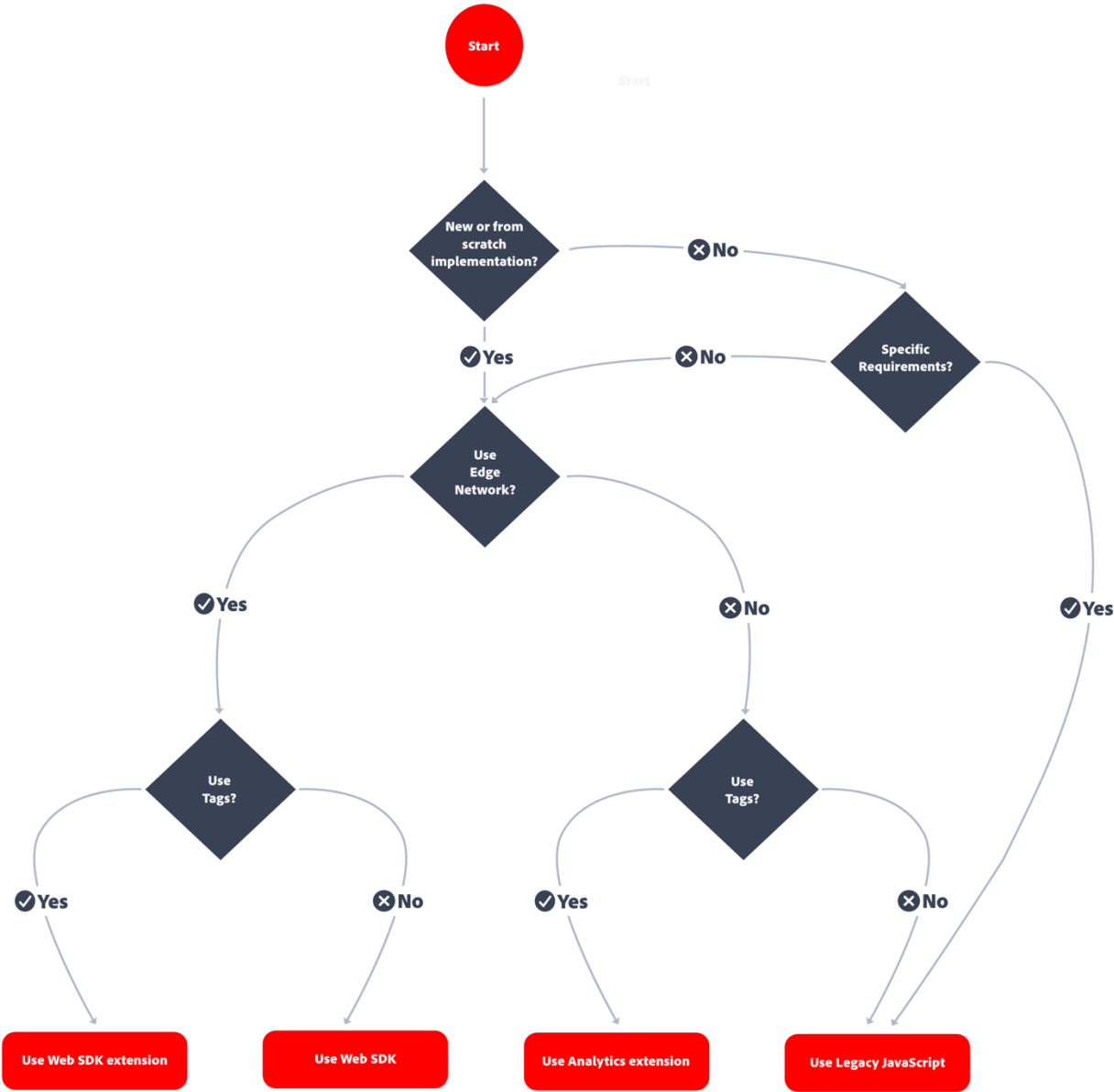
**INFO**

Using the latest Web SDK, Activity Map is supported. See [Enable Activity Map](#) for more information.

- [streaming media measurement](#),
- [livestream API or livestream triggers](#),
- [AMP page tracking](#)

See [Implement Adobe Analytics with AppMeasurement for JavaScript](#) for more information.

The following decision flow might help you select an implementation method:



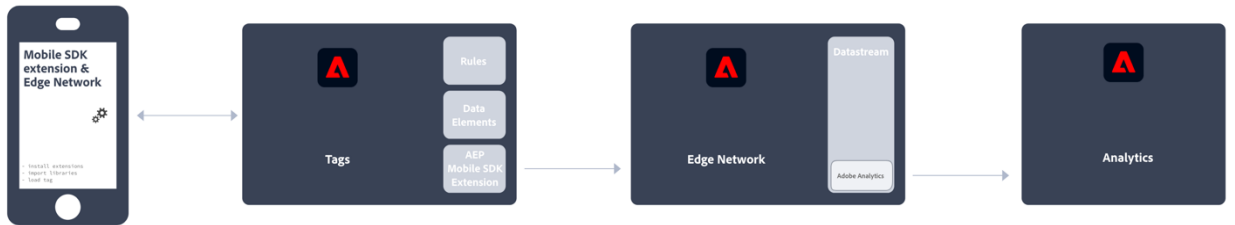
## TIP

Please contact Adobe for advice and best practices on which implementation to choose based on your current situation.

### Mobile app implementation methods

For your **mobile app**, the following implementation methods are available:

- **Mobile SDK extension:** The standardized and recommended method to implement Adobe Analytics in your mobile app. Use dedicated libraries to easily send data to Adobe from within your mobile app. Install the **Adobe Experience Platform Mobile SDK extension** in Adobe Experience Platform Data Collection **Tags** and implement the correct code in your app to import libraries, register extensions and load the tag configuration. This sends data to Adobe Experience Platform **Edge Network** in a format convenient to your organization. Experience Edge forwards incoming data to Adobe Analytics in the correct format.



See [Implement Adobe Analytics using the Adobe Experience Platform Mobile SDK](#) for more information.

- **Analytics extension:** Install the **Adobe Analytics extension** in Adobe Experience Platform Data Collection **Tags**, and implement the correct code in your application to import libraries, register extensions and load the tag configuration. Use the Analytics extension to determine how each variable is defined. Use this implementation method if you do want the convenience of Adobe Experience Platform Data Collection, but not want to use Adobe's Experience Platform Edge network infrastructure.



See [Implement Adobe Analytics using the Analytics extension](#) for more information.

**CAUTION:** Support for Version 4 Mobile SDKs ended on August 31, 2021. See [Version 4 Mobile SDKs end-of-support FAQ](#) for more information.

Key Analytics Implementation articles

- [Take charge of an existing Adobe Analytics implementation](#)
- [Adobe Debugger](#)
- [Create a tag property in Experience Platform](#)
- [AppMeasurement updates](#)

More Analytics user guides

[Analytics User Guides](#)

Key Analytics resources

- [Contact Customer Care](#)
- [Analytics Forum](#)
- [Adobe Analytics Resources](#)

- [\*\*Implement Adobe Analytics\*\*](#)
- [\*\*Analytics Release Notes\*\*](#)
- [\*\*AppMeasurement release notes\*\*](#)
- [\*\*Analytics variables, functions, and methods\*\*](#)
- [\*\*Prepare to implement Adobe Analytics\*\*](#)
- [\*\*Implement Analytics using Experience Platform Edge\*\*](#)
- [\*\*Implement Analytics using the Adobe Analytics extension\*\*](#)
- [\*\*Implement Analytics using JavaScript\*\*](#)
- [\*\*Implement Analytics on other platforms\*\*](#)
- [\*\*Implement Analytics on mobile devices\*\*](#)
- [\*\*Implementation use cases\*\*](#)
- [\*\*Validate your implementation\*\*](#)

- **Frequently asked questions**
- **Review your implementation**