

Module 5: Testing, validation, and troubleshooting

This toolkit is designed for Adobe Analytics Developer Expert Exam Aspirants. There are five 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 Expert Exam, Developer final toolkit Module 5. This contains three sections.

1. [Adobe Experience Platform Debugger overview](#)
2. [Enabling, Debugging, and Customizing the Adobe Analytics Activity Map](#)
3. [Optimize Analysis Workspace performance](#)

SECTION 5.1 Adobe Experience Platform Debugger overview

The Adobe Experience Platform Debugger extension for [Chrome](#) and [Firefox](#) examines your web pages and helps you find problems with how your Adobe Experience Cloud solutions are implemented.

You can use Platform Debugger with the other Adobe activation solutions to perform the following:

1. Use [tags](#) to insert code that activates [Adobe Experience Cloud](#) products on your pages.
2. Use the [Auditor tab](#) in Platform Debugger to test your implementations.
3. Use event-based and solution-specific tools in Platform Debugger to debug issues found by Auditor or to examine other information about your implementations.

NOTE : While the above steps represent a common process, they are not necessarily performed in the stated order.

You can run Platform Debugger on any web page and the extension will have access to public data. To access non-public data using the extension, you must be authenticated into Experience Cloud in an open browser tab.

Use cases

You can use the information gathered by Platform Debugger to better understand how your Experience Cloud solutions are implemented. For example:

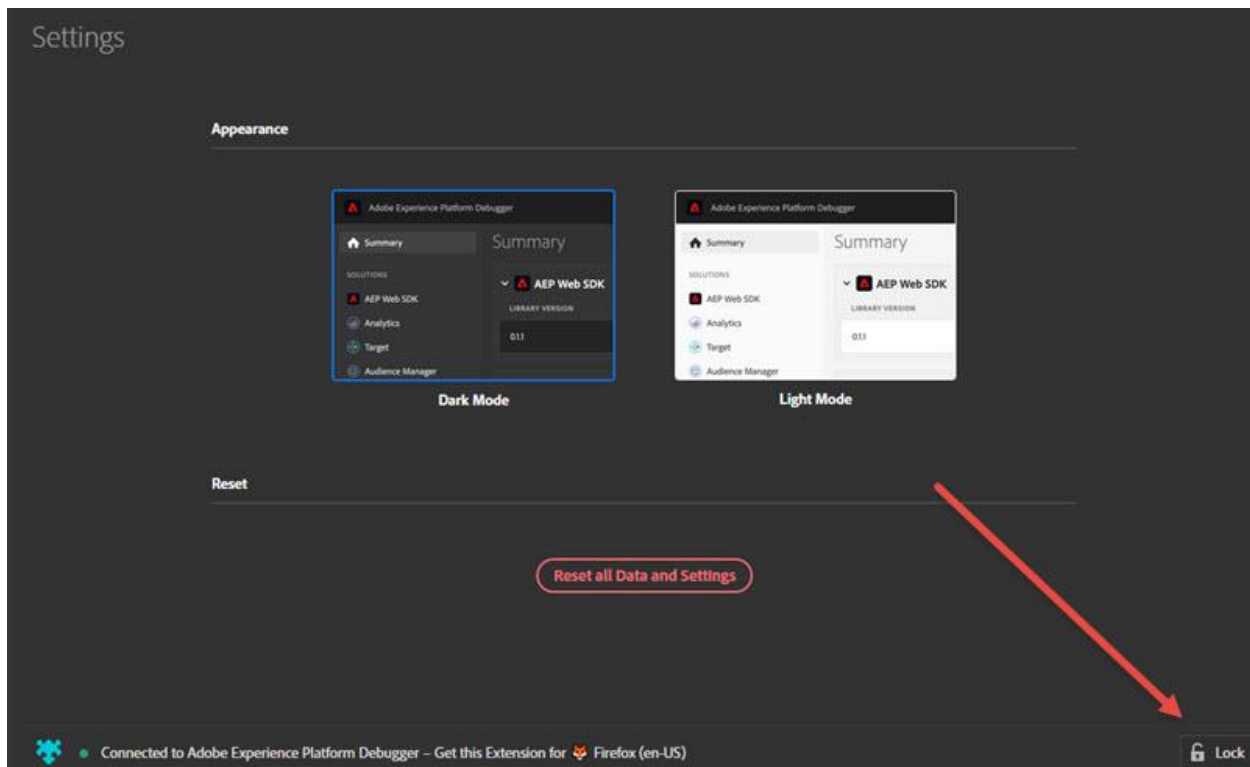
- **Tags:** See which property, environment, build are deployed on a page.
- **Adobe Target:** See which activities you qualify or don't qualify for and why.
- **Adobe Analytics:** See which report suites are active on the current page.

Install Platform Debugger

Adobe Experience Platform Debugger can be installed in Google Chrome or Mozilla Firefox browsers. Follow the appropriate link below to install the extension on your preferred browser:

- [Chrome](#)
- [Firefox](#)

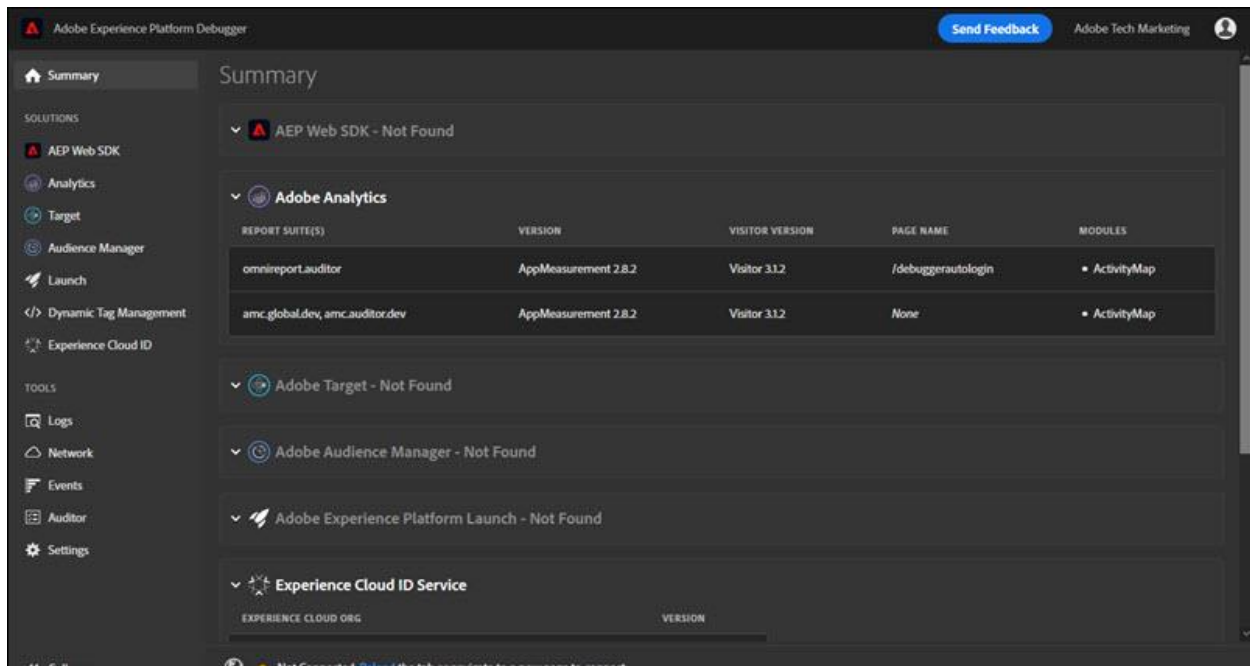
After you install the Chrome extension or Firefox add-on, an icon (🔴) is added to the extension bar. Select this icon to open the extension.



This is useful if you're reading documentation or viewing information on another page while debugging your page.

Summary tab

To run Adobe Experience Platform Debugger, open the page you want to examine in the browser, then select the icon (🔴) on your browser bar. The extension opens on the **Summary** tab.



This screen shows information about each Adobe Experience Cloud solution. The information shown varies by solution, but typically includes information including the solution library and version (for example, “AppMeasurement v2.9”) and account identifiers (such as the Analytics report suite ID, the Target client code, the Audience Manager partner ID, and so on)

Information shown in Experience Platform Debugger

Experience Platform Debugger shows the following information for each solution:

Adobe Analytics

Report Suite(s)	A report suite defines the complete, independent reporting on a chosen website, set of websites, or subset of web pages
Version	The AppMeasurement version defined for the page
Visitor Version	The version of the visitor ID library.
Page Name	The pageName variable sent to Analytics that contains a user friendly name of the site.
Modules	The modules loaded by Adobe Analytics

Audience Manager

Partner	The partner name for the DIL instance
Version	The version number for the DIL instance
UUID	The Unique User ID associated with the DIL instance

Adobe Experience Platform Tags

Name	The name of the tag property
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Version	The version of Turbine
Build Date	The tag library build date
Environment	The environment used by the tag library
Extensions	The extensions used on the page

Adobe Experience Platform Web SDK

Library Version	The number of the Adobe Experience Platform Web SDK library version
Namespace	The name identified in the extension
Property ID	The name of the tag property specified in the extension
Edge Domain	The domain that the Adobe Experience Platform extension sends and receives data from
IMS Organization ID	The organization that you would like the data sent to at Adobe, as specified in the extension
Logging Enabled	Specifies whether logging has been enabled for this property

Adobe Experience Cloud ID Service

Experience Cloud Org ID	Your Organization ID
Version	The version of the visitor ID library

Adobe Target

Client Code	Your Target Client Code
Version	Your current at.js or mbox.js version
Global Request Name	The global mbox refers to the single server call made at the top of each web page in your Target implementation
Page Load Event	The type of event that fires when the page loads
Request Name	The name of a request around a location on the page. Available without authentication only if you implement the Debugging event listener in your code or tag manager and turn on the necessary response tokens in the Target UI.

Activity Name	The name of the Target campaign or activity . Available without authentication only if you implement the Debugging event listener in your code or tag manager and turn on the necessary response tokens in the Target UI.
Activity ID	The ID of the Target activity. Available without authentication only if you implement the Debugging event listener in your code or tag manager and turn on the necessary response tokens in the Target UI.
Experience Name	The name of the Target experience . Available without authentication only if you implement the Debugging event listener in your code or tag manager and turn on the necessary response tokens in the Target UI.
Experience ID	The ID of the Target experience. Available without authentication only if you implement the Debugging event listener in your code or tag manager and turn on the necessary response tokens in the Target UI.
Offer Name	The name of the Target offer . Available without authentication only if you implement the Debugging event listener in your code or tag manager and turn on the necessary response tokens in the Target UI.
Offer ID	The ID of the Target offer. Available without authentication only if you implement the Debugging event listener in your code or tag manager and turn on the necessary response tokens in the Target UI.

Logs tab

The **Logs** tab provides information specific to tags and Adobe Experience Platform Web SDK implementations. You can filter by solutions implemented via their associated tools.

SOLUTIONS	OCCURRED AT	LOG LEVEL	LOG MESSAGE
	15m 31.54s	Log	detected tabblur on #document
	15m 20.20s	Log	detected tabfocus on #document
	21.20s	Log	detected tabblur on #document
	4.80s	Log	Adobe Analytics: custom init suppressed beacon
	4.80s	Log	detected 93627c0b01196a7ecd0c1f7c685065.load
	4.80s	Log	Adobe Analytics: loaded.
	4.79s	Log	Adobe Analytics: tracked page view
	4.79s	Log	Adobe Analytics: tracked page view
	4.78s	Log	detected 8fc9ac9821abdd6b0340359ae4aa0cd.load
	4.78s	Log	Adobe Analytics: loaded.
	4.77s	Log	Direct call Rule "page" fired.

The Logs tab shows information in four columns:

Solutions: Displays icons for the Experience Cloud solution affected by the logged item. Hover over the icon for a text description.

Occurred at: Shows when the logged issue occurred during the session.

Log level: Shows the issue severity. The severity is one of the following levels:

- Log
- Info
- Warnings
- Errors

Log message: Describes the issue.

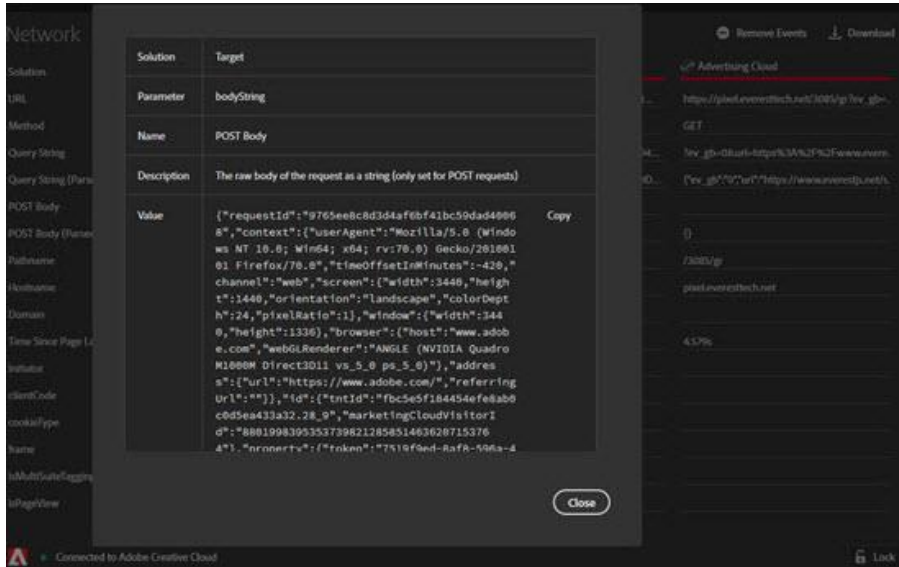
Some log messages include a Show Code option. Select **Show Code** to view the conditional code that determines whether a rule should fire.

To clear the log, select **Remove Logs**.

Network tab

The **Network** tab aggregates all of the Adobe Experience Cloud solution calls made on the page and displays them in order from left to right. Standard parameters are automatically labeled with friendly names and arranged to group common parameters on the same role.

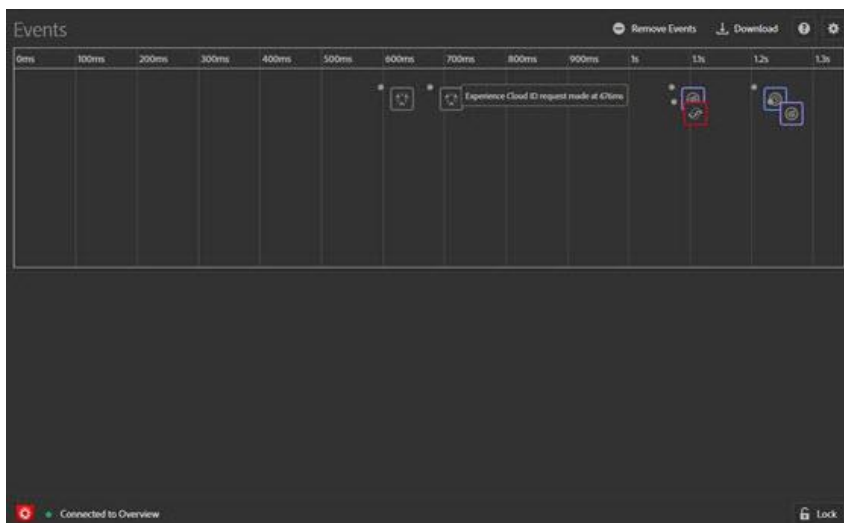
To return to displaying all solutions, select **Network**. Select on an item in the Network view to see an expanded view. From the expanded view window, you can copy the information shown to the Clipboard.



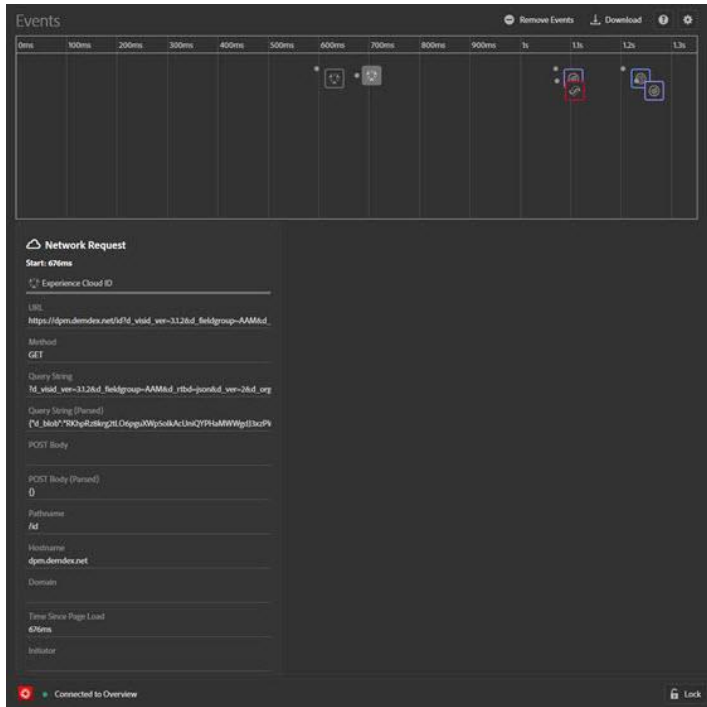
To clear the list, select **Remove Events**. To download an Excel file containing the information on this screen, select **Download**.

Events tab

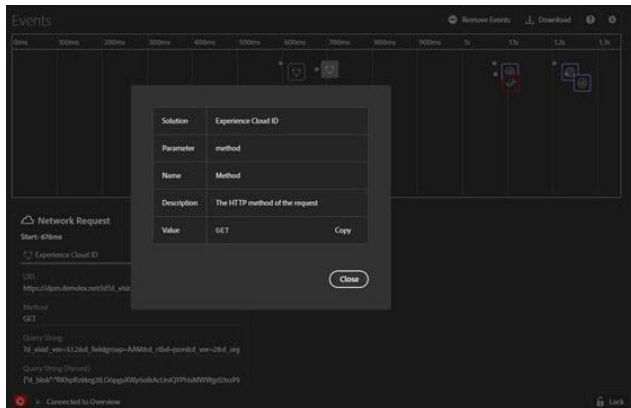
The **Events** tab provides a graphical view of the events that occur, displayed on a timeline.



For each event, an icon for the applicable solution appears on the timeline. Icons also show changes to the data layer (if enabled). Hover over an icon for a summary of the event. Select on the event for more details. You can Shift-Select or Control-Select to view multiple events.



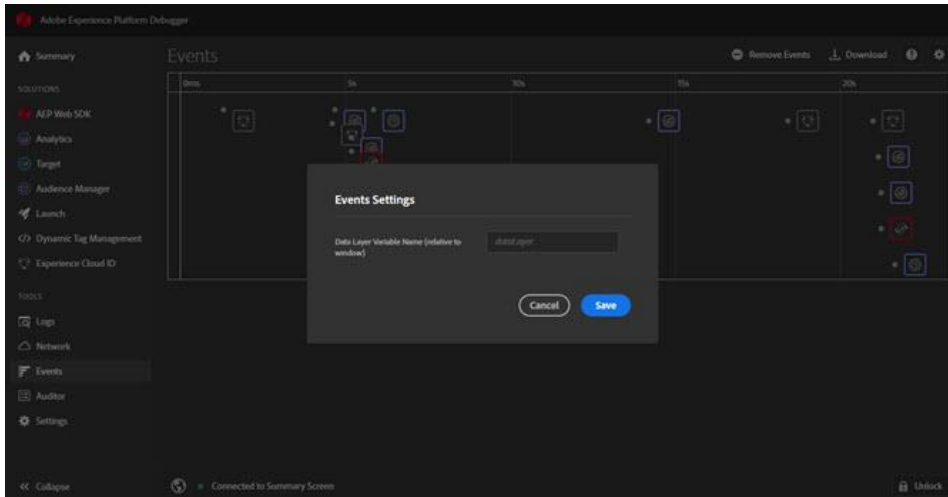
Select on a detail for more information.



Track data layer changes

To enable tracking data layer changes in the timeline:

1. Select the Gear icon at the top right.
2. Enter the name of your data layer.



3. Select **Save**.

The data layer change details show anything that has been deleted or added. You can select {} to look deeper into the data layer.

Download event information

Select **Download** to download an Excel file showing information about your page calls.

Additional Resource Links:

- [Solutions tab](#)
 - [Overview](#)
 - [Adobe Target](#)
- [Auditor tab](#)
 - [Overview](#)
 - [Tag consistency tests](#)
 - [Tag presence tests](#)
 - [Configuration tests](#)
 - [Alert tests](#)
- [Release Notes](#)

SECTION 5.2 Enabling, Debugging, and Customizing the Adobe Analytics Activity Map

Activity Map is a tool available to Adobe Analytics users to help you visualize user activity data directly on your web site. See the number of clicks (or other metrics) directly on the links of your page. Here are two video links that will be beneficial in learning the intricacies of Activity Map:

1. [Video 1](#)
2. [Video 2](#)

SECTION 5.3 Optimize Analysis Workspace performance.

Various factors can influence the performance of a project within Analysis Workspace. It's important to know what those contributors are before you start building a project so that you can plan and build the project in the most optimal way. This page includes a list of factors that will impact performance and optimizations you can make to ensure peak performance in Analysis Workspace.

Help > Performance in Analysis Workspace

Under **Analysis Workspace > Help > Performance**, you can see factors that impact your project's performance, including network, browser, and project factors. For the most accurate results, allow the project to fully load before opening the Performance page.

- The Current Project column displays the results for your current project and user environment.
- The Guideline column displays Adobe's recommended threshold for each factor.

Additionally, you can **Download as CSV** the performance contents to easily share with Adobe Customer Care or your internal IT teams.

NOTE: *The information on the Performance page varies each time the modal is opened, as factors are subject to change. Additionally, Adobe will continue to refine the guidelines provided as more data becomes available.*

Analysis Workspace performance ?



NETWORK FACTOR	CURRENT PROJECT	GUIDELINE
Connection to Adobe	● 100 %	100%
Internet bandwidth	● 10.0 MB/s	> 2.0 MB/s
Internet latency	● 0.69 s	< 1.0s
BROWSER FACTOR		
Computation speed	● 94 ms	< 750 ms
Memory used	235 MB 6% 	< 3500 MB
Local storage used	0.23 MB 5% 	< 10 MB
Rendering speed	● 61 FPS	> 24 FPS
PROJECT FACTOR		
Number of queries	● 14	< 100
Expanded panels	● 4 (out of 5)	< 5
Expanded visualizations	● 7 (out of 7)	< 15
Number of Freeform cells	● 341	< 4000
Available components	● 2687	< 2000
Used components	● 12	< 100
Longest date range	● 31 days	< 368 days

Download as CSV

Close

Network factors

Help > Performance network factors include:

Factor	Definition	Influenced by	Optimization
Connection to Adobe	Adobe sends in 10 test calls when the performance page is opened. This represents the percentage of those calls to Adobe that succeed.	Local network issues or Adobe issues will impact this factor.	Check status.adobe.com to verify if there are any known service issues. Then, validate your local network connection.
Internet bandwidth	Available for Google Chrome only. Your browser's estimate of the bandwidth at your location. The guideline is 2.0MB/s.	Your local network connection will impact this factor.	Validate your local network connection.
Internet latency	Adobe sends in 10 test calls when the performance page is opened. This represents the amount of time it takes on average for each request to go to Adobe and be returned. Put more simply, it is a measure of how fast the internet is between your location and Adobe. The guideline is < 1 second.	Local network issues, many open browser tabs, or Adobe issues will impact this factor.	Check status.adobe.com to verify if there are any known service issues. Then, validate your local network connection and close unused browser tabs.

Browser factors

Help > Performance browser factors include:

Factor	Definition	Influenced by	Optimization
Computation speed	How fast your computer performs a processing test. The guideline is < 750ms.	Your hardware as well as concurrent programs will impact this factor.	Open your computer's Task Manager (PC) or Activity Monitor (Mac) to determine if any programs can be closed. Then, close unused browser tabs or other programs.

Factor	Definition	Influenced by	Optimization
			If those actions do not help, discuss hardware details with your IT team.
Memory used	Available for Google Chrome only. Every Workspace tab in a Google Chrome browser shares 4GB of memory in total. This represents the percent of that memory allowance that is being consumed by the current project. The guideline is 3500 MB, which is the point at which Workspace will begin surfacing memory errors.	Working in multiple tabs or downloading 50000 rows of data will contribute to increased memory usage.	If you receive a memory error, close other Workspace tabs and/or run 50000 row downloads one-at-a-time.
Local storage used	Data stored locally to your computer for use in the browser. Each origin (e.g. experience.adobe.com) has an allowance of 10MB.	Analysis Workspace uses local storage for several functions, including to store auto-saved (existing) projects, user settings, and feature flags.	To ensure Analysis Workspace functions do not become disrupted, clear local storage for the experience.adobe.com domain.
Rendering speed	FPS stands for Frames per second, which is how many times per second the browser draws the page on your screen. 24 FPS is commonly what the human eye can observe; if FPS is lower than that, you will observe rendering issues in Workspace.	FPS is impacted by multitasking across many Workspace projects at once and size of the project being viewed. Other programs running on your computer may have an impact, such as streaming, background scanners, etc. Additionally, your hardware will impact this factor.	Open your computer's Task Manager (PC) or Activity Monitor (Mac) to determine if any programs can be closed. Then, close unused browser tabs or other programs. If those actions do not help, discuss hardware details with your IT team.

Project factors

Help > Performance project factors include:

Factor	Definition	Optimization
Number of queries	The total number of queries (requests) made to Adobe to retrieve data that is displayed in the project. Queries include ranked requests for tables, anomaly detection, sparklines, components shown in the left rail, and more. Excludes collapsed panels and visualizations. The guideline is 100.	Simplify your project where possible by splitting out data into several projects that serve a specific purpose or group of stakeholders. Use tags to organize projects into themes, and use direct linking to create an internal table of contents so that stakeholders can more easily find what they need.
Expanded panels (out of total panels)	The number of expanded panels out of the total number of panels in the project. The guideline is 5.	After taking steps to simplify your project, collapse panels in your project that do not need to be viewed on load. When the project is opened, only expanded panels will be processed. Collapsed panels will not be processed until the user expands them.
Expanded visualizations (out of total visualizations)	The number of expanded tables and visualizations out of the total in the project, including hidden data sources. The guideline is 15.	After taking steps to simplify your project, collapse visualizations in your project that do not need to be viewed on load. Prioritize the visuals that are most important to the consumer of the report and break out supporting visuals into a separate, more detailed panel or project if needed.
Number of Freeform cells	The total number of Freeform table cells in the project, calculated by rows * columns across all tables. Excludes hidden data sources. The guideline is 4000.	Reduce the number of columns in your table to only the most relevant data points. Reduce the number of rows in your table by adjusting the number of rows shown, applying a table filter, or applying a segment.
Available components	The total number of components retrieved in the left rail of the project, across all report suites in the project. This will impact the speed in which the left rail loads and how fast	Talk to your product admin about creating a curated virtual report suite that has a more tailored set of components.

Factor	Definition	Optimization
	search results are returned within it. The guideline is 2000.	
Used components	The total number of components used in the project. The guideline is 100.	The number of used components is not a direct influencer of performance. However, the complexity of those components will contribute to performance of the project. See optimizations in the “Additional factors” section below.
Longest date range	This factor displays the longest date range used the project. The guideline is 1 year.	<p>Where possible, don’t pull in more data than you need. Narrow the panel calendar to the relevant dates for your analysis or use date range components (purple components) in your freeform tables. Date ranges used in a table override the panel date range. For example, you can add last month, last week and yesterday to the table columns to request those specific ranges of data. For more information on working with date ranges in Analysis Workspace, watch this video.</p> <p>Additionally, minimize the number of year-over-year comparisons used in the project. When a year-over-year comparison is calculated, it looks across the full 13 months of data between the months of interest. This has the same impact as changing the panel date range to last 13 months.</p>

Additional factors

Additional factors that are not included on Help > Performance include:

Factor	Definition	Influenced by	Optimization
Segment complexity	Intricate segments can have a significant impact on project performance.	<p>Factors that add complexity to a segment (in descending order of impact) include:</p> <ul style="list-style-type: none"> • Operators of “contains,” “contains any of,” “matches,” “starts with,” or “ends with” • Sequential segmentation, especially when dimension restrictions (Within/After) are used • Number of unique dimension items within dimensions used in the segment (e.g., Page = ‘A’ when Page has 10 unique items will be faster than Page = ‘A’ when Page has 100000 unique items) • Number of different dimensions used (e.g., Page = ‘Home’ and Page = ‘Search results’ will be faster than eVar 1 = ‘red’ and eVar 2 = ‘blue’) • Many OR operators (instead of AND) • Nested containers that vary in scope (e.g., “Hit” inside of “Visit” inside of “Visitor”) 	<p>While some of the complexity factors cannot be prevented, look for opportunities to reduce the complexity of your segments. In general, the more specific you can be with your segment criteria, the better. For example:</p> <ul style="list-style-type: none"> • With containers, using a single container at the top of the segment will be faster than a series of nested containers. • With operators, “equals” will be faster than “contains”, and “equals any of” will be faster than “contains any of”. • With many criteria, AND operators will be faster than a series of OR operators. <p>Look for opportunities to reduce many OR statements into a single “equals any of” statement. Classifications can also help to consolidate many values into concise groups from which you can then create segments. Segmentation on classification groups provides performance benefits over segments that contain many OR statements or “contains” criteria.</p>

Factor	Definition	Influenced by	Optimization
<p>Visualization complexity (segments, metrics, filters)</p>	<p>The type of visualization (e.g. fallout vs a freeform table) added to a project by itself doesn't influence project performance very much. It is the complexity of the visualization that will add to processing time.</p>	<p>Factors that add complexity to a visualization include:</p> <ul style="list-style-type: none"> • Range of data requested • Number of segments applied; for instance, segments used as rows of a freeform table • Use of complex segments • Static item rows or columns in freeform tables • Filters applied to rows in freeform tables • Number of metrics included, especially calculated metrics that use segments 	<p>If you notice that your projects aren't loading as quickly as you'd like, try replacing some segments with eVars and filters, where possible.</p> <p>If you find yourself continually using segments and calculated metrics for data points that are important to your business, consider improving your implementation to capture these data points more directly. The use of a tags in Adobe Experience Platform and Adobe's processing rules can make implementation changes quick and easy to implement.</p>
<p>Report suite size</p>	<p>The amount of data collected into your report suite.</p>	<p>-</p>	<p>Consult with your implementation team or an Adobe expert to determine if there are implementation improvements that can be made to improve overall experience in Adobe Analytics.</p>
<p>Concurrent queries</p>	<p>The number of queries that are being requested by your organization to Adobe at the same time. Each organization is entitled to a minimum of 5 concurrent</p>	<p>If a report is taking a long time, typically it is due to the fact that it is in a queue with other reports. This means your organization is trying to run many concurrent requests against a specific report suite. Queries can come from API requests, reporting UIs (Analysis Workspace, Reports & Analytics, Report Builder,</p>	<p>Spread your requests and schedules for the report suite more evenly throughout the day. Also, shift your requests to off-peak times when possible. Monday mornings, Tuesday mornings, and the first of each month are peak reporting times.</p>

Factor	Definition	Influenced by	Optimization
	queries.	etc), scheduled projects, scheduled reports, scheduled alerts, and concurrent users making reporting requests.	