

File Name: mparticle.txt

Content:

Create an Input

Introduction

The purpose of this guide is to walk you through the basic steps of setting up mParticle in your app, unlocking core functionality, and troubleshooting common issues. Along the way, you'll cover some important concepts you need to understand to be successful with mParticle.

This is not a complete guide to all of mParticle's features and capabilities. If you already know your way around mParticle and you're looking for in-depth docs, head to our [Developers](#) or [Guides](#) sections.

Most of this guide is aimed at users of the mParticle Dashboard, but to follow along with the tutorials, you will need to set up the mParticle SDK in your iOS, Android or web app, so you may need support from a developer to complete some steps.

Examples

The tutorials in this guide follow the process of setting up mParticle in the mPTravel app: a mobile and web app that sells luxury travel packages to its users.

Later on in this guide, you'll learn about sending data from mParticle to some of our many integration partners. As examples, the tutorials use services which are simple to set up and verify, and which offer a free account tier, so that you will be able to follow the examples exactly if you wish. However, mParticle is agnostic about which integrations you choose and you can follow the same basic steps from this guide to implement any of our integrations.

Inputs and Outputs

One of the key functions of mParticle is to receive your data from wherever it originates, and send it wherever it needs to go. The sources of your data are inputs and the service or app where it is forwarded are outputs. A connection is a combination of an input and output.

Inputs include:

Apps or services built on any platform we support, such as iOS, Android, or Web. You can view the full list in **SETUP > Inputs** in the **PLATFORMS** tab.

Data feeds of any other data you want to send into mParticle. This could be data you have collected yourself or from a feed partner. Once configured, feed inputs are listed in **SETUP > Inputs** on the **FEEDS** tab.

Outputs may be configured for events, audiences, cookie syncs, or data subject requests depending on what the output supports. You can see the list of configured outputs in **SETUP > Outputs** or **SETUP > Data Warehouses**. Outputs include:

Analytics partners such as Indicative

Advertising partners such as Facebook

In-app messaging partners such as Braze

Data Warehouse partners, such as Amazon Redshift, Google BigQuery, or Snowflake

To get started with mParticle, you need some data, which means you need to create at least one input.

Create Access Credentials

The first thing you need to do is to create a set of access credentials that will allow a client-side SDK or a server-side application to forward data to this workspace.

Login to your mParticle account. If you're just getting started, your first workspace is created for you. The first screen you see is an overview of activity in the workspace. Since you haven't yet sent any data, there's nothing to report, so far.

Navigate to **Setup > Inputs** in the left column. Here you can see each platform type accepted by mParticle. Different platforms are associated with different sets of metadata, such as device identifiers, and most outputs only accept data from a limited set of platforms, so it is important to select the right platform. To capture data from your native Android app, choose Android. Just click the **+** next to your chosen platform.

Click **Issue Keys**.

Copy and save the generated Key and Secret.

About Access Credentials

mParticle labels the credentials you create for an integration the key and secret, but they are not exactly like an API key and secret, since you embed these credentials in the app. However, this is not the security risk that exposing API credentials would be:

The client-side key and secret cant read data from the system.

You can block bad data to stop any traffic that doesnt match the data you expect as defined in your schema.

Most anonymous client-server architectures, including Adobe, Braze, Firebase, Google Analytics, and Segment dont have per-session or per-instance credentials, nor does mParticle.

Install and Initialize an mParticle SDK

You need a developer to help you install and initialize an SDK. See the Getting Started guides for the iOS, Android or Javascript SDKs to get set up before continuing.

Verify: Look for Incoming Data in the Live Stream

Navigate to Activity > Live Stream in the left column. The Live Stream lets you inspect all incoming data from your development environments. Its an easy way to check that you have correctly initialized mParticle in your app. When you first open up the Live Stream, it will be empty, as we havent yet started sending data.

Start up a development build of your app (get a developer to help you if necessary). The mParticle SDKs automatically collect and forward data about installs and user sessions, so just by opening a development build of your app, you should start to see data in the Live Stream.

Advanced Platform Configuration Settings

For the iOS, Android, tvOS, and Web platforms, some advanced configuration settings are available. To change these settings, navigate to Setup > Inputs in the left column and select either iOS, Android, tvOS, or Web from the list of platforms.

Expand the Advanced Settings by clicking the + icon.

Restrict Device ID by Limit Ad Tracking

iOS, Android, and tvOS (Apple TV) devices allow users to limit the collection of advertising IDs. Advertising IDs are unique identifiers you may use to associate event and user data with a specific device. For both iOS and Android devices, if a user has not provided explicit consent to share their devices advertising ID, then the value of that ID is set to an all-zero value.

By checking Restrict Device ID by Limit Ad Tracking, mParticle will not collect advertising IDs from users who have enabled the Limit Ad Tracking setting on their device.

Remember, mParticle will collect advertising IDs for both iOS and Android devices, regardless of whether or not a user has enabled the Limit Ad Tracking setting on their device. However, the IDs collected from users who have opted out will be all-zero values.

Following are descriptions of Apple and Googles policies for device advertising IDs:

iOS Advertising IDs

After the release of iOS 14.5, Apple introduced the App Tracking Transparency (ATT) framework, which requires app developers to request users explicit consent to share their advertising IDs. If a user of your app has not provided this consent, Apples advertising ID (IDFA) will be set to all an all-zero value: 00000000-0000-0000-0000-000000000000.

Read more about Apple advertising identifiers in their documentation.

For more information about the ATT framework, visit the [iOS 14 Guide](#).

Android Advertising IDs

Google allows Android users to opt out from sharing their devices advertising IDs. Similar to Apples policy, Google will set a users advertising ID (GAID or AAID) to an all-zero value if that user has opted out from sharing their ID. Read more about Googles advertising identifiers in their documentation.

Collect Integration-Specific Identifiers

The Web SDK can collect integration-specific identifiers to enrich the user data forwarded to your connected outputs.

When Collect Integration-Specific Identifiers is checked, these integration-specific identifiers are collected and used to enrich your user data to help optimize the match rate of your audiences in downstream tools. Currently, these identifiers include Facebooks fbc and fbp fields.

Supported Integrations

Vendor Identifier Collection Method Maps to

Facebook Click ID fbclid url query parameter Facebook.ClickId

Facebook Click ID fbc browser cookie Facebook.ClickId

Facebook Browser ID fbp browser cookie Facebook.BrowserId

Google GCLID gclid url query parameter GoogleEnhancedConversions.Gclid

Google GWBRAID gwbraid url query parameter GoogleEnhancedConversions.Gbraid

Google WBRAID wbraid url query parameter GoogleEnhancedConversions.Wbraid

Troubleshoot

If you dont see data appearing in the Live Stream within the first few minutes after opening a development build:

Check that you have copied your Key and Secret correctly

Check that you have properly included the mParticle SDK in your project and it is correctly initialized. The necessary steps will differ depending on the platform. Check our iOS, Android and Web docs for more. Start capturing data

After you create an input, you can begin capturing data.

Prerequisites

Before you start this activity, you should have already:

Created an input.

Data in mParticle

mParticle collects two important kinds of data:

Event data

Event data is about actions taken by a user in your app. Some events are collected automatically by mParticle's native SDKs. These include the Session Start events you saw in the Live stream when you first set up your input. Other events need to be captured by writing code in your app. Of these, the most significant are:

Screen/Page Views - keep track of where a user is in your app

Custom Events - track any actions the user might take in your app, such as clicking a button or watching a video.

Commerce Events - track purchases and other product-related activity.

User data

mParticle also captures data about your user, including their identities, information about the device they are using and any custom attributes you set. As with event data, some user data, such as information about the devices they use, is captured automatically by mParticle's native SDKs. Two important types of user data must be captured by writing code in your app:

User identities are unique identifiers for your user, like an email address or customer ID. These are different from the device identities collected automatically by the SDKs, which don't identify an individual person but a particular cell phone, browser session, or some other device.

User identities help mParticle keep track of unique users of your app and allow you to track a user's activity over time and across different devices. To learn a lot more about user and device identities, read our IDSync guide. For now, you

just need to know that a user identity is a way of identifying a person, independently of the device they are currently using.

User Attributes are key-value pairs that can store any custom data about your user. The value of a user attribute can be:

A string

A number

A list

A boolean value (true or false)

null - attributes with a null value function as tags, and can be used to sort your users into categories.

Capture User and Event Data

To start capturing data you will need to go back to your app code. In the previous step you should have installed and initialized the mParticle SDK in at least one of your app platforms. This means you're already set up to capture Session Start and Session End events, as well as basic data about the device. Grab a friendly developer again, if you need one, and try to add some additional user and event data to your implementation. Here are a few things you might try, with links to the appropriate developer docs:

Add a Customer ID or Email Address for a user.

Android / iOS / Web

Create a custom user attribute that tells you something about a user. For example: status: "premium".

Android / iOS / Web

Create a page or screen view event that captures the name of a page or screen being viewed.

Android / iOS / Web

Create a custom event to track a user action in your app. Include some custom attributes. For example, the mPTravel app sends a custom event when a user views one of its content videos. The event is called Play Video and it has two

custom attributes: the category of content, and the travel destination the video promotes. Later on, you'll see how events like these can be used to target custom messaging.

Android / iOS / Web

Create a purchase event - track a purchase using mParticle's commerce APIs.

Android / iOS / Web

Verify: Look for incoming data in the Live Stream

Once you've added code to your app to start collecting some basic data, start up a development build of your app again and trigger some events. Have another look at the Live Stream. You should start to see new event batches, with the individual events you have added to your app.

Troubleshoot

If you have at least some data in your Live Stream, such as the session start and session end messages generated in the previous step, but your screen views, custom events or purchases aren't showing, it's likely that there is an issue with your app code.

Check that your code is correctly formed, and that the methods which send events to mParticle are actually triggered by user activity in your app.

Review your development environments logs. These will show when an event is sent to mParticle. Connect an Event Output

To learn more about event outputs before creating your first one, view the following video:

Prerequisites

Before you start this activity, you should have already:

Created an input

Started to capture some basic data points

Outputs

Outputs are mParticle's term for the services where we forward your data. Outputs are also referred to as integrations.

Outputs come in two types: event, and audience. Audiences are covered in the next part of this guide. This section will show you how to set up an event output.

Example - Connect an Output to Analytics

mParticle has over a hundred event outputs, and the connection process for each is similar. This tutorial creates a connection to Analytics as an example. You can follow the same steps with a different output, or create a free Analytics account to follow along exactly.

Find Analytics in the Directory

Click Directory in the sidebar, and search for Analytics.

Click the Analytics tile to display Output: Event Configuration.

Enter the configuration information:

Enter a configuration name.

Leave the box checked to use the same settings for Development & Production.

Select a field as the user identity field. Leave the default if you're not sure what to choose.

Enter the Analytics API key which you can find in the Analytics project settings.

Remember to save your new output configuration.

Create the Connection

Now that you have both an input and an output set up, it's time to connect them:

Click Connections > Connect, and select the input you've already set up.

Click Connect Output.

Select your Analytics configuration.

Complete the Connection Settings, different for each output. For Analytics you can leave the default selections.

Set the status to Active and click Save.

Verify: Check that data is arriving in Analytics

Once you have enabled the connection, open up the development build of your app again and create a few more events. Each output service displays the data it receives differently. For Analytics, you can view real-time data in the Debug Console.

Troubleshoot

If you don't see data arriving in the output service, navigate to Data Master > Live Stream and select Message Direction Outbound.

If you see messages in the outbound Live Stream, but none in the output service:

You may just need to wait. For most event outputs, mParticle forwards information in close to real time. However, there are factors which can slow down processing and the amount of time it takes for data to become visible in an output services dashboard can be different for each service.

Navigate to Activity > System Alerts and see if there are any errors noted for the output you want to troubleshoot. The error type may give you a clue as to what is wrong.

If the previous step doesn't resolve the issue:

Check all of your Configuration and Connection settings. Make sure that all settings are correct, especially any access credentials, such as Project or App IDs, API Key & Secret, etc.

It is common for a particular output service to require certain identifiers or other data points to be present to allow data to

be forwarded. As an example, the Google Ads output requires information about a users device, including the Device Advertising ID, in order to construct a User Agent Header. If the Device Advertising ID is not present, no data can be sent. Check the docs for the output service and make sure youre sending all the required information.

If there are no outgoing messages in the Live Stream, then mParticle is not attempting to send any data to the output service. Some possible reasons for this include:

Not all outputs support every platform or accept every event type. The Directory shows a list of available platforms and supported event types for each output. Make sure the data you are trying to send is supported.

mParticle allows you to filter your data for each output. Check the Data Filter to make sure you havent turned off the data points youre trying to send.

Create an Audience

Prerequisites

Before you start this activity, you should have already:

- Created an input

- Started to collect some basic data points

- Get some more data

Up until this point, youve been testing your account with a single development build of your app. This works well to establish basic data throughput.

The Audiences feature allows you to target segments of your users based on their activity or attributes. So to effectively use Audiences, even at the testing stage, your app needs multiple users!

If youre not ready to enable the mParticle SDKs in your Production app yet, you can either spin up multiple development environments, or try using the Events API to supply some test data in bulk.

Create your Audience

The mPTTravel app lets users watch video content about travel destinations. This tutorial creates an audience to allow

mPTravel to target users who view content about a particular destination with deals for that destination.

Create Criteria

To define an audience, you need to specify some selection criteria. Click Add Criteria.

Choose the type of criteria you want to create. Except for the Users type, which is covered below, these criteria all correspond to mParticle event types. Click Events to target custom events.

There are three distinct aspects of an event criteria that you can define:

Event name - mParticle populates a dropdown list based on all event names received for the workspace. This means that you can only select events that have already been captured by mParticle. This example targets the Play Video event name.

Attributes - you can refine your criteria further by setting attribute conditions. This example targets only instances of the Play Video event where the category attribute has a value of Destination Intro and the destination attribute has a value of Paris.

Note that this example creates an Exact Match condition, but there are other types of condition to explore. For example, if you set destination Contains France, then you could match events with a destination of both Paris, France and Cannes, France.

The types of condition available depend on what kind of data an attribute holds. For example, an attribute that records a number value will have Greater Than and Less Than conditions. mParticle automatically detects what type of data an attribute holds. However, you can manually set the data type by clicking the type symbol.

Don't change the data type unless you really know what you're doing. If you force the data type to be Number, and all your attribute values are strings, your condition will always fail! As long as you're sending the same type of data consistently for each attribute, you shouldn't have to worry about it.

Recency / Frequency - Sets how many times the user needs to trigger a matching event, and in what time period, in order to meet the condition. If you don't specify anything here, the default for Recency / Frequency is Greater than 0 events in the last 30 days.

When you're happy with your criteria, click Done.

Add Multiple Criteria

You could save this audience right now and target all users who have watched mPTravels Paris content in the past three days. But, what if you have some extra special limited deals that you want to save for your premium members? You can't just tell everyone! You need to add a second criteria. Whenever you have multiple criteria, you need to decide how to evaluate them together. There are three options:

And - both conditions have to be true for a user to be added to the audience

Or - a user will be added to the audience if either condition is true

Exclude - a user will be added only if the first condition is true, but the second is false. Exclude is great for use cases like abandoned cart targeting. You can select users who triggered an Add to Cart event, then exclude users who triggered a Purchase event.

To target users who watched Paris content, AND are premium members, choose And.

This is a good opportunity to look at the User criteria type, as it's a little different. Where the other criteria match users who have triggered a particular event, the User criteria looks at all other information you might know about your users: the type of device they use, where they live, their custom user attributes, etc. This example targets users with a user attribute of status, with a value of Premium.

When you've added as many criteria as you need, click Save as Draft to come back to your definition later, or Activate to start calculating.

When you activate the audience, you'll be asked if you want to set up an A/B Test. Select No for now, to go to the Connections Screen.

Verify your Audience

Check that size is greater than zero

After you finish defining your audience you will be taken straight to the Audience Connection screen. Connecting an audience will be covered in the next section.

First, check that your audience definition is working as expected. Start by selecting Audiences from the left column to go to the main Audiences page. Audiences take time to calculate, so if you've only just activated it, you'll probably see a Size of 0 for your audience. Mouseover the pie chart to see how far along the calculation process is.

After a while, as long as you have users that match your criteria, you should start to see the value of the Size column increase.

If the audience is 100% calculated, and your size is still zero, there may be an issue with your conditions.

Download to verify individual memberships

In some cases, it might be enough just to know that your audience is matching users. However, if you know specific identities of users who should match your criteria, you can check that they matched by downloading your entire

audience in CSV form. Follow the instructions here to download your audience.

Troubleshoot

For simple audiences, it's a good idea to check your Live Stream to see if you can find an event that should match your criteria. Here, you can see a user who has triggered the correct event.

Some things to check:

Make sure you selected the right platforms. If the matching events are all from iOS, and you only selected the Android platform when creating the audience, you won't match any users.

Examine each of your conditions against your test data from the Live Stream. Matches in the Audience Builder are not case sensitive. If you've set attribute conditions, do the attribute values in your test data exactly match the value you've provided in your condition?

If you have multiple criteria, make sure your chaining statements are correct. Did you select And when you meant Or?

Remember that recalculating an audience will take some time, so check your criteria thoroughly before you save your changes. Connect an Audience Output

To forward data out of mParticle, you must create and connect an audience output.

Prerequisites

Before you start this activity, you should have already created an audience.

How audiences are forwarded

In mParticle, an audience is a set of users who match a given set of criteria. When mParticle prepares to forward an audience, it is broken down into a series of messages about audience membership. Each message contains:

The name of the audience

An identity that can be used for targeting, such as an email address, a device identity or a social media identity.

Whether that identity is being added to, or removed from the audience.

mParticle then translates these messages into a format that can be read by each audience output partner, and forwards them via HTTP API. Each output deals with audience information a little differently, depending on their data structure, but there are two main patterns.

Direct

Some audience output partners allow mParticle to either to directly create an audience (some call them lists, or segments) via their API, or at least to manage the membership of an existing audience. The end result will be an audience in the partner system, containing as many identities from the original mParticle audience as the output can accept. mParticle will continue to update the membership of the audience in the partner system as users are added and removed. Email marketing and social media platforms are usually in this category.

Indirect

Not all audience output services have a concept of audiences that mParticle can map to. Others don't allow their audiences to be directly managed via API. In these cases, mParticle usually forwards audiences as some kind of user attribute or tag. Push messaging and other mobile-oriented services often fall into this category.

As an example, Braze, has its own audience feature, called Segments, but it does not allow mParticle to create segments via API. Instead, for each Braze-supported identity in the audience, mParticle sets a tag on the user, named after the audience. You can then easily find matching users in Braze by searching for that tag.

The catch here is that it is often necessary for the output service to already have a record of the users you want to target. For this reason, this type of audience integration usually works best when paired with a matching event integration.

Example - Connect an audience to Mailchimp

Just like event outputs, each audience output will follow a similar setup process, with the exact prerequisites and settings being different for each. This tutorial forwards an audience to Mailchimp as an example. You can follow the same steps with a different output, or create a free Mailchimp account to follow along exactly.

Create a Mailchimp List

mParticle sends audiences to Mailchimp via its List API. For this to work, You need to have already created a list in my Mailchimp account, and you need to know the List ID. You can give your Mailchimp list the same name as the mParticle audience you want to forward.

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You'll also need to create a Mailchimp API Key, which you can do from the Extras tab of your Mailchimp Account Settings.

Add the Mailchimp output

Navigate to the Directory in the sidebar. Locate Mailchimp and select the Audience option.

Complete the Configuration Settings. You'll need the API Key you created in Mailchimp. All audience outputs will need different settings. This example sets the Email Type to HTML and disables the Double Opt-In and Delete on Subscription End settings.

Click Save.

Connect your Audience

Navigate to Audiences in the left column and open any audience page. This example uses the Potential Parisians audience, created in the previous tutorial. Click the Connect tab.

Click Connect Output.

Select your Mailchimp configuration and complete the Connection Settings. Again these will be different for every output.

For Mailchimp, you just need the List ID of your Mailchimp list. Click Save.

Verify: Check your list in Mailchimp

The simplest way to check that your Connection is working is to see if your Mailchimp list is showing subscribers. For most audience outputs, mParticle begins forwarding data immediately and continues to update audiences in near real time. For some outputs, however, the design of the output partners API requires that we queue audiences messages and upload at a regular interval. In these cases, we make a note of the upload criteria in the docs for that output.

mParticle forwards to Mailchimp in realtime, and you should be start to see results in the mailchimp dashboard within ten minutes.

Open the Lists tab in your Mailchimp dashboard. Find the list you used to set up the connection. If you see a positive subscriber count, your connection is working.

Troubleshoot

If you arent seeing your audiences in the output partners dashboard, make sure to check any API Keys, Audience IDs and any other settings for correctness.

Many audience outputs are services which allow you to send mass communications or target advertising to wide audiences, so access to the features that mParticle forwards audiences to is often tightly controlled. To be able to view and manage audiences in the output service, you may need to do one or more of the following:

Create a special business or advertising account with the service,

Set up valid billing information,

Create at least one ad campaign,

Record agreement to the services terms and conditions,

Have administrative access in your organizations ad account.

A common question around forwarding audiences is why the size of the audience (or list, or segment) you see in the partners dashboard doesnt match the size of the audience shown in mParticle. This is common, and usually does not mean anything is wrong. When you create an audience in mParticle, we will include as many identities as we have for each user in the audience. However, most outputs only support a small subset of identity types. Heres a simple example:

The audience Potential Parisians matches 100 users in mParticle.

Of these users, 50 have email addresses, and 80 have Android Advertising IDs.

Connect this audience to Mailchimp, which supports only email addresses, and AppNexus, which supports only Device IDs.

You will see 50 users in your Mailchimp list and 80 users in AppNexus.

Transform and Enhance Your Data
If youve followed our guide this far, you have a firm grounding in the basics of mParticle. Now youre ready to use some of our advanced and premium features to transform, enrich and enhance your data. Here are a few suggestions for where you might want to explore next.

Establish your Identity Strategy

This guide has already covered collecting identities, such as email addresses, for your users. mParticles IDSync feature gives you a lot of control over how you identify and track your users over time, and selecting an Identity Strategy is one of the most important decisions you need to make when implementing mParticle. Read our full IDSync guide for more.

Add more sources

For most mParticle clients, the primary sources of data are native and web apps, instrumented with the mParticle SDK, but you can also use mParticle to leverage other sources of data to build a more complete picture of your users:

The Events API can be used to send supplementary server-side data.

Our main Apple and Android SDKs can also be instrumented in AppleTV and FireTV apps, and we publish independent SDKs for Roku and Xbox.

If you use a cross-platform development framework, you can use our libraries for React Native, Xamarin, Unity, and Cordova to interface with our native SDKs.

Use Feeds to bring in data from other services.

Explore advanced Audience features

If you want to compare different messaging platforms or strategies, you can use mParticle to conduct an A/B Test by splitting an audience into two or more variations and connecting each to different outputs.

The more specific your audiences, the more you are likely to need to create. If you have a large number of audiences to forward, use Bulk Audience Connections workflow to speed things up.

Transform your Data

One of the core benefits of mParticle is the ability to capture data once and forward it to multiple outputs. However, you probably don't want to send all your data to every output. mParticle provides you with a full set of tools to filter and transform your data. Use these tools to control the flow of Personally Identifiable Information (PII), to customize the data you send to each output and to control your costs.

The Data Filter allows you to individually filter each data point for each output.

User Splits allow you to test competing services by dividing your users into groups and connecting each group to different outputs.

Forwarding Rules allow you to block data to an output according to simple predefined rules.

User Sampling allows you to send only a subset of your data to a given output. This is usually done to control costs for services that charge according to data volume or unique user counts.

For advanced transformations, the Rules feature allows you to host a custom function on AWS Lambda which can change almost any aspect of your data.

Manage your GDPR Obligations

If you have users in the European Union, you may have obligations as a Data Controller under the General Data Processing Regulation. mParticle provides tools, available as premium features, to help you manage two aspects of

GDPR compliance:

User Consent

Data Subject Requests

Know your limits

Part of the purpose of mParticle is to allow you to maximize leverage of your data without compromising performance. In order to protect the performance of both your app and the mParticle dashboard, we impose certain limits on the data you can send. If you're a dashboard user, you can read a brief summary of the default limits, [here](#). If you need the full picture, you can read our detailed guide. [The new mParticle Experience](#)

Welcome to the future of mParticle! We're thrilled to unveil a fresh, new visual interface that revolutionizes how you interact with the mParticle platform.

We are committed to pushing mParticle beyond its origins as a customer data platform, and this new UI is the first step of the journey to level up your experience by streamlining existing workflows and adding new navigation features, unlocking mParticle's full potential.

How to access the new UI

You can toggle the new UI on or off any time, at your discretion. To turn the new UI on:

Log into your mParticle account at app.mparticle.com.

Click the Settings button at the bottom of the left hand nav bar.

Click Go to New Experience.

How to return to the old UI

To switch back to the original UI:

Log into your mParticle account at app.mparticle.com.

Click the Settings button at the bottom of the left hand nav bar.

Click Go to Classic Experience.

The new UI is being released in phases, so not all accounts will have access at the same time. If you do not see the Go to New Experience button, your account has not been given access yet. To learn when you will have access, or to request access sooner, contact your mParticle Customer Success Manager.

The evolution of mParticles UI

At mParticle, we understand the importance of staying ahead of the curve. That's why we're proud to introduce a user interface that doesn't just update the aesthetic of the platform, but expands its functionality. Inspired by a combination of customer insights and requests, and industry trends, our team has meticulously crafted a user-centric interface that simplifies complex tasks, exposes previously hard-to-find features, and presents a comprehensive, navigable map of your data infrastructure.

There are three cornerstones to the new UI:

A comprehensive overview map of your entire mParticle implementation

An interactive mini-map that allows you to jump between mParticle suites

A contextual left-hand nav bar

Continue reading for a detailed overview of what's changed, and what's new, in the mParticle UI.

Changes to existing features

After switching to the new UI, the first thing you'll notice is a detailed schematic of your entire mParticle implementation. Your data inputs are listed on the left, your connected outputs on the right, and all of the mParticle features and products that you use to manage your data are shown in the center.

This is the new mParticle Overview Map, and its job is to give you a bird's eye view of how data flows through your particular implementation of mParticle.

Think of it like an interactive transit map for your data. Every route and station is clearly labeled, and you can click on each input or feature to configure its settings. Every workspaces overview map will look a little different, depending on the exact inputs, outputs, and features that are configured.

You'll also notice that the left-hand nav bar disappears when viewing the Overview Map. When viewing the Overview Map, navigate to the feature or suite you're interested in by clicking directly on the map. Once you've navigated to a suite, you'll see the new contextual left-hand nav bar appear.

The Overview Map: your guide to mParticle

The Overview Map illustrates the direction your data travels in, from your inputs to your outputs, including the various features and tools it passes through along the way.

For a detailed guide on how you can interact with your Overview Map, refer to the Overview Map user guide. For a quick summary of what the Overview Map can do, keep reading below.

Screenshot of the new overview page showing the new overview map

Inputs

Your data inputs include Platform inputs (such as iOS, Web, or Android) and Feed inputs (such as third-party marketing tools or data warehouses).

Screenshot of the inputs section of the overview map

mParticle Suites

The mParticle Data Platform includes the different tools and features you use to manage, manipulate, and leverage your data before sending it to your outputs. These tools can be separated into several product suites:

Screenshot of the mParticle suites section of the overview map

Outputs

The Overview Map displays all of your Event outputs, third-party marketing and data warehouse tools where you can forward your event data.

Screenshot of the outputs section of the overview map

The minimap

We have also added an interactive mini-map that you can use to quickly jump between suites, no matter where you are in the platform.

To access the mini-map, hover your cursor over the mParticle button in the bottom of the left-hand nav bar. Click any suite to navigate directly to that area of the platform.

screenshot of the minimap

The contextual navigation bar

In addition to the mParticle Overview Map, the new UI includes a contextual left-hand navigation bar that makes it easier to access (and navigate between) specific features within each mParticle suite.

While the new overview map shows you what features are related, and where they sit in your data's journey through mParticle, the updated left-hand nav bar shows you the most relevant tools and options for each specific mParticle suite.

Jump To

The new contextual nav bar includes a Jump To menu that shows links to other areas of the product that are the most relevant features for the particular suite you are viewing. Simply hover your cursor over Jump To in the left nav bar to

view these options.

Oversight

When viewing the Oversight suite, the left-hand nav bar displays links to:

System Alerts

DSRs

Privacy

The Jump To menu gives you quick access to the following relevant related tools:

Trends

Setup

User Profiles

Journeys

Screenshot of the nav bar when viewing the oversight suite

Data Platform

When viewing the Data Platform suite, the left-hand nav bar displays links to:

Trends

Setup

Live Stream

Data Catalog

Transformations

Event Forwarding

The Jump To menu gives you quick access to the following relevant related tools:

System Alerts

User Profiles

Calculated Attributes

Journeys

Screenshot of the nav bar when viewing the data platform suite

Customer 360

When viewing the Customer 360 suite, the left-hand nav bar displays links to:

User Profiles

Enrichment

Calculated attributes

The Jump To menu gives you quick access to the following relevant related tools:

Data Catalog

Journeys

Setup

Screenshot of the nav bar when viewing the customer 360 suite

Segmentation

When viewing the Segmentation suite, the left-hand nav bar displays links to:

Audiences

Journeys

The Jump To menu gives you quick access to the following relevant related tools:

Data Catalog

Setup

Screenshot of the nav bar when viewing the segmentation suite

Predictions

When viewing the Predictions suite, the left-hand nav bar displays links to:

Pipelines

Projects

Data

APIs

Insights

Screenshot of the nav bar when viewing the predictions suite

Analytics

When viewing the Analytics suite, the left-hand nav bar displays links to:

My Hub: hover your cursor over My Hub to view links to each Analytics tool

Saved

Data

Screenshot of the nav bar when viewing the analytics suite

FAQ

We know it takes time to get comfortable with a new interface, but here are some common questions and answers:

Where is the left-hand nav bar?

The left-hand navigation bar has been replaced with an updated nav-bar that provides contextual links: it displays the most relevant features for each particular mParticle tool suite you're currently viewing. However, when viewing the

Overview Map, the nav bar is removed completely because the Overview Map provides links to each mParticle suite.

Why cant I access everything?

The overview map showcases how the entire platform works together. There might be some features that you can see in the overview map that you cannot see when you click into the feature. If you do not have access to a particular feature in the platform, you can request access from your admin.

Why are some of my inputs and outputs missing?

The overview map was created to show event flow. However, we have heard from customers that they want to see their entire data flow. We are working on an update to show additional Output categories, including Audiences. The Overview Map

The Overview Map provides an interactive diagram of your mParticle data infrastructure, including all of your data inputs, outputs, and configured mParticle features.

How to access the Overview Map

The Overview Map is the first page you see after logging into your account at app.mparticle.com.

You can navigate back to the Overview Map at any time by clicking the Overview button at the bottom of the left hand nav bar.

Screenshot showing the overview button

The Overview Map is unique to each workspace in your account, because each workspace may contain a different configuration of inputs, outputs, and mParticle features. If you cant find an input, output, or feature that you are expecting to see on the Overview Map, make sure you have selected the correct workspace.

Overview Map settings

The Overview Map has a few basic settings allowing you to control its appearance, and the type of information it displays.

Zoom

You can zoom your view of the Overview Map in and out by clicking the + or - magnifying glass icons in the bottom left corner of the map.

Screenshow showing the zoom controls for the overview map

Switching views

The Overview Map provides three different views. Each view is designed to highlight a different collection of information describing your mParticle account.

You can switch between different views of the Overview Map using the View button to the left of the zoom controls.

Screenshot showing the different view options for the overview map

Connections view

The Connections view only displays your inputs, outputs, and the connections between them.

To see which inputs and outputs are connected, hover your cursor over any input or output, and a highlighted purple line will appear showing the connections. Every output connected to a single input will be highlighted. For example, in the map below you can see that the iOS input is connected to the Amplitude and Amazon Redshift outputs, in addition to a selection of other outputs.

If your workspace contains a large number of inputs or outputs, you can view them in a complete list by clicking the + more Events button.

Screenshot showing the connections view of the overview map

Overview view

The Overview view provides a simplified diagram of the feature sets that you have configured in addition to your inputs and outputs.

Screenshot showing the overview view of the overview map

Data Flow

The Data Flow view provides a complete diagram of each specific feature your data flows through between your inputs and outputs, including Rules, Data Plans, and Filters.

Screenshot showing the data flow view of the overview map

Navigating with the Overview Map

The Overview Map is interactive: you can use it to navigate to different products, features, and settings within mParticle.

If you see a product or feature shown on the map that you can't click on, your role doesn't have adequate permissions to view it. Contact your mParticle account administrator to request access.

Inputs

Your inputs are the sources of your customer data. You can create Platform inputs, which use the mParticle SDKs to collect and ingest data directly from different device platforms (like iOS or Web), or Feed inputs, which ingest data from third-party marketing or data warehouse tools.

All of your inputs are listed on the left side of the Overview Map, with the Platform and Feed inputs separated into two

groups.

Add an input

To add an input, click the + Add button next to Platforms or Feeds under INPUTS to create an input of either type.

This opens the Setup > Inputs page, where you can create a new Platform or Feed input.

See connections

To view connections between an input and your outputs, hover your cursor over an inputs card and a highlighted purple line will appear between the input and any connected outputs.

A dotted line signifies that the input is still in the Draft status, and no data is actively flowing through it.

Add a connection

To add a connection from an input, click the + icon next to an input card.

Screenshot showing the add connection button in the overview map

This opens the Connections > Connect page for that particular platform input, where you can select one of your configured outputs to connect the input to.

Outputs

Outputs are the destinations of your customer data. These are third-party marketing, analytics, or data warehouse tools that can accept either event data or user data.

Your outputs are shown on the right side of the Overview Map.

The Overview Map currently only displays Event outputs. To view your Audience outputs, navigate to Setup > Outputs in

the left hand nav bar and click the Audience tab.

Audience outputs will be added to the Overview Map in a future release.

Add an output

To add an output, click the + Add button next to Events under OUTPUTS to create an Events output.

This opens the Setup > Outputs page where you can select one of the many available output integrations to configure.

See connected inputs

To see which inputs are connected to an output, hover your cursor over an outputs card and a highlighted purple line will appear between the output and any connected inputs.

Screenshot showing the outputs section of the overview map

A dotted line signifies that the output is still in the Draft status, and no data is actively flowing through it.

View output configurations

A single output can have multiple configurations. To see an expanded list of configurations for an output, click the outputs card.

By hovering your cursor over each card in the expanded list, you can see which inputs send data to that particular configuration.

mParticle Suites

The mParticle platform includes several suites, or collections, of tools that you use to monitor, manage, and leverage your customer data. There are six different suites, and they are displayed in the center of the Overview Map:

Screenshot showing the suites section of the overview map

Oversight

This group of features allows you to monitor the health of your data infrastructure and manage your data privacy settings. Features here include:

System Alerts

Observability (currently in beta)

Privacy Controls

Data Subject Requests

Screenshot showing the oversight suite in the overview map

Data Platform

The Data Platform features provide an overview of what data is flowing into mParticle, both in real time and historically.

Features include:

Trends

Livestream

Data Catalog

Event Forwarding

Screenshot showing the data platform suite in the overview map

Customer 360

Customer 360 is the collection of tools and features related to your customer data, including:

User Profiles

Group Identities

Calculated Attributes

Screenshot showing the data customer 360 suite in the overview map

Predictions, Analytics, and Segmentation

From the Customer 360 Profile, you can gain a deeper understanding of your users behavior, and make predictions based on their behavior to power a highly personalized, omnichannel customer experience:

Predictions: discover how best to engage with your users with mParticles machine learning and AI powered predictive analytics suite

Analytics: gain actionable insights into how your users behave and interact with your brand

Segmentation: create groups of related users and perform user journey analytics, testing, and cross-channel orchestration

Screenshot showing the predictions, analytics, and segmentation suites in the overview map

Data platform management

mParticle provides several data management tools that help you control exactly what data you ingest from your inputs, what data you send to your outputs, and to improve the quality of your data. These tools are Data Plans, Rules, and Filters, and they're shown on the Overview Map at the intersections between the mParticle Suites and your inputs and outputs.

Screenshot showing location of rules, plans, and filters on overview map

Data Plans

Data Plans allow you to improve the quality of the data you ingest by validating inbound data against a schema. Data that doesn't fit the schema you define isn't ingested by mParticle, ensuring that you have high quality when creating Audiences, Predictions, or when forwarding data to your downstream marketing and engagement tools.

Data Plans only operate on data as it is ingested from inputs into the mParticle Suites.

To view your Data Plans, click the Plans button on the Overview Map.

[Learn more about Data Plans.](#)

Rules

Rules are scripts that manipulate data that is either being ingested from an input, or forwarded to an output. They allow you to cleanse, enrich, or transform your data by changing event names, modifying event or user attributes, or adding or removing events from a batch.

Rules can be used on both inbound and outbound data.

To view or add Rules, click the Rules button on the Overview Map.

[Learn more about Rules.](#)

Filters

Filters control the data that's forwarded to your outputs. While Rules and Data Plans help you collect only the data you want, without duplicates or poor quality data points, Filters prevent all of your data from being forwarded to all of your outputs.

Filters can only be used on outbound data.

To view your filters, click the Filters button on the Overview Map.

[Learn more about Filters.](#)

Identity Resolution

IDSync, mParticles identity resolution framework, allows you to manage how your users are identified wherever, and whenever, they engage with your brand. IDSync works in tandem with Customer360 to give you control over exactly what data is attributed to which user profiles.

The Identity Resolution process is noted on the Overview Map between Data Platform and Customer360, but it is not currently navigable via the Overview Map.

To manage your IDSync settings click the Settings icon in the left nav bar, click Platform, and select the Identity Settings tab. Or, click on the identity resolution circle.

Learn more about IDSync.Introduction

The mParticle platform is the hub for all of your data. It collects data from any number of inputs - mobile apps, web, feeds from external SAAS providers, data sent via our Events API - and forwards it on to output services to be used for analytics, attribution, storage, audience targeting, push notifications, etc.

The primary task accomplished in the mParticle dashboard is creating Connections between inputs and outputs - to collect your data, enrich and transform it, and forward it to where it needs to go. mParticle forwards two main types of data:

Events data is about what users do in your app. Opening your app, logging in, viewing a screen and making a purchase can all be captured with Events data. For example, you might track the average number of sessions per user over a given period of time as a way of measuring user engagement with your app.

Audience data captures groups of users that meet a given set of criteria. For example, you might create an audience of users who have purchased icecream from your app and forward that audience to a marketing automation platform, to target messages to those users when new dairy products become available.

Accounts, organizations, and workspaces

mParticle creates a unique organization for you. Its the container for all data and metadata related to your mParticle. Within an organization, mParticle will create one or more accounts for you, and within each account, you can create one or more workspaces. Your choices for account and workspace setup are important because these choices affect identity and feature provisioning.

flowchart of org to account to workspace

These three nested containers provide scoping and functionality for multi-brand and multi-geo use cases, as well as edge use cases. The scope and advantages of each are explained in the following sections.

Organization

Most mParticle customers have one organization which contains one or more accounts. However, some large companies have multiple organizations. No information is shared across organization boundaries. mParticle creates the organization(s) for you.

A few features apply at the organization level, including profile strategies.

You can think of the organization as representing your company.

Account

Each organization has one or more accounts. Accounts often represent different functional groups or goals within an organization, for example regional divisions, or Sales, Marketing, and Customer Support. mParticle creates the account(s) for you.

Some information is shared across accounts either by default or by enablement:

Audiences can be shared across account boundaries with cross-account sharing enabled.

mParticle users (people authorized to access your mParticle organization) are shared across accounts and workspaces.

User data is shared across workspaces by default, but you can request it be shared across accounts.

Workspace

Each account contains one or more workspaces. A workspace is the basic container for data in an mParticle account.

mParticle creates your first workspace, but you can add more at any time.

For most use cases, each workspace is its own domain, separate from other workspaces. Some information is shared across workspace boundaries:

Audiences are shared, allowing you to build an audience using data from more than one workspace.

mParticle users (people authorized to access your mParticle organization) are shared across accounts and workspaces.

Some mParticle accounts have over a dozen workspaces, while others have only one. How you organize data from your app ecosystem is entirely up to you.

Using organizations, accounts, and workspaces

Use organizations, accounts, and workspaces to manage multiple brands, regions, and to manage custom identity configurations and unique input/output requirements. You can also use mParticle features like cross-account audience sharing or multiple workspace real-time audiences.

To see which accounts and organizations are available:

To display your current organization and account, log into mParticle and in the left navigation bar toward the bottom, click the buildings icon. If more than one organization or account has been created, you'll be able to search for it.

To see your current workspace name, log into mParticle and in the left navigation bar, the square in the upper left corner

displays your current workspace name. Click anywhere in the square to search for other workspaces or see the settings for this workspace.

Example: Multiple brands, multiple locations

The Best Bags company sells handbags under several different names, and in several regions of the globe. They can use organizations and workspaces to provide differentiation when needed:

Best Bags created workspaces that correspond to three regions: North America, APAC, and Europe. Each brand defines their own audiences and users within a separate organization, since most customers purchase from only one region.

Best Bags created accounts that correspond to their different brands: BestieBags, BlingBags, and CarriageBest. In this way, they can create unique inputs and outputs for the same data sources and forwarding destinations, address different governance and compliance requirements, while still being able to share audience membership, since their customers may buy different brands at different times.

You can also use identity scope to manage how user data is shared between workspaces and accounts. And if you need to share audiences across accounts, you can request that mParticle enable cross-account audience sharing for your organization.

Managing workspaces

Click on the name of your current workspace in the top-left corner of the dashboard to open the workspaces menu. From here you can switch into any of your current workspaces, or click Settings to open the Workspace Settings page.

From the Workspace Settings page, you can:

View daily, monthly and quarterly statistics across all workspaces in this account, including data from both development and production environments.

Browse a list of all workspaces in your account.

Download the Event Volume Report, which lists all events ingested in the selected timeframe. The report provides visibility into the calculated attributes and audiences created using those events. This is the same report you can download from Data Master > Catalog > Download Report.

Create a new workspace - all you need to do is provide a name for the new workspace.

Delete a workspace - this will also delete all the workspace data and connection settings. This action cannot be undone, so proceed with caution.

Edit a workspace - view the Apple App Transparency Tracking (ATT) Defaults, enable GDPR and CCPA regulations, and retrieve the workspace Key/Secret to use with the OpenDSR API.

Note that you can't delete a workspace that is part of a Multi Workspace Audience. First delete or modify the multiworkspace audience, then you can delete the workspace.

Working with web data

mParticle handles Web data collected from a browser client a little differently from data collected from native apps.

In most cases, data collected by the mParticle SDK is sent to mParticle, and then forwarded on to integration partners server-to-server.

There are exceptions to this rule: in cases where a server-to-server integration cannot support all the required functionality of an integration partner, an Embedded Kit may be used. Embedded Kits are extra components added to the mParticle SDK that communicate directly with an integration partner from the app client.

While direct communication between the client and partner is the exception for native apps, it is common for web data. A key reason for this is that most of mParticle's integration partners are not set up to receive web data server-to-server, as they rely on cookie data only accessible to the cookie owner. To support these integrations, the mParticle Web SDK uses the following workflow:

On initialization, the SDK checks to see which Web integrations are enabled for your workspace.

For each enabled integration, mParticle SDK will fetch the Partners javascript and the mParticle wrapper specific to that Partner. For example, if you have enabled the Google Analytics integration, the mParticle SDK will fetch Google's analytics.js snippet and mParticle's GoogleAnalyticsEventForwarder.js snippet. We fetch only the integrations that you have enabled in order to keep the page size to a minimum.

Any supported events are mapped directly onto the equivalent partner method. For example, when the mParticle SDK logs a Page View it automatically calls Google Analytics pageview method.

// Example from GoogleAnalyticsEventForwarder.js

// When mParticle logs a Page View, it automatically calls this function, which invokes Google's `analytics.js` snippet to send the page view to Google Analytics

```
function logPageView() {  
  
    if (forwarderSettings.classicMode == 'True') {  
  
        _gaq.push(['_trackPageview']);  
  
    }  
  
    else {  
  
        ga(createCmd('send'), 'pageview');  
  
    }  
  
}
```

To make it easier to work with web integrations, we provide the source code in a public repository, so you can work with the Integration Partners documentation and see exactly how we map mParticle methods onto the Partner code. See the [mparticle-integrations](#) organization for a complete list of client-side web integrations.

Platform limits

mParticle imposes limits on the number and length of attributes that can be associated with events and users.

A quick summary of some of the most important limits is below. For more information, see our full [Default Service Limits](#) guide.

Events

An event can have up to 100 attribute key/value pairs.

Event names and attribute keys are limited to 256 characters.

Event attribute values are limited to 4096 characters.

Users

A user can have up to 100 attribute key/value pairs.

User attribute names, including user identities like email or Customer ID, are limited to 256 characters.

A user attribute value can be a list. These lists are limited to 1000 entries.

An entry in a user attribute list is limited to 512 characters.

A user attribute value that is not part of a list is limited to 4096 characters.

Note that Output Services often have their own limits, which can differ from mParticles. When planning your implementation, check the documentation for your Output Services in the Integration Center to make sure you are complying with their limits.

Tracking protection

Browsers add third-party tracking protection for end users. The protections affect third-party trackers and their cookies and work in different ways. For example, Firefox Enhanced Tracking Protection (ETP) relies on a list of known trackers to decide what to block. Safari, Chrome for iOS and other browsers with the Apple WebKit engine use Intelligent Tracking Protection (ITP). ITP prevents the browser from loading cookies from a third-party domain.

mParticle aligns with this privacy stance.

Firefox Enhanced Tracking Protection (ETP)

Apple WebKit engine and ITP

User attributes and event attributes

mParticle ingests data points that are composed of event attributes and user attributes.

User attributes and input source priority

For a given user, attributes are stored at the workspace level, not the device level.

User attributes are ingested according to the following priority:

Calculated attributes

Account-level attributes (a premium feature)

Custom feed input

SDK input

Custom CSV

Partner data feed (PDF), for example the Punchh integration is a partner data feed.

Once ingested from a particular source type, subsequent source types for that same data won't be ingested. For example, once you set a user attribute key value using the Web SDK, you won't be able to set that same value from a partner data feed.

Timestamps and ingested data

When mParticle ingests data, there are two timestamps associated with events:

Each event batch has a timestamp.

Each event in the batch may have a timestamp.

If batches or events have a timestamp that is more than 15 minutes in the future, relative to the server processing the data, that timestamp will be reset to the current server UTC time. Attribute timestamps remain unchanged.

If you load data using CSV Import, the batch timestamp is reset to the current server UTC time.

Forward-looking statements

mParticle strives to be as transparent as possible. Part of this transparency is to share information about products, features, or functionality that we expect to deliver in the future.

Forward-looking statements are as accurate as possible given the knowledge at the time of publication. However, no purchasing decisions should be made on the basis of any forward-looking statement, and mParticle may withdraw or change the products, features, or functionality mentioned in such statements.

Data Retention

mParticle provides data retention policies for the data you store. Two main data classes provide information about your users and the events they trigger: profile data and event data.

Profile data

Data about users are stored as attributes of individual profiles. These attributes include identities, device types and IDs, and several custom attributes such as membership status and demographic information. An attribute value may not be current, depending on how often it is updated.

For more information about how profile data is associated with users, see [Store and Organize User Data](#).

Event data

Events describe actions that your users have taken. Event data is stored as attributes of event types. The value of an event data attribute is valid at the moment the event was triggered. For example, the event Sign up could have an event attribute of membership tier, the membership status at the time of signing up.

A complete description of the mParticle event schema is in [JSON Schema](#).

Data retention limits

The maximum period that mParticle stores profile and event data is governed by your long-term data retention policy,

which is defined in your contract. Usually, the long-term data retention policy is the same for event and profile data. However, you can have different ranges for added control and flexibility for events and profile data. For example, during org and account setup, you can set long-term data retention for events at two years and reduce the time profile data is available to 12 months.

Retention Limit

Description

Features Affected

Long-term retention for events The date range during which events are stored in mParticle.

Scope: org

Default values: none Event connections

Data replays

UAV - events view

Standard audiences

Event data for Personalization features (calculated attributes, audiences, journeys) with Unlimited Lookback

Long-term retention for profiles The date range during which profiles are stored in mParticle and available for real-time data evaluation.

Scope: account

Default value: long-term retention for events. Can be changed upon request. Real-time profile enrichment

Profile API

UAV profile search and view

Membership lifetime in audiences and calculated attributes

Another factor may affect the data that is available for audiences: the Real-Time Audience Storage Lookback specified in your contract. Typically it is set to 30, 60, or 90 days, but can be changed. It is also overridden by Unlimited Lookback. See Data retention and Unlimited Lookback for details.

Data retention and Unlimited Lookback

Unlimited Lookback is a premium feature that extends your audience and calculated attribute lookback to your long-term retention for events. Without this feature, audience lookback is limited to the Real-Time Audience Storage Lookback specified in your contract.

Data retention for personalization features (audiences, journeys, and calculated attributes) behaves differently depending on whether or not your account has the Unlimited Lookback feature enabled:

Unlimited Lookback:

Uses long-term data retention for events.

All events in the date range for your long-term data retention for events are available for data evaluations.

In the criteria builder, the number of days you specify for recency can go back to the long-term data retention for events.

When a personalization feature (journey, audience, or calculated attribute) is activated, it is initialized using data available for the entire range specified by your long-term data retention for events. For the initialization of personalization items, a longer lookback usually means larger data volume, which may incur an additional expense.

To help with cost estimation, you can set an estimated lookback value. This informational value alerts anyone creating a calculated attribute when a specified date range exceeds that organizations expected date range.

Without Unlimited Lookback:

mParticle uses the Real-time Audience Storage Lookback for real-time evaluation, which is specified in your contract and is often set to 30, 60, or 90 days.

The behavior described for Unlimited Lookback features is not available.

Examples with no Unlimited Lookback

If your long-term retention for events is set to two years, you can view events that occurred up to two years ago.

If your long-term retention for profiles is set to seven days, if a user has no activity for more than seven days, then the profile data for that user expires and isnt available for calculated attributes, journeys, or real-time profile enrichment.

Examples with Unlimited Lookback

If your long-term retention for events is set to two years, audiences, journeys, and calculated attributes are initialized using data up to the long-term retention for events and long-term retention for profiles.

When choosing a recency or frequency value in the criteria builder for audiences or journeys, you can specify a value up to the long-term retention for events.

Date range measurement

mParticle determines the beginning of a date range for retention purposes differently for event and profile data:

Event data: The event batch timestamp (`timestamp_unixtime_ms`) added to the top level of every batch, representing the time the batch was received by mParticle. Note this is different from the timestamp associated with an individual event.

Profile data: The last time a profile was updated by an inbound data stream. For example, a profile may be created, attributes may be added, updated, or deleted, or other profile information may change. Each change triggers a timestamp change.

Events and profiles need different ways of calculating age because an event isn't usually updated. Since several processes may modify a profile's timestamp, the date is measured differently than event data.

Date range example

Assume the following facts:

A screen view event (`screen_view`) occurred and is time-stamped 1657934165001 (6 June 2023, at 21:29:24).

This event was received by mParticle (ingested) in a batch time-stamped 1657934165102 (6 June 2023, at 21:30:55).

Your long-term data retention for events is two years.

In this example, mParticle keeps the event available until 1749270655 (6 June 2025, at 21:30:55).

mParticle provides multiple data flows to ensure different kinds of data travel from a client application or the web (input) to a destination (output).

Data Forwarding and Connections

Data about an event, including individual attributes, may be forwarded from the input to an output in a variety of ways:

diagram of data flowing from input to output

Server-side: Data is forwarded from the web or client app to mParticle servers, stored there, and from there is forwarded on to an output or destination such as Braze. For these types of forwarding, no client setup is needed, because the client communicates directly with mParticle.

Client-side: Data is forwarded from the web or client app directly to the output, unseen by mParticle servers. For this type of forwarding, you must set up your client, usually by adding a kit to the platform SDK of the client app.

Some integrations allow you to choose either server-side or client-side when you configure a connection.

Connection Workflow

No matter which data flow your integration uses, a connection is required. A connection is the combination of an input, an output, and the configuration information required to make the connection work. Most of the configuration information is specified in the mParticle UI, but some values may need to be fetched from the output, and you may need to add a kit to an SDK for some client-side integrations.

The Connections screen controls how event data from your inputs (iOS, Android, Web, Feeds, etc) is forwarded to your output platforms. You must set up a separate connection for each input-output-configuration combination. For each connection, you have several opportunities to cleanse and filter your data, to ensure that each output receives the data you want it to receive, in the correct format.

Each output has its own requirements, so the process for setting up each connection is a little different. However, all connections require these basic steps:

Create a connection.

If needed, add a kit to the SDK for your input platform.

Activate the connection.

Verify that data is being forwarded.

Create a Connection

Data flows once an input and output are connected and the connection is active. For an overview before you create your first connection, view the following video:

1. Select an input

Navigate to Connections > Connect in the mParticle UI.

From the list displayed, select the input you want to configure. If the list is empty, go to Setup > Inputs to create an input.

2. Apply All Outputs transformations

Once you have an input selected, you can set up transformations that are applied to all outputs connected to that input.

Click All Outputs to see options.

Warning: Because rules are processed before storage and processing, if you apply a subtractive rule to all outputs and apply it between stages 1 and 2, such as dropping events from a batch, you may remove data that you don't intend to remove and the data may not be recoverable because it's dropped before storage and processing.

There are two transformations that can be applied here:

Rules

User Splits

3. Select an Output

Once you have selected an input, you will see a list of available outputs that can receive data from your selected input. If this list is empty, go to Setup > Outputs to create some outputs.

The following video shows how to create an output:

The mParticle UI may indicate that you need or may need to add a reference to a kit in your platform dependency configuration. You can do this after you create the connection but before you change the Connection Status to active. See [Add a Kit](#) for more information.

If you are planning to apply any data transformations to the connection, make sure the Connection Status switch in the output Connection Settings page is set to off.

4. Complete Connection Settings

Complete any settings that apply to the connection. These will be different for every output but can include:

Credentials or Account/Workspace identifiers

What user identifiers and attributes should be sent. You must choose a User Identification (identity type) or data may not flow.

Encoding to be used for identifying data

How custom attributes should be mapped

How to handle attributes specific to the Output

The minimum platform version of your input that the connection will forward data from.

If you set the Min Platform Version connection setting, then mParticle will only forward data from inputs with an

application_version that is equal to or greater than the version you set. This allows you to create a separate connection for different versions of your app.

The version number you set for the Min Platform Version connection setting must only contain numeric characters (0 through 9) and decimals (.). Using any non-numeric characters when setting your Min Platform Version will cause the connection to fail.

5. Apply Specific Output transformations

The second set of transformations apply only to your selected Output. Click Specific Output to see options. Specific output transformations include:

Event Filter - note, this is not part of Connections Screen but should be configured before the next step if needed.

Specific Outputs Rules

Forwarding Rules

Custom Mappings

User Sampling

Add a Kit

When you configured your output in step 3, the mParticle UI may have indicated that you do need or may need a kit added to the SDK for your app or web pages:

picture of an alert about adding a kit

If so, check the integration documentation for your output. If a kit is required, follow the instructions for adding the kit to your input platform dependency configuration.

Activate the Connection

After you have completed the required settings, set up any transformations, and added a kit (if needed), you are ready to activate the connection:

Navigate to Connections.

Select the input for your connection.

Click the output you are ready to activate.

Click the Connection Settings gear icon.

Click the Connection Status slider so it displays Active.

Click Save.

Very large data volumes may take up to 48 hours to process. To reduce processing time, reduce the number of sessions your account sends to fewer than 200,000 per day.

Verify Your Connection

Verify that data is flowing. Check in the mParticle UI and in your downstream app or system (output).

Step 1: Verify that data is flowing from the input to the output

Wait for the time indicated in the mparticle UI to ensure your connection has been activated. Additionally, some outputs such as Google Analytics have their own processing delays. Check the Data Processing section of [the integration documentation(/integrations) for your output.

Open Data Master > Live Stream and select the following values:

The input from Inputs

The output from Outputs

In Message Direction, select Both In and Out to check whether events are being forwarded.

In Device, leave the default value All Dev Data unless you are verifying the flow to a device in production. In that case, choose the relevant device.

Check that you have chosen a User Identification (identity type).

Events should be listed as they occur:

image of live stream with events listed

If you don't see events being forwarded, troubleshoot your connection.

Step 2: Verify that data is arriving in the downstream system

To verify that data is arriving in the downstream system:

In mParticle, look in Data Master > Live Stream and select an event.

Search for that event in your downstream system.

If you don't see events being forwarded, troubleshoot your connection.

Troubleshooting Connections

Follow these steps to troubleshoot an event connection:

Make sure you have waited for the time period specified in the mParticle UI before troubleshooting further.

Check Activity > System Alerts for any fatal errors or warnings and resolve them.

If your events are not appearing in the output although the mParticle Live Stream suggests that the connection is active, follow the steps in Verify your connection to ensure your connection is working. Although Live Stream has indicated that events are forwarded downstream, there might be issues downstream that prevent successful forwarding. The next steps will help you find this type of problem.

Does your connection depend on a kit? Does your connection use a kit to forward data downstream? Has the kit been included in your application? If yes, check your application for HTTP requests directed to the partner. Have they succeeded or are they reporting errors?

Does your connection use batch forwarding? Some outputs use batch forwarding. You might have to wait longer for events to arrive in these systems (approximately 10 minutes or after several event batches have been collected).

Still not sure what's wrong? Contact mParticle Support.

All Outputs Transformations

See Rules for more information on all-output rules.

Specific Output Transformations

mParticle lets you customize the data that you send to each output. There are many reasons to do this, including:

Filtering out personally identifiable information (PII);

Filtering out data containing company insights you don't want to share with a particular service;

Filtering out events that you don't need to track in a particular service;

Filtering out information from places or customer types you don't want to track in a particular service;

Enriching the data you send to a service with extra user info from an external source;

Reformatting your data to match what a particular service accepts.

The Data Filter

Unlike other transformations, the data filter exists on its own page, separate from the Connections screen. A data filter allows you to decide which events/attributes you want to send to each output. By default, all event attributes are enabled when you first activate a connection. From the event filter you can:

Decide whether new events and attributes should be forwarded by default.

Turn forwarding on/off for each event, by event name.

Turn forwarding on/off for attributes of each event, by attribute name.

See The Data Filter for more information.

Forwarding Rules

Like the event filter, forwarding rules let you filter out events from being sent to an Output. But where the event filter is based on event and attribute names, forwarding rules look at values, which lets you build some more complex conditions. There are several types of forwarding rules.

Attribute: Attribute rules take an event attribute name and a value. You can choose to either not forward events that

match the rule, or to only forward events that match the rule, excluding all others. Greater than / less than comparisons are not possible. Matching is case sensitive and exact. If an attribute is criteria for the forwarding rule, but is omitted from the source payload, it is treated as if the attribute key exists and the value doesn't match.

Attribution: Attribution rules filter events according to Publisher information. You can choose to exclude events attributed to a specific publisher, or forward only events attributed to that publisher.

Consent: Data privacy controls allow you to filter events based on whether a user has given consent to a particular data collection purpose.

ID Sync: ID Sync rules allow you to only forward data from logged-in users. A logged in user is one with at least one Login ID, as defined by your Identity Strategy.

User Sampling

User Sampling is applied to a single output and sends only a subset, or sample of your data to an output. The main reason to do this is to control costs on services that charge by volume of data. Data is sampled on a user level, not an event level - if you select a 50% sample, mParticle forwards all data received from half of your users, not half of each user's data.

Specific Output Rules

See Rules for more information about specific-output rules.

Custom Mappings

Some services allow your incoming events to be translated into events specific to the service. For example, if you have a custom event named NextLevel, typically this event would be forwarded as a custom event to a service. With custom mappings, you can specify that this event be forwarded to a service using their specific event name. For example:

Integration	Integration Description	Integration Event Name
-------------	-------------------------	------------------------

Criteo	User Level Finished	UserLevel
--------	---------------------	-----------

Facebook Achieved Level fb_mobile_level_achieved

For partners that support custom mappings, the outputs events are listed on the left side of the Custom Mappings tab.

For each event, you can then select an mParticle event and associated attributes to map to the partners event.

Projections

The following integrations support custom mappings:

AgilOne

Algolia

Amazon Mobile Analytics

AppLovin

AppsFlyer

Criteo

Facebook

Fiksu

Google Ads Enhanced Conversions

Google Analytics for Firebase

Google Analytics 4 (GA4)

Iterable

NCR Aloha

Optimizely

SimpleReach

Snapchat

TikTok

If an event has a Custom Mapping for a particular connection, it will be displayed with an icon in the Event Filter

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If you turn off forwarding of an event with a Custom Mapping, the mapping information will be deleted.

mParticle Forwarder Module

The final and most crucial transformation step is the mParticle Forwarder Module itself.

After all your other transformations have been completed, the forwarder module turns your data into messages to the output in its preferred format.

Each integration has its own forwarding module. Settings for the forwarder are derived from three places:

Some data is handled based on hard-coded settings. For example, any device information (such as device model or operating system type) the output service accepts is usually forwarded without the user needing to set anything up.

Some data is handled according to the connection settings. For example, in the Mixpanel settings, you can choose whether you want to forward session events, and decide what they should be called.

Any custom mappings you have created.

Based on these settings, mParticle transforms your data into a format accepted by the output. This can involve extensively reformatting the data. For example, Mixpanel's API accepts events, with attributes given as a flat set of key-value pairs. To fit this structure, a single mParticle eCommerce event with four products will be transformed into four Mixpanel Events - one for each product - with common attributes, such as user and device info, repeated for each event.

The documentation for each integration will tell you what you need to know about how data is transformed to be accepted by the Output service.

Best Practice for Transformations

mParticle provides many opportunities to transform and enrich your data. It is often possible to perform the same

transformation in more than one place. For example, if you wanted to drop all Application State Transition events for a given output, you could use the event filter, or you could write a condition in an output rule. There are advantages to each choice. The event filter can be used by anyone with the appropriate access to your organization in the mParticle Dashboard, so it is easy to update and maintain. Writing a rule gives you much finer control over your data, but rules may be difficult for non-developers to understand or alter.

Make the necessary transformations to your data in as few steps as possible. The fewer times you alter your data, the easier your integration will be to troubleshoot and maintain.

The Live Stream is a real time view of data coming in and out of mParticle. It allows you to review inbound data from mParticle instrumented apps - to ensure correct SDK and/or server-to-server implementation - and outbound events to services - to test that your integrations are correctly set up. If there are any errors in forwarding event data to a specific integration, an error icon will appear next to the integration message type displaying the reason.

Filters

You can filter the data shown in the Live Stream in several ways.

Inputs - Select an individual Platform or Feed to show only data from that input

Outputs - Select an individual output event configuration in your workspace. If you set this filter, you must also set Message Direction to either Outbound or Both In and Out.

Message Direction - Select Inbound, Outbound, or Both In and Out. Inbound messages are data arriving in mParticle from instrumented apps or from partner feeds. Outbound messages are data sent by mParticle to an output service.

Device - Often, during testing, you will want to monitor a specific test device. The Device drop-down allows you to choose a device to monitor from all devices that are currently sending messages to all workspaces in the account, as well as all devices that have been saved. Observed devices will be identified by the devices Platform and 32 character UUID, for example: (IOS) 09984094-08b5-4547-afc8-df1d07e5658d.

Live Stream shows only Development data, but if you filter for a specific device, the Live Stream will also show events from the Production environment. When attempting to match a device to a device ID, mParticle will look for the following per platform:

iOS: IDFA (ios_advertising_id in the Events API)

Android: GAID (android_advertising_id)

Web and other platforms: Device Application Stamp (mp_deviceid)

To save a specific device:

Click Add/Edit Device to display the Device list.

Click + next to the device you want to add, or click Add New Device to display the Add Device form.

Enter/Modify the Device ID, Device Name, Device Type and click Add Device.

Click Save.

Once you save a device, it remains in the drop down list.

Usually, the Live Stream shows only Development data, but if you filter for a specific device, the Live Stream will also show events from the Production environment. When attempting to match a device to a Device ID, mParticle will look first for an Advertising Identifier (IDFA for iOS, GAID for Android), if an Advertising Identifier is not present, mParticle will attempt to match against a persistent device ID (IDFV for iOS, Android ID for Android).

Pausing and Resuming

To pause the event view, click Pause or click on a particular event. When the event view is paused, the Pause button changes to a Resume button. The stream remains paused as you select additional events. It will resume by clicking Resume.

Examining a Specific Event

To view the details of a specific event, select the event from the Live Stream list. The Live Stream pauses, the selected

event expands to display additional message details, and the Event Details panel is shown.

The Event Details panel contains additional event information arranged by category.

If you select a Batch message, the Event Details panel will display general batch details, user attributes, user identities and location information.

If you select an event message, the Event details panel will display general event details, app version, event attributes, device information, platform information and location information

Click View Event in the event details panel for a JSON representation of the data.

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Clear Entries

When initiating a new session on the test device, you may want to clear the Live Stream from the last test session. To do this, simply click Clear Entries. The Live Stream and event details clear immediately, but the filters retain their values.

Data Filter

A key benefit of mParticle is the ability to collect your data only once, no matter how many places you need to use it. However, you probably don't want all of your data going to every output service you use. For this reason, mParticle provides the Data Filter as a simple way to control the flow of data to your outputs.

The Data Filter displays a complete list of all data points (a data point can be an event, an attribute of a user or event, or a user identifier) collected in your workspace, and allows you to disable forwarding of any individual data point to any of your output services.

The following video explains data filtering in mParticle:

Find Your Data Points

The first time you visit the Data Filter, you will see an empty grid. To start filtering you need to:

Choose your input source. You can filter data from Platforms (iOS, Android, Web, etc.) or from incoming Feeds. Note that data for all your platforms will be included on one page in the Data Filter, so if you have used different event names or data types for different platforms, make sure you account for all of them.

Add outputs. You can add an output to each column by clicking the +, or select and sort your outputs in the Choose Integrations dialog by clicking the button above, and to the right of, the grid.

Choose a Data Type. Depending on the data available in your workspace, you can select from up to four data tabs: Events, Users, Screens and E-Commerce.

Disable Data Points

You can filter event data at 3 levels: Event Type, Event Name and Event Attributes.

Disabling an event type will disable forwarding for all events and attributes of that type.

Disabling an event name will disable forwarding for all that events attributes.

It's important to remember that the Data Point Filter is independent from the mParticle forwarders that handle transforming and forwarding your data to each output service. It includes switches for every data point, even if that data point is never forwarded to a particular output service. For example, Amplitude only accepts Customer ID and Email Address as User IDs. Leaving the filter switches on for other ID types will have no effect.

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Always check the documentation for each integration for details on what data is forwarded.

New Data Points

The Filter allows you to disable any current data point from being forwarded to any current output service. However, as you continue to use mParticle, update your app instrumentation, and add inputs, you will continue to generate new data points. One of the most important decisions to make in the Filter is how to handle new data points for each output service. By default, mParticle will automatically forward new data points to each output service. If you uncheck the Send new data points by default box, no new data points will be forwarded to that output until you explicitly enable it in the Filter.

New data points will be added to the Data Filter the first time mParticle receives them. It should only take a few minutes from mParticle receiving a data point for it to be visible in the Data Filter.

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Shortcuts

A mature mParticle project may have hundreds of events. That's a lot of filter switches. To save you time, we provide some convenience methods to help you set your filters quickly. To access the shortcuts for an output service, click the elipsis near the top of the column.

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From this menu you can:

Turn all filters on or off.

Copy all settings for an output and apply them to another output. Rules

Rules allow you to cleanse, enrich and transform your incoming and outgoing data. A rule is a script which accepts an incoming mParticle Events API batch object and modifies it according to your business logic. Some example use-cases for a rule are:

Modify a batch's data

Drop a batch

Modify an event's data

Drop an event from a batch

Add events to a batch

Rule execution

Each of your Inputs, such as for your web, mobile, or server-to-server data, has an individually configured data pipeline, and each Input's pipeline contains the same key stages. Rules are therefore applied for a specific Input's pipeline, and it's up to you to choose where in that Input's pipeline each Rule is executed. A single Input pipeline may contain multiple Rules each stage.

mParticle pipeline stages

Stage 1 - Input

Data is received by mParticle for a specific Input (such as Web, iOS, or a custom server feed).

Stage 2 - Storage and Processing

The Input's data is stored and processed by mParticle, including:

mParticle's profile system, which stores user data and enriches the Input's data based on the existing profile of that user.

mParticle Data Master tool

Stage 3 - Output

The Inputs data is sent individually to the mParticle Audience system and 300+ partner integrations. In this stage the pipeline actually branches out with a single Input potentially being connected to many Outputs.

Rule application

Rules are applied to a specific Inputs pipeline. There are two places in the pipeline where rules can be applied:

In between Stage 1 and Stage 2

Rules executed between Stage 1 and Stage 2 affect the data sent to both Stage 2 and then Stage 3, including the mParticle profile store, audience store, and all outputs. These are labeled All Output Rules in your mParticle dashboard.

Warning: If you specify a subtractive rule as All Outputs and apply it between stages 1 and 2, such as dropping events from a batch, you may remove data that you don't intend to remove and the data may not be recoverable because it's dropped before storage and processing.

In between Stage 2 and Stage 3

You can also apply a rule right before its sent to a specific Output. This lets you mutate data to handle specific requirements or mappings that need to occur for a given partner integration.

Rule requirements

All rules accept an mParticle Events API batch object and can return a modified or null batch object.

There are some differences in error handling and available fields depending on pipeline location. See Rules Developer Guide for details.

A 200ms timeout applies to all rules. You can choose if a batch should be dropped or continue unprocessed by the rules in the case of a timeout.

Rules are executed on the server and only act on data forwarded downstream server-to-server. A warning is shown in the dashboard if you set up one of the following rules:

A rule for integrations that forwards data client-side via a kit.

A rule for hybrid integrations that support forwarding via client-side and server-to-server.

If you are using a rule to modify user identities or user attributes, you must include a User Identity Change Event (`user_identity_change`) or a User Attribute Change Event (`user_attribute_change`). See Rules Developer Guide for an example of `user_attribute_change` in a rule.

Create a function in AWS

mParticle rules are hosted in your AWS account as Lambda functions. To do this, you need to be able to provide an Amazon Resource Number (ARN) for your rule. See the AWS Lambda documentation for help creating a function. The Lambda functions used for rules must be hosted in the same AWS region as your mParticle account.

The name of the function must begin with `mpr`

Your development rule must have an alias of `$LATEST`

Your production rule must have an alias of `PROD`

Your ARNs should look something like this:

```
arn:aws:lambda:us-east-1:999999999999:function:mprmylambdafunction:PROD
```

```
arn:aws:lambda:us-east-1:999999999999:function:mprmylambdafunction:$LATEST
```

When providing an Amazon Resource Number (ARN), you must specify the correct ARN for the localized data center, or pod, for your mParticle organization. Refer to Data Hosting Locations to determine the correct ARN for your pod. If do not know which pod to specify for your organization, contact your account representative.

IAM user

To connect to your AWS Lambda function, you must provide the AWS Access Key ID and Secret Access Key for an IAM

user.

In the IAM dashboard, add the following permissions policy for the user:

```
{  
  
  "Version": "2012-10-17",  
  
  "Statement": [  
  
    {  
  
      "Sid": "mpRulesLogs",  
  
      "Effect": "Allow",  
  
      "Action": [  
  
        "logs:CreateLogGroup",  
  
        "logs:CreateLogStream",  
  
        "logs:DescribeLogGroups",  
  
        "logs:DescribeLogStreams",  
  
        "logs:FilterLogEvents",  
  
        "logs:PutLogEvents"  
  
      ],  
  
      "Resource": [  
  
        "arn:aws:logs:us-east-1:*:log-group:/aws/lambda/mpr*"  
  
      ]  
  
    },  
  
    {  
  
      "Sid": "mpRulesMetrics",  
  
      "Effect": "Allow",  
  
      "Action": [  
  
        "cloudwatch:GetMetricStatistics"
```

```

    ],
    "Resource": [
        "*"
    ]
},
{
    "Sid": "mpRulesLambda",
    "Effect": "Allow",
    "Action": [
        "lambda:InvokeFunction",
        "lambda:GetAlias"
    ],
    "Resource": [
        "arn:aws:lambda:us-east-1:*:function:mpr*"
    ]
}
]
}

```

IAM role

You will also need to create a role in IAM. Assign this role the same policy document created above.

Assign this role to each Lambda function you plan to deploy as an mParticle rule.

Creating a rule in the dashboard

Create a rule by navigating to Data Master > Rules

Click New Rule.

Rules

Enter your Development and Production ARNs and click Test.

Rules

Error handling

When you first test a rule, you must select a Failure Action. This determines what happens if your rule throws an unhandled exception. There is no default action, you must select one of the following:

If you choose Discard, an unhandled exception causes your rule return null, effectively dropping the batch.

If you choose Proceed, an unhandled exception causes your rule to return the unaltered batch object, proceeding as if the rule had not been applied.

Regardless of which option you choose, its best practice to handle all exceptions in your code, rather than falling back on the above defaults. This is especially true if your rule deals with events, where an unhandled exception from just one event could lead to all events in the batch being dropped.

Javascript syntax

Rule examples and samples use Javascript syntax, but it is possible to use any language supported by AWS Lambda.

```
exports.handler=(batch,context,callback)=>{  
  
    //do something with batch  
  
    callback(null, batch)  
  
}
```

Your code must be a valid Lambda function.

batch is the complete incoming batch object.

context is a required argument for Lambda functions, but is effectively null for mParticle rules.

Testing rules

The first time you test a rule, you are asked to provide a name, description and failure action. After naming a rule, you can test it by using one of the sample templates provided in the Test rule dialog. You can also copy and paste batch JSON from your Live Stream. If you do this, be sure to pick a full batch to copy, not a single event. Click Test to run. Optionally, check a box to save your JSON template in local storage for future testing.

You must enter valid batch JSON in the code editor.

If there are any syntactical errors in your code, warning or error icons will display next to the line number with details of the problem so you can correct.

After clicking Test, you can examine the JSON output from your function to see that the input has been modified as expected.

After a successful test you can click Save to save the Rule. Due to recent updates in AWS Lambda, it may be necessary to wait one minute after a successful test in order to save the Rule.

If your test fails, try examining the logs for any console output.

Versioning

When you first create a rule, by default it will only be applied to DEV data. As well as testing a rule with sample JSON you should test the rule in your dev environment to make sure data reaching your output services is as expected. When you are ready to apply a rule to your production data, click Promote to Prod on the rule page. This will create a v1 production rule.

Note that before a rule can be promoted to Prod, you must remove all `console.log()` statements.

If you need to make changes, choose `$LATEST` from the Version dropdown. All other versions are read only. Test your changes with your dev environment and, when you are ready, click Promote to Prod to create v2 of your production rule.

Note that you can have a maximum of 50 versions per rule. If you have too many versions, select a version and click the trash can icon to the right of the version number to delete it.

Status

Each rule has a master switch in the Settings panel. If there is a problem with your rule, you can switch it off and it will be disabled for all connections until you enable it again. To disable, click Edit in the right sidebar and set the Status slider to inactive.

Metrics

The following metrics are available:

Invocations - how many times the rule was invoked

Throttles - how many times a 429 throttling response was returned when calling the rule

Errors - how many errors have occurred when calling the rule

These metrics are for the last 24 hours and apply to all connections. Summaries for each rule can be seen on the main rules page. Detailed graph of the previous 24 hours is available on the Monitoring tab of the individual rule page.

Logs

To help you with troubleshooting rules, mParticle maintains logs for each rule where you can view all console output.

From an individual rule page, select the Logs tab. You can filter messages by date range or search for keywords.

Deleting rules

From the rules listing, select the Delete action to delete the rule. If the rule is applied to any connections, it will be removed from those connections.

Managing Users

Admin Users can manage the access of other users in their mParticle Account from the User Management tab of their User Settings page:

To add a new user, provide first and last name, an email address, and select the users permissions. See Roles for more on permissions.

Roles

mParticle offers several User Roles with different levels of access to the mParticle Dashboard. You can check your Role from your User Settings page:

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mParticle's User Roles are:

User - Can view and make updates to all parts of the mParticle platform except for the User Activity view and managing

other users.

Read Only - Has the same view access as User level but cannot make any changes or additions.

Admin - Same access as User level, plus the ability to add, remove and manage users and access the User Activity view. This role has access to end-user personal data within the account.

Audiences Only - Can view and manage Audiences. Cannot view other areas of the mParticle platform. Note that this means Audiences Only users can connect audiences to existing Outputs, but cannot add and configure new Audience Outputs

Compliance - Can view the Privacy tab, and view and manage GDPR requests. Has Read Only access in other parts of the dashboard.

Admin & Compliance - All Admin permissions, plus can view and manage the Privacy tab, and view and manage GDPR requests. This role has access to end-user personal data within the account.

Support Access - All Admin permissions except for user management capabilities. Can view the Privacy tab and view GDPR requests. This role should be used to delegate access to an mParticle support representative while troubleshooting a ticket. This role has access to end-user personal data within the account.

Custom Access Roles API

mParticle provides the Custom Access Roles API which mParticle account admins can use to create custom sets of permissions, or roles. You can then assign these custom roles to users of your account through the UI described above or with an API call. Learn more in the Custom Access Roles API developer documentation.

Authenticating to mParticle with SSO and SAML

mParticle uses Auth0 to authenticate logins to mParticle's web UI. This allows you to create a SAML/SSO connection to an identity provider of your choice, such as Okta. Using SAML/SSO, or federated identity management and single sign-on authentication, improves your accounts overall security and the security of your customers data.

To enable a SAML/SSO connection, you must collaborate with mParticle's support team:

Contact mParticle support or your account representative, and request an ACS (Assertion Consumer Service URL) and

an EntityID.

Provide mParticle with an SSO URL, an optional logout URL, identity provider domain(s), and signing certificate.

mParticle will configure an SSO tenant using the details you provided in step 1.

Use the SSO tenant provided by mParticle to implement your existing authentication system and policies

Analytics Free Trial

With Analytics, you can easily understand the full customer journey to help drive conversion, engagement, and retention, all without writing SQL. Here's how to sign up for a 30-day free trial of Analytics with just a few steps.

Note: Paying Analytics customers can also use the workflow below to connect an additional mParticle workspace to Analytics.

In the mParticle navigation bar, click Analytics.

On the landing page, click Get Started. Analytics free trial landing page

Accept the terms of service.

Next, you will see the Analytics Connections Summary page: Connections Summary

Note: Calculated Attribute feeds cannot be added as inputs when setting up your Analytics connection.

The information you see here will depend on your role:

All roles: Regardless of role, you will see the Selected Inputs section. All inputs are selected by default. To change this, click Edit to select specific data inputs to connect to Analytics. (You can also change these inputs after completing setup using the standard connection process.)

Admin If you are an Admin, you will have the ability to edit the Selected Teammates section. All users are selected by default, but Admins can deselect users who are not also Admins.

Note: By default, each input you select will begin forwarding data to Analytics as soon as your connection is complete. If you wish to prevent the forwarding of certain data (like PII, for example) or limit the volume of data you forward, click Edit next to the text that reads All data from your selected inputs will be forwarded immediately at the Analytics Connections Summary screen.

5. Click ****Send Data****. After a brief pause, you'll see the Congratulations banner indicating your trial has been created.

Analytics free trial success page

Click Launch Analytics to launch your Analytics project. Analytics creates both a production and development project for you. While the projects are being created, you'll have the option to explore some helpful training materials:

Helpful hints page for Analytics free trial screenshot

When the project is ready, you'll be taken to the Analytics UI, where you can begin working in Analytics. If you click the round projects button in the left navigation (SD in this example), you'll see both your production and development projects listed.

Analytics project page screenshot

You can log into your Analytics project directly from <https://analytics.mparticle.com> from now on.

If you'd like to add more workspaces to a project, simply log into that workspace in mParticle and run the setup wizard (in step 4) again by clicking Analytics.

Add workspaces one at a time. Your trial begins when the setup for the first workspace is completed. To learn about the Analytics analytics platform, go to the Analytics Help Center.

Note: Analytics does not support DSR forwarding from mParticle. See Analytics's Privacy & Security docs for information on deletion, rectification, and suppression APIs.

Troubleshooting mParticle
If you are having trouble with mParticle, use the following information to diagnose and correct the issue.

Check the mParticle Status Page

Any known issues affecting mParticle are tracked on our status page (mParticle login required). If you are encountering

problems in mParticle, first check this page to see if any service interruptions have been reported. You can also subscribe to receive service updates by email, SMS or RSS feed.

Ongoing Incidents

The status page displays information about any ongoing incidents above the first table, after the About This Site section.

Table of Components

A table displays past and current availability for the following mParticle components:

mParticle Dashboard: app.mparticle.com

Documentation Site: docs.mparticle.com

Data Ingestion: data collection for mobile, JavaScript, pixels, partner feeds, the SFTP ingestion endpoint, and CookieSync

APIs: mParticles ability to receive data at HTTP endpoints:

Events API

Identity API

User Profile API

Platform API

SDK Configuration API: a private API used to pass settings to client-side SDKs

GDPR API: a private API for GDPR (not data subject requests)

DSR API: data subject requests

JavaScript Tags CDN: a private content delivery network for JavaScript tags

Data forwarding

Audience

Profile

User Activity View

Rules

You can also view uptimes for the last ten years (mParticle login required).

System Metrics

The status pages second section displays average latency for mParticles key API endpoints, updated every five minutes. On this page, Latency means the average time, in milliseconds, between mParticle receiving a request at an API endpoint and sending a response. You can view the metrics by day, week, or month.

Past Incidents

The status pages third section displays any known incidents that caused recent service disruptions. You can also view reported incidents for the last ten years (mParticle login required).

Troubleshoot Events

Many configuration settings or other circumstances may cause event data to not be forwarded:

Time zones If you compare mParticle event forwarding to numbers in a system using a different timezone, the numbers wont match. mParticle reporting uses UTC.

Missing data points Your integration may require application, device, or user data available in order to forward events. Check that all required data points have been configured for forwarding.

Data point mapping Some integrations require data points to be mapped. Check that the relevant data points are mapped.

Rules Your connection may have sampling, a minimum app version, data filters, or conditional (event/user attribute, consent, identity) based forwarding rules that are reducing the amount of data being forwarded. You may also have a rule that limits the amount of events being forwarded.

Server-to-server If server-to-server data is being sent in with a duplicate, batch, or source request ID, that data wont be forwarded.

Use the following techniques to find the cause of the data discrepancy.

Events Fail to Arrive in mParticle (Input)

For web apps, is the app able to see a network request to the mParticle Events endpoint? With verbose logging enabled, is the app able to see the events logged and uploaded in the browsers inspector or developer tools?

For iOS or Android apps, with verbose logging enabled, is the app able to see the events logged and uploaded in the Xcode or Android Studio logs?

If the answer is yes, then continue diagnosing the problem. If not, review the knowledge base or log a ticket with mParticle Support.

Validate Connection Output Settings and Data Filters

Confirm that the connection has been configured and is active for the correct workspace, environment (Dev or Prod), and input. See [Troubleshooting Connections](#) for details.

Confirm whether Minimum app version setting has been filtered - data from versions older than the filter will not flow.

Confirm that data filters for the data points are set to on.

Some integrations require that data points be mapped in order to be sent to a downstream service. No mapping results in no data forwarding. The following integrations have this requirementfor other integrations, check the documentation for that integration:

Adjust

Google Marketing Platform

Krux

SFMC Email

Confirm whether event attribute or attribution-based forwarding rules could be causing data to not be forwarded.

Verify Event Forwarding and System Alerts

Check the event forwarding report and note whether the numbers for the input in question line up to the output in question.

Check system alerts and look for issues.

For kit-based integrations, you may not have included the kit:

Look for errors such as no route available.

Some services require the presence of a kit, even to send data that is sent to mParticle server-side. For example, AppsFlyer, Adjust, Adobe MCID, and Airship all require a kit. Check the documentation for the integration to verify whether a kit is needed.

These integrations use the kit to obtain an identifier (an integration attribute). For data that is sent to mParticle server-side, the user needs to have been in an app version that contains the kit in order to send the data. This means that for server-side data, not having seen the user in a version of the app with the kit would trigger errors in system alerts and cause data not to be sent. Data not being forwarded is expected in this case.

Check for invalid credentials in output or connection settings which prevent data from flowing.

Check for missing required data. Many integrations require device or user information in order to forward data. System alerts expose the missing data points.

For data being sent in via SDK, a certain percentage of users (on average ~15%) won't have IDFAs or GAIDs. If a user limits ad tracking on their mobile devices, these identifiers are not available. For data being sent server-side, the customer is not sending the missing parameters to mParticle. You must send mParticle the missing parameters to start event forwarding.

If you still can't identify the issue, review the knowledge base or log a ticket with mParticle Support.

Troubleshoot SDKs

For additional SDK troubleshooting:

Android

iOS

Web0Data Dictionary

The Data Dictionary is a helpful tool that can be used to reference the data model while building queries. This feature is accessed via a pullout sidebar located to the right of the query builder, along with Query Notes and the Properties Explorer (in Segmentation queries).

Data dictionary

The Data Dictionary is essentially a simplified view of the Events and Properties Manager. Once you select the Data Dictionary icon, a menu will appear to the right of the query builder.

Data dictionary menu

Here, you can toggle to view your events, event properties, user properties, and user segments. Use the search bar to quickly find what you're looking for. Please note that the Data Dictionary is used as a referential tool.

Select an item to view additional details. This will open a new menu containing important information such as the event key, display name, description, category, and associated properties or associated events. Users with Owner or Admin access can edit this information within the Data Dictionary, or they can open the Events or Event Properties manager by navigating to Manage Data, then Events and Event Properties.

The Query Builder is where Analytics analyses are built. It is located at the top of the Segmentation, Funnel, Cohort, and User Insights tools.

In this article, we'll explore the functions of query rows, the core components of an Analytics analysis.

Rows in the Query Builder

Query Builder 1

Query Rows represent user actions. A row may contain any combination of events, event properties, and user properties. Rows in the query builder are numbered for easy identification in analysis results.

Create a Query Row

Query Builder 2

Every row begins with an initial event. To add an event to a query builder, you can click on + Select an Event

Once an event is added, additional clauses and filters may be added:

Understand Breakouts with By Clauses

Understand Filters With Where Clauses

Modify Filters With And/Or Clauses

Label a Query Row

Query Builder 3

Each query row may have a custom annotation added to it. This allows you to organize your analysis, improve readability, and ensure that data points in analysis results are appropriately labeled. These labels remain a part of the query when saved, added to a dashboard, or shared via URL.

Collapse the Query Builder

Query Builder 4

To collapse the query builder, choose the collapse icon. It is located on the right hand side of the query builder at the bottom of the query rows. Collapsing the query row does not affect the analysis, it only reduces the size of the query builder. To expand the query builder again, select the expand icon.

Save a Query Row as a Custom Event

Query Builder 5

Some query rows may be saved as custom events. Query rows may be saved as custom events if they consist of a single event and/or contain one or more Filter Where clauses. Use custom events to save query rows that you create frequently.

To be saved as a custom event, a row:

- Must contain 1 event, and no For clauses

- May contain an unlimited number of Where clauses

- Must not contain By clauses

Once saved, the new event will appear in the Data Panel.

Duplicate a Query Row

Query Builder 6

When creating variations of an existing row, Duplicate in the query row menu enables you to easily clone rows for modification.

Deactivate a Query Row

Query Builder 7

Hiding a query row excludes it from analysis results, but does not delete it. This can be useful for viewing analysis components individually, or tentatively excluding rows as you progress through an analysis.

To deactivate a row, go to the right of the event and select the deactivate button. You can reactivate the row by selecting

the Activate button.

Delete a Query Row

Query Builder 8

Deleting a query row will permanently remove it from the query. To delete a row, navigate to the right side of an event and choose the delete button.

Modify Filters With And/Or Clauses

And/Or clauses allow you to add additional filter parameters to a Filter Where clause. These clauses require query results to match multiple conditions (and clause) or match one of several options (or clause).

Create an And Clause

After using a Filter Where clause to filter an event, add another filter below the one you just created, or drag another event property or user property onto the Filter Where parameter to build an And or an Or clause. For example, you may want to look at user who did View Content where the Platform is equal to Desktop and the users Marketing Channel is Affiliate. This would help understand how many users acquired through an affiliate are viewing content on their desktops.

Create an Or Clause

Alternately, use Or to view users who did View Content where the platform is equal to Desktop or the platform is equal to Android to see the total content views made by anyone who used either a Desktop or an Android device. This can help when looking for very granular behavior patterns.

Changing an And/Or Clause to a By Clause

Within the And/Or dropdown menu, there also exists an option to instead create a By Clause. After selecting the By option in the dropdown menu, the clause will be re-applied as a By clause breakout.

In-Line And/Or Clauses

You may also add And/Or clauses in-line within the filter dropdown using the symbols & (shift+7) and | (shift+) to represent And and Or respectively.

Rather than create a new line in the query for each additional value in the row, click within the box and use an ampersand (and) or a pipe character (or) to quickly add And/Or clauses in the same line.

For example, you may want to see how many content views came from the users on the platforms iPhone and Android.

In the Filter Where clause:

Select iPhone

Click inside of the drop down box

Add an ampersand after iPhone

Type Androidquery-time Sampling

Note: This feature is only available to customers using the new mParticle UI. [Learn more about the new experience and how to opt in here.](#)

Querying a large amount of data can sometimes take longer than desired to complete. Query-time sampling allows you to run your query on a 10% subset of your users to reduce the amount of time that query takes to complete.

Set a project-level sample size

By default, Query-time Sampling is set to Disabled at the project level. This means that 100% of users will be queried unless a user toggles on sampling at the query level. Project admins can set queries to sample 10% of users as the default behavior. To do this:

Navigate to the General tab under Project Settings.

Set Query-time Sampling (under Formats and Defaults) to Enabled.

Specify query sample size

Toggle sampling at the user level

Individual users can toggle Query-time Sampling on and off when executing queries by clicking the lightning icon at the top-right of the query. A filled-in icon means sampling is enabled:

Specify query sample size

When sampling is enabled or disabled at the user level, this setting will persist within a session, but will be reset when changing projects.

Applicable analysis types

Query-time sampling is available in Segmentation, Funnel, and Cohort analyses. Samples can also be applied in the User tool in Event Lookup mode, but not in User ID or User Segment lookup modes.

When should I use Query-time Sampling?

Reducing the number of users queried in an analysis makes queries run faster, so Query-time Sampling can help you arrive at insights and uncover trends more quickly, especially when exploring large data volumes.

Note: Reducing a query's sample size can impact accuracy, so querying 100% of users is advisable in business cases that require analytical precision, e.g., when the number of users is small or the data volatility is high.

Query Notes allow you to contextualize your analysis for users who may not be familiar with your event tracking model, or users who may not be involved in the query-building process, but are frequent dashboard viewers. This context could be in the form of a short description, auxiliary data not currently in Analytics, or images.

Query Notes in Tool

Query notes can be found to the right of the query builder in any analysis tool, just below the Data Dictionary and Properties Explorer:

Query Notes in Tool

When you click on the Query Notes icon, a pop-out will appear on the right hand side of your screen.

Query Notes in Tool

Click into the notes area to add any text or images that are relevant to your query. If you add any additional query notes, dont forget to save your query before navigating away. If you do not modify your query notes, the form will be pre-filled with a written summary of your query.

Filter Where Clauses

Filter where clauses allow you to filter an analysis through a specific event or user property value or range. You may use filter where clauses in any of Analytics analysis tools. For specific directions on implementing filter where clauses by tool, see the following articles:

[Filter where clause in Segmentation](#)

[Filter where clause in Funnel](#)

[Filter where clause in Cohort](#)

[Filter where clause in Users](#)

[Apply a Filter Where Clause](#)

In order to apply a filter where clause, hover over the query row in which you would like to filter, and select +filter where. Then type to search for a property to filter, and then select your desired property.

[Apply filter where cropped](#)

[Property Value Type](#)

There are three different property types to consider when using filter where clauses.

Numeric: A value that contains only numbers. Numeric values may be used in calculations.

String: A value that contains letters, numbers, or other characters. String values are not used in calculations.

Date/Time: A value that represents a date or time. Date and Time values may be in the ISO 8601, Unix Time Seconds,

or Unix Time Milliseconds format.

Property types can be toggled in the Events and Properties Manager. The first 50 property values auto-populate when choosing Select a Value.

Numeric

When filtering by a numeric value, select one of the following options:

Is equal to displays data for values equal to that specific property value.

Is not equal to displays data for values that are not equal that specific property value.

Is greater than displays all data for values greater than the selected property value.

Is less than displays all data for values less than the selected property value.

Is greater than or equal to displays all data for values that are greater than or equal to the selected property value.

Is less than or equal to displays all data for values that are less than or equal to the selected property value.

Is defined displays all data where there are values for the selected property value.

Is not defined displays all data where are no values for a selected property.

Numeric

String

When filtering by a string value, select one of the following options:

Is equal to displays data for values equal to that specific property value.

Is not equal to displays data for values that are not equal that specific property value.

Contains displays data where the string contains the selected property value.

Does not contain displays all data that does not include the selected property value.

Is defined displays all data where there are values for the selected property value.

Is not defined displays all data where there are no values for a selected property.

String

If you are filtering by string values, and you have selected either contains or does not contain, you may combine multiple

property values. You may select to combine property values using Or or by using And. For example, PetBox may choose to analyze Email Clicked, filtered where Browser Name contains Chrome or Safari.

Contains or filter where cropped

This use case would not work with the and filter where. However, PetBox may choose to analyze Email Clicked, filtered where Marketing Channel contains Social and Content.

Contains and filter where cropped

Date/Time

When filtering by a date/time value, select one of the following options:

Is equal to displays data for values equal to that specific property value.

Is not equal to displays data for values that are not equal that specific property value.

Is before displays data for values that occur before a specific date or time.

Is after displays data for values that occur after a specific date or time.

Is between displays data for values that occur in between two specified dates or times.

Date/Time

Combining Filter Where Clauses

You may also combine multiple filter where clauses. To do so, simply hover over the query row in which you are analyzing, and select +filter where again.

Combine filter where cropped

Then, you must select whether to combine the filter where clauses using and or or. If you choose and, then users must satisfy both filters in order to count in the analysis. If you select or, then users may satisfy only one of the filters in order to count in the analysis.

Event vs. User Properties

Events in the Query Builder can be modified by introducing filters or by grouping results into different breakouts. These features make use of properties, which are typically sent along with the event data to describe characteristics of the

events or the users who performed them.

When building queries, it's important to keep in mind that Analytics will process the results very differently depending on the type of property used. This article is intended to illustrate the differences between event and user properties to help efficiently build queries that give the most accurate results.

Event Properties

When an event property is used in an analysis, Analytics will look at each individual event's payload and reference the property associated with each event. The event property has the query ask what was the value of the property at the time of the event?, which is the most common scenario for most analyses.

Event props in query builder

For rows set to display the total count of events, the results will include all of the events seen as long as they meet the query parameters, even if they were performed by the same user multiple times.

For users who performed rows, event properties will still filter or group based on each time that the event was seen, but the results will represent user counts instead of raw event counts.

Event prop results

User Properties

User Properties are the properties associated with the user performing an event, such as demographic factors, an email address, or the marketing channel through which the user was originally acquired. While event properties can differ from event to event, user properties are associated with every event performed by a given user.

User props in query builder

In order to enable user properties for use in queries, the Attribution Mode under Manage Data must be set to either first or last.

User props in query builder

Consider the example table of events below:

User v event example

First will store the first value seen for a property for each user across any event that they fire. From the image above, user 1s first value for this property will be NULL, user 2s will be Social, and user 3s will be Search.

Last will store the last value seen for a property for each user across any event that they fire. From the image above, user 1s last value for this property will be Search, user 2s will be Social, and user 3s will be Search.

Because user properties are stored at the user level, the scope of the analysis does not impact what value is stored at the user level. For example, if an analysis was looking at events that occurred between 8/18-8/20 from the example above, user 1s value for the property will still be NULL if this user property was configured for First attribution mode.

Thus, user properties are selected to view results from users who performed a particular action, even if their first or last actions are beyond the scope of the analysis that has been created.

Building Your Query

In the Analytics app, events can be filtered by event or user properties, grouped by those properties, or both:

Select event vs user

In the finished analysis, the query row will indicate which type of property was used.

When to Use Event vs. User Properties

To better illustrate the differences between event and user properties in Analytics, consider the example of a query set to view the event BannerImpression with the property Channel, where the date range is equal to 8/17 - 8/20.

Here, filtering by events Channel equals Search, for example, would essentially pose this question: Give me the total count of events performed between 8/17 and 8/20 where the property Channel is equal to Search.

The results, filtered by event property, would show one event.

Lets say that the user property for Channel is set to Last Seen. If the filter is set to users Channel equals Search, the query instead asks: Give me the total count of any events performed between 8/17 and 8/20 where the user who performed them had a last-seen value of Search.

In this case, the results, when filtered by user property, would show five events: four performed by userID = 1, and one performed by userID = 5. userID = 1 shows up four times because they performed the BannerImpression event within the time window, while having a last-seen value of Search.

Because user properties focus more on the individual users than on the events, they can be useful for cases focusing on the user journey. Questions that might benefit from filtering or grouping by user properties might be:

What does a funnel look like for users who became a subscriber, vs. users who did not?

What types of banner impressions were seen by users who started by viewing the blog?

What is the most effective first or last channel (When grouping by users first or last seen channel)?

A/B Testing Best Practices

When setting up A/B tests in Analytics, the best practice is to set up the data to use event properties, for several reasons:

User properties will show whether the users are in an experiment or not, but will not take into account the time that they performed the event, as discussed in the above sections. Event properties will take into account the time of the event, as well as when the user entered or exited the experiment.

Typically, users are placed into experiments based on their user ID, which means the variant will remain constant through the experiment. However, in experiments that use cookie ID, there is a risk that aliasing will combine users with different cookie IDs under the same user ID, making event properties a more accurate method for tracking these variants.

Getting Started

The Users tool creates a full list of users who share a characteristic or behavior to learn more about their individual

attributes.

Explore information about your customers to contextualize their activity

Review the timeline of user sessions to diagnose errors and crashes

Drill down into the customer journey to pinpoint specific event properties

Begin an analysis

First, you must select whether you would like to analyze users who performed an event, or users who are in a user segment. The default selection is performed an event. To toggle this, click on the dropdown at the top of the query builder.

Perform Event vs Segment

Once you have selected your analysis type, begin inputting events in the query builder. If you have selected performed an event, you may input many events in the query builder. In this case, each user must have completed the specified events chronologically in the order that they were inputted.

Input Events Users

You may select a different time zone from your project time zone on a per query basis by clicking on the globe icon on the top right of the query screen.

Time Zone Selection

Then, select the date range in which users must complete the specified events. Users must have completed all events in the query builder within the specified date range.

Date Range in Users

Then, click the play button to run the query. The Users tool will return a list of users who have either performed the sequence of events, or users that are in the specified user segment, along with all of their user properties.

Row order

To be included in a User Insights list, users must have completed the events in the query builder in the specified order.

To re-order the event sequence, click and drag a row in the query builder into the desired position in the sequence.

Reorder Rows

Filter where

In order to define additional parameters for your user lists, introduce filter where clauses to your query row. You may filter by any event or property value.

Filter in Users

For more information on filter where clauses, reference our support article [Filter Where](#). Group by clauses are unavailable in the Users tool.

Searching results

Search for users and their user properties by any matching value by using the search box in the upper right corner of the chart window.

Search Users

User first lookup

You can navigate directly to a users profile by inputting their user ID, either authenticated or unauthenticated.

User first lookup

This feature drastically reduces the time associated with viewing a particular users properties, event history, or event timeline.

Access user insights from Segments, Funnels, and Cohorts

Cross-Tool Compatibility allows you to recreate your analysis from one tool in another tool within the Analytics suite.

User Insights may be used to view analysis results from Segmentation, Funnel, and Cohort and drill down into the behavior of individual users.

To learn more about how User Insights complement each Analytics tool, view the articles below:

[Cross-tool compatibility in Segmentation](#)

[Cross-tool compatibility in Funnels](#)

[Cross-tool compatibility in Cohort](#)

[User Activity Timelines](#)

Overview

The Users tool returns a list of users who have either performed an event or are in a user segment. Each line in the visualization area represents a single user. Each user will be identified by their User ID (anonymous or known, see the [Aliasing](#) article for more information), along with each users User Properties. For more information on how to create a Users query, see the [Users: Getting Started](#) article.

User Chart

Click on any user in the Users chart to see their individual event stream. Clicking on the user, or the row containing the users User Properties will direct you to a User Activity Stream.

User Activity Stream

The User Activity Stream contains the following components:

A user profile displaying User Properties

A visualized Timeline of the number of events a user has completed on a given day

An activity stream displaying the events performed by the user, grouped by session

Click on a session to view the events performed in a chronological order.

Session View

Click into a specific event to view the event properties associated with the specific event.

Event Properties

Direct link to specific user activity timeline

Analytics users may directly access a specific users Activity Timeline by appending the User ID to the end of this url in the following fashion: `app.indicative.com/#!/users/detail/USER_ID_HERE`

An example link would be `app.indicative.com/#!/users/detail/6834fa-dfa12-4389`.

Using this direct link would lead to that users specific User Activity Timeline:

Direct User Timeline

Note: If you are aliasing, you can access a Users Activity Timeline by appending either the anonymous or known ID. For

more information on aliasing, see [User Aliasing](#).

Pin event properties

You can pin additional fields to the expanded session view:

See important event properties at a glance without having to expand each event

Persist these properties across sessions

Each person can choose their own items to pin

To pin an event property in the user activity timeline:

Navigate to the Users page by clicking the green plus sign and select User Lookup by Event: User Lookup

Select an event and run the analysis: Select Event Analytics displays all the users associated with that event: Users

Associated with Event

Click on a user to display event properties: Display Event Properties

Click on the Events (in this example, 80 Events), and for the event whose property you wish to pin, hover to the left of the label until you see the pin icon: Pin Event

Click the pin to pin that property.

Now the property you pinned is displayed for every event: Pinned Property Display

To unpin a property, click the pin icon next to any of the pinned events to deselect it.

Note the following about event property pins:

Pins are set at the user level and are persistent across sessions

Pins are set at the project level and do not persist between projects

Pins are limited to 5 per user per project

All Analytics users across all plans should have access to pin, as long as they have access to the Users tool

Analytics doesn't support event-specific pinning. A pin applies to all qualified events

Time Settings

In the Users tool, you may select to display users who performed an event or are in user segment. If you select are in user segment, then there are no date range or time settings, however if you select performed an event, then the query builder works like the other Analytics analytical tools.

Users Time Settings

The date range refers to the time period that you would like to analyze. All new queries default to the Last 7 Days. To open the date range selector dropdown, click on Last 7 Days. The start date is the first day to be included in the search. The end date is the last day.

Users Date Open

Because the Users tool produces a list, it defaults to Full Range and you may not select a different interval.

Date range

To select fixed start and end dates, use the date range selector on the left side of the dropdown, you may select a start date and end date from the calendar. You can also enter a specific date by clicking on the date at the top of the selector and entering a value. Use the left and right arrows to navigate the calendar. Select the Today checkbox to create a dynamic end date.

Users Date Calendar

The right side of the dropdown lists all of the dynamic date ranges that are available. You may choose a dynamic date range, for example Last 7 Days or Last Full Month. This will automatically update the date range of your query each time you view it, counting backwards from today. If you select Last Full Week, then Analytics will analyze the most recent complete week, defined as Monday to Sunday. If you select Last Full Month, then Analytics will analyze the most recent complete month. You can quickly navigate the calendar to select full months using the links in the lower left corner of the

dropdown.

Users Date Range

To save a custom date range, for example Last 45 Days, simply click Add Custom Date Range in the lower right corner of the dropdown. Your previously used custom date ranges will be saved for future use and are viewable alongside the default dynamic date ranges.

Note: Custom relative date ranges are saved within each individual users account, rather than for all users across a particular project.

Export Results

There are two ways to export user data from Analytics.

Export results from a users query

First, you must create a query in the Users tool. Once your query is ready for export, simply click on the export icon located in the menu bar beneath the query builder, and select Download CSV. A CSV file will be emailed to the email associated with your account. There is no limit to the number of users that can be exported.

Export Users

Export users from segmentation, funnel, or cohort

You can also download a user list from a Segmentation series or point, a specific step in your Funnel, or a Cohort cell.

To download a user list from Segmentation, you must first create a query. Once your query is ready for export, click into the point or cell from which you wish to download data. A menu will appear. Then, select Download Users in this Point to CSV. A CSV file will then be sent to the email associated with your account. If you wish to download users from an entire series, you must select Explore Users -> From Entire Series from the aforementioned menu. You will then be redirected to our Users tool, from which you can download users according to the instructions above.

Export Users from Segmentation

To download a user list from Funnel, you must first create a query. Once you have done so, simply click into the funnel step from which you wish to download data. A menu will appear. Then, select Download Users to CSV. A CSV file will then be sent to the email associated with your account.

Export Users from Funnel

To download a user list from Cohort, you must first create a query. Once you have done so, simply click into the point or cell from which you wish to download data. A menu will appear. Then, select Download Users to CSV. A CSV file will then be sent to the email associated with your account.

Save A User Analysis
To save your Users query, click the Save as New button in the top right corner above the query builder. Users queries may be saved or added to a dashboard.

Save as New

Saving to a dashboard

Once you choose Save into Dashboard, a pop-up window will appear. Use the dropdown menu to select the dashboard in which to save your Journeys query. If you want to save your query to a new dashboard, you can create a dashboard from the save window.

Save into Dashboard

Saving a users query

Once you save your query, a pop-up window will appear. Use the dropdown menu to select the folder in which to save your Users analysis.

Save Users Query

Saving modified queries

If you access and modify a previously-saved query, click the Save button in the top right corner above the query builder. This will replace the existing file. If you want to retain the original query, then save the modified query as a new analysis. Dont forget to change the query title in order to differentiate between the two!

DashboardsGetting Started

Any Segmentation, Funnel, or Cohort query may be saved to a dashboard. Dashboards allow you to monitor key metrics in real-time. Any analysis created in Analytics can be added to a dashboard with just a few clicks. You may click on any analysis in a dashboard to view that query within the tool in which it was created.

documentation_getting_started_cropped.gif

Dashboards are often used to:

Monitor your core KPIs on a regular basis

Quickly explore data anomalies

Share periodic results with a team, department, or executives

Dashboards can be accessed using the Saved section in the lefthand navigation menu.

access_dashboards_new.gif

Here, you may view all team folders, along with the saved dashboards and analyses. You can also filter your view to include only dashboards, Segmentation analyses, Funnel analyses, Cohort analyses, or User analyses. You may also search for a saved view using the search bar at the top of the dropdown. Pro and Enterprise customers may also save

dashboards and analyses to a Personal folder. The contents of a Personal folder are viewable only to its owner.

dashboards_filtering_new.gif

You may also edit the name of the folder that you are currently viewing or create a new dashboard within the folder that you are currently viewing. Finally, you may sort your folder contents by date created or alphabetically.

dashboard_edits_new.gif

Add a Folder

To add a new folder, click on the Add a New Folder icon located in the bottom left corner of the dashboard menu, below your existing folders. You must provide a name for your new folder. If you are a Pro or Enterprise customer, you must select whether the new folder is public or private.

dashboards_add_folder_new.gif

Create a Dashboard

A Default Public dashboard is created automatically for every new Analytics user. There are several ways to create a new dashboard. First, you can create a new dashboard from the Saved menu. In the bottom right corner, select Create a Dashboard. Next, provide a name for your new dashboard, provide an optional description, and select a folder to save the dashboard in.

dashboards_create_new.gif

You may also create a new dashboard from any existing dashboard. To save a new dashboard, click the New icon in the top right corner, then select Dashboard. Note that Growth customers are limited to 25 dashboards containing 20 analyses each. Enterprise customers have unlimited dashboards containing 50 analyses each.

dashboards_new_from_existing_NEW.gif

Manage your Dashboard

View our [Manage Dashboards documentation](#) for more information about how to customize your dashboard.

Any Segmentation, Funnel, Cohort, or Users query may be saved to a dashboard. Dashboards are often used to:

- Monitor your core KPIs regularly

- Quickly explore data anomalies

- Share periodic results with a team, department, or executives

From the Manage dialog in the upper right corner of every dashboard, you can:

- Use [Dashboard Settings](#) or [Dashboard Privileges](#) to modify the settings for a dashboard.

- Use [Duplicate Dashboard](#) or [Delete Dashboard](#) to duplicate or delete a dashboard.

- Growth enterprise

- Dashboard settings

To access your Dashboard Settings:

- Click the [Saved](#) section in the left-hand navigation menu and select a dashboard.

- Select [Manage](#) in the top right corner of your dashboard.

- Select [Dashboard Settings](#) to open the dialog.

From Dashboard Settings, you can perform the following tasks:

Modify dashboard title

In the Dashboard Settings dialog, type your desired dashboard name in the Title field. You can also rename your dashboard by clicking on the title in the top left corner of your dashboard.

Title

Modify dashboard description

In the Dashboard Settings dialog, type a description in the Description field.

Your new description will be reflected in the top left corner of your dashboard.

Description

Change widget layout flow

In the Dashboard Settings dialog, select a Widget Layout Flow.

Widget layout flow

Free Flow lets you place your dashboard analyses wherever you choose.

Auto Flow automatically compacts analyses to the top of your dashboard.

Check out the [Dashboard Visualization](#) article for more information on organizing your dashboard.

Change dashboard layout mode

In the Dashboard Settings dialog, choose how to display your dashboard: screen or print mode.

Dashboard layout mode

Screen Mode is optimized for web browsers. This is the default layout mode.

Print Mode is optimized for printing your dashboard and for scheduled reports.

In print mode, you may choose to display the following:

Show simulated paper

Show title

Show description

Show date uploaded

Check out the [Dashboard Visualization](#) article for more information on screen and print modes.

Change widget color matching

The Widget Color Matching feature within dashboard settings allows Analytics users to easily digest the widgets of their dashboards. Widgets that share the same series match visualization colors for easy comparison across the dashboard.

Note that undefined values will always be black.

To enable widget color matching, go to [Manage > Dashboard Settings](#), and then select On.

Widget color matching

Once selected, widgets in the same series will match:

Widget color matching

Note: Colors persist even when opening a widget from a dashboard.

Although different widgets may query different events, series can still color match if they share the same breakout value.

Notice that the Funnel widget and the Segmentation widget below share the same breakout values. Although both widgets measure different events, their overlapping breakout values share the same color.

Breakout values display

Identical series are defined as the following:

Segmentation: Identical series are defined by the Total Count Of/Users Who Performed selection, event name, and breakout values

Frequency: Identical series are defined by frequency groupings

Funnel: Each step within a funnel is defaulted to a green color unless there are breakout values

Journeys: Defined by event name

Switch to full screen

In the Dashboard Settings dialog, toggle full-screen mode settings.

Full screen

You may toggle the following:

Show title

Show description

You may also copy to your clipboard a direct link to a full-screen version of your dashboard. For more information on full-screen mode, visit the [Organize Dashboards](#) article.

Enable public access

A dashboard may also be made publicly available. This means that anyone with the Public Access Link can view your dashboard.

To make a dashboard publicly available, from the Dialog Settings dialog, check the Public Access checkbox. Then, simply click to copy your shareable link to your clipboard. You may also generate a new public link by clicking Reset Access.

Public access

Filter public dashboards via API

Analytics supports the ability to filter public dashboards programmatically via an API. You may create variants of your public dashboards by bulk adjusting each analysis Date Ranges, Time Zones, Query Intervals, and Property Filters.

The Dashboard Settings dialog provides the dashboard variant API endpoint:

Filtering public dashboards via API

However, please see our Dashboard Filter API documentation to filter public dashboards via the API. This feature requires advanced instrumentation from a technical resource.

Analytics uses an algorithm to balance data freshness and efficient resource utilization when refreshing dashboards. When you apply a new filter to a dashboard or widget, please allow up to 15 minutes for changes to be reflected in the dashboards variants. Subsequently, each request to render a dashboard or widget will display the most recently cached result before initiating an update.

Dashboard privileges

If you are on the Enterprise plan and are the Dashboard Owner, you can control whether or not team members can edit a dashboard. All team members with the correct user permissions can edit a dashboard by default. Dashboard privileges do not override user permissions.

To change the dashboard editing privileges for team members:

Click the Saved section in the left-hand navigation menu and select a dashboard.

Select Manage in the top right corner of your dashboard.

Select Dashboard Privileges to open the dialog.

Select Selected Teammates to show a list of all teammates who have sufficient privileges.

Click the checkbox next to each name you wish to add or remove, and then select Save. Teammates are notified when

their privileges are updated.

Note the following:

If you wish to change the editing privileges on a dashboard you don't own, you can change the dashboard owner by making a support request.

Editing privileges don't override any other permissions or privileges in Analytics. For example, if a team member has Read Only permissions, they won't appear in the list of teammates to select or exclude.

You can duplicate a dashboard even if you can't edit it. You'll be the duplicated dashboard owner and can make any changes, including the dashboard privileges setting.

Duplicate dashboard

To duplicate a dashboard:

Click the Saved section in the left-hand navigation menu and select a dashboard.[Filtering public dashboards via API](#)

Select Manage in the top right corner of your dashboard.[Filtering public dashboards via API](#)

Select Duplicate Dashboard.

[Filtering public dashboards via API](#)

Select a name for your new dashboard, and select a folder to save your dashboard in.

Click Duplicate to finalize your dashboard duplication or Cancel if you've changed your mind.

Note the following:

You may also duplicate your dashboard by hovering in the Views dropdown.

You can duplicate a dashboard even if you don't have editing privileges.

Delete dashboard

To delete a dashboard:

Click the Saved section in the left-hand navigation menu and select a dashboard.[Filtering public dashboards via API](#)

Select Manage in the top right corner of your dashboard.[Filtering public dashboards via API](#)

Select Delete Dashboard. You will be asked to confirm if you want to delete your dashboard because any analyses saved to a deleted dashboard will not be recoverable.

You may also delete your dashboard by hovering in the Views dropdown.**Dashboard Filters**

Note: This feature is only available in the new mParticle UI. To leverage Dashboard Filters, you must first opt in to the new experience.

Dashboard filters allow you to set date and event property filters at the top of a dashboard that simultaneously affect all analyses within that dashboard. This means you can avoid manually editing each widget on a dashboard to update filters, and realize benefits like:

Greater Efficiency: Users can now save time previously spent manually adjusting filters on each analysis separately.

Consistency: With consistent filters applied across a dashboard, there is a reduced risk of discrepancies in data interpretation and analyses across a dashboard.

Improved decision making: By providing a more unified view of filtered data, teams can make quicker decisions based on the most relevant and up-to-date information.

Enhanced collaboration: When everyone is viewing the same filtered data, teams can make faster and more informed decisions.

Here is how to get started with Dashboard Filters.

Hide / show filters

Dashboard filters are displayed in the top row of a dashboard above the analyses, and they are shown by default. To hide the dashboard filters row, select Hide Filters in the top settings bar. To show them again, select Show Filters.

Date range filter

The date filter at the top of your dashboard lets you set a date range across all analyses within that dashboard. By default, there is no date range applied to a dashboard when it is created. The data displayed for each analysis reflects the date range set at the analysis level.

Set a date range for your dashboard

Click **Select Date** to expose the date selector. Here, you can choose a custom or preset date range.

Date selector

Note: Once you have selected and saved your date range, you will need to click ****Apply Filters**** at the end of your filter query to apply it to your analyses.

Property filter

You can apply event property filters across all analyses on your dashboard. To do this, first select **Add Filter** to expose the event property query builder:

Filters dropdown

The query builder contains three components:

Event Property (category and name): Select the event property you want to apply as a filter. The query builder organizes events into categories, so select the category first, followed by the event itself.

Operator: Choose an operator for evaluating the logic in your filter. The default operator is **is equal to**, but you can change this to any other operator that is available to that the event property you have selected.

Value: Provide a valid value for your chosen event property.

You can continue stringing filters together to hone in on a precise subset of your users. For example, applying the filter settings below to a dashboard will result in all analyses displaying data from the last full month where City is equal to New York, Subscription Plan is equal to Monthly, and Browser Name is equal to Chrome.

Query example

Remove a filter

To remove a filter from your query, click the X icon to the right of the filter description. This will remove that single filter from your query.

Apply filters

Each time you add or remove a new filter your query, you must select Apply Filters for your changes to be reflected in the dashboard. After applying filters, there will be a delay before the filtered data is loading. The loading state is indicated by spinning to the right of the title of each analysis widget.

Loading icon

Note: Depending on the complexity of the filters, refreshing the data may take several minutes.

Impact of dashboard filters at analysis level

Each dashboard filter will be applied to the individual analyses within the dashboard, provided the filter and filter value are available within the analysis. Once you have applied filters to a dashboard, each analysis will display a filter icon in the bottom right indicating how many of the filters are applied at the level of that analysis. The names of the filters applied to this analysis will appear on hover:

Filters applied

In cases where filters youve set at the dashboard level do not apply to an analysis, both the applied and unapplied filters will appear on hover:

Filters applied

When do dashboard filters apply to individual analyses?

Dashboard filters override analysis-level filters, provided the event property is available at the analysis level. For example, if a dashboard includes the filter State=CA as a filter, and an analysis within this dashboard has access to this property but is not using it as a filter, the analysis will have the filter State=CA applied once the dashboard-level filters are applied.

When do dashboard filters override analysis filters?

If a filter applied at the dashboard has been previously applied at the analysis level, the dashboard filter will override the analysis filter at analysis level. For example, if an analysis in a dashboard has the filter State=CA, and you apply a filter at the dashboard level saying State=MN, the dashboard filter will override the analysis filter, and the State will be updated to MN at the analysis level.

When are dashboard filters not applied at the dashboard level?

When a dashboard filter value does not exist in any of the analyses in that dashboard, this filter will not be applied at the dashboard level. For example, if you set a date range of 90 days on a dashboard that includes only Journeys, this filter will not be applied, since the lookback period for Journeys is 30 days.

Modifying dashboard filters at the analysis level When you modify a filter on an analysis that was set at the dashboard level, the change will persist in the underlying query, but will not impact the original dashboard filter. For example, say you have a dashboard with the geo filter State=New York, and you open an analysis on this dashboard on which that filter is applied. If you change that filter to State=California at the analysis level, the analysis will have State=California while the filter at the dashboard level will continue to be State=New York.

Open Query

This option opens the query with the most recent dashboard filters applied.

Open Query without Filters Applied

This option disregards any dashboard filters. It will display the results based on the filters applied previously on the analysis.

Managing filter updates across teammates

Dashboard filters include checks to ensure smooth collaboration between members of the same organization. Here are some of the scenarios these checks account for:

Another user has recently made changes to the dashboard

When viewing a dashboard for the first time after someone else in your organization has updated the filters, you will see a banner at the top of the dashboard indicating this:

Banner notification

In these cases, you will need to refresh the page to reflect the most recent filters before you are able to apply additional changes you have made to the dashboard filters.

Refresh notification

Dashboard filters user access

Dashboard filters mirror dashboard-level and project-level permissions:

At the dashboard level:

Edit privileges: Any user who can edit a dashboard can also edit that dashboard's filters.

View privileges: Any user who can only view a restricted dashboard has read-only privileges at the dashboard level.

These users can view but not edit that dashboard's filters.

At the project level:

Within project settings, users can be assigned one of three dashboard permission levels: Full, View, or None.

Full: Any user with Full access at the project level can view and edit all dashboards, including their filters.

View: Users with View project-level permissions have read-only access to dashboards, and can view but not edit dashboard filters.

None: Users whose project-level permission is set to None may not view or edit dashboards within the project.

Optimize dashboard performance

You can optimize the performance of your dashboards by adhering to best practices when creating and filtering them, as well as when building the analyses they contain. [Learn more here.](#)

Organize Dashboards

Save your queries to dashboards in order to categorize and display your analysis effectively. You may also choose between a variety of visualization options. This article will cover these different visualization options that are available for dashboards, as well as how to add queries to dashboards. For more information on how to manage your dashboards, see [Dashboards: Getting Started](#).

When you save your queries to a dashboard, your analysis is placed wherever there is space on your dashboard. You'll naturally want to reorganize your analyses so that they make sense within the context of your dashboard. To reorganize your dashboard, simply drag and drop the analyses in whichever order you desire.

Organize dash

In order to resize your analyses, simply click on the bottom right corner of a graphic, and drag to adjust height and width.

Resize widget

Widget Layout Flow

In your Dashboard Settings, you may also toggle your Layout Flow between Free Flow and Auto Flow.

If your dashboard is in Free Flow mode, then each analysis can be placed anywhere within the dashboard.

If your dashboard is in Auto Flow mode, then each analysis can only be placed where there is space within the dashboard.

Full-Screen Mode

Often, you'll want to keep a dashboard open on a shared screen so that everyone is aware of KPIs in real time. To display a dashboard in full screen, navigate to the menu bar above your dashboard and click the Full Screen button.

Dash full screen

Your Dashboard analyses will update at regular intervals, as indicated by your Refresh Interval settings.

Print Mode

Print Mode formats the dashboard for viewing on a printed page, which is especially useful for dashboards that are printed on a regular basis, or for those that are to be rendered in a Report. To toggle your dashboard to print mode, click on the Manage dropdown in the top right, and select Dashboard Settings. From the sidebar, toggle the Dashboard Layout Mode from Screen to Print. Keep in mind that analyses formatted for print mode may automatically adjust to fit.

Dash print mode

Once your dashboard is in print mode, you may print your dashboard by clicking Print in the menu bar above your dashboard.

Reports

For more information on how to send scheduled reports, see our [Reports article](#).**Scheduled Reports**

Introduce analytics to your day-to-day with Reports! Users can schedule their dashboard results to be sent to other Analytics users, executives, or external partners and stakeholders. Once a report is created, your dashboard will refresh at the selected date and time, and a PDF will be sent to the selected individuals. In addition to the PDF snapshot,

Analytics users may access your dashboard to view results in real time. Any teammate with access to your Analytics project can create a Scheduled Report ...

Create a Scheduled Report

To create a scheduled report, you must first create a dashboard to send it from. For more information on how to build a dashboard, see [Getting Started: Dashboards](#). If you already have a dashboard that you'd like to use, navigate to that dashboard via [Saved Analyses & Dashboards](#) in the left navigation menu.

Reports load dashboard

For best results, it's recommended that your dashboard be in Print Mode before scheduling a report. If you desire to keep your report in Screen Mode, then Analytics recommends duplicating the dashboard and creating a Scheduled Report from the duplicate.

Reports print mode

Once you have selected your desired dashboard and changed your dashboard layout mode to Print Mode, open the Reports dropdown in Dashboards settings at the top right of the dashboard. Here, you may create a new Scheduled Report or view your existing Scheduled Reports. We recommend that you check and see if someone else within your organization has already created a Scheduled Report from this dashboard. If there is an existing report, you may open the report to edit the recipients.

Reports menu

Once you have selected New Scheduled Report, a sidebar will appear on the right side of your screen.

The default title of a Scheduled Report will be the title of the underlying dashboard. You may edit the title, select the frequency of the report, and select the recipients. You may schedule your report to be sent daily, weekly, monthly by day (i.e. first Monday of the month), or monthly by date. Next, choose the time at which the dashboard will refresh and the report will be sent. Scheduled reports are sent on the hour. Please note your project time zone when saving scheduled

reports, taking into acco...

Reports schedule new

In the recipients field, enter the email addresses to which you would like to send the report. Recipients do not need an Analytics account to receive a scheduled report:

Analytics users will receive a PDF of the dashboard and a link to the dashboard itself

Non-Analytics users will receive a PDF of the dashboard and a public URL

Remember to review the reports editing privileges. You may choose to enable editing privileges to your entire team.

Send a Test

Analytics recommends sending a test report to your email to confirm that the scheduled report is configured correctly.

Remember to review the attached PDF to ensure that results are correct and up to date. The test report will be sent to the email associated with your Analytics account.

Click **Save Report** to save your scheduled report settings. Once you click **Save Report**, your scheduled report is confirmed, and it will be sent at the interval selected in the previous steps.

Manage your Reports

View your existing Reports by selecting the **Settings** icon on the left navigation menu and navigating to **Scheduled Reports**.

Scheduled reports

Here, you can view all of your organizations Scheduled Reports in a table format, including the following information:

Report title

The time the report is scheduled to be sent

The creator of the report

The time that the report was created

Additional report actions are available by choosing the three-dot menu on the right of each report, including:

View Dashboard

Edit Settings

Unsubscribe

Archive

Delete

Archiving and Deleting

Scheduled reports settings

Archiving and deleting are the two methods of disabling an existing scheduled report.

Archiving a report will disable the report indefinitely. Archived reports will be greyed out in the Scheduled Reports list, which can be filtered using the settings on the top right. To unarchive a report, select the three-dot menu to the right of the report and choose Activate.

Deleting a scheduled report is permanent and irreversible. Only do so if you are sure that the report is no longer relevant. The underlying dashboard will remain, but the report will be permanently deleted.

Favorites
With Favorites, you can create a list of your go-to queries and dashboards so that important analyses are always close at hand. Favorites can be found in My Hub, as well as on the left-hand navigation menu for quick access.

Note: Favorites are saved on a project-wide basis, rather than per-user. To save queries for personal use, consider the personal folders feature in Saved Analyses.

While hovering your mouse over a query or dashboard in the Saved page (accessible from the left menu,) you'll see a number of options appear on the right side. Choose Favorite, denoted by a heart symbol, to add the item to your Favorites list.

Favorites menu

Once a dashboard or analysis has been favorited, it will appear in the Your Favorites folder within Saved Analyses & Dashboards. Here, you can manage the list by adding and removing Favorites status for each item.

Favorites data manager

Your Favorites will also appear on the My Hub screen just under the controls to create a new analysis or dashboard, as well as in the left-side navigation bar, once expanded. Favorites are ordered by the date in which they were created.

Time and Interval Settings in Dashboards

Each dashboard contains queries and metrics that are local to a specific time zone, and can be configured to refresh at a certain interval. This article will cover how to designate a time zone and refresh interval for your dashboards.

Time Zones

Each dashboard in your project will be in the same timezone as designated in your project settings. To change a project timezone, see our [Projects, Roles, and Teammates](#) article.

Refresh Interval

The analyses on your dashboard will be refreshed as designated by your dashboard refresh interval. Each query is then independently run and your charts will refresh upon completion. Your dashboard refresh interval can be set to:

Every 15 Minutes

Every 30 Minutes

Every 1 Hour

Every 2 Hours

Every 24 Hours

No Refresh

The default dashboard refresh interval is Every 24 Hours. To adjust your dashboard refresh interval, navigate to the

menu bar above your dashboard, and click on the Every 24 Hours dropdown. Then, select your desired dashboard refresh interval.

No Refresh Option

Sometimes, you will want to create a one-off dashboard for a quick analysis that you don't necessarily want to refresh on a regular interval. For these cases, select the No Refresh option. You can select a refresh interval at any time after setting a dashboard to No Refresh.

Dashboard refresh options

Note: Dashboards are refreshed according to the selected refresh interval while in active use. There are instances in which dashboard refresh may take longer than expected, however, which include:

When accessing a dashboard for the first time after a period of inactivity, there may be a delay in viewing data from more recent periods as the system loads current results.

When your dashboard is behind other refresh requests in the queue. Your dashboard refresh interval determines the frequency with which your dashboard enters a refresh queue. If there are other queries in the queue at the time your dashboard query enters the refresh queue, time to refresh the dashboard may take longer to update than the interval you set.

Query Notes in Dashboards

Query Notes may also be viewed within a dashboard. To view a particular dashboard analysis query notes, click on the three dots in the top right of any dashboard analysis, and choose Show Notes:

Show notes option

When you select Show Notes, the analysis card will flip to display the Query Notes:

Query notes displayed

If Query Notes have not been configured for a particular dashboard analysis, then Analytics will display the Query Summary instead.

Query Summary

You may also view a written summary of your query builder for any dashboard analysis. To do so, select the three dots in the top right of any dashboard analysis, and choose Show Summary:

Show summary option

When you select Show Summary, the analysis card will flip to display the Query SummaryAnalytics for Marketers

PetBox is a fictional eCommerce company that sells monthly subscription boxes containing animal care products. In the accompanying PetBox app, subscribers can track and customize their monthly boxes, view their box history, and purchase specific products they liked from their boxes. In addition, non-subscribers have access to features such as PetCam, which allows them to watch their cats through connected webcams.

PetBox wants to cross-sell cat toys to customers who are already purchasing their products but not necessarily in the toys category. They will start with cat food purchasers and create targeted campaigns if these consumers are not already buying cat toys.

Goal/Business Question

Are cat food purchasers also purchasing cat toys?

Create a Segment of Cat Food Purchasers

We first need to create a user segment for cat food purchasers in Segmentation. You can do so by selecting the Purchase Product event and for Filter Where, select Product Category. In the text box to the right of is equal to, you should type Food.

If the start of the query row reads Total count of instead of Users who performed, you should make that change as well. Your final results should look like this:

Your final results

Use 04/01/xxxx to Today in your date range selector and run the query. Click on any point and hover over Create User Segment. Be sure to then click on From entire series to get the users from the full date range.

Date range selector

Below is the Create a User Segment modal. Name the segment and provide a description so we can remember what we saved in the future. Select a category or create a new one by typing the name in so you can easily find your user segment in the future. Note the One-time/Daily toggle. In this case, we want the user segment to update with the most recent results (refreshed daily), so we will select Daily.

Create a user segment modal

Examine and Extract for Cross-Selling

All of the prep work is done. You have set up a user segment of cat food purchasers and are ready to do your analysis.

Back to our question: Is this group purchasing cat toys?

Lets build out our query.

We want to see the number of Users who performed Purchase Product, using Filter Where Product Category is Toys this time, instead of Food.

Query purchase product toys

Remember, we want to see if cat food purchasers are buying cat toys so the only thing missing from this query are the cat food purchasers. Click on the new Filter Where selector and find your Cat Food Purchasers segment.

Filter where cat food purchasers

Now run the query and let's take a look at the results.

Query results

Observation

We see not enough data for visualization which means there is no data available for this query. It looks like Cat Food Purchasers did not purchase cat toys at all since April. At this point, you can analyze further by changing the date range to see if these users purchased any cat toys in the past or start a marketing campaign to target these users for cross-selling.

Export your users to send a targeted campaign

You can export your users to engage with them outside of Analytics in one of two ways:

Download a CSV and upload it to your marketing tools.

Download CSV

Connect to our Segments API (available for Pro and Enterprise users) to make API calls to your automation tools.

We hope this tutorial gives you ideas on how you can use Analytics to analyze your data and achieve actionable insights from it. If you have any questions or comments, please reach out to support@mparticle.com. Analytics for Product Managers

PetBox is a fictional eCommerce company that sells monthly subscription boxes containing animal care products. In the accompanying PetBox app, subscribers can track and customize their monthly boxes, view their box history, and purchase specific products they liked from their boxes. In addition, non-subscribers have access to features such as PetCam, which allows them to watch their cats through connected webcams.

The product team at PetBox wants to increase the user activity this month and they think that PetCam can help with that goal. They will analyze their users and re-engage those users who have not used the PetCam since it was launched.

Goal

Understand whether users have tried out the PetCam.

Create a Target Segment

Create a user segment for all users who opened the PetBox app but have not opened PetCam since it was launched in Segmentation. Change Total count of to Users who performed. Select the Open App event from the data dropdown and select Open PetCam from the Did [not] Perform dropdown.

Activate 1

Selecting an event from Did [not] Perform invokes the For clause. We use this clause to help us understand whether a user performed an action before/after the target event. We are also able to examine this action based on a specific date range. In this case, we selected did not do, between and used 03/01/xxxx to Today for our For clause date range as March 1st is when the PetCam was launched.

Since we are saving a user segment out of this query, we also want to open up the date range to 03/01/xxxx to Today so we can capture all of the users who have opened the app since the feature was released. This is your final query:

Final query screenshot

Note: The date ranges used have a static start date of 03/01/xxxx and a relative end date of Today. Using a dynamic date range enables us to examine only those who have not used the filters feature even at a later date but remember to save it as a user segment with a daily update cadence.

Below is the Create a User Segment modal. Name the segment and provide a description for future ease of use.

Select a category or create a new one by typing the name in so you can easily find your user segment in the future.

Toggle to Daily.

Create a user segment modal

Analyze or Activate with this User Segment

Congratulations on creating the user segment. Lets put it to good use.

Saving to the Dashboard to Track Trends

Analyze the ratio of users who have opened PetCam against those who have not opened PetCam using the calculator tool. First, create two queries: one filters for events performed by users within this segment and one filters for events performed by users who are not in this segment.

First query results

Now, we can use the calculator tool to calculate our ratio.

Calculator tool screenshot

After we run the query, we can save the line chart to a dashboard as one widget and the average as a separate metric widget. Now you can track this ratio on your dashboard.

Export your users to send targeted notifications

You can export your users to engage with them outside of Analytics in one of two ways:

Download a CSV and upload it to your marketing tools.

Download CSV

Connect to our Segments API (available for Pro and Enterprise users) to make API calls to your automation tools.

This tutorial shows just a few of the ways you can use Analytics to analyze your data and achieve actionable insights from it. If you have any questions or comments, please reach out to support@mparticle.com.

Compare Conversion Across Acquisition Sources

PetBox is a fictional eCommerce company that sells monthly subscription boxes containing animal care products.

Currently, they have four marketing channels through which users are acquired:

Paid - Users acquired through paid search.

Email - Users acquired through email campaigns.

Content - Users acquired through campaigns on Facebook and Instagram.

Direct - Users arriving directly to the site by searching or typing the address.

Referral - Users acquired through a link from an affiliate partner.

PetBox wants to evaluate the conversion percentage of users acquired through each of these channels. This analysis will determine which channels will receive a greater investment of marketing resources, and which channels are underperforming.

Question

What is the most valuable marketing channel by conversion percentage?

Open the Funnel Tool

Select Create New Analysis, and then find Conversion and Drop Off in the dropdown menu. Selecting Conversion and Drop Off will set up a pre-configured query to identify points of friction between events.

Select Conversion and Drop Off

Build the Query

The three-step funnel will include the events Site Visit, Blog View, and Subscribe.

Build the three-step funnel

Next, lets collapse the query builder so we can focus on the funnel.

Collapse query builder

This is a three-step funnel showing the conversion from Site Visit to Blog View to Subscribe over the last 7 days. The percentages in the webbing between steps indicate the percentage of users that have moved from one step to the next keep in mind that your data may vary from this example.

The percentages in the webbings should be interpreted as:

22.78% of users who visited the site went on to view the blog.

45.05% of users who viewed the blog went on to subscribe

The total conversion rate of 10.26% is displayed above the funnel. Percentages will change if the date range is adjusted.

For example, conversion percentages across 30 days will be different than those across 7 days.

Break out by Marketing Channel

To break out our results, lets add a User or Event Property. In this case, well use the event property Marketing Channel.

Breaking out our funnel by this property will group users based on the marketing channel they were acquired through.

To add these breakouts, re-expand the query builder and select Group By underneath the first funnel step, then choose Marketing Channel under the event properties tab.

Add event property marketing channel

Select from First/Last/All

Were interested in understanding the marketing channels these users were acquired from.

Select first in query builder

Select First next to the event property Marketing Channel in the query builder. First will only display the channel that first led users to the homepage within the specified date range and will exclude marketing channels users were re-acquired through later on.

Run the Query

Run query to display results

Table showing results by marketing channel

The table below the chart is broken out by events along the X axis, and by marketing channel along the Y axis.

For example, the first row tells us that of users who were acquired through Paid search:

43,484 completed Site Visit.

10,309 completed Blog View, a 23.71% conversion from Site Visit.

5,551 completed Subscribe, a 53.85% conversion from Blog View.

The total conversion rate across all steps was 12.77%

Compare Conversion Rates

Lets click the row corresponding to the largest count in user signup, which is Email.

Compare conversion rates by marketing channel

Clicking a row in the table expands the selection. All conversion rates within the webbing and top line update to reflect the selected campaign source.

The total conversion rate is 10.26%, while the conversion rate for users whose acquisition marketing channel was Email is 8.34%. Now, let's compare that to the row with the highest (non-direct) conversion rate, which is Paid (12.77% conversion).

Observation

While email is the largest source of users, users from paid search convert at a higher rate. PetBox should explore investing additional resources into paid search campaigns.

Goal: Spend less time aggregating KPIs by getting the most out of your Analytics dashboards**

Adding Queries to a Dashboard

Adding query to dashboard in segmentation funnel cohort

In Segmentation, Funnel, and Cohort, you can add a query to your customer journey dashboard by navigating to the Save to Dashboard button in the top right-hand corner. In the Funnel tool, you will be given a few options for how your analysis will display in the dashboard. Select as many as you would like displayed in your dashboard, and each will become a separate widget.

Selecting how analysis displays in dashboard

Rename and Delete Widgets

First, find the three-dot menu to the upper right of the analysis in a dashboard. Choose Settings to rename the dashboard. Select on the name of the widget to edit the individual analysis.

Renaming and deleting widgets in dashboard

Editing individual analysis in dashboard widget

Setting Up Scheduled Reports

Once you have built your dashboard to your liking, now is when we suggest you schedule reports to be sent on a cadence of your choosing.

Users can schedule their dashboard results to be sent to other Analytics users, executives, or external partners and stakeholders. Once a report is created, your dashboard will refresh at the selected date and time, and a PDF will be sent to the selected individuals.

In addition to the PDF snapshot, Analytics users may access your dashboard to view results in real time. Any teammate with access to your Analytics project can create a Scheduled Report for an existing dashboard.

Now, lets dive into how to create a Scheduled Report.

To create a scheduled report, you must first create a dashboard to send it from. If you already have a dashboard that youd like to use, navigate to that dashboard using the View dropdown in the top navigation menu. In this case, we will use a previously built dashboard called Test Dashboard for the purposes of this demonstration.

Once you have selected your desired dashboard and changed your dashboard layout mode to Print Mode, click to open the Reports dropdown in Dashboards settings in the top right of the dashboard.

Here, you may view your existing Scheduled Reports or create a new Scheduled Report as shown below:

Creating a scheduled report in dashboard

You are now ready to build a dashboard and share it with your team, congratulations! **User Segments**

A user segment is a group of users who share a common characteristic or behavior (event property, user property, or event completion). They may be one-time (a one-time group that meets a set of fixed criteria, for example, Users who logged in on Friday, May 29th) or they may be refreshed daily (an ever-changing group that meets a set of relative criteria, for example, Users who created an account within the last 30 days). You may create user segments from within any Analytics tool and the segments may be used within the tools for further analysis, within Users to review the individuals in that segment, or for export via the User Segments Export API. This article describes how to create a user segment, view or manage user segments, and how to use user segments for analysis.

Note: In the User Export Segments API, the value representing one-time is Static and the value for daily is Dynamic.

Available in: Segmentation, Funnel, Cohort

Create a user segment

Segmentation

You may create a user segment in Segmentation from any result that contains at least one user. To create a user segment, click on any data point, series, or table cell within your query results, then select Create User Segment.

Create user segment from segmentation

A user segment created from a point will only include users from that particular data point.

A user segment created from a series will include all users from all of the data points in the selected analysis results.

Funnel

You may create a user segment in Funnel from any result that contains at least one user. To create a user segment for a funnel up to and including a particular step, click on the numerical user count located within the table along the bottom of the chart area, labeled Count, then select Create User Segment.

Create user segment from funnel

You may also select the number displayed within the circle that represents users who complete the step within the chart area, then click on the relevant path, and then select Create User Segment.

Create user segment from funnel step

Funnels with breakouts

There are two options for creating a user segment when the funnel query contains a group by:

A user segment created from a breakout selection will contain users in that particular breakout. User segment from breakout selection

A user segment created from the entire step will contain all users in this step, regardless of breakout. User segment from entire step

Funnels with optional steps

In a multi-path funnel, you must select a single pathway to create a user segment.

Cohort

You may create a user segment from any result that contains at least one user. A user segment created from a cohort generation will contain users in that particular cohort. This includes all of the users in the table row.

Create user segment from cohort

A user segment created from a cohort interval will contain users in the cohort who also completed the target behavior in the interval. This includes only the users in the table cell.

Create user segment from cohort interval

Create a user segment modal

Use the Create User Segment Modal to review the criteria that comprise your user segment, create a name, description, and category for the user segment, and select whether the segment never changes (One-time) or is updated daily (Daily).

Create user segment modal

This User Segment is composed of users who: ... : This section describes the criteria for selecting users to be included in the segment.

Segment Name: Give your segment a name. It is recommended that the name be easily understood by any user within your organization.

Description: Provide additional context and notes here, for example, to describe how this user segment should be used or to provide business-specific context. The description will appear within the data dictionary, available within each tool.

Category: Define the category that your segment belongs to. For example, if the segment is related to marketing, type Marketing.

One-time vs. Daily: A user segment with an update cadence of One-time is never updated. It contains only the users that meet a set of fixed criteria. If the update cadence is Daily, the user segment is updated daily to include all users that meet a set of relative criteria. Users may enter or exit a dynamic user segment as it updates over time.

Note: A dynamic user segment will only update if it is defined by a relative date range, for example, Users who created an account within the last 30 days.

Analyze using a user segment

Filter where

Filter where

Filter where clauses allow you to filter an analysis by a specific value or values within an event property or user property.

In the case of user segments, a filter where clause can be expressed in one of two ways:

Where users are in [segment name]: Will filter your query row to only include users who are also in the selected segment.

Where users are not in [segment name]: Will filter your query row to only include users who are not in the selected segment.

Group by

Group by

Group by clauses, also referred to as breakouts, allow you to segment data based on event properties, user properties and now user segments to better understand its context. In the case of user segments, only two values will be expressed when a By clause is selected:

[Query row name]: in [segment name]: Only includes users who are also in the selected segment.

[Query row name]: not in [segment name]: Only includes users who are not in the selected segment.

Manage user segments

To manage user segments, click Settings in the navigation bar, then select User Segments. Here, you will see all of the user segments created and saved by members of your project.

Manage user segments

Segment Name: A descriptive name. Analytics recommends that the name be easily understood by any user within your organization.

Description: Additional context and notes. For example, describing how this user segment should be used or providing business-specific context. The description appears in the data dictionary, available within each tool.

Category: The category that your segment belongs to.

Segment ID: A unique ID for use with the User Segments Export API.

Type: One-time or daily. A one-time user segment is never updated. It contains only the users that meet a set of fixed criteria. A daily user segment is updated daily to include all users that meet a set of relative criteria. Users may enter or exit a daily user segment as it updates over time.

Creator: The user who created the user segment.

Created (Time Zone): The time zone in which the user segment was created.

Hover over a user segment to view two additional options:

Open Query: Opens the original query that defines the cohort within the relevant Analytics tool.

View Users: Opens a list of users included in the user segment within the Users tool.