

temenos

Analytics

J O U R N E Y M A N A G E R

VERSION 24.10

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TOC

Journey Analytics Overview	9
Analytics Views	10
Journey Analytics User Interface	10
Terminology	11
Transaction Status	11
Strict No PII Policy	11
Architecture	11
Setup and User Administration	12
Journey Analytics Support	12
Journey Analytics Features	13
Main Features	13
Features by Release	13
Setup	21
Enable Applications to Collect Analytics	23
Supported Journeys	25
User Interface Overview	26
Navigation Panel	26
Scope Selector	26
Last Analysis	27
Timezone	27
Preferences	27
Support button	27
Print button	27
Analytics Views	27
Global Filters	28

Scope Selector	29
Select form or job scope	29
Select the date range scope	32
Benchmarks	35
What are Benchmarks?	35
Using Benchmarks effectively	35
Benchmark calculations	36
Last Analysis	37
How it works	37
Timezone	38
Select the timezone	38
Preferences	39
Segment Whitelist	39
Print Support	42
Print a view	42
Global Filters	44
Applying filters	44
How it works	45
Dashboard View	46
Completed Statistics	47
Field Statistics	50
Device Distribution	52
Activity Statistics	52
Timeline View	56
Timeline View components	56

Dropoff View	61
Transaction Metrics	62
Section Completion	65
Section Completion Stats	68
Example Analysis	69
Field Analysis View	72
Components of the Field Analysis View	73
Next	78
Export View	79
Output CSV File Example	83
Custom Reports View	84
Customize your view	84
Available reports	85
Custom Reports View - Best, Worst, Avg	87
Configuration	87
Example Analysis	87
Custom Reports View - Completion Rate	88
Configuration	88
Example Analysis	89
Custom Reports View - Duration Summary	90
Configuration	90
Example Analysis	90
Custom Reports View - Median Time	91
Configuration	91
Example Analysis	91

Custom Reports View - Milestone Funnel	92
Configuration	92
Example Analysis	92
Custom Reports View - Section Completion	94
Configuration	94
Example Analysis	94
Custom Reports View - Section Summary	96
Configuration	96
Example Analysis	97
Custom Reports View - Segment Split	98
Configuration	98
Example Analysis	98
Custom Reports View - Segment Switch	100
Configuration	100
Example Analysis	100
Custom Reports View - Session Map	102
Configuration	102
Example Analysis	102
Custom Reports View - Top Fields	103
Configuration	103
Example Analysis	104
Custom Reports View - Transaction Summary	105
Configuration	105
Example Analysis	105
User Journey View Overview	107

User Journey View	108
Tip	108
Video	108
Next	109
Using the User Journey View	110
Add Segmentation Charts	113
Video	115
Next	115
How to send Custom Milestones and Segments	116
Maestro	116
Composer	116
Journey Manager	116
Milestones vs Segments	116
When to Use What?	116
User Journey View Examples	117
Example 1	117
Example 2	118
Collaboration Jobs View Overview	121
Collaboration Job View	122
Configuration	122
Enable Journey Analytics Collab Job Event collection	122
Video	123
Next	123
Using the Collaboration Jobs View	124
Best Practices - Sending Custom Milestones	127

Standard Milestones	128
Send Custom Milestones from Maestro Applications	129
Custom milestone compatibility	130
Examples	130
Send Custom Milestones from Journey Manager Applications	132
Custom milestone compatibility	132
Examples	133
Send Custom Milestones from Composer Applications	136
Custom milestone compatibility	136
Send a custom milestone	136
Examples	138
Best Practices - Sending Segments	141
Send Segments from Maestro Applications	143
Overview	143
Segment compatibility	144
Example	144
	145
Send Segments from Journey Manager	146
Overview	146
Example	146
Send Segments from Composer Applications	148
Segment compatibility	148
Example	148
Milestones vs Segments	151
Overview	151

Milestones vs Segments Video	151
When to Use What?	153
User Administration	154
Journey Analytics User Roles	154
Assigning Journey Analytics User Roles	154
Organization and Space	154
Access Journey Analytics	155
Transaction Status Flow	156
Data Privacy and Security	158
Journey Analytics Architecture	158
Strict No PII policy	160
Network Rules	162
Data Stored in Journey Analytics	162
Known Issues and Workarounds	165
Journey Analytics data collection issue with Journey Manager	165
Journey Analytics FAQs	168

Journey Analytics Overview

Journey Analytics is a purpose-built behavioral analytics module that provides additional extensive analytics for [supported](#) applications.

Once [set up](#), Journey Analytics aims to assist customers to track the performance of their applications on their Temenos Journey Manager (TJM) platform from an analytical perspective. Journey Analytics provides a wide variety of analytical views that capture completion analysis for one or more applications. As well as these features, Journey Analytics also supports rich filters that allow customers to understand the device type, browser and other attributes of the devices used to complete applications.

Journey Analytics must be [enabled](#) for [supported](#) applications in Journey Manager to be able to collect Journey Analytics data.

A key value Journey Analytics offers is the behavioral analytics to assist our customers to understand user engagement with the form, the effort it takes to submit an application, and where users are abandoning their applications.

These fine-grained metrics help to identify abandonment hotspots in the customer application and further explore problematic fields to:

- Reduce the effort it takes the user to complete an application.
- Improve the user experience and [onboarding](#) ¹ process.
- Optimize the application to drive conversion and completion.



¹The steps required to get a new customer integrated into a new program. These steps may vary business to business.

Analytics Views

Journey Analytics now offers eight main analytical views for both application performance analytics and user behavioral analytics:

1. [Dashboard View](#) – gives a high-level overview of application performance providing key metrics on completion, device distribution, completion times and recent completion history.
2. [Timeline View](#) – provides a trend of application statuses over a selected period. In addition, you can aggregate the data at various levels and split the data by device type, browser, application version and other options.
3. [Dropoff View](#) – provides behavioral analytics capturing key insights on user interaction with the application. It includes section and field level metrics that help to identify abandonment hotspots, problematic fields, and application flow.
4. [Field Analysis View](#) - provides detailed field-level statistics for each section of the application being analyzed. It also helps to identify abandonment hotspots by aggregating all field level behavioral data for all transactions within the selected scope.
5. [User Journey View](#) – this view provides a map of custom milestones implemented in the application and how users are progressing through them towards completing the application. It also provides insight into all possible journey paths users are taking to complete transactions, and allows customers to perform segmentation analysis of the users based on the data sent via Segment APIs from [supported](#) journeys and journey hosts.
6. [Collaboration Job View](#) - this view uses a node graph to represent the Collaboration Job workflow. It provides a view into key metrics at the job, step, action, section and field level.
7. [Export View](#) - this feature allows you to export analytics reports to CSV, with the ability to select the granularity of your reports and retrieve exports for multiple applications in a single file.
8. [Custom Reports View](#) - this view provides a customizable dashboard that makes it easy to compare the performance of your application versions, across many different metrics in a single view. Multiple analytics can be displayed in the form of report cards that can be arranged and resized in any location on the screen.

Journey Analytics User Interface

The [Journey Analytics User Interface](#) is common to all analytical views. Use the interface to select the required analysis views, select the timeframe for analysis, and set global filters and preferences.

Terminology

Journey Manager forms or applications designed using [supported](#) tools are referred to as 'forms' in Journey Analytics, and once a user submits the application in the browser it becomes a completed transaction in Journey Manager.

Transaction Status

Transactions on Journey Manager may progress through any of the following [statuses](#); Open, Bounced, Started, Saved, Completed, Abandoned.

Strict No PII Policy

Transactional data entered by users is not stored in Journey Analytics, however, Journey Analytics does store information about the transaction status and user behavior events from the application. This behavioral data is stored and used to populate all the Journey Analytics analysis views.

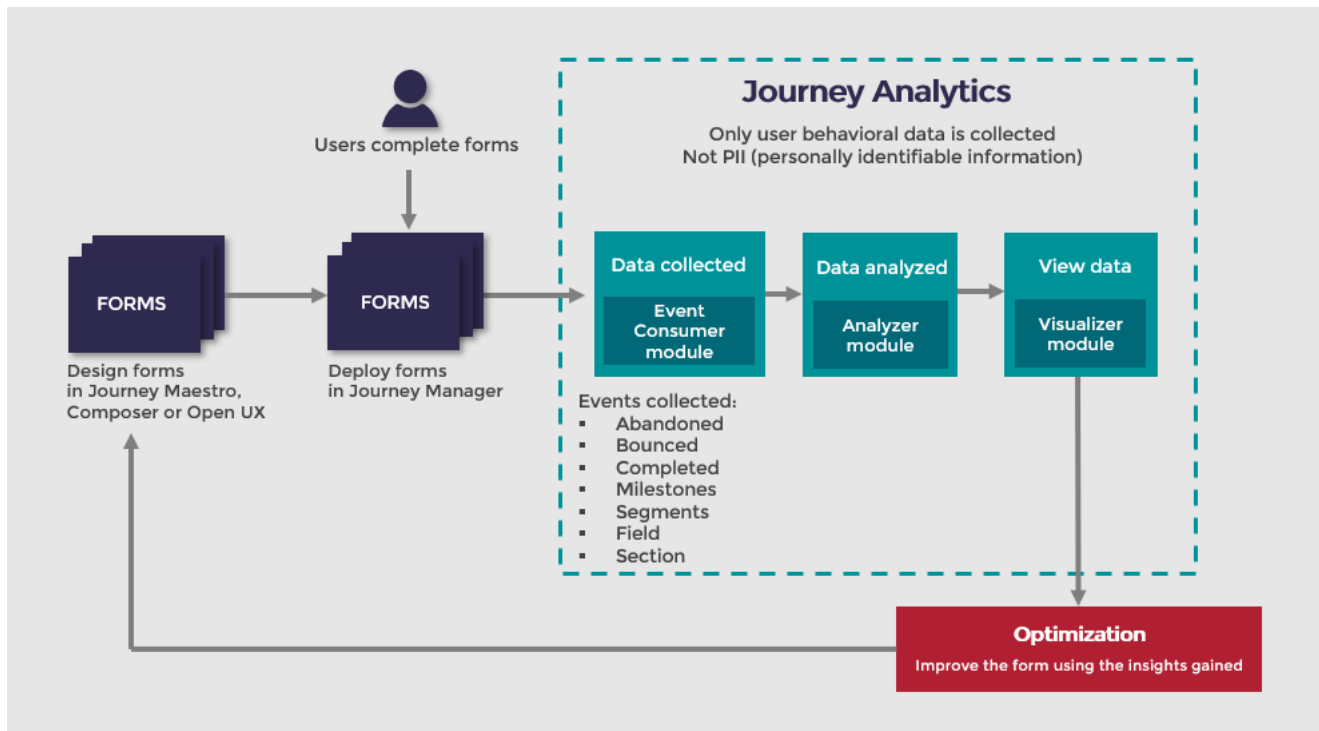
The transaction status and user behavior events DO NOT include any user input data itself and hence Journey Analytics DOES NOT collect any [Personally Identifiable Information](#)¹ (PII). The Journey Analytics service has been explicitly designed to NOT record or store user input data and PII.

You may verify this by using the browser's F12 tool to monitor the network traffic of an Journey Analytics enabled application. Journey Analytics employs all possible mechanisms and strategies to NOT store data relating to PII. For more information, see [Journey Analytics Data Privacy and Security](#).

Architecture

Journey Analytics is built and hosted on the Google Cloud Platform (GCP) infrastructure. It is a fully managed service built using the GCP. The image below describes the high-level architecture of Journey Analytics and how it fits into the Temenos Journey Manager platform.

¹Personally identifiable information (PII) is any data that could potentially identify a specific individual. Any information that can be used to distinguish one person from another and can be used for de-anonymizing anonymous data can be considered PII.



Journey Analytics collects events from two sources – Journey Manager and the browser where the application is rendered.

Journey Manager sends transaction status events and applications rendered in the browser send user interaction events. These two sources support the detailed statistical analysis of user behavior within applications.

The user interaction events from the browser include information such as - field visit, field completion, validation error, section navigation etc. These analytical events are directly comparable to the Google Analytics or Adobe Analytics events recorded by these analytics services. For more information, see [Journey Analytics Data Privacy and Security](#).

Setup and User Administration

Some [setup](#) and [user administration](#) is required to use Journey Analytics. Users must have the Journey Analytics user role and space added to their Journey Manager [user accounts](#) to be able to access Journey Analytics.

Journey Analytics Support

Journey Analytics enables users to measure the impact for a variety of solutions. Refer to our [supported](#) info to learn more about which supported journey and host types..

Journey Analytics Features

[Journey Analytics](#) comes packed with a wide range of features empowering you to analyze complex customer onboarding and user journey solutions. The main product features have now become core functionality in the latest cloud-hosted version. Click on each feature to learn more.

Main Features

- The [Dashboard](#) provides a high-level overview of application performance.
- View an individual form's transaction metrics and better understand completion rates with [Dropoff](#).
- Identify abandonment hotspots and trends in [Field Analysis](#) - with detailed field-level statistics.
- Visualize the [User Journey](#) milestones while segmenting users.
- Use the [Timeline](#) to compare application statuses over time.
- [Custom Reports](#) provides a customizable dashboard for many different metrics in a single view.
- Visualize a [Collaboration Job](#) and view its key metrics for the job, step, action, section or field.
- [Export](#) analytics reports to CSV.
- [Segmentation](#) analysis to help understand the behavior of specific groups of users.
- Follow significant events in the user's journey through [Custom Milestones](#).
- Measure your application's performance against industry standards with [Benchmarks](#).

Features by Release

Each release of Journey Analytics is hosted with new features and bug fixes to provide you with the best-in-class software and to accelerate business agility and improvements across the board. All cloud-hosted customers are automatically provided with the latest release.

The key features for each major release of Journey Analytics are listed below. Click on each release number to view the complete release notes and learn about all features and bug fixes.

24.10

Release Key Features	Description
Export Milestone and Segmentation	Using the Export view, the user can now export custom Milestone and Segmentation data. The data is exported to CSV and can be used for analysis outside the Journey Analytics application.
Historical analysis lim-	Journey Analytics now caps the past analytics to only include

ited to 4 years	the previous 4 calendar years.
Security architecture rework	A new security architecture provides remote key management for cloud services for a more robust response to any breach or abuse of services.
Runtime upgrades	Journey Analytics is now upgraded to Java 17 (from Java 11) and a boost in performance is expected, as well as a more modern stack to enable future development.

For more information see [Analytics 24.10 Release Notes](#).

24.04

Release Key Features	Description
Benchmarks	Timeline view now displays a Benchmark which is derived from applicant behaviour from trusted form solutions to give a performance snapshot of the industry for the year.
Export UI	A more usable user interface for the Export view makes getting access to application data simpler.
Developer experience improvements	Miscellaneous minor improvements to the Visualiser application.

For more information see [Analytics 24.04 Release Notes](#).

23.10

Release Key Features	Description
Segment Whitelist Config Upload/Download	Users can now keep track of Segment Whitelist configuration using the new file upload support.
Benchmark Scoping	With new benchmarks within the Timeline view, customers are able to gauge their performance against relevant metrics from other customers.
Scope Selector - Search by Organization	As part of our Journey Manager SaaS-support work to assist with shared instance management, multi-organization users can now search by Organization.
Various fixes and enhancements	These include, extending the provisioning automation, upgrading to Java 11 runtime, starting the migration to Node v18 for the front end, and performance optimizations for analysis of

raw data.

For more information see [Analytics 23.10 Release Notes](#).

23.04

Release Key Features	Description
Multi-tenancy support	In 23.04 Journey Analytics is ready to support multi-tenanted Journey Manager instances via Organisations. Any issues around Segmentation of Journey Analytics data is also isolated by Organisation.
Queue processing improvements	Improvements have been made to task processing in our GCP queues to provide better error logging and clean up of old tasks.
EventConsumer API Changes	All EventConsumer APIs have been hardened in this release.
Benchmarking design	Initial conceptual design for Benchmarking has begun and will continue into 23.10.
Legacy Dashboard deprecated	The Legacy Dashboard has been removed from the code base and is no longer available to clients. Public documentation has been updated to remove content for the Legacy Dashboard.

For more information see [Analytics 23.04 Release Notes](#).

22.10

Release Key Features	Description
New Navigation and branding	The navigation menu is now found under a new hamburger style menu button, which allows more screen real estate to be used for the data, and to be more usable on smaller screens and devices.
Scope Selector sorting options	These options have been enhanced to allow sorting using Form Code and Last Updated, and allow both ascending and descending sorting directions.
Caching time reduced	Caching server requests have been reduced from 6 hours to 2 hours to improve wait times to view new data.
Dashboard tooltips	'Today' definition updated on Dashboard tooltips.
Security and per-	Upgrades and enhancements to the underlying infrastructure

formance updates

of Journey Analytics to improve overall performance and security.

For more information see [Analytics 22.10 Release Notes](#).

22.04

Release Key Features

Description

Scope Selector

The [Scope Selector](#) now displays the form code with each form making it easier to correctly identify the form you want to analyse.

Dashboard View improvements

New tooltips added to the [Dashboard View](#).

Open UX Support

[Open UX support](#) has been enhanced to provide Open UX applications with full analytics capabilities. A sample project is now available from the Downloads section.

For more information see [Analytics 22.04 Release Notes](#).

21.11

Release Key Features

Description

Scope Selector

Custom period date selector displays a single view for start and end date selection.

Today option provided for the period with Last Day being renamed to Yesterday.

For multi-organisation clients the organisation name is displayed with the form name in the form version selector.

Sorting forms in the form version selector is also available for multi-organisation clients. Forms can be sorted by organisation name or form name.

Timeline View improvements

The [Timeline View](#) now provides users more options for aggregating data. The tooltip displayed on hover of the bar chart has also been improved to order the color sequence to match the bar chart.

User Journey View segmentation chart

The [User Journey View](#) segmentation chart has been extended to display ten segmentation values compared to the pre-

vious five.

For more information see [Analytics 21.11 Release Notes](#).

21.05

Release Key Features	Description
	<p>A/B Testing was renamed to Custom Reports.</p> <p>This view is a customizable dashboard that makes it easy to compare the performance of your application versions, across many different metrics in a single view. Additional reports have been added to the view, such as:</p> <p>Best, Worst, Avg - gauge the best, worst and average time taken to complete applications within the selected scope.</p> <p>Completion Rate - examine application performance in terms of user completion for the selected scope in a bar chart.</p> <p>Duration Summary - compare and sort the best, worst, average, and median times to complete each version in the selected scope using a table.</p> <p>Median Time - compare the median time to complete each version in the selected scope as a bar chart.</p> <p>Milestone Funnel - compare standard and custom milestone hit rates for the selected scope with a bar chart.</p> <p>Section Completion - see completion across sections for the selected scope using a line graph.</p> <p>Section Summary - compare and sort by section-level stats for each version in the selected scope in a table.</p> <p>Segment Split - discover the breakdown of values of a segment type for all transactions within the selected scope using a pie chart.</p> <p>Segment Switch - examine how users traverse values of a segment type for all transactions within the selected scope using a sankey graph.</p> <p>Session Map - investigate the number of sessions occurring per country for the selected scope using a choropleth graph.</p> <p>Top Fields - compare and sort by field-level stats for each version in the selected scope in a table.</p>
Custom Reports View	

Improved analysis and metric readability

[Transaction Summary](#) - compare [Transaction Statuses](#) for the selected scope using this bar chart.

Tooltip enhancements for the [Field Analysis](#) and [Dropoff Views](#) to provide more detailed statistics.

For more information see [Analytics 21.05 Release Notes](#).

20.05

Release Key Features

Description

Milestone Funnel report

A new Milestone Funnel report was introduced to the A/B Testing View. Use this report to understand how milestones are encountered across one or more applications. The chart is a bar chart where each bar represents the number of milestone transactions.

Springboard

Provided built-in analytics used by the Springboard solutions.

For more information see [Analytics 20.05 Release Notes](#).

19.11

Release Key Features

Description

New reports available in the A/B Testing View

[Segment Split](#), [Duration Summary](#), [Best, Worst Average Duration](#), and [Sessions Map](#). Also rates have been added to the [Segment Switch](#) report.

Other enhancements

Transaction Recovery Support - Query changes were made to the Journey Analytics backend to support Workspace transaction recovery. This means that Abandoned transactions that were subsequently completed (recovered), will be reflected accurately in the Journey Analytics views.

Help Tooltips - We improved help tooltips by ensuring a consistent look and feel to tooltips throughout the application. We also added more clarity to some areas via help text, namely the Period selector.

Export Column Ordering - This new enhancement ensures that the order in which metrics (columns) are selected in the [Export View](#) UI, is reflected in the downloaded CSV.

For more information see [Analytics 19.11 Release Notes](#).

19.05

Release Key Features	Description
A/B Testing View	<p>The new Journey Analytics A/B Testing View brings a customizable dashboard that makes it easy to compare the performance of your application versions, across many different metrics in a single view.</p>
Custom Data Export	<p>The new Custom Data Export allows you to export analytics reports to CSV with the ability to select the granularity of your reports and retrieve exports for multiple applications in a single file.</p>
Additional enhancements	<p>Segment filtering - Added to the Global Filter Panel to allow users to view different segments of their analytics data.</p> <p>Job filtering - Added to the Cohorts filter on the Global Filter Panel to allow users to filter by one or more collaboration jobs, or versions of jobs.</p> <p>Last Analysis - Added to the Journey Analytics banner to show the date and time the analytics data was last consolidated and updated. It typically runs hourly.</p>

For more information see [Analytics 19.05 Release Notes](#).

18.11

Release Key Features	Description
Visualizer user interface	<p>Insights has a brand-new user interface that brings together modern best practices to deliver a refreshed user experience. This was achieved by a major redesign of the Insights' frontend.</p> <p>This new user interface is called Visualizer, and will replace the Dashboard user interface from previous versions.</p>
Open UX support	<p>Insights extends support for event collection to include Open UX applications, including Out Of The Box React implementations, such as Springboard implementations and framework agnostic wrappers for ECCL integration.</p> <p>This means that open UX applications can now be analyzed using</p>

Collaboration Job support

Insights, the same way Maestro applications can be analyzed.

Insights now provides [Collaboration Job](#) analytics to monitor workflow level analytics.

For more information see [Analytics 18.11 Release Notes](#).

Next, learn more about [Manager features](#).

Setup

To successfully setup [Journey Analytics](#), you must first send an Journey Analytics provisioning request to your Account Manager. Once you have sent this request, your Account Manager will collaborate with the Journey Analytics and Cloud-hosting support teams to complete the following steps:

1. Raise a service request on [ACS](#) and select Journey Analytics Provisioning request as the request type.
2. Make sure the customer meets the following upgrade requirements:
(*Upgrading to the latest GA version of Journey Manager, Composer / Maestro is highly recommended to take advantage of many of the features of Journey Analytics)
 - Journey Manager 5.0.7 or higher deployed on their system.
 - Composer forms published with Composer 4.4 or above.
 - Maestro forms published with Maestro 5.1 or above.
3. If the customer Journey Manager deployment is on-premise, follow the steps below, otherwise ignore this step:
 - Provide public facing Journey Manager URLs to cloudhosting-support@avoka.com or update the service request on ACS.
 - Make sure the customer's firewall is configured to allow their Journey Manager environment to make outbound calls to the following URLs:
 - <https://eventconsumer-dot-transact-insights.appspot.com>
 - <https://dataproducer-dot-transact-insights.appspot.com>
 - <https://apiserver-dot-transact-insights.appspot.com>
 - <https://accounts.google.com>
 - <https://visualiser-dot-transact-insights.appspot.com>
 - <https://oauth2.googleapis.com>
 - For all internal users who need access to Journey Analytics UI, their machine should be able to make outbound calls to the following URL:
 - The on-premises Journey Manager URL
4. For all internal users who test applications (rendering forms in the browser to generate Journey Analytics data), their machine should be able to make outbound calls to the following URLs:
 - <https://eventconsumer-dot-transact-insights.appspot.com>
 - <https://accounts.google.com>
5. The Cloud-hosting support team will provision Journey Analytics on the Google Cloud Project (GCP) that Journey Analytics uses as its backend. For each customer, the Cloud

hosting support team will create a dedicated project on GCP and link it to their corresponding Journey Analytics instances.

NOTE

For Composer-specific next steps, refer to [Deploying ti-support on Composer](#).

Once the above tasks have been completed, you are ready to [enable Journey Analytics](#) on forms. Once enabled, data will start flowing through to Journey Analytics as forms are rendered by users.

LOADING CHARTS FIRST TIME

Journey Analytics may show errors when there is no data in the database. It may take up to 2 hours for new incoming data to be reflected.

It is highly recommended to deploy a simple form to do a sanity test to ensure analytics work as expected as a post-setup verification step.

Next, learn how to [enable](#) Journey Analytics for Maestro applications.

Enable Applications to Collect Analytics

[Journey Analytics](#) collects data about transactions from any [supported](#) application that has Journey Analytics enabled.

To enable Journey Analytics on an application, follow the steps below:

1. Log in to Journey Manager.
2. Select Forms > Forms.
3. Select the form where Journey Analytics will be enabled and click Edit.
4. Switch to the Details tab. For more information, see [how to configure form details](#).
5. Select the Transact Insights checkbox to enable the selected form with Journey Analytics.

The screenshot shows the 'Personal Loan Application' form details page in Journey Manager. The 'Transact Insights' checkbox is checked and highlighted with a red box. The page includes various configuration options such as Form Display Name, Form Code, Ref Form ID, Form Manager, Transaction Value, Active, Test Mode, Form Version Selector, Submission Expiry Date, Submission Expiry Days, Tracking Code, Use Receipt No. for Tracking Code, Tracking Number Service, Receipt Number, Receipt Number Service, Receipt Number Pattern, Next Sequence Number, Delivery Channels (Production, Test Mode, Abandoned, Validation Failure), and Transaction Data Retention Policies (Saved Transactions, Finished Transaction PII Data). The 'Save' button is visible at the bottom left.

6. Click Save to update the changes.

NOTE

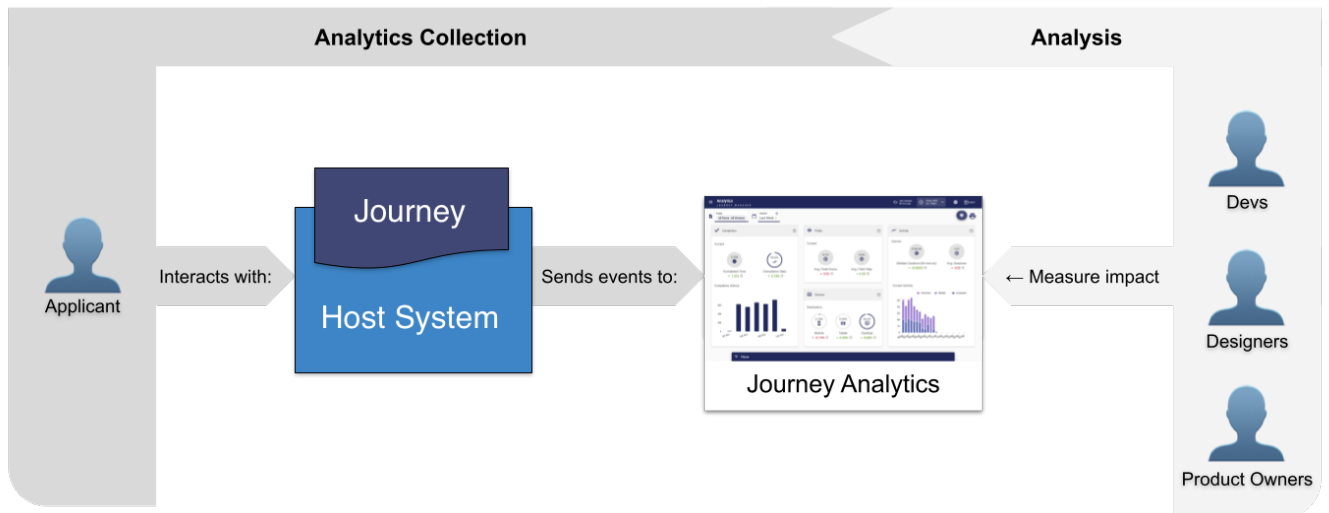
Journey Analytics can be enabled or disabled at any point in time. The data will only be collected for the duration of time when an active form is enabled with Journey Analytics.

WARNING

The Transact Insights checkbox may be deselected when you migrate between environments. If you import the form into another Journey Manager environment such as production, where Journey Analytics is enabled, from an environment that has Journey Analytics disabled, the checkbox may be disabled, and Journey Analytics analytics will not be gathered.

Always double check the Transact Insights checkbox after exporting and importing between Journey Manager environments, and update the checkbox on the imported form if required.

Supported Journeys



[Journey Analytics](#) supports a range of journey types and [Manager](#) as a host system.

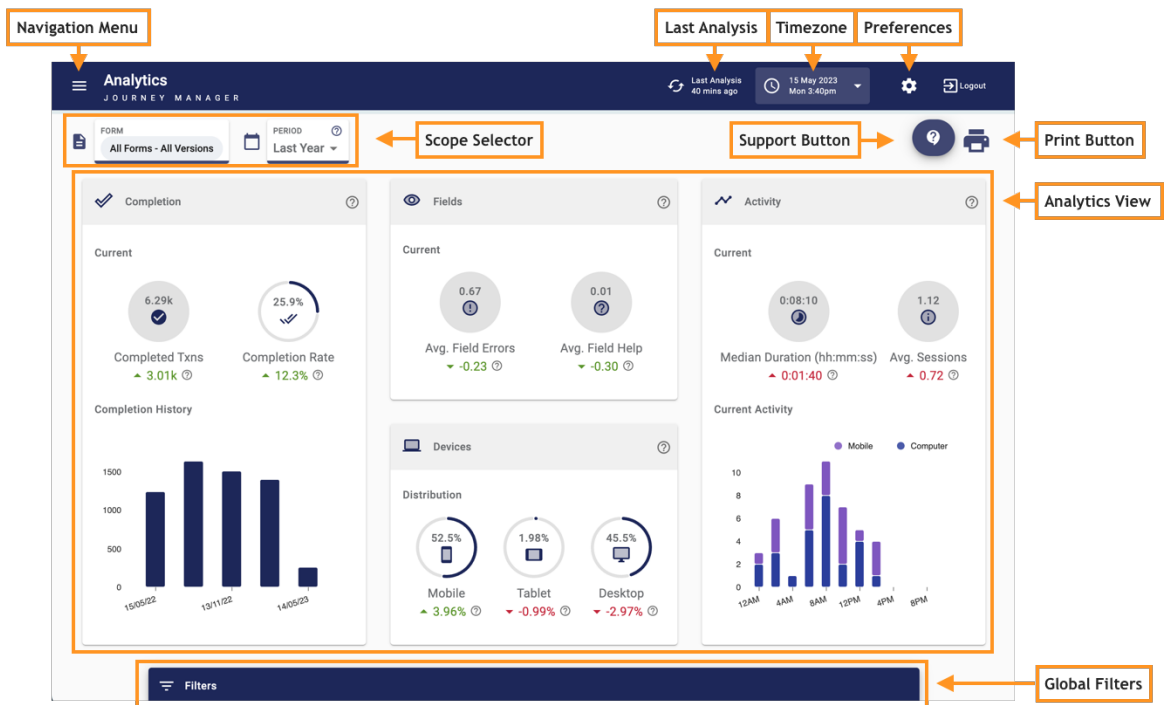
Journeys are the front-end applications that applicants interact with. While, host systems refers to the backend environments which serve journeys to applicants.

During the Analytics Collection phase, Journey Analytics collects and processes anonymized user interaction data in real-time as users fill in the application. Then in the Analysis phase, application stakeholders use Journey Analytics to measure the impact of their work by identifying changes in trends such as completion rates or time to complete journeys.

Refer to the table of supported journey types:

Host System	Supported Journey Types
Manager	<ul style="list-style-type: none"> • Maestro applications • Open UX applications • Legacy Composer applications
Quantum Fabric	<ul style="list-style-type: none"> • Retail Onboarding

User Interface Overview



When you have successfully logged into [Journey Analytics](#), the user interface is displayed. User interface components are:

- [Navigation Panel](#)
- [Scope Selector](#)
- [Last Analysis](#)
- [Timezone](#)
- [Preferences](#)
- [Support button](#)
- [Print button](#)
- [Analytics View](#)
- [Global Filters](#)

Navigation Panel

Use the Navigation Panel to select which analytics view displays.

Scope Selector

Use these two dropdowns to select which forms or applications, and the time period, to analyse in Journey Analytics views. Learn more about the [Scope Selector](#).

Last Analysis

Refer to this indicator to determine the freshness of the current data used in all views. Typically, user behaviour data is updated hourly for all views. Learn more about the [Last Analysis](#) indicator.

Timezone

Use this dropdown to select the timezone from which to view transactions. Typically, users should set this to their current timezone or the timezone where applicants are located. Learn more about the [Timezone](#).

Preferences

Journey Analytics Administrators can use these options to configure [Segment Whitelist](#) entries so that the data can be captured in applicant transactions. Learn more about [Preferences](#).

Support button

Use this button to get documentation about a particular analytics view or to suggest an enhancement.

Print button

Use this button to get a printer-friendly output of Journey Analytics views which can be saved to PDF or as a hard copy. Learn about [Print Support](#).

Analytics Views

The Analytics view is the main section of the user interface, and by default, the Dashboard View will display. Each view leverages different charts and metrics for a particular type of analysis. All views are visible on the Navigation Panel and include:

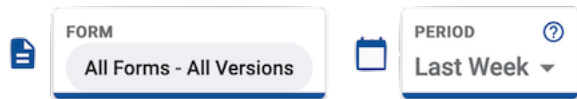
- [Dashboard](#)
- [Dropoff](#)
- [Field Analysis](#)
- [User Journeys](#)
- [Timeline](#)
- [Custom Reports](#)
- [Collab Jobs](#)
- [Export](#)

Global Filters

Use these options to apply whitelist or blacklist filters to limit which types of transactions are in scope for analysis. Learn more about [Global Filters](#).

Scope Selector

The [Journey Analytics](#) Scope Selector allows users to select *what* and *when* to analyse. It includes a dropdown to let you select the application and version or job. It also includes a second dropdown which is used to select the date range.



Select form or job scope

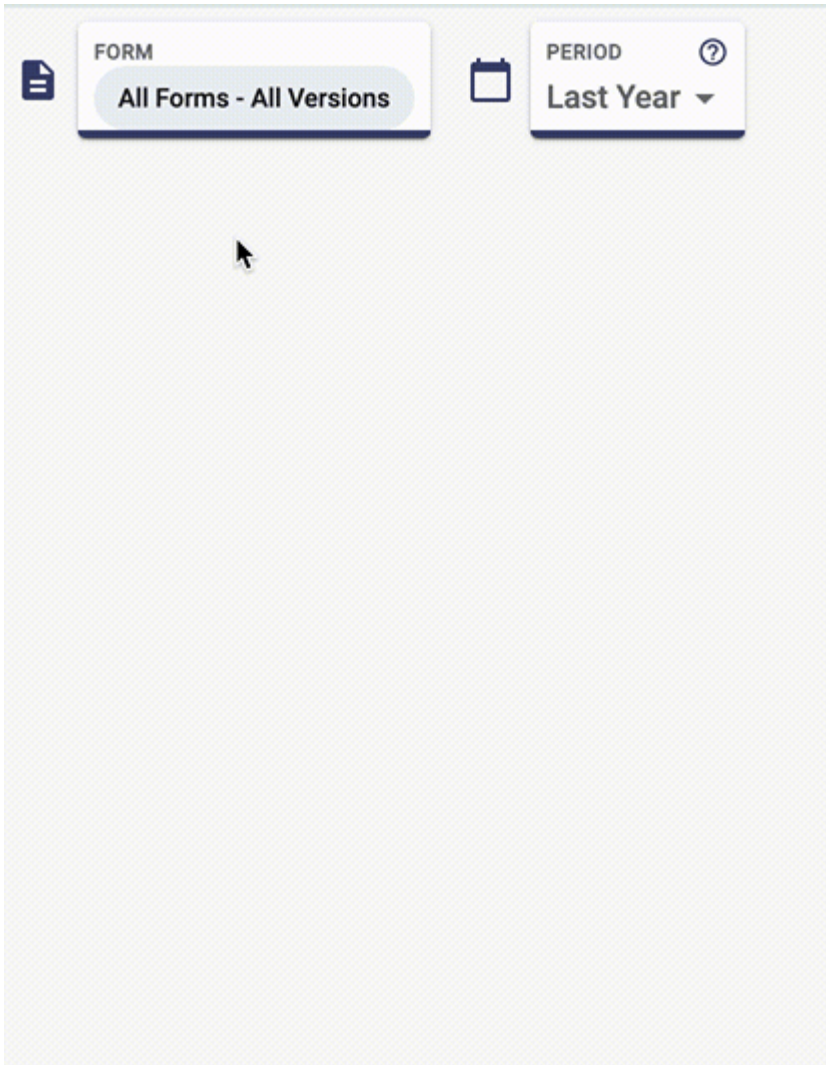
Some views are capable of displaying multiple forms (applications) and versions. Whereas, other views only show data for a single form and version. Use the steps below to select the scope:

- [Select multiple forms or jobs](#)
- [Select single form or job](#)

To select multiple applications or jobs, or multiple versions in a [Journey Analytics](#) view:

1. Click on the Form (application) or Job dropdown.
2. Click all the versions you want to analyze. If there is only one version, simply click on it.
3. Click OK.

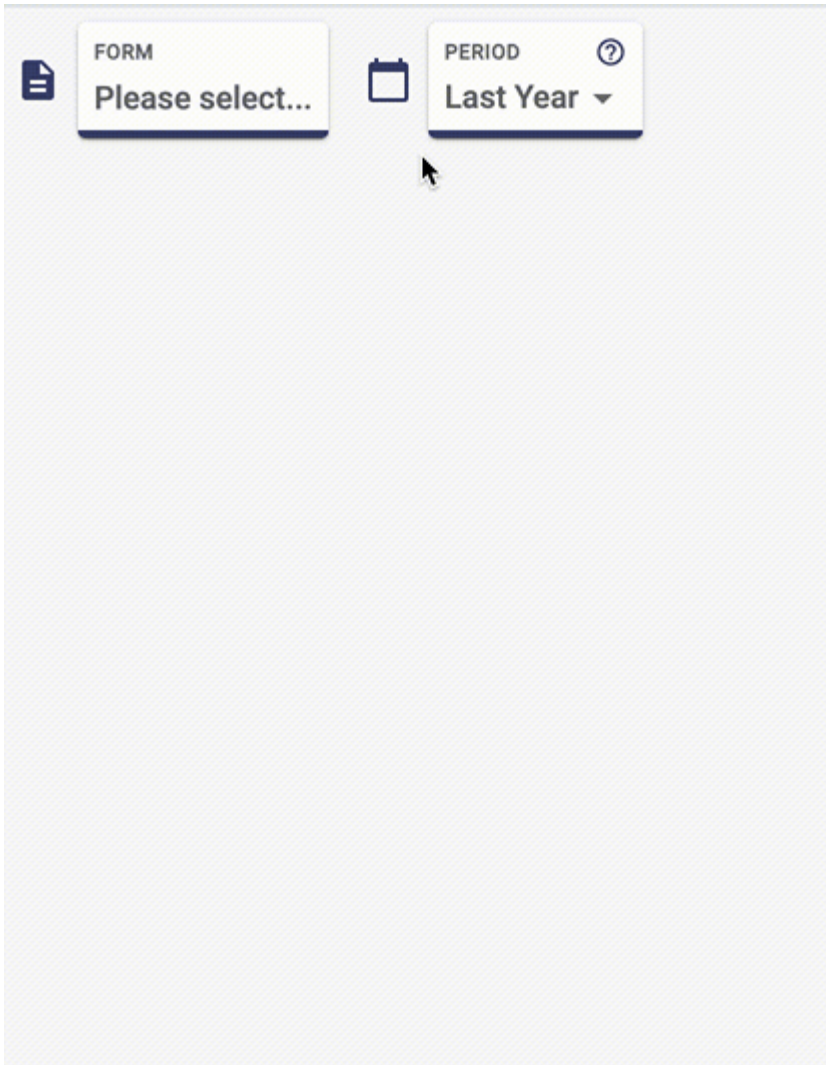
Click the image to view animated example



To select a single application or job in a [Journey Analytics](#) view:

1. Click on the Form (application) or Job dropdown.
2. Click the version you want to analyze. If there is only one version, simply click on it.
3. Click OK.

Click the image to view animated example



Select All, Clear All and Cancel

Click Select All to select every form or job and all of their versions.

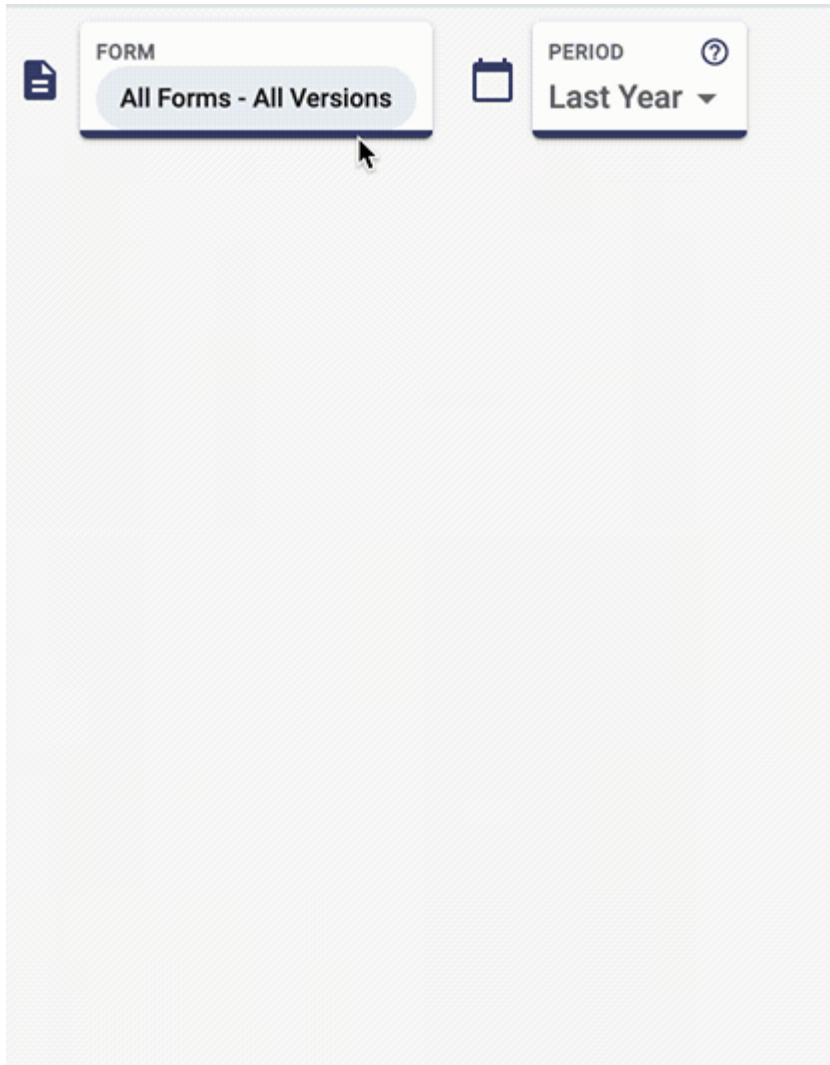
Click Clear All to clear the current selection and make another selection, or click Cancel to leave the scope as is.

Sorting

Sorting buttons can be found at the top of the scope selector. Sorting options are Updated, Form Name, Form Code and where multiple organizations are present, Org.

- Click a toggle button option to sort the list. By default the sort order is Updated (descending - most recently updated form version in Journey Manager).
- Clicking the current sorted option will toggle the sort direction.
- The sort order will revert to the default sorting if the user clicks the OK or Cancel buttons.

Click the image to view animated example



Organization code

If multiple [organizations](#) are accessible for the current user, the scope selector will show the Org Name above each form entry. An additional sorting option will appear at the top of the scope selector for sorting by Org.

Form code

Beneath the form name, the form code is displayed which allows for easier identification of the correct form.

Select the date range scope

As part of selecting the scope, you can also adjust the date range using the Period dropdown.



1. Click on the Period dropdown.
2. Click on the date range you want to analyze. Use the Custom option to set the range manually.
3. Click OK.

NOTE

As [Journey Analytics](#) is a near real-time analysis tool, user transaction data is regularly aggregated and is not immediately available. The delay before new transaction data becomes available for visualization can be up to 24 hours after the transaction is completed. To minimize the impact of this delay, we recommend using previous duration options as they do not include data from today. If you need to inspect transactions from today, use the [Last Analysis](#) to determine the freshness of available data.

Period duration options

Use the table to understand each date range available:

Option	Description	Result - if today is 10th April 2021
Today	Use this option to view analyzed transactions that started today.	From 10th April 2021 (12 am) to now is shown. Use Last Analysis to determine when analysis last ran.
Yesterday	Use this option to view analyzed transactions that started yesterday.	From 9th April 2021 (12 am) to 9th April 2021 (11.59 pm) is shown.
Last Week	Use this option to view analyzed transactions that started within the week ending yesterday.	From 3rd April 2021 (12 am) to 9th April 2021 (11.59 pm) is shown.

Last Fort-night	Use this option to view analyzed transactions that started within the fortnight ending yesterday.	From 26th March 2021 (12 am) to 9th April 2021 (11.59 pm) is shown.
Last Month	Use this option to view analyzed transactions that started within the month ending yesterday.	From 9th March 2021 (12 am) to 9th April 2021 (11.59 pm) is shown.
Last Quarter	Use this option to view analyzed transactions that started within the previous quarter ending yesterday.	From 9th January 2021 (12 am) to 9th April 2021 (11.59 pm) is shown.
Last Year	Use this option to view analyzed transactions that started within the previous year ending yesterday.	From 9th April 2020 (12 am) to 9th April 2021 (11.59 pm) is shown.
Custom	Select the individual start and end dates from the calendars.	From start date (12 am) to end date (11.59 pm) is shown.

NOTE

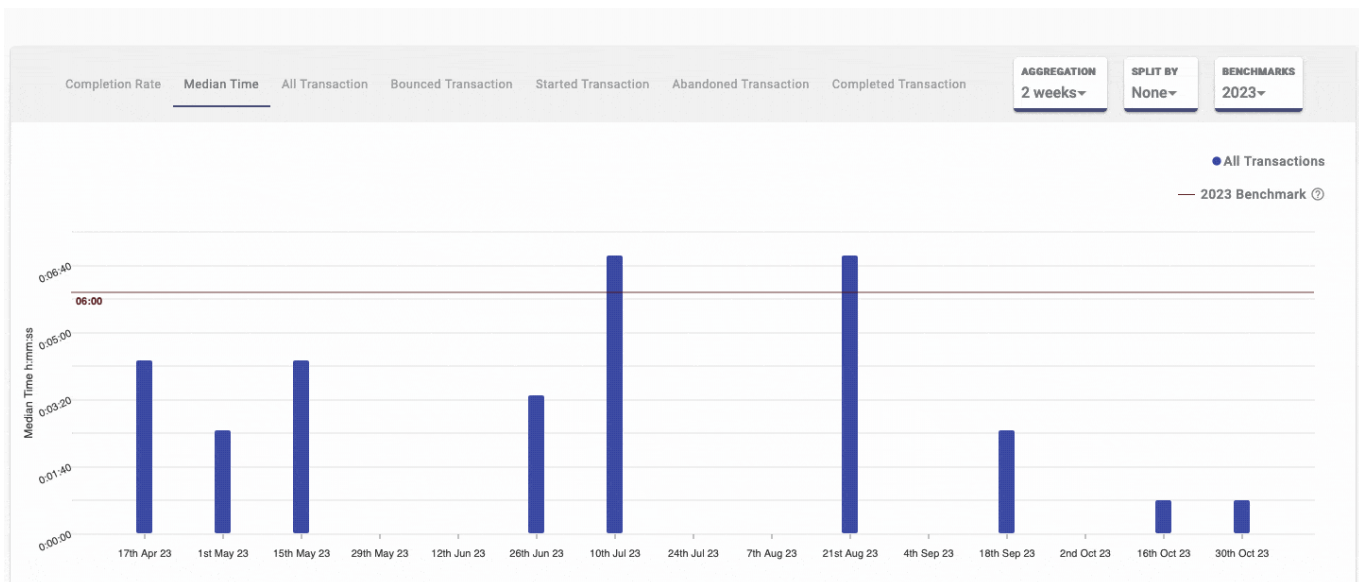
Timezone can affect the actual window of time selected. For example, a transaction from today in Australia (UTC +10hrs) will not be available if the timezone is set to Hawaii Standard Time (UTC -10hrs). In scenarios such as this, it's recommended to set the timezone to where the transactions originated.

Benchmarks

[Journey Analytics](#) Benchmarks enable you to compare your application's performance with industry trends. Let's delve into how to utilize Benchmarks within Journey Analytics.

What are Benchmarks?

Generally, benchmarks are a potent tool for gauging performance against a standard point of reference. In Journey Analytics, benchmarks are derived from real applicant behaviors from a subset of carefully selected and trusted form solutions, or applications, that use Journey Analytics. Benchmarks help you to identify areas requiring improvement and provide a clear target for performance goals, enabling you to track progress.



Benchmarks are displayed as horizontal lines across the chart in Timeline View

Within [Timeline View](#), you can compare your application's performance to the available benchmarks in each tab. Benchmarks are depicted as horizontal lines across the chart.

Using Benchmarks effectively

While Benchmarks are undoubtedly useful in assessing application performance against others in the industry, how can you leverage this information? Here are a few strategies to utilize Benchmarks effectively:

- **Identify improvement areas:** Pinpoint the specific applications and transaction types that underperform compared to benchmarks.
- **Set performance goals:** Use Benchmarks to establish clear performance targets. Communicate these goals to your team.

- **Measure your impact:** Monitor progress towards Benchmark goals as you modify your application.

Benchmark calculations

Annually, the Journey Analytics team reviews the previous year's applicant behavior from a broad range of applications that use Journey Analytics. The team identifies solutions which can be considered as best in class and ensures sufficient data is included to create reliable and meaningful benchmarks for comparison. The methodology for calculating benchmarks is also reviewed annually to ensure its continued relevance and reliability.

NOTE

It's important to understand that form solutions targeted for Benchmark calculations so far are all **Onboarding** or **Account Opening** applications. Please consider this and the context of your own application when evaluating your performance against the Benchmarks.

Privacy and Anonymity

Benchmark data is anonymized and does not contain identifiable information about the underlying applications or applicants involved.

Next Steps...

Learn about [Last Analysis](#) and how Journey Analytics processes incoming raw data every hour.

Last Analysis

The [Journey Analytics](#) Last Analysis indicator displays the time elapsed since transactional data was analysed. It is a way to determine the freshness of the current data in all views.



How it works

The raw transactional data from user interactions are periodically analysed to produce an aggregated group of tables for data visualization purposes. All views in Journey Analytics use the analysed results for displaying charts and statistics.

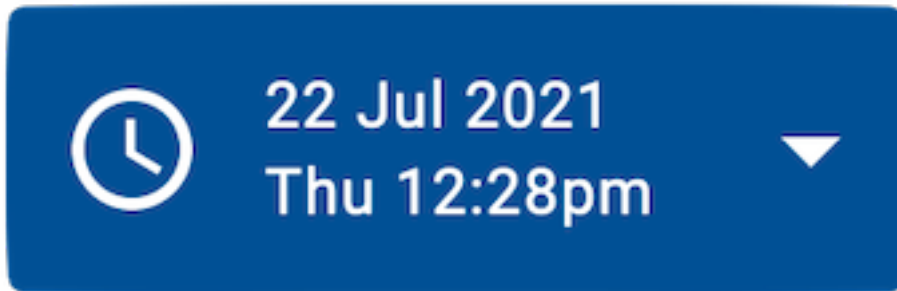
Analysis is a scheduled job that occurs roughly every hour. For new forms and versions, updates can take 24hrs from the time of the first transaction before appearing in Journey Analytics.

Next steps

Learn how to set the [timezone](#).

Timezone

The [Journey Analytics](#) timezone dropdown allows you to select the timezone from which to view transactions. The selected timezone will impact all views as well as the span of time used when setting the Period.



Select the timezone

Typically, you'll want to set this value to your current timezone. It can also be useful to adjust to the timezone where applicants are located.

To select the timezone, use the steps below:

1. Click the timezone dropdown to display available options.
2. Select your desired timezone from the list of options.
3. The current date and time for the selected timezone is displayed.

NOTE

Timezone can affect the actual window of time selected. For example, a transaction from today in Australia (UTC +10hrs) will not be available if the timezone is set to Hawaii Standard Time (UTC -10hrs). In scenarios such as this, it's recommended to set the timezone to where the transactions originated.

Preferences

The [Journey Analytics](#) preferences are used to configure the **Segment Whitelist**. Preferences can be opened by clicking the settings cog in the top right of the user interface.



Segment Whitelist

Within Preferences, the **Segment Whitelist** determines which segmentation data is allowed to be stored in [Journey Analytics](#) datasets. It is designed to help prevent inadvertent storage of Personally Identifiable Information (PII) in the [Journey Analytics](#) database.

NOTE

To avoid losing any segmentation data, add them to the segment whitelist prior to making the application (form) available to users.

Preferences

Segment Whitelist

Add Segments to allow incoming segment data to be collected. Upload Download

Segment Name	Segment Type	Discrete Values	
Customer Type	Discrete	Existing Customer Prospect	
Segment Name	Segment Type	Min Val	Max Val
Product Code	Range	1	6

Add Segment Apply

To collect segment data for Journey Analytics purposes, the segments and their values must be whitelisted. Any incoming segment data which is not whitelisted is discarded and is not stored.

Modify the segment whitelist

You will need [Journey Analytics Administrator](#), or "Transact Insights Administrator", role for your user account to access the whitelist. For more information on Personally Identifiable Information (PII) and the types of data allowed to capture using custom segmentation, see [Data Privacy and Security](#).

Using the UI

Using the UI, add and amend entries using the steps below:

1. Click the settings cog to open the segment whitelist.
2. Click Add Segment to add new entries.
3. In the new row, input the details for the new whitelist entry:
 - **Segment Name:** the name of the segmentation.
 - **Segment Type:** the type of segmentation, either **DISCRETE** or **RANGE**.
 - **Segment Values:** the segment values or range of values that are allowed.
4. Click Apply to save entries.

NOTE

The segment whitelist is shared across all Journey Manager environments (DEV, UAT, TEST, STAGING, PROD). Changes to the segment whitelist in one environment will be reflected in all environments.

Using a file

Alternatively, use the **Download** and **Upload** buttons to maintain the whitelist using a file.

1. Click the **Download** button to download the `segment-whitelist.yaml` file.
2. Open the file using your choice of text editor or integrated development environment (IDE).
3. Input input the details for the new whitelist entries to the file using the format:

```
- segmentName: Customer Type
  segmentType: DISCRETE
  values:
    - Existing Customer
    - Prospect
- segmentName: Product Code
  segmentType: RANGE
  values:
    - 1
    - 6
```

Each whitelist entry requires the following properties to be set:

- `segmentName`: the name of the segmentation.
- `segmentType`: the type of segmentation, either **DISCRETE** or **RANGE**.
- `values`: the segment values or range of values that are allowed:
 - For **DISCRETE** segmentations, set the list of all discrete values allowed.
 - For **RANGE** segmentations, set the minimum and maximum values for the range values allowed.

4. Click the **Upload** button to upload the modified `segment-whitelist.yaml` file.

This file can also be stored in your solution as a backup to track changes using version control.

5. Click Apply to save entries.

To cancel all modifications, before clicking Apply, click anywhere outside the preferences dialogue.

For more information on sending segments, see [How to Send Custom Milestones and Segments](#).

Print Support

The [Journey Analytics](#) print and PDF support provides a better way to extract charts and graphs to hard-copy or soft-copy. The button appears in the top right corner and leverages the browser's built-in print capability.



The print output is similar to a screenshot of the current view. The output also contains an appendix which includes:

- The name of the view printed.
- A timestamp of when the printout was generated.
- Information about the selected [scope](#) and any [Global Filters](#) applied.

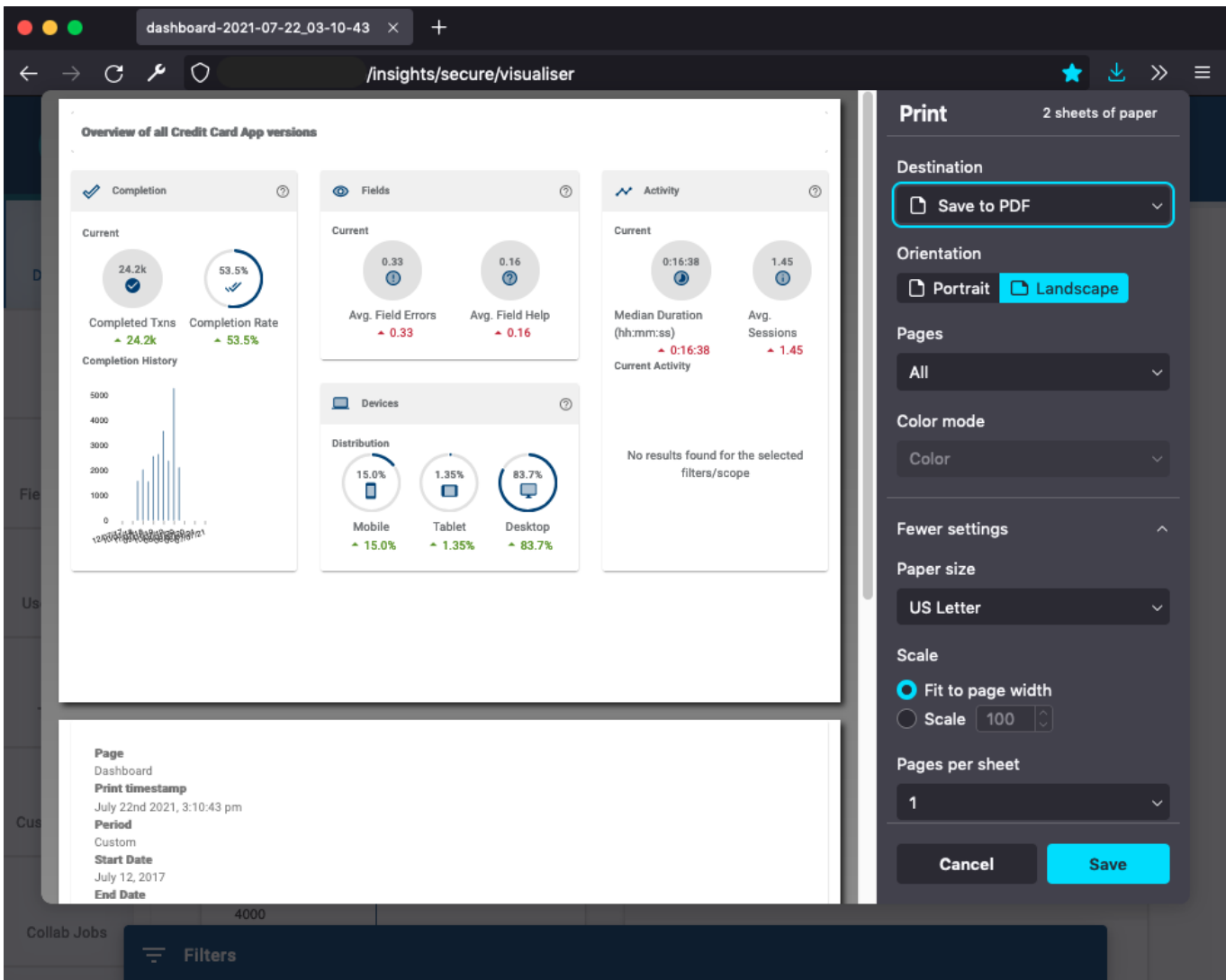
NOTE

Printing will use the browser window width to determine chart boundaries. If you find some charts are cut off or do not print as expected, adjust the width of the browser.

Print a view

To print the current view use the following steps:

1. Click the print icon button.
2. Input a title to use for the printout.
3. Click Print to open the browser print options.
4. Save or print the file.



NOTE

Depending on the browser and operating system, printing options may differ. For most browsers, users are encouraged to ensure Background graphics in printing preferences is checked. Having Background graphics unchecked might hide some graphical information from being printed.

Global Filters

Global Filters allow you to choose filters to define which transactions to analyse within [Journey Analytics](#). Any global filters applied will impact all analytics views.

The filter allows you to determine which transactions are used in visualizations for all views. Constraints can be in the form of either a whitelist or a blacklist:

- The whitelist filter values will filter all views to only show transactions which match the filters.
- Blacklisted values will result in views only showing transactions which do not match the filter values.

The screenshot displays the 'Global Filters' configuration interface. At the top, there are two tabs: 'Whitelist' (selected) and 'Blacklist'. An 'Apply' button is located in the top right corner. The interface is divided into three main sections:

- Cohorts:** Contains three filter groups: 'Milestones' with 'Saved' and 'Equifax IDMatrix Verified' filters; 'Segments' with 'Age Group - 60+' filter; and 'Jobs'.
- Client Device:** Contains four filter groups: 'Operating System', 'Device Type' with 'Mobile Phone' filter, 'Screen Size', and 'Browser' with 'Safari' filter.
- Location:** Contains four filter groups: 'Country' with 'United States' filter, 'City', 'Region', and 'IP Address'.

Applying filters

To add global filters, use the following steps:

1. Determine whether you will create a whitelist (show only matching transactions) or blacklist (show non-matching transactions) filter.
2. Click the Whitelist or Blacklist tab based on your filtering strategy.
3. Click any of the filter dropdowns you wish to apply.
4. Select the value to filter. You can manually input a filter value with your keyboard or use the dropdown options to select a value.
5. Click Apply to refresh the analytics views with global filters applied.

NOTE

Selecting more than one filter value will restrict transactions to only those which match all selected values. The filters, in this way, are applied in an additive manner.

How it works

Global filters allow you to focus on particular transactions and to filter using a range of categories:

- Cohorts - filter transactions for certain user groups. Read more about [milestones, segments](#) and [Collaboration Jobs](#).
- Client Device - filter transactions based on user device information.
- Location - filter transactions based on user locations.

WHITELIST VS. BLACKLIST

To only show trusted browser transactions, you could:

- Add robot and crawler browser types to the blacklist to remove any such transactions from view.
- Alternatively, you can whitelist only Chrome browser transactions to only show data for transactions from users on Chrome.

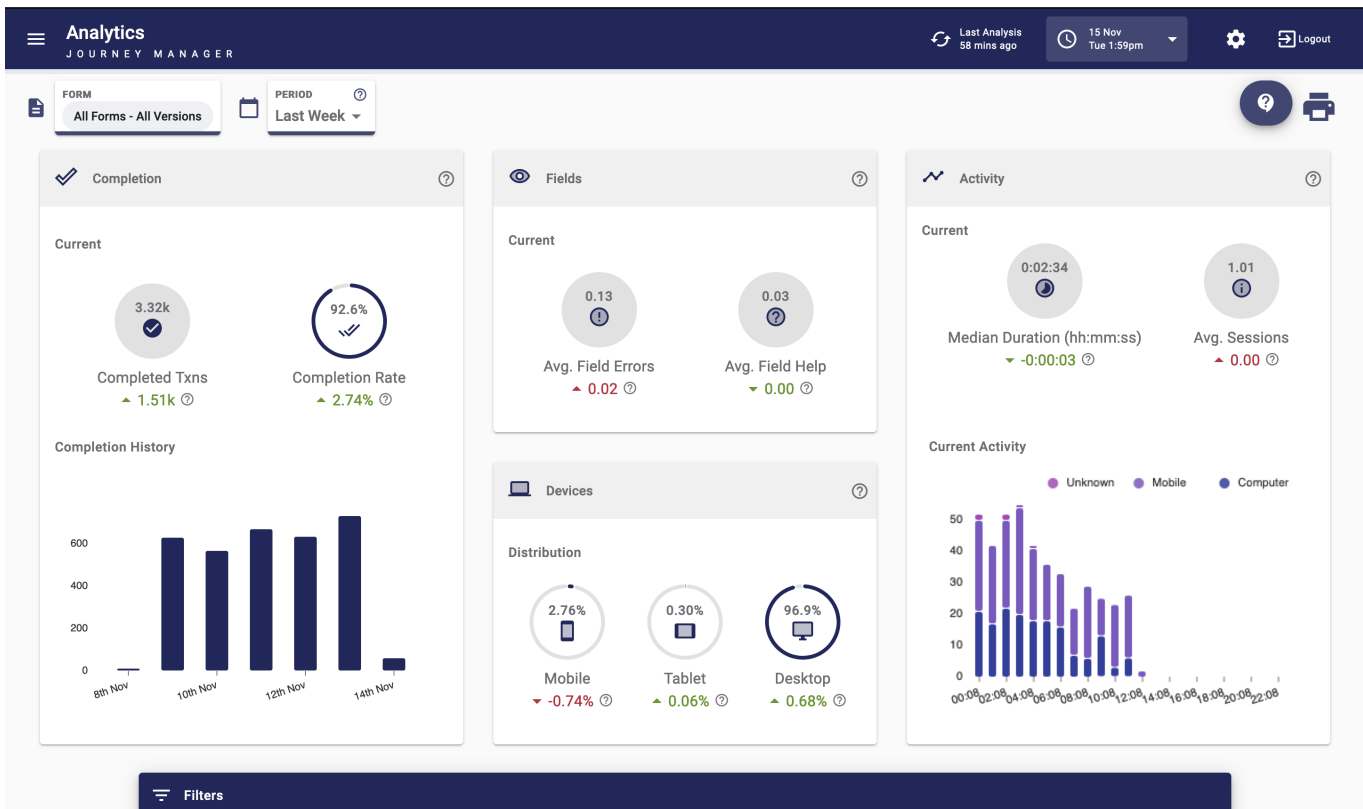
In this way, the filters are flexible so you can exclude or include transactions as needed.

Dashboard View

The [Journey Analytics](#) Dashboard View displays an overview of transactions associated with the selected applications for a specific time period.

To display the Dashboard View:

1. Select Dashboard from the [Navigation Panel](#).
2. Select the [application and time period](#) to analyze.
3. The Dashboard View displays.



The Dashboard view provides access to a range of analytics, organized into the following categories:

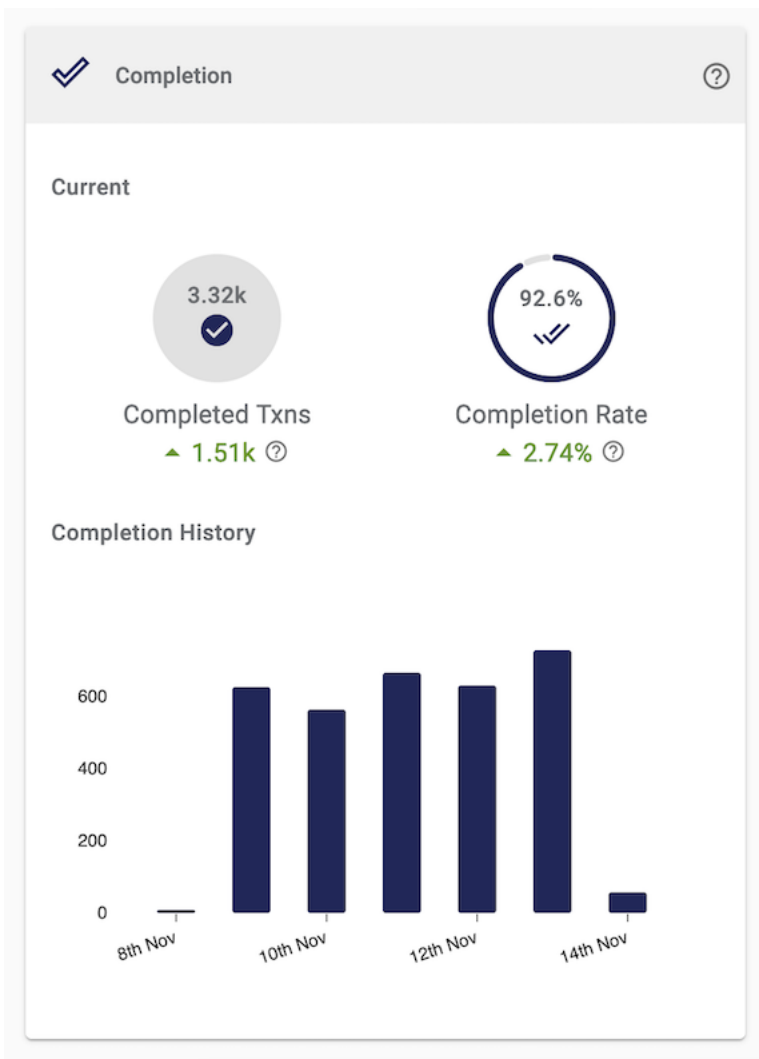
- Completed Statistics
- Field Statistics
- Device Distribution
- Activity Statistics

Completed Statistics

The Completed Statistics file reflects completion statistics for the transactions associated with the selected applications for the selected time period.

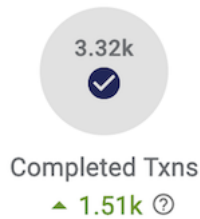
Completed Statistics are divided into three areas:

- Completed Txns:
- Completion Rate
- Completion History Chart



Completed Txns

The Completed Txns represents the total number of completed transactions for all selected applications.



A transaction is said to be complete when a user opens an application and hits the Submit button after completing all of the required fields in the application.

A comparison to the previous time period is also displayed. For example, if the current time period is set to 2 weeks, completion will be compared to the previous 2 weeks.

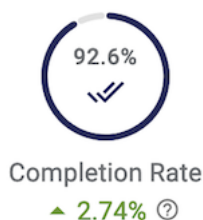
The delta arrow shows whether the number of completed transactions has increased (▲) or decreased (▼) compared to the previous time period. In the above screenshot, 3,320 transactions were completed which was 1,510 more transactions were completed than in the previous time period.

NOTE

If the completion rate has not increased or decreased compared to the previous time period, the comparison will display 0.0 with a dot or horizontal arrow instead.

Completion Rate

The Completion Rate measures the percentage of transactions that were successfully submitted during the selected time period. This metric is calculated by comparing the total number of transactions that were submitted, with the total number of transactions (excluding bounced), during the set time period.



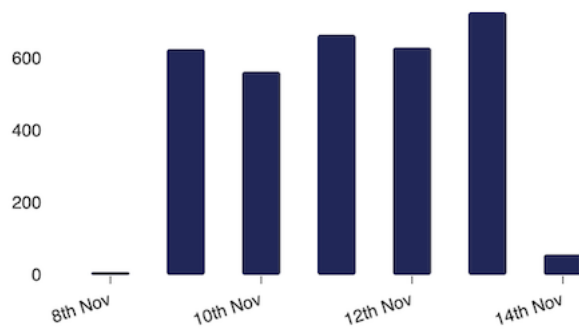
For example, in the screenshot above, a completion rate of 92.6% has been reached over the selected time period.

Similarly to the Completed Txns, under the Completion Rate is a comparison to the previous time period. In the above example, an increase of 2.74% compared to the previous time period occurred.

Completion History Chart

This bar chart shows the volume of completed transactions for the selected scope.

Completion History



The screenshot example shows:

- Overall volume of completed transactions for each day of the week (due to period set to Last Week)
- Day with the most transactions completed was 13th Nov.
- Day with the least transactions completed was 8th Nov.
- Completed transactions peaked for this time period at almost 800 transactions per day.

HOW DATES ARE AGGREGATED BASED ON THE SELECTED PERIOD

To ensure a proper chart is displayed, dates are dynamically aggregated based on the duration of the selected period. Let's look closer at how this works using examples. If you select a period duration that is:

- longer than one year, dates are aggregated into one quarter (3 months) chunks.
- shorter than one year and longer than one quarter, dates are aggregated into one month (30 days) chunks.
- shorter than one quarter and longer than four weeks, dates are aggregated into one week chunks.
- shorter than four weeks and longer than one week, dates are aggregated into one day chunks.
- shorter than one week and longer than one day, dates are aggregated into four hour chunks.
- shorter than one day, dates are aggregated into 2 hour chunks.

How to use the Completed Statistics

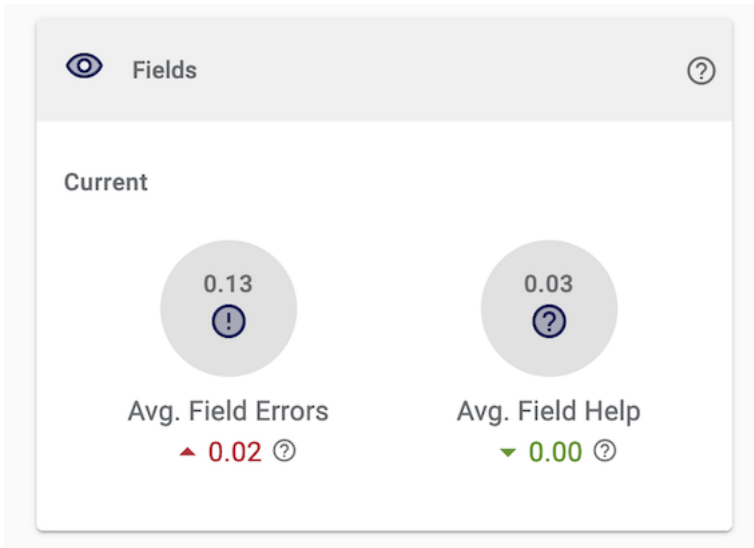
The Completed Statistics can be used to:

- Provide you with an overview of transaction completions over a select period of time.
- Determine the completion statistics of transactions associated with select applications.
- Perform a comparison of completed transactions for select applications against an equal period of time in the past.

Field Statistics

The Field Statistics tile shows the error rate for all fields in an application. It highlights two statistics:

- Average Field Errors
- Average Field Help



Avg Field Errors

The Average Field Errors section shows the average number of field validation errors per transaction. Validation errors occur when field rules are violated.

Some scenarios where an error message will be generated and displayed:

- Failing to fill out a mandatory field.
- Entering text into a numerical field.
- Entering a postal address in an unacceptable format.

In the screenshot above, the Avg Field Errors rate is 0.13%, meaning that users face field errors once in every 769 transactions ($1 / (0.13 / 100)$). The up arrow (▲) below the Avg Field Errors rate indicates that the Avg Field Errors rate has increased by 0.02% as compared to the previous time period.

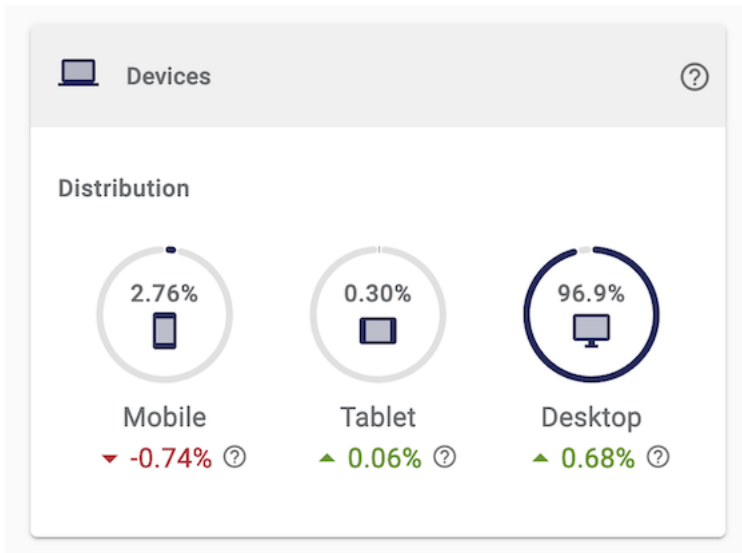
Avg Field Help

Applications can be built to contain help icons that display instructions when selected. The Avg Field Help rate shows the average number of times users request help per transaction for a set time.

In the screenshot above, the Avg Field Help rate is 0.03%, meaning that users only click the field help icon once in every 3,333 transactions ($1 / (0.03 / 100)$). The green down arrow (▼) indicates that the Avg Field Help rate has decreased but only slightly, less than 0.01% (or only thousandths of a percent), as compared to the previous time period.

Device Distribution

The Device Distribution tile shows the percentage of devices used to open applications and changes in usage compared to the previous period.



In the Device Distribution screenshot above:

- For this period and selected applications, 2.76% of transactions are on mobile.
- Mobile usage decreased by 0.74% this period as compared to the prior period.
- Only 0.30% of transactions are using tablet devices though we had a slight increase (0.06%) this period.
- Most users, 96.9%, perform transactions using a desktop device.
- This period, Desktop devices were slightly more popular since we can see an increase in distribution of 0.68%.

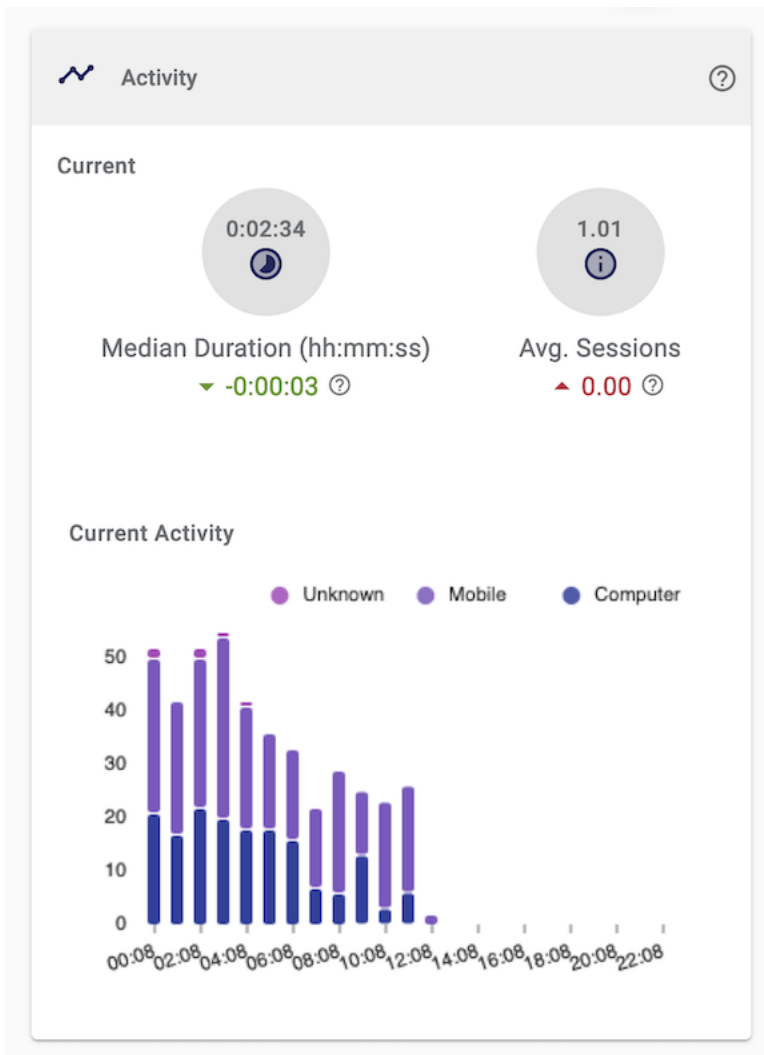
The following are several of the benefits of the Device Distribution tile:

- Helps to understand the proportion of devices being used for your selected applications.
- Illustrates which devices are popular with application users.
- Highlights a change in the use of these devices relative to the previous time period.
- Helps to identify highly used devices of an application, this information may be used to optimize your application for this particular device type.

Activity Statistics

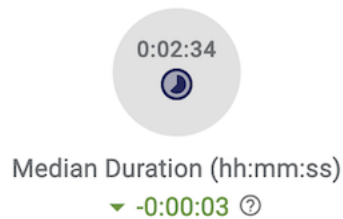
The Activity Statistics are divided into three areas:

- Median Duration: displays the median time taken for a transaction to be completed (submitted).
- Average Sessions: the average number of sessions used to complete transactions.
- Current Activity Chart: a bar graph for the number of sessions generated during the last 24-hours



Median Duration

The Median Duration section shows the median time for a transaction to be completed. It's calculated from the total time taken by each completed transaction for selected applications. It gives an idea of the middle amount of time taken by users to complete a transaction.

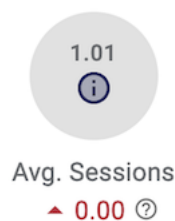


Similarly to other Dashboard stats, Activity Statistics also indicate if an increase or decrease has occurred this period compared to the previous period.

For example, the Activity Statistics screenshot above shows a median duration time of 0:02:34 (2 minutes and 34 seconds), with the current period seeing a slight decrease of 0:00:03 (3 seconds) compared to the previous time period.

Average Sessions

The Average Sessions section of Activity Statistics displays the average number of sessions taken by a user to complete a transaction. In other words, this section answers the question, what is the average number of times that a user will attempt to complete the application (a single transaction)?

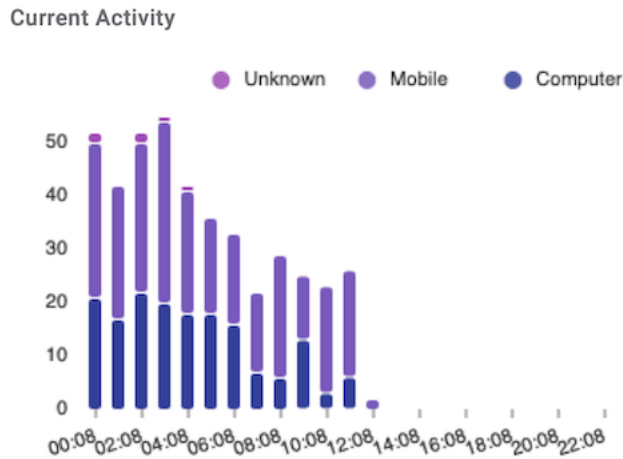


When a user starts a [supported](#) application, it may take them more than one session to submit the application and complete the transaction.

For example, the screenshot above displays an average session of 1.01, meaning that for every 101 transactions, only 1 requires multiple sessions for the user to complete. This average is an increase from the previous set time frame but a very small increase of less than 0.01%.

Current Activity

The Current Activity bar graph shows the number of sessions generated during the last 24-hours, regardless of the transactions being completed. This bar graph shows separate segments for sessions generated on mobile, desktop or tablet devices.



Current Activity stats are great for providing you with a quick overview of the activity occurring so far today.

How to use the Activity Statistics

Activity Statistics can be used to:

- Display the middle amount of time it takes for a transaction to be completed, where all mandatory fields are entered and the Submit button is clicked.
- Display the average number of times it takes users to complete a transaction.

Activity Statistics show you if users are taking an irregular number of sessions to complete a transaction. If an application is taking users an irregular number of sessions, then this may be a case of the selected application being too long or not clear enough.

Next Steps...

Learn about [Timeline View](#).

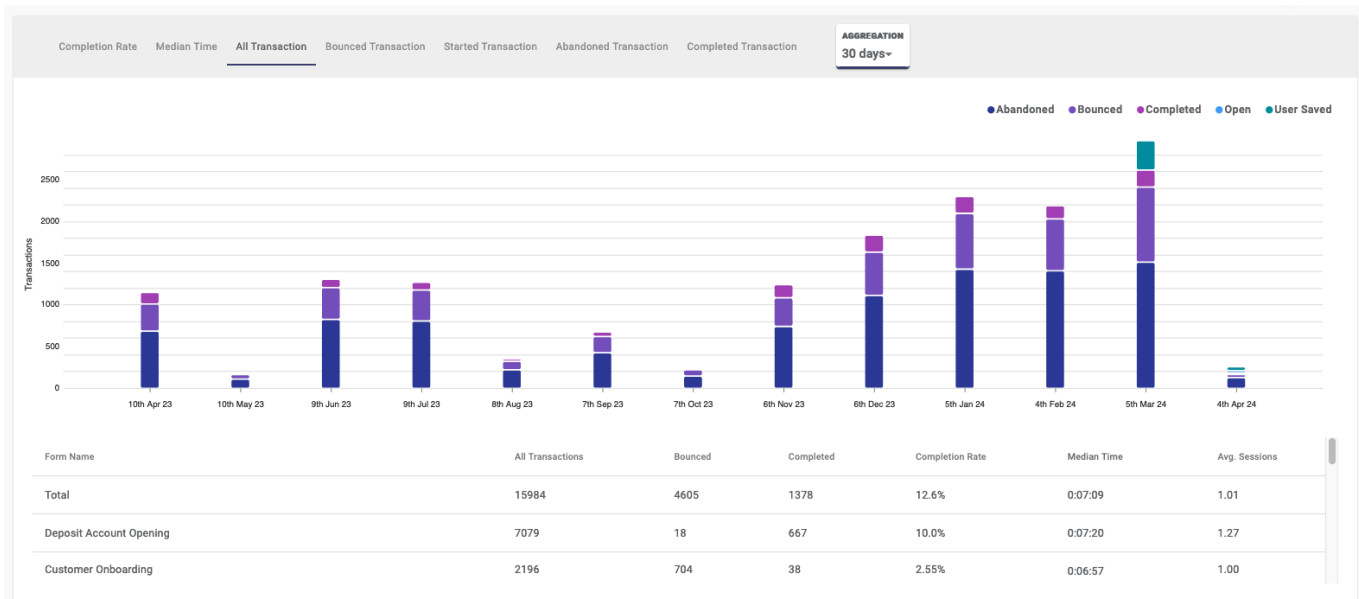
Timeline View

The [Journey Analytics](#) Timeline View displays analytics for transactions that started within the selected scope:

- Analyse completion rates and split by device type, browser, application and more.
- Review the median time taken for applicants to complete a transaction.
- Examine the number of transactions in a bar chart based on [Transaction Statuses](#).
- Measure performance over time against the industry [Benchmarks](#).

To display the Timeline View:

1. Select Timeline from the [Navigation Panel](#).
2. Select the [application and time period](#) to analyze.
3. The Timeline View displays.
4. If required, modify the chart content:
 - Select the [Metric Tab](#) you want to analyze
 - 'Change the [Aggregation](#) and Split By options.



Timeline View components

The Timeline View contains the following components:

- [Timeline Chart](#)
- [Timeline Summary Table](#)

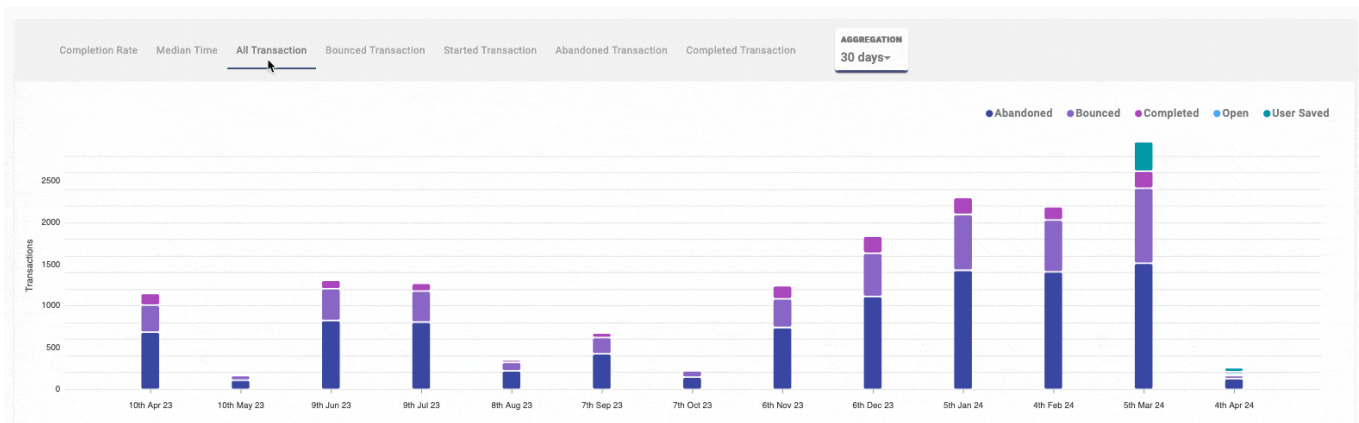
Timeline Chart

The Timeline chart contains the following features:

- [Metric Tabs](#) to select the metric that you want to analyze.
- [Aggregation options](#) to set the blocks of time the chart will be broken up by.
- [Split By options](#) to segment the bars in the chart based on the applicants' browser, device, application version, or operating system.
- [Benchmarks](#) to measure your applicants experience against the industry standard.

Metric Tabs

In the top of the chart, using the tabs, you can select the metric to show in the chart. Use the table to understand the available metrics:



Metric	Description
Completion Rate	Displays the completion rate of the transactions during the selected time period.
Median Time	Displays the median time taken to complete a transaction during the selected time period.
All Transaction	Overview of all transactions during the selected time period, split by Transaction Status .
Bounced Transaction	Number of transactions bounced, where the transaction opened and closed without user interactions with form fields.
Started Transaction	Number of transactions where users interacted with form fields (excluding simple button clicks).
Abandoned Transaction	Number of transactions with a start event but not completed; users never return to finish application.
Completed	Number of successfully completed transactions.

Transaction

Aggregation options

The Timeline View allows you to set the time span aggregation for the chart to show. By default, aggregation is set based on the selected time period. However, users have the flexibility to customize how the aggregation appears in the chart.



The available aggregation options depend on the selected period. For shorter periods, shorter aggregation intervals are available. For longer spans, longer aggregation intervals are available. Use the table to refer to the available aggregation options for selected periods.

Selected Period	Aggregation Options
Today	15m, 30m, 1h, 4h
Yesterday	15m, 30m, 1h, 4h
Last Week	4h, 1d
Last Fortnight	4h, 1d
Last Month	1d, 1w, 2w
Last Quarter	1d, 1w, 2w, 30d
Last Year	1w, 2w, 30d, 90d, 180d
Custom	Variable depending on Time Frame Selection

Split By options

The Split By options allow you to dissect each bar in the chart, revealing detailed information about applicants. View details based on applicants' browser, device, application version, or operating system.



When you choose an option, predefined classifications are applied to segment the bars. For each Split By option, classifications include:

Split By	Classes available
Browser	Chrome, Firefox, Safari, Internet Explorer, Microsoft Edge
Device Type	Mobile Phone, Tablet, Desktop
Form Name	This option splits the results by application name.
Operating System	Android, iOS, Windows, MacOS X, Linux
Space	Selected Space from the Global Filters

Benchmarks

Within the chart, [Journey Analytics Benchmarks](#) are represented by a horizontal line and are based on trusted industry data from real applicants. Benchmarks empower you to measure your applicants' experience against the industry standard. Benchmarks in Timeline View are available for the following metric tabs:

- **Completion Rate:** Aim for a completion rate higher than the benchmark.
- **Median Time:** Strive for a median time lower than the benchmark.

[Journey Analytics Benchmarks](#) are released annually and are based on the previous year's data. Use the benchmarks as a goal to improve your applicants' experience and to measure your performance against the industry standard over time.

Timeline Summary Table

Below the chart, the summary table displays a detailed overview of transaction statistics for the selected scope.

Form Name	All Transactions	Bounced	Completed	Completion Rate	Median Time
Total	15984	4605	1378	12.6%	0:07:09
Deposit Account Opening	7079	18	667	10.0%	0:07:20
Customer Onboarding	2196	704	38	2.55%	0:06:57

Timeline Summary Table with the default Split By: Form Name

Device Type	All Transactions	Bounced	Completed	Completion Rate	Median Time	Avg. Sessions
Total	1987	949	991	55.3%	0:07:09	1.00
Desktop	1985	949	989	54.5%	0:07:20	1.00
Mobile	1848	923	925	20.0%	0:06:57	1.00

Timeline Summary Table with the Split By: Device Type

By default, each row in the table represents a selected form as well as a Total row that aggregates all rows in the table. If you set a custom [Split By option](#), then the rows will be based on your selection.

Columns in the table show details about the transactions for each form:

- **Form Name:** The name of forms with transaction in scope
- **All Transactions:** The total number of transactions for each form
- **Bounced:** The number of transactions where the transaction opened and closed without any user interactions with the form fields.
- **Completed:** The number of successfully completed transactions.
- **Completion Rate:** The percentage of transactions that were successfully completed.
- **Median Time:** The median time taken to complete a transaction.
- **Average Session:** The average number of sessions required per completed transaction (user revisits to complete).

Next Steps...

Learn about [Dropoff View](#) and how users interact with sections of an application.

Dropoff View

The [Journey Analytics](#) Dropoff View provides visualizations to help identify abandonment hot-spots by aggregating behavioral data from applicant transactions. Dropoff, or user abandonment, and other user behavior can be examined at the transaction-level for a particular form version and at the section-level to compare each section's performance within a form version.

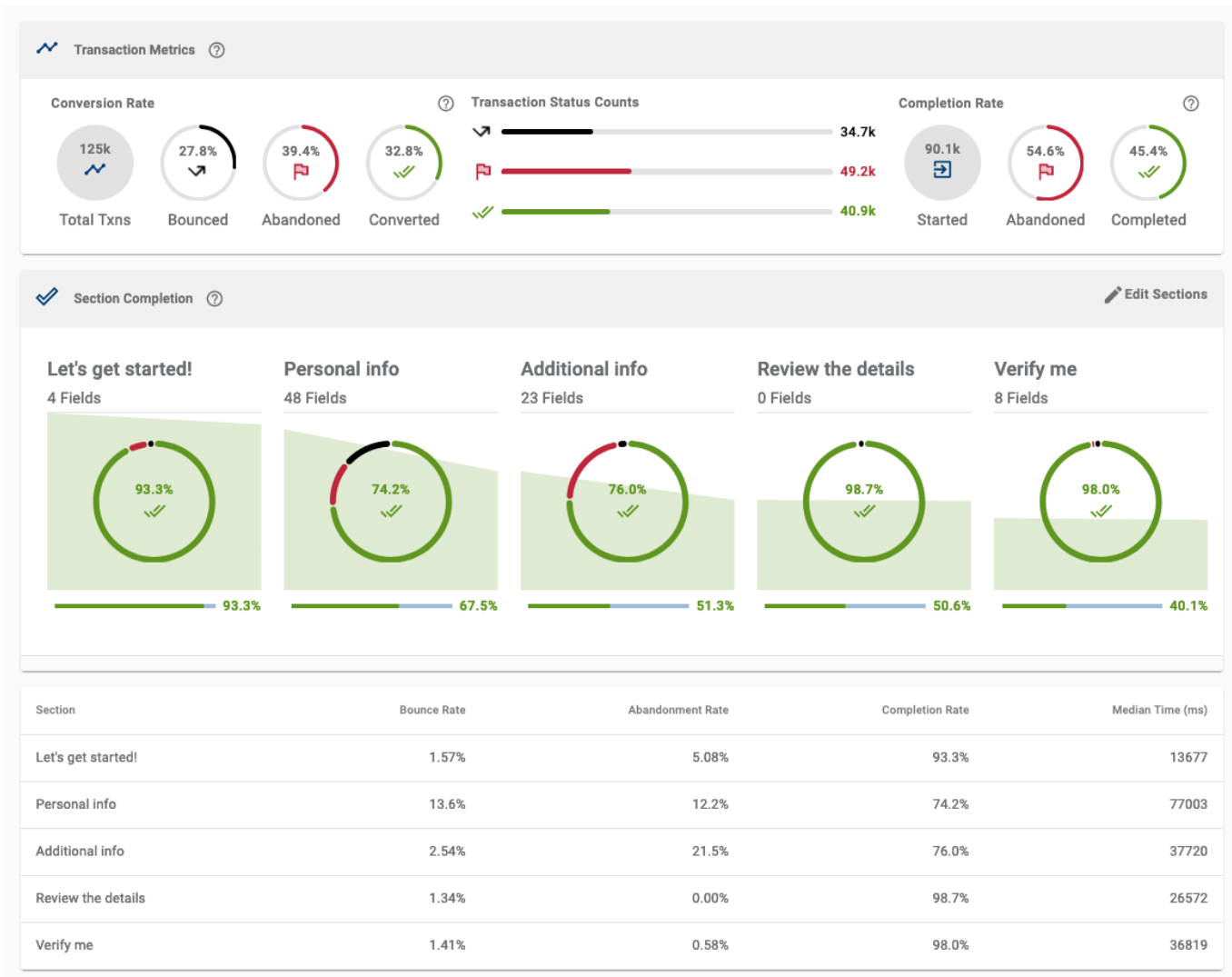
To display the Dropoff View:

1. Select Dropoff from the Feature Navigation Panel.
2. Select the [application and time period](#) to analyze.

NOTE

Only one version of an application can be selected at a time in the Dropoff View.

3. The Dropoff View displays.

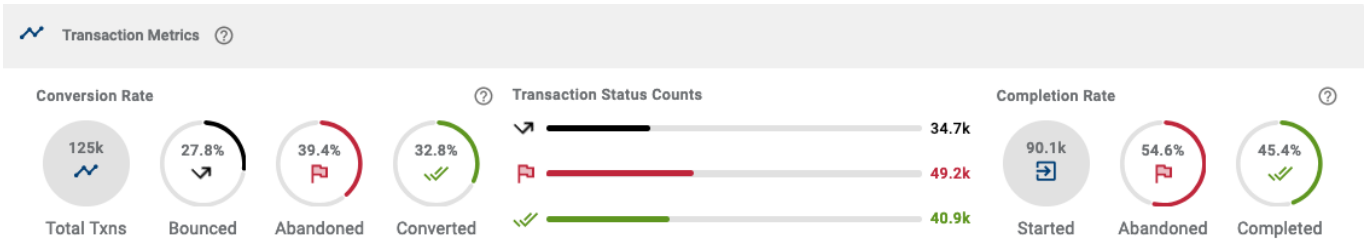


The Dropoff View presents user abandonment data in three separate components:

- Transaction Metrics - displays stats that highlight transaction-level behavior for the application.
- Section Completion - visualizes stats for each section of the application in chart format. The green trend-line that traverses each section represents the slope of transaction completion across the overall journey.
- Section Completion Stats - displays the same Section Completion stats in table format.

Transaction Metrics

Transaction Metrics visualizes transaction-level data, as opposed to section-level data which is displayed within Section Completion. For this reason, stats will differ between Transaction Metrics and Section Completion.



The Transaction Metrics component contains three sub-components which contain grouped statistics:

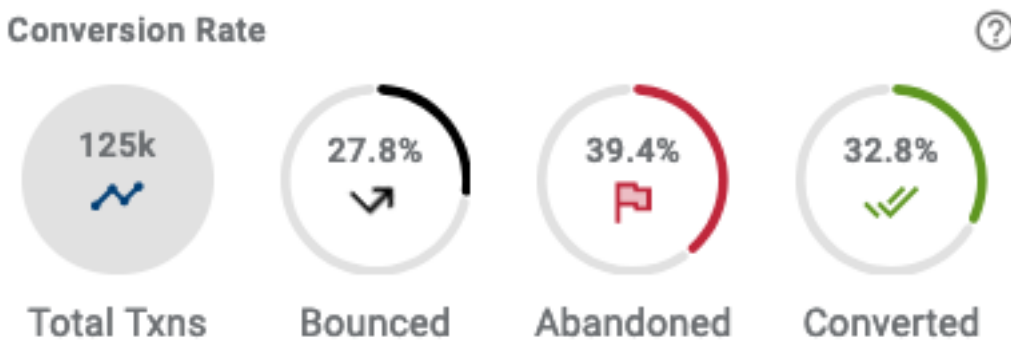
Conversion Rate stats are based on all traffic within the selected scope.

Transaction Status Counts are based on all traffic within the selected scope.

Completion Rate stats are not based on all traffic, as they exclude Bounced transactions, or transactions where no user interaction occurred.

All traffic stats will likely include noise which is not actual user traffic, such as from bots and search-indexing requests to the application. To mitigate noise, use [Global Filters](#) to either Whitelist specific trusted browsers or Blacklist browsers identified as Robot / Crawler types.

Conversion Rate



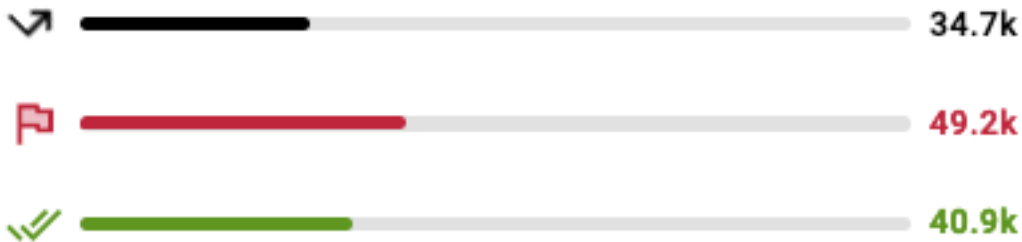
	Description
Total Txns	All transactions that were first opened during the selected period, and have a current Transaction Status of either Bounced, Abandoned or Completed. This number excludes transactions that are currently in either Open or User-Saved Transaction Status .
Bounce Rate	The percentage of Bounced transactions compared to the number of total transactions.
Abandoned	The percentage of Abandoned transactions compared to the number of total trans-

actions.

Conversion The percentage of Completed transactions compared to the number of total transactions.

Transaction Status Counts

Transaction Status Counts



Description

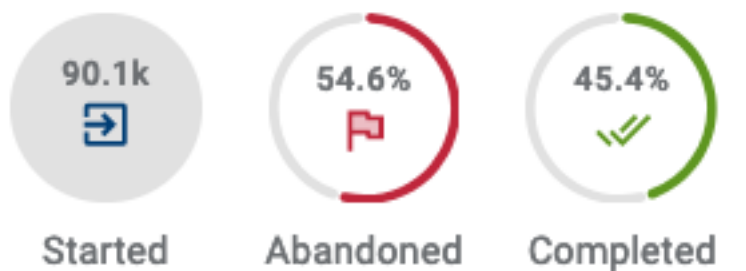
Bounced Total number of Bounced transactions during the selected time period.

Abandoned Total number of Abandoned transactions during the selected time period.

Completed Total number of Completed transactions during the selected time period.

Completion Rate

Completion Rate



Description

Started All transactions that were first opened during the selected time period, have had user interaction and are considered either Abandoned or Completed. This number excludes Bounced transactions and transactions that are currently in either Open or

User-Saved [status](#).

Abandoned

The percentage of Abandoned transactions compared to the number of Started transactions.

Completed

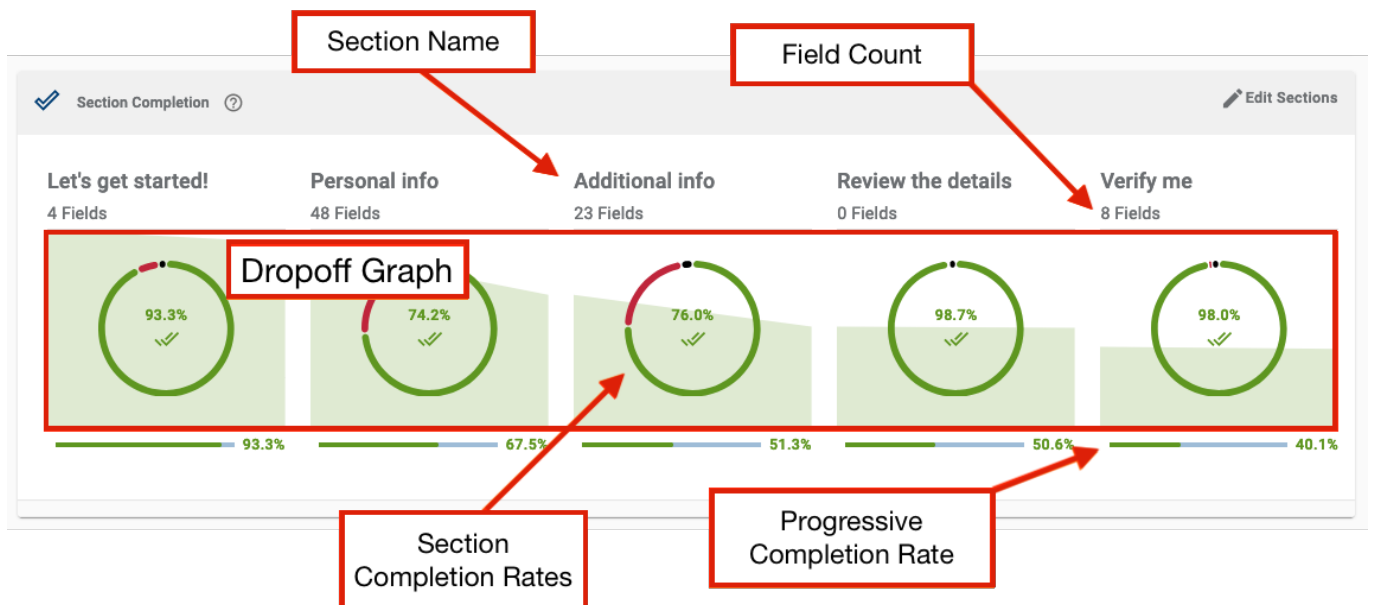
The percentage of Completed transactions compared to the number of Started transactions.

NOTE

Transaction volumes may differ between form transaction-level and section-level stats. This discrepancy is due to some users employing browser addons which block analytics event capture.

Section Completion

This area of the Dropoff View presents data for each section of the selected application in a detailed chart.



To better understand each part of the Section Completion, use the information below for each chart component:

Section Name

Personal info

The name of the section. Depending on implementation, this can represent the pages, sections, modals or dialogues of the applications.

By default, both modal and dialogue type sections are hidden. Use Edit Sections to toggle their visibility.

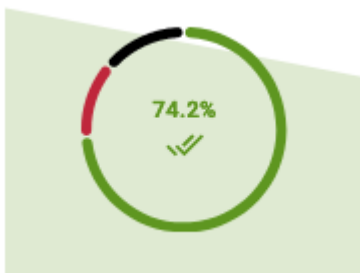
Field Count

48 Fields

The number of fields that users interacted with in each section displays below the name of the section.

The total field count in the form can be calculated by adding up field counts from each section.

Dropoff Graph



The starting height of the green line on the Dropoff Graph represents the the number of transactions where users navigated to the section. Then endpoint of the line for each section shows how many Completed the section.

Clicking an individual section will drill down to the field-level statistics of the section clicked. This is a shortcut that's equivalent to navigating to the [Field Analysis View](#) and selecting the same section manually.

Section Completion Rates



The Section Completion Rates doughnut chart displays the Bounce, Abandonment and Completion rates for each section.

The green rate for completion of the section is displayed by default. Hover over the colored wedges of the doughnut chart to show the corresponding metric at the center of the doughnut.

Hover over the rate in the center of the doughnut to see a more detail and a breakdown of the rates.

	Color	Description
Bounce	Grey/black	A user visited the page or section but did not interact with any fields in that section and Abandoned the transaction.
Abandonment	Red	A user visited the page or section, interacted with at least one field and then Abandoned the transaction.
Completed	Green	A user visited the page or section, filled in all mandatory fields, Completed that section and then proceeded to the following section.

Progressive Completion



The Progressive Completion Rate metric is shown at the bottom of each section.

This metric shows the percentage of users who completed that section compared to the number of users who Started the application.

Customize the Chart

Click the Edit Sections button to customize how the graph is displayed. In customization mode, you can toggle visibility, reorder, rename and combine sections in the graph.



Toggle Visibility - Click the eye button to show and hide the section in the graph.

Rename Sections - Click the Section Name to change the section label in the graph.

Reorder Sections - Click and drag any section from left to right then drop it between sections to change its position in the graph.

Combine Sections - Click and drag a section on top of another section to aggregate the data for both into a single section. On dropping the card, the Dropoff Graph, Section Completion Rates and Progressive Completion Rate are all recalculated using the aggregate data.

Any customizations applied are saved to your browser local storage so that you can quickly view the relevant sections on subsequent login. Reset will erase any saved customization and return the Section Completion Chart to the default names, order and visibility of the sections.

Section Completion Stats

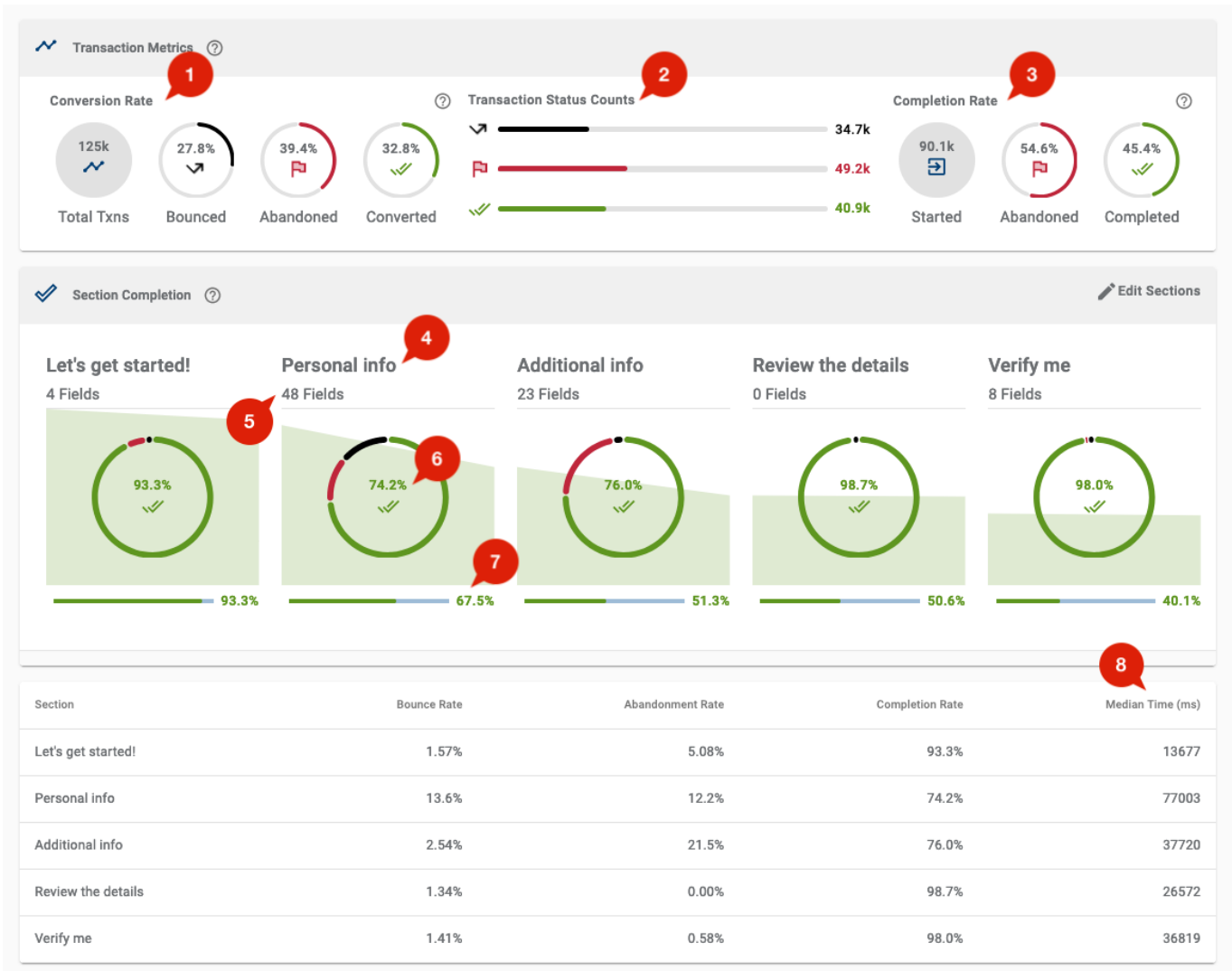
The Section Completion Stats presents the same information as the chart, but in a table format. Each row represents each section in the selected application.

Section	Bounce Rate	Abandonment Rate	Completion Rate	Median Time (ms)
Let's get started!	1.57%	5.08%	93.3%	13677
Personal info	13.6%	12.2%	74.2%	77003
Additional info	2.54%	21.5%	76.0%	37720
Review the details	1.34%	0.00%	98.7%	26572
Verify me	1.41%	0.58%	98.0%	36819

NOTE

A Section in Journey Analytics is equivalent to a Maestro Page or if using Transact Composer, a Section Level 1.

Example Analysis



To better understand real-life usage of the information presented in the Dropoff View, use the example screenshot and the key takeaways below.

Key takeaways

1

There were 125,000 transactions (rounded to the nearest 1000) where a user opened or navigated to the form, as noted by the Total Txns metric.

27.8% of the Total Txns were Bounced, or transactions that didn't receive any

user interaction after being [Opened](#).

39.4% were Abandoned transactions, or user attempts that did not succeed.

The remaining transactions were Converted. Conversion Rates are calculated based on all incoming traffic to the form, which includes robots, search indexers and other non-user activity. This is opposed to Completion Rates, which are calculated based on only the transactions where users actually interacted with fields on the form.

This shows the actual transaction counts ([rounded](#) to the nearest 1000) for each transaction status within the currently selected scope:

2

34,700 Bounced form transactions, where the form was opened or navigated to but no fields were interacted with.

49,200 Abandoned form transactions, where the form was opened, then [Started](#), but then the transaction was not completed.

40,900 Completed form transactions, where the form was opened, then [Started](#), and then the transaction was completed.

This shows only the form transactions where users actually interacted with fields, or [Started](#) the form, within the currently selected scope:

3

90,100 Started form transactions ([rounded](#) to the nearest 1000), or transactions where users actually interacted with fields.

54.6% Abandoned form transactions, or user attempts that did not succeed.

45.4% Completed form transactions, or user attempts that did succeed.

4

This indicates the Personal Info section of the form.

5

This indicates the field count of the Personal Info section. 48 unique fields received user interactions.

6

This indicates that, out of the total transactions where users navigated to the Personal Info section, 74.2% were able to complete the required fields for the section. However, the next section, Additional Info, has the highest rate of abandonment for any section in the form, indicating its a point of user friction or difficulty.

7

This indicates that the section has a 67.5% Progressive Completion Rate, which is the rate of transactions where users made it this far, by interacting with and completing this section, in comparison to the number of [Started](#) transactions. In applications where users progress in a linear fashion through the sections, like this example, this rate decreases for the later sections as some users did not progress.

8

This column indicates the median time that users spend interacting with each section. For the Personal Info section, the median time to complete is 77 seconds (77003 milliseconds), the most time-consuming section for users within the currently selected scope.

Next Steps...

When you've identified a section where users 'dropoff', click the section in the Section Completion chart to drill down and analyse user behavior for fields within the section using [Field Analysis View](#).

Field Analysis View

The [Journey Analytics](#) Field Analysis View displays detailed field-level statistics for a selected section (or All Sections) for all transactions within the selected scope. Use this view to identify abandonment hotspots, optimization opportunities and to understand how users interact with fields within the selected sections.

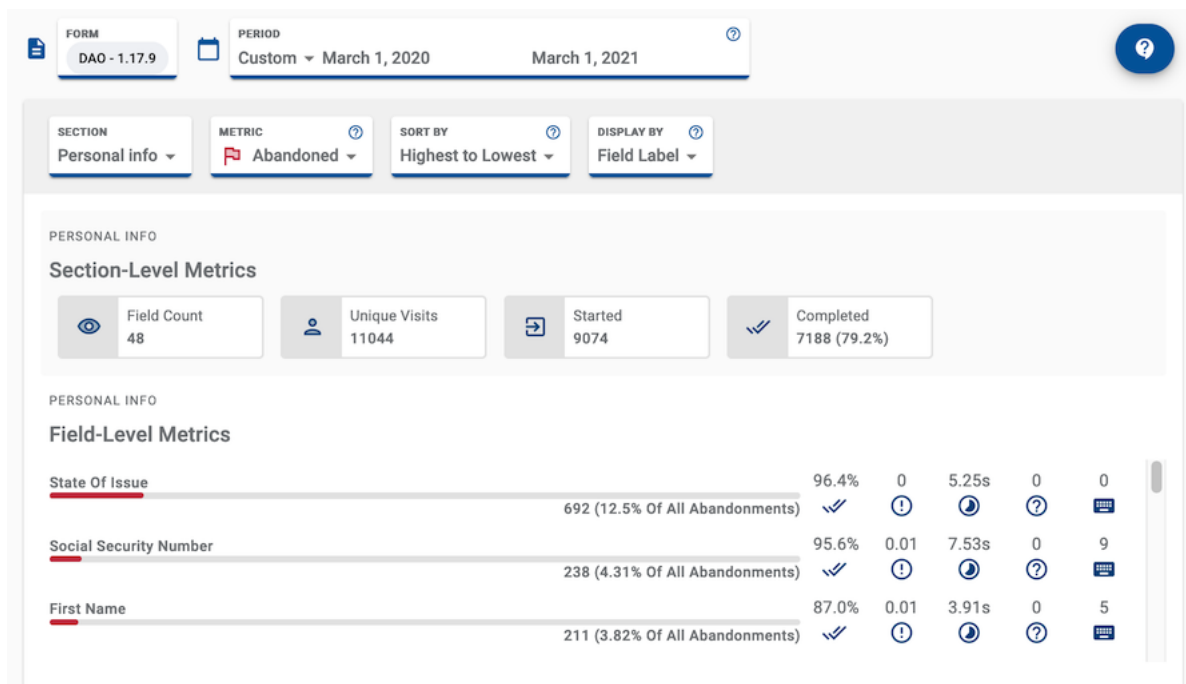
To use the Field Analysis View:

1. Navigate to Field Analysis View by one of two ways:
 1. Select Field Analysis from the [Navigation Panel](#).
 2. From [Dropoff View](#), click any section column on the Section Completion Chart to display the section's Field Analysis.
2. If not already set, select the [application and time period](#) to analyze.

NOTE

Only one version of an application can be selected at a time in the Field Analysis View.

3. The Field Analysis View displays.
4. Use options to filter the data to display.



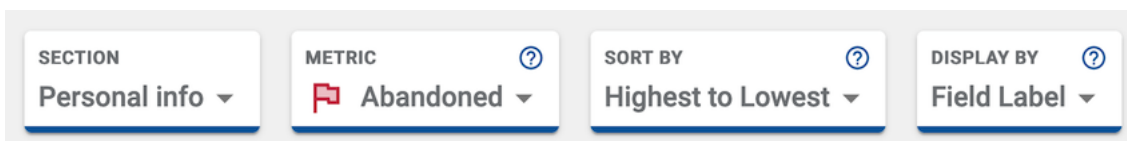
Components of the Field Analysis View

The Field Analysis View contains the following components:

- Field Analysis View options
- Section-Level Metrics
- Field-Level Metrics

Field Analysis View options

These options are used to change how and what data is displayed for both Section-Level and Field-Level Metrics.



Use Section to select a section, or All Sections, to analyze all fields in all sections of the application.

Use Metric to select different statuses of the applications to analyze, such as Keystrokes, Abandoned or Completed.

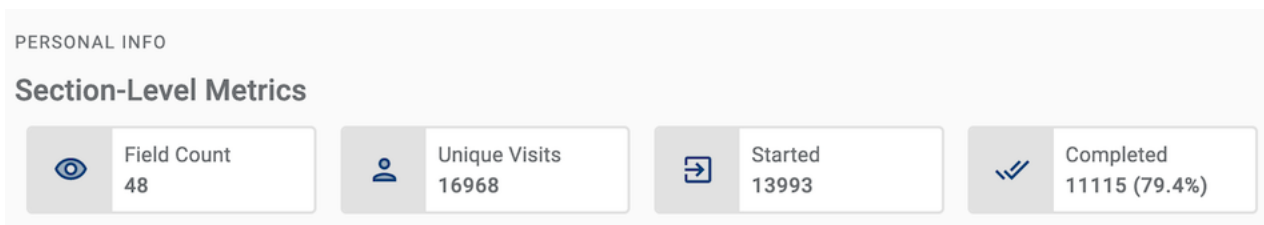
Use Sort by to sort by either:

- Natural Sequence - the order in which the fields appear in the application.
- Lowest to Highest - based on the selected metric and its score.
- Highest to Lowest - based on the selected metric and its score.

Use Display by to display the data by field label or field path.

Section-Level Metrics

These stats provide summary info for the sections selected and associated user transactions.



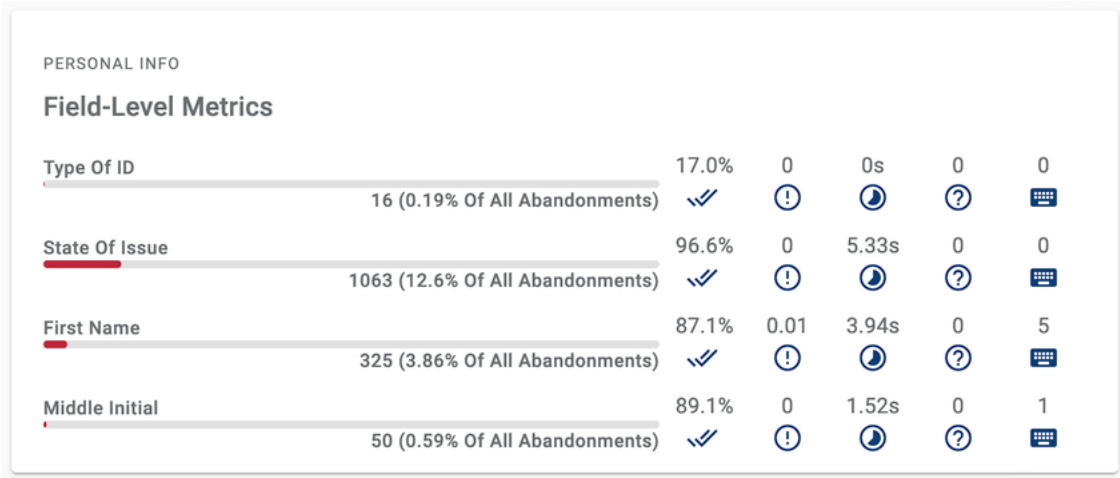
Statistic	Description
Field	The number of fields (that had user interactions) within the selected section

Count	
Unique Visits	The total number of transactions where users navigated to the selected section. The metric includes all transactions whether the user actually Started the section or immediately Bounced after navigation.
Started	Section-level Started count is the volume of transactions where the user interacted with fields in the selected sections.
Completed	Section-level Completion shows the volume and rate of user transactions which interacted with and completed the selected section. This option is not displayed for 'All Sections'.

Field-Level Metrics

These stats are at the field-level and can help you identify fields where users spend more effort to complete. Effort can be better understood by factoring in many stats like Keystrokes used, number of times Help info is viewed, Errors encountered, and looking to fields with higher rates of Abandonment.

For each field within the selected sections where user interactions occurred, the following stats are displayed:



To better understand each stat, use the table for reference:

Statistic	Description
First Name	Field-level Rate for Selected Metric - The field name (or path) and the rate for the selected metric 325 (3.86% Of All Abandonments)

87.1%



Completion rate - The rate at which users complete the field, expressed as a percentage of the total number of field commencements. Field commencements are recorded only if the field is interacted with or touched by a user.

0.01



Average Field Errors - The average number of times a field error occurs within a single transaction, includes validation and mandatory errors. Only the form transactions where users interact with the field are factored in.

3.94s



Median Time Spent - The median length of time that users took to complete the field after first interacting with the field.

0



Average Field Help - Average number of times the field help was used per form transaction.

5



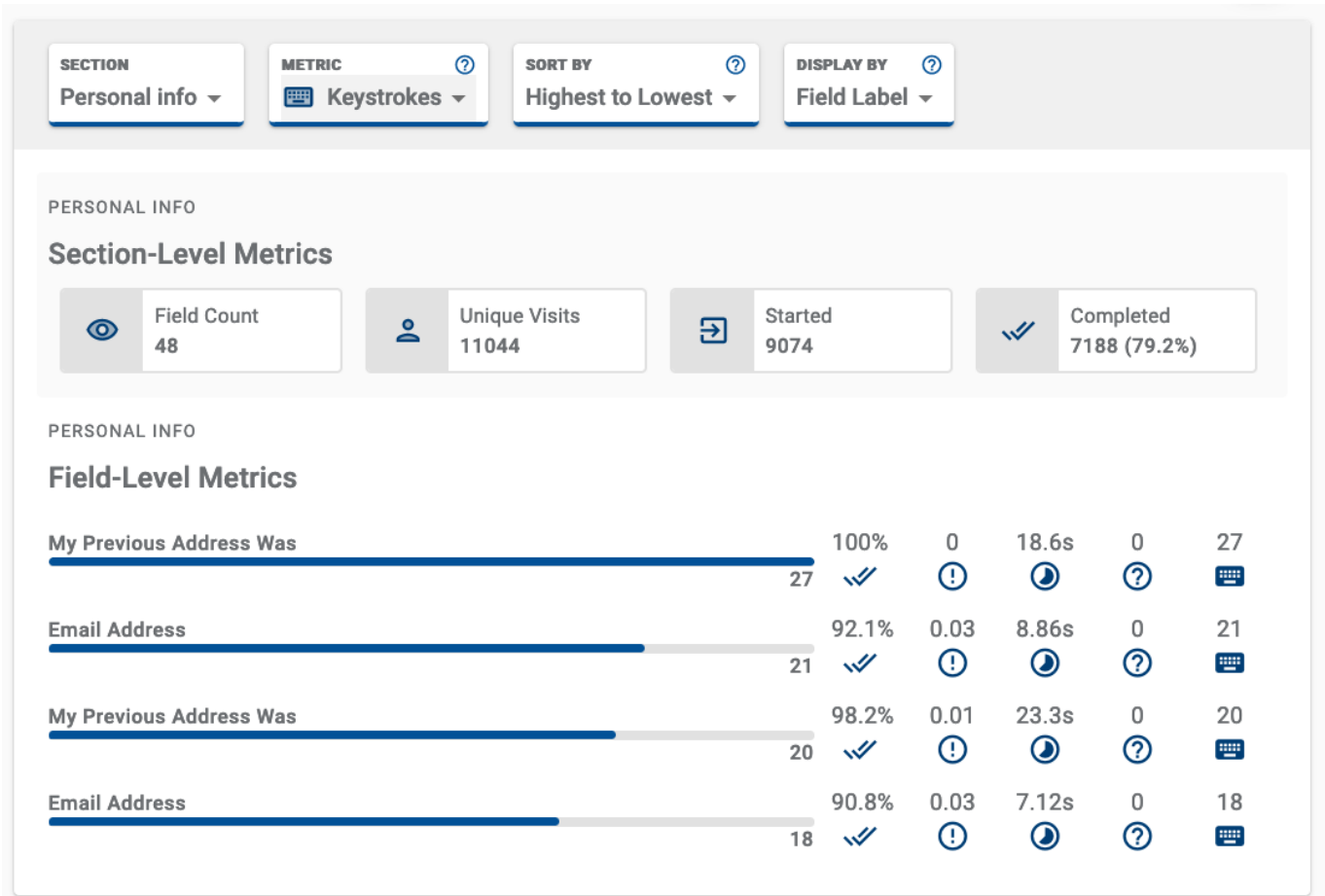
Median Keystrokes - The median number of keystrokes used to complete the field per form transaction.

Examples

Since various options exist for leveraging the Field Analysis View, please refer to these example analyses below to better understand the potential insights this view can provide.

Field Analysis Example - Keystrokes

From the Metric dropdown, choose Keystrokes to view a detailed keystroke analysis of each field in the section selected.

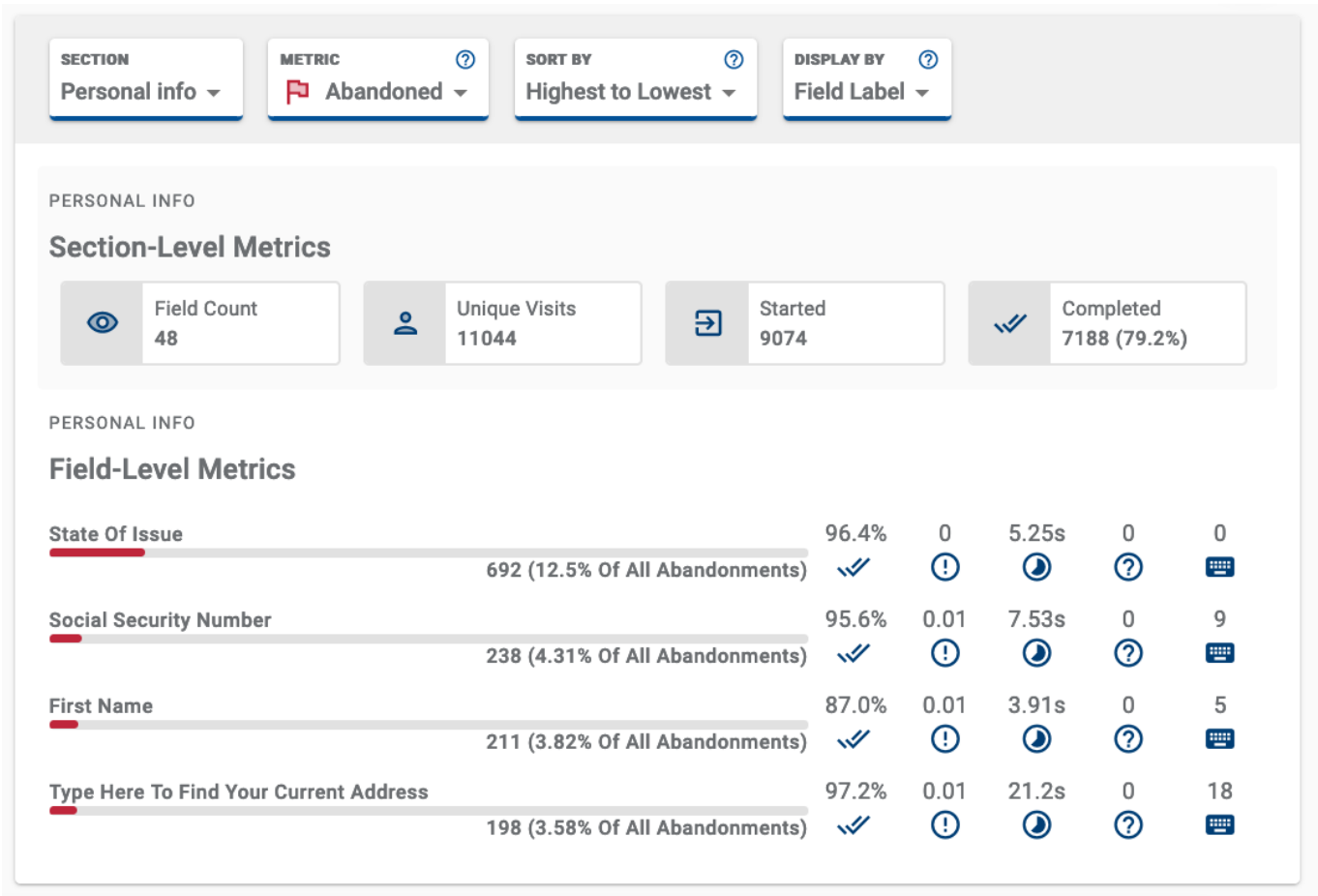


Note that for some fields, keystroke values may be zero, for example:

- A field will result in zero keystrokes if the user uses a radio button or dropdown, as no keystrokes are recorded for this type of field.
- A field that uses an auto-fill function will have no keystrokes associated, as the user is not required to enter anything into the field.

Field Analysis Example - Abandoned

From the Metric dropdown, choose Abandoned to take a look at field-level abandonment for each field in the section selected.

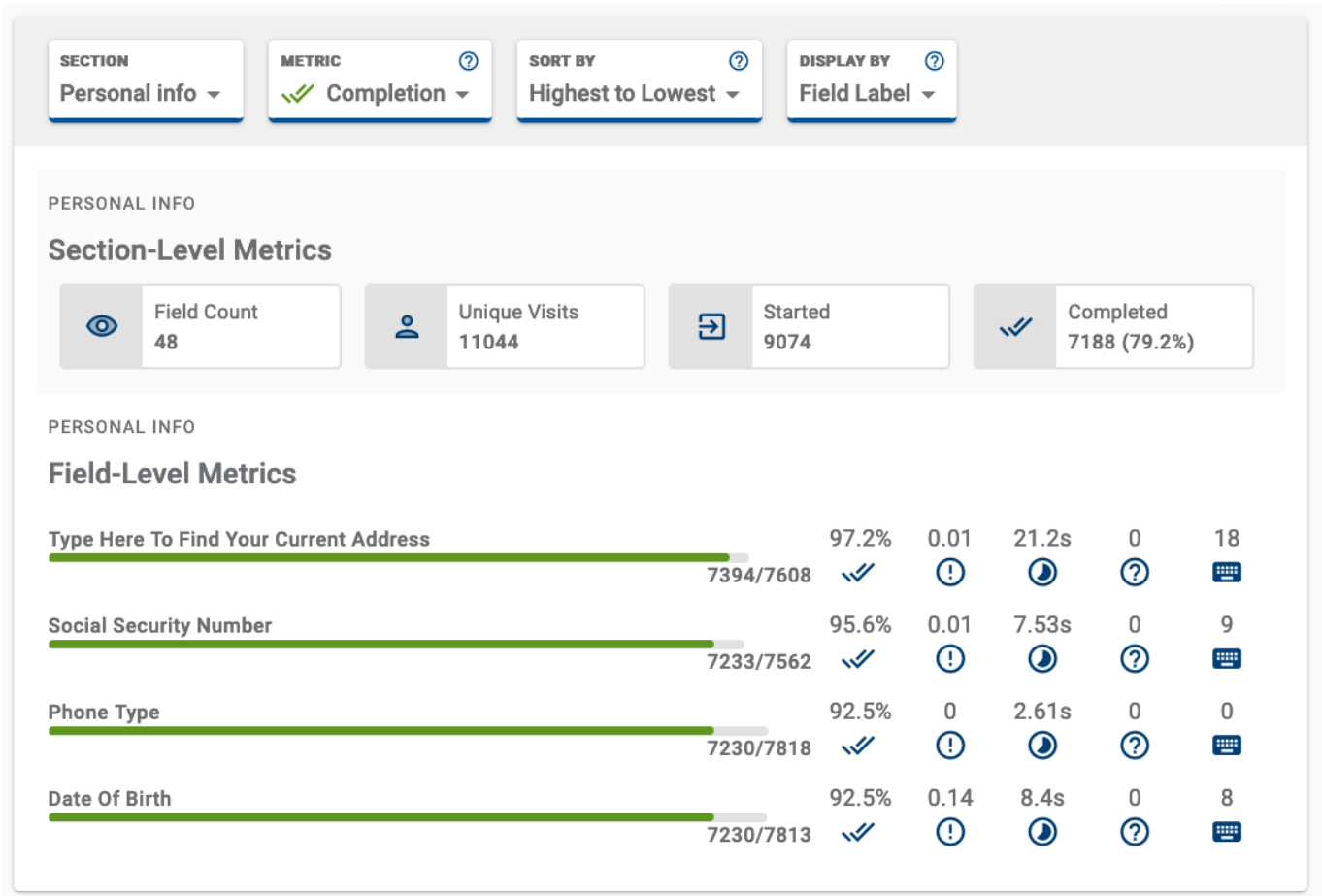


For each field, the field-level rate indicates the number of transactions where the field was the last to receive user interaction before the transaction was abandoned. In addition to the raw transaction counts, the ratio of total abandoned transactions is also displayed. It's important to examine the actual form design as the culprit field may be a field immediately before or even after the field associated with high abandonment.

Refer to the screenshot example and note the high rate of abandonment for State of Issue field. It may be the case that users face friction with State of Issue Field itself or that users look to the field immediately after State of Issue field, and decide not to proceed with the transaction. Because the last field interacted with in the section was the State of Issue field, its marked as an area of high abandonment.

Field Analysis Example - Completion

From the Metric dropdown, choose Completions to view a detailed analysis regarding which fields in the selected section are completed successfully.



For each field, the field-level rate indicates the number of transactions where the field was interacted with and completed vs. the number of transaction where this field was attempted. These are the raw figures used to calculate the Completion Rate for each field.

Next

Next, learn about [Export View](#).

Export View

The [Journey Analytics](#) Export View, allows you to export analytics reports to CSV with the ability to select the granularity of your reports and retrieve exports for multiple applications in a single file. This feature has been designed specifically to export the raw Journey Analytics data into a CSV file to perform further analysis.

Use the scope and period selectors to choose the application or forms and time period you want to analyze, then select the Report Type, Metrics and any Groups you want to show in the exported file.

To display the Export View:

1. Select **Export** from the [Navigation Panel](#).

FORM: Multiple Forms, Multiple Form Versions (25)

PERIOD: Last Year

Export

REPORT TYPE *

- Field-Level Statistics
- Section-Level Statistics
- Form-Level Statistics

METRICS *

- Abandoned
- Abandoned Rate
- Commenced
- Completed
- Completion Rate
- Field Sequence
- Median Field Duration
- Median Help Used
- Median Keystrokes
- Median Mandatory Errors
- Median Validation Errors

GROUP BY

- Browser Type
- Day Opened
- Device Type
- Form
- Form Version

Export

2. Select the [application and time period](#) to analyze.
3. Select the type of report you want using the export options.
4. Click **Export**. The **Export** button will be enabled when at least one Metric is selected.
5. The CSV file is downloaded to your **Downloads** folder.

Export Options

Options	Value	Description
---------	-------	-------------

Report Type	Fields	<p>Include field level statistics for all fields in the application. This option breaks down the data at the field level for the selected scope and metrics.</p>
	Sections	<p>Include section level statistics if the user interacts with any field in the section. This option breaks down the data at the section level for the selected scope and metrics.</p>
	Summary	<p>Include a summary of both field and section level statistics. This option exports a sum of all selected metrics for the selected scope.</p>

		Only include Completed transactions in report.
		Only include Commenced transactions in report.
	Completed	Only include Abandoned transactions in report.
	Commenced	Only include Completion Rate statistics in report.
	Abandoned	Only include Abandoned Rate statistics in report.
	Completion Rate	Only include Abandoned Rate statistics in report.
	Abandoned Rate	Only include Validation Error statistics in report.
Metrics	Median Validation Errors	Only include Mandatory Error statistics in report.
	Median Mandatory Errors	Only include Help Used statistics in report.
	Median Help Used	
	Median Field Duration	
	Median Keystrokes	

		Only include Field Duration statistics in report.
		Only include Keystroke statistics in report.
		See Transaction Status Flow for more information on transaction statuses.
		Breakdown data by application or form name.
		Breakdown data by form version.
Group by	Form	
	Form Version	Breakdown data by date transactions were opened.
	Day Opened	
	Browser Type	Breakdown data by browser type.
	Device Type	Breakdown data by device type.

Output CSV File Example

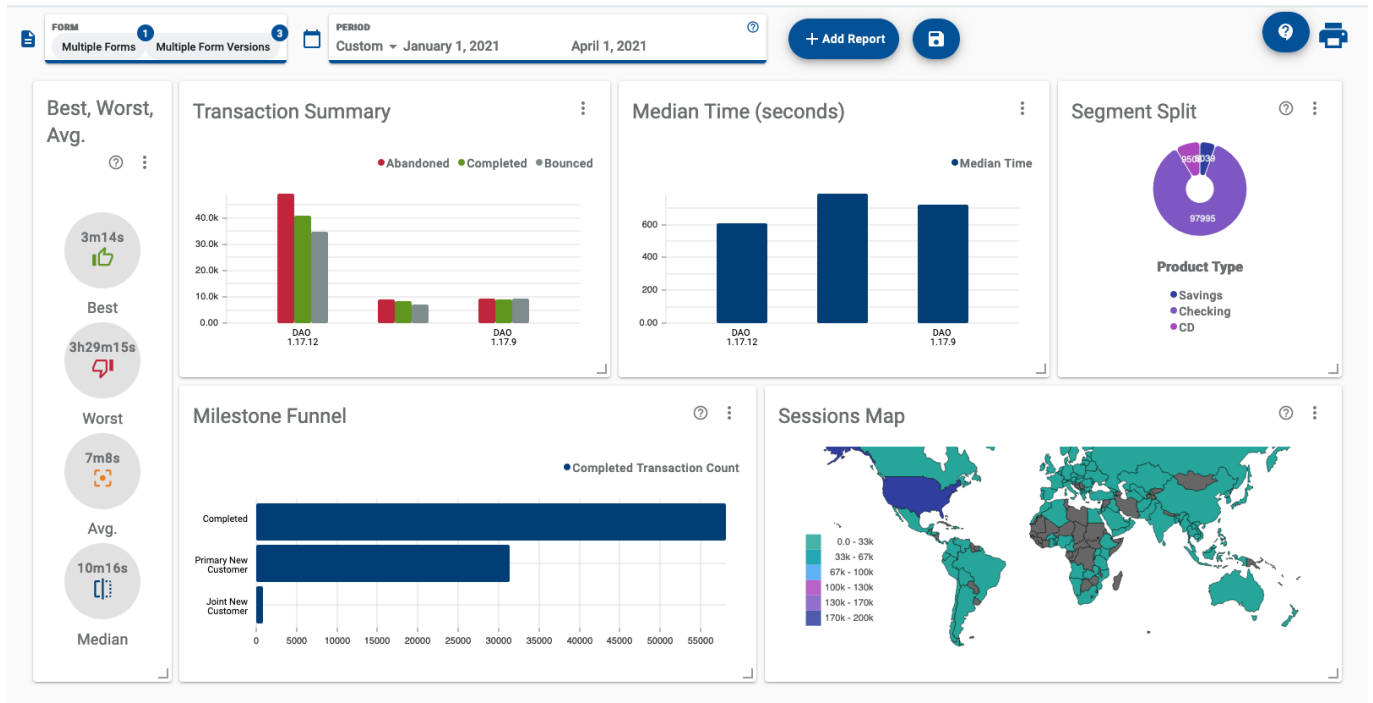
Field_path	abandoned_count	completion_rate	med_mandatory_error	med_keystrokes	med_help_used	commenced_count	abandoned_rate	med_validation_errors	completed_count	med_field_duration
AvokaSmartForm/TextField_6	0	1	0	10.571428	0	16	0	0	16	1.5714285
AvokaSmartForm/TextField_3	1	0.9285714	0	9.285714	0	14	0.071428575	0	13	1.7142857
AvokaSmartForm/Age_1	0	1	0	1	0	14	0	0	14	3.5
AvokaSmartForm/TextField_4	0	1	0	7.571429	0	15	0	0	15	1.2857143
AvokaSmartForm/OccupationSe	0	1	0	1.5	0	14	0	0	14	3
AvokaSmartForm/FirstNameSe	1	0.96428573	0	9	0	28	0.035714287	0	27	3.0555556
AvokaSmartForm/TextField_10	0	1	0	7.6666665	0	6	0	0	6	2.3333333
AvokaSmartForm/EmailAddress	0	1	0.5	21.25	0	7	0	0.5	7	8
AvokaSmartForm/Age	0	1	0	10	0	15	0	0	15	16
AvokaSmartForm/DatePicker	0	1	0	0	0	1	0	0	1	2
AvokaSmartForm/TextFieldValid	3	0.84210527	0.71428573	5.142857	0	19	0.15789473	0.71428573	16	2.7142856
AvokaSmartForm/LastName	1	1	0.083333336	15.666667	0	19	0.05263158	0.083333336	19	7.5833335
AvokaSmartForm/TextField_8	0	1	0	8.857142	0	13	0	0	13	1.2857143
AvokaSmartForm/TextField	2	1	0	7.875	0	21	0.0952381	0	21	1.5
AvokaSmartForm/MastersofAd	0	1	0	0	0	9	0	0	9	3
AvokaSmartForm/HowDoYouWii	0	0.5	0	0	0	6	0	0	3	2
AvokaSmartForm/TextFieldMan	26	0.9090909	0	5.7777777	0	111	0.23423423	0	101	2.1111112
AvokaSmartForm/TextField_2	1	1	0	9.375	0	17	0.05882353	0	17	2.5
AvokaSmartForm/Checkbox	0	1	0	0	0	10	0	0	10	1
AvokaSmartForm/ReasonForLoa	0	0.5833333	0	3	0	12	0	0	7	2.6666667
send_receipt_email	0	0	1	0	0	4	0	1	0	0
AvokaSmartForm/TextField_9	1	1	0	10	0	13	0.07692308	0	13	2
AvokaSmartForm/EmergencyFir	0	1	0	1.6666666	0	3	0	0	3	0.6666667
AvokaSmartForm/OccupationSe	0	1	0	2	0	14	0	0	14	3.5
AvokaSmartForm/TextFieldhelp	1	0.98058254	0	5.285714	1.4285715	103	0.009708738	0	101	3.2857144
AvokaSmartForm/TextField_7	0	1	0	8.428572	0	13	0	0	13	1.2857143
AvokaSmartForm/DateOfBirthDi	0	1	0	0	0	3	0	0	3	2.5
AvokaSmartForm/TextField_1	0	1	0	10.142858	0	16	0	0	16	2
AvokaSmartForm/EducationLeve	0	1	0	1.5	0	14	0	0	14	3
AvokaSmartForm/Email	0	1	0.33333334	16.333334	0	10	0	0.33333334	10	5
AvokaSmartForm/Location_1	0	1	0	1.5	0	14	0	0	14	2
AvokaSmartForm/EmergencyLas	0	1	0	3	0	1	0	0	1	1

Custom Reports View

The [Journey Analytics](#) Custom Reports View provides a customizable dashboard that makes it easy to compare the performance of your application versions, across many different metrics in a single view. This view is empty by default but multiple metrics can be displayed in the form of reports that can be arranged and resized on the screen.

To display the Custom Reports View:

1. Select Custom Reports from the Navigation Panel.
2. Select the [application and time period](#) to analyze.
3. To narrow down the types of transactions reported on, you can also use the [Global Filters](#) panel.
4. Click Add Report to select the type of report card you want to display.
5. Click and drag the report card into the desired location on the screen. If desired, add more report cards.
6. To configure the report card options, click \vdots and Configure, then click Apply.
7. To delete a report card, click \vdots and Delete.
8. Use the Save button and dialogue to store the set of reports and their configuration or to retrieve a saved set of reports.



Customize your view

Use these actions to craft your view:

Add Report button - Use this button to select additional reports to add to the view.
Rearrange reports - Click and drag any report to change its position in the view.
Resize corners - Click and drag the bottom-right corner of any report to resize it in the view.
Report Configuration - For many reports, additional configuration options are available to modify how the report is displayed. Click ⋮ in the top-right corner of any report to modify its configuration.
Save button - Use this button and dialog to save and retrieve your reports.

NOTE

Saving a Custom Reports set is currently confined to the browser local storage. So, if you open a new browser or clear your browser cache, you will not be able to retrieve your saved set of reports.

Available reports

Generally, a report targets a specific metric or type of metrics to provide specific insights into user behaviour. Refer to the list of examples below for details about how to use each available report.

[Best, Worst, Avg](#) - gauge the best, worst and average time taken to complete applications within the selected scope.

[Completion Rate](#) - examine application performance in terms of user completion for the selected scope in a bar chart.

[Duration Summary](#) - compare and sort the best, worst, average, and median times to complete each version in the selected scope using a table.

[Median Time](#) - compare the median time to complete each version in the selected scope as a bar chart.

[Milestone Funnel](#) - compare [standard](#) and [custom milestone](#) hit rates for the selected scope with a bar chart.

[Section Completion](#) - see completion across sections for the selected scope using a line graph.

[Section Summary](#) - compare and sort by section-level stats for each version in the selected scope in a table.

[Segment Split](#) - discover the breakdown of values of a [segment](#) type for all transactions within the selected scope using a pie chart.

[Segment Switch](#) - examine how users traverse values of a [segment](#) type for all transactions within the selected scope using a sankey graph.

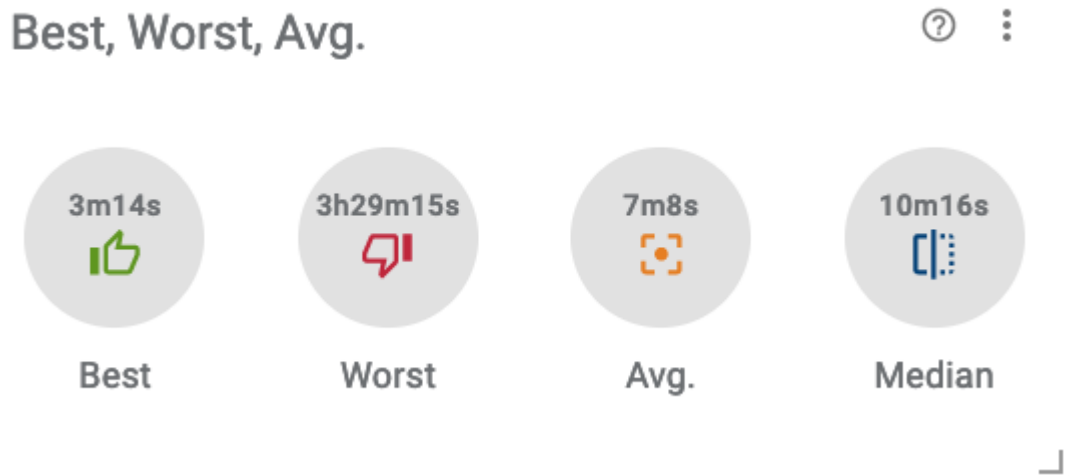
[Session Map](#) - investigate the number of sessions occurring per country for the selected scope using a choropleth graph.

[Top Fields](#) - compare and sort by field-level stats for each version in the selected scope in a table.

[Transaction Summary](#) - compare [Transaction Statuses](#) for the selected scope using this bar chart.

Custom Reports View - Best, Worst, Avg

This simple report displays the best, worst and average time taken to complete the applications set by the [Scope Selector](#). Use this information to gain a high-level understanding of the time it takes to complete an application or group of applications.



Configuration

Click  to modify the configuration options.

- Format - Change how durations are formatted on the chart.
- Show Median - Toggle to show median duration stats on the chart.
- Show Avg - Toggle to show average duration stats on the chart.

Example Analysis

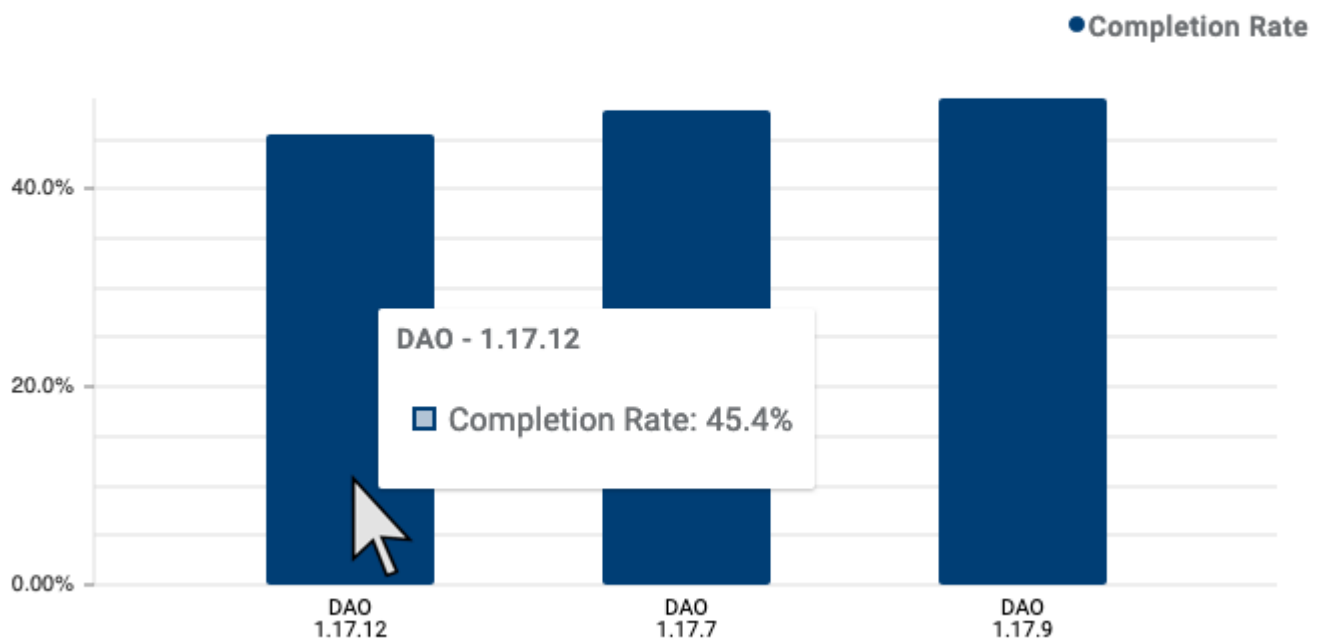
In the example screenshot, multiple versions are selected via the [Scope Selector](#) so duration data for the entire selection is aggregated. Key takeaways are:

- The best, or fastest, transaction took about 3 mins and 14 seconds to complete.
- The worst, or slowest, transaction took almost 3.5 hours.
- On average, users complete the form in just over 7 minutes.
- The median time to complete is 10 minutes and 16 seconds.

Custom Reports View - Completion Rate

This versatile bar chart shows the rate at which users complete each application version or completion rates over time (by week or by month). Configuration options can be used to aggregate and split the chart in various ways.

Completion Rate



Configuration

Click  to modify the configuration options.

- Split By - Toggle how the bars on the chart are grouped. Configure to show completion rates for each device type, form or form version.
- Aggregate By - Toggle how the x-axis is displayed. Select Week or Month to show change over time or use Form Version to view rates for each selected form version.
- Enable Grids - Toggle the grid markings on and off.
- Max Legend Items - Set the maximum number of legend items to display.

Example Analysis

In the example screenshot, multiple versions are selected via the [Scope Selector](#), so completion rates can be compared across each version. Key takeaways are:

- The hover tooltip, and the Y-axis, shows a completion rate of 45.4% for version 1.17.12.
- Relative to other versions, the user completion rate has slightly decreased in the latest version, 1.17.12.
- Completion rates for the 1.17.9 version were better than any other version.

Custom Reports View - Duration Summary

Use this table to compare and sort Best, Worst, Avg. and Median time taken to complete each selected form version.

Duration Summary



	Form Version	Best	Worst	Avg.	Median ↑
1	DAO - 1.17.12	0:03:29	3:30:04	0:07:14	0:10:08
2	DAO - 1.17.9	0:03:45	1:47:37	0:08:24	0:12:04
3	DAO - 1.17.7	0:04:21	1:59:23	0:09:11	0:13:09



Configuration

- No configuration options.

Example Analysis

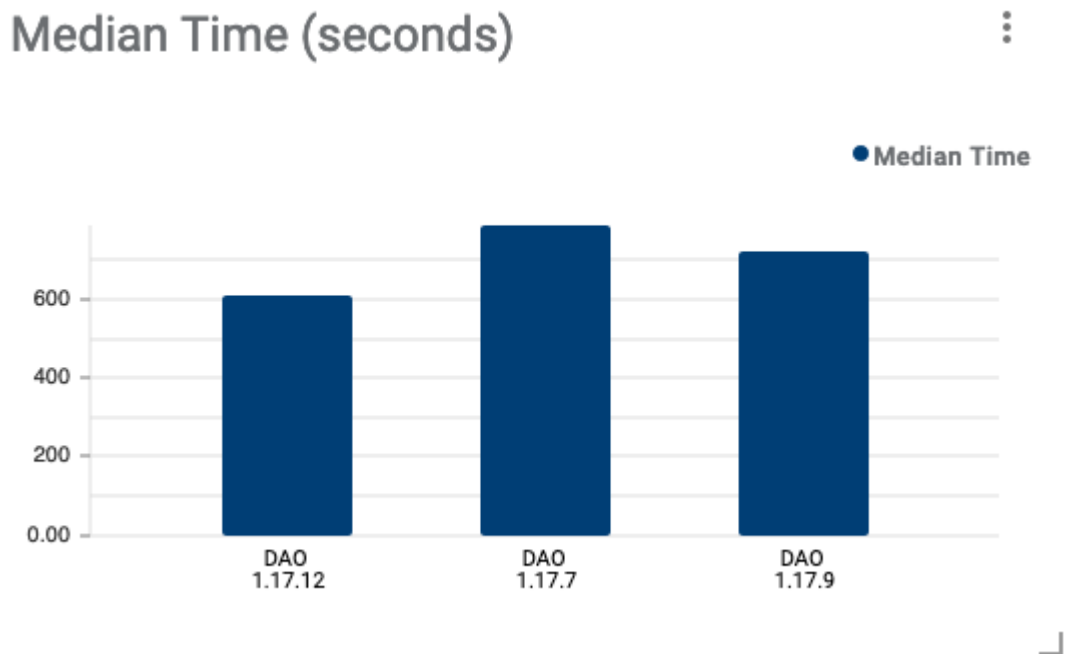
In the example screenshot, multiple versions are selected via the [Scope Selector](#), duration data for each version is listed separately. Key takeaways are:

- DAO - 1.17.12 form version takes less time for most users to complete, as per the Best, Avg. and Median durations.
- At the same time, DAO - 1.17.12 form version also has the longest duration for any version, 3 hours 30 minutes and 4 seconds.

When optimizing the user experience with each new form version, best practice is to reduce the time users take to complete the application because longer journeys typically lead to higher abandonment rates. On the face of it, each new version has an improved time to complete, even though this latest version encountered the worst duration.

Custom Reports View - Median Time

This simple bar chart shows the median time in seconds it took to complete each selected application version.



Configuration

Click  to modify the configuration option.

- Enable Grids - Toggle the grid markings on and off.

Example Analysis

In the example screenshot, three versions are selected via the [Scope Selector](#), so the three form versions can be compared. Key takeaways are:

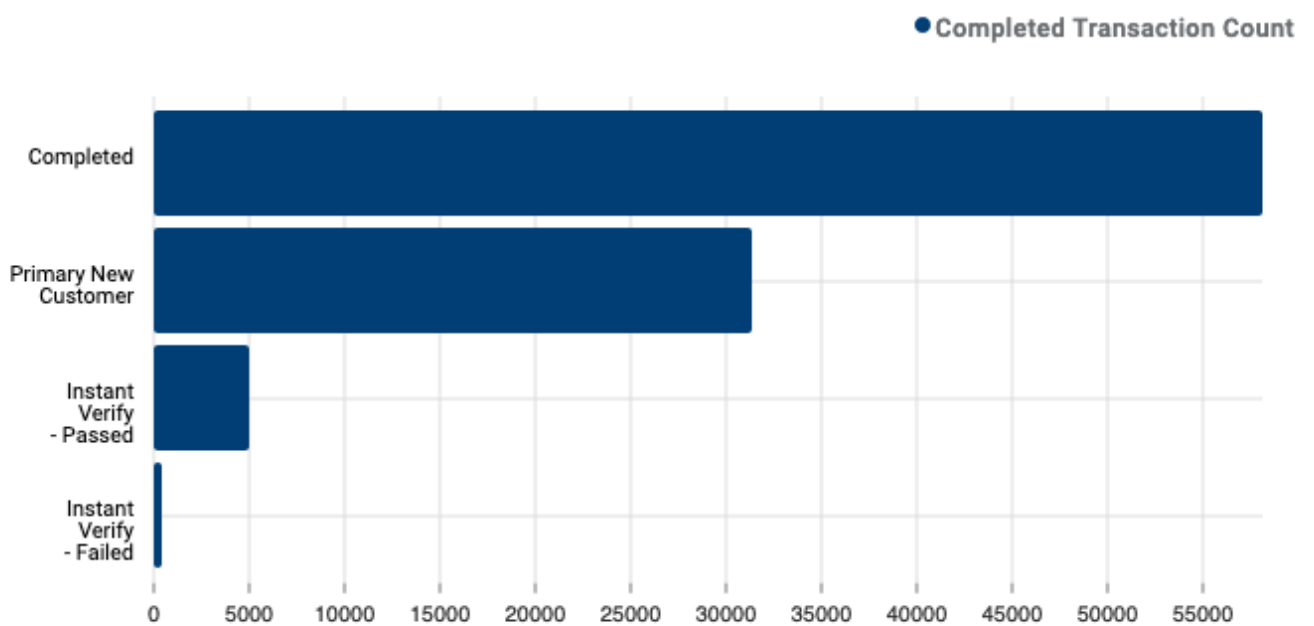
- It seems that version 1.17.12 is quicker for users to complete.
- Generally, the median time to complete each version has improved with each new form version.

This data supports the case that new optimizations are indeed working as expected to decrease the time users take to complete the application.

Custom Reports View - Milestone Funnel

This report displays the volume of transactions which reached each [milestone](#) selected in the report configuration. Use configuration to modify the target [transaction status](#). By default, transaction volumes for Completed transactions are displayed.

Milestone Funnel



Configuration

Click to modify the configuration options.

- Transaction Status - Choose the [transaction status](#) to target.
- Milestones - Select the [milestones](#) to show on the chart.
- Enable Grids - Toggle the grid markings on and off.

Example Analysis

In the example screenshot, multiple forms and versions are selected via the [Scope Selector](#), so the chart includes transactions from all the selected forms and versions. Key takeaways are:

- More than 55,000 transactions reached the Completed milestone.
- About half of all Completed transactions (30k) reached the milestone called Primary New Customer.
- More transactions reached the Instant Verify - Passed milestone than reached the Instant Verify - Failed milestone.
- Compared to the volume of Completed transactions, it is apparent that not many transactions encountered the Instant Verify at all.

In this example, custom [milestones](#) were implemented to evaluate usage of a new Instant Verify feature. In evaluating the feature, it seems most users did not choose to use the capability. However, for those users who do attempt to use Instant Verify, most are able to reach the Instant Verify - Pass milestone.

NOTE

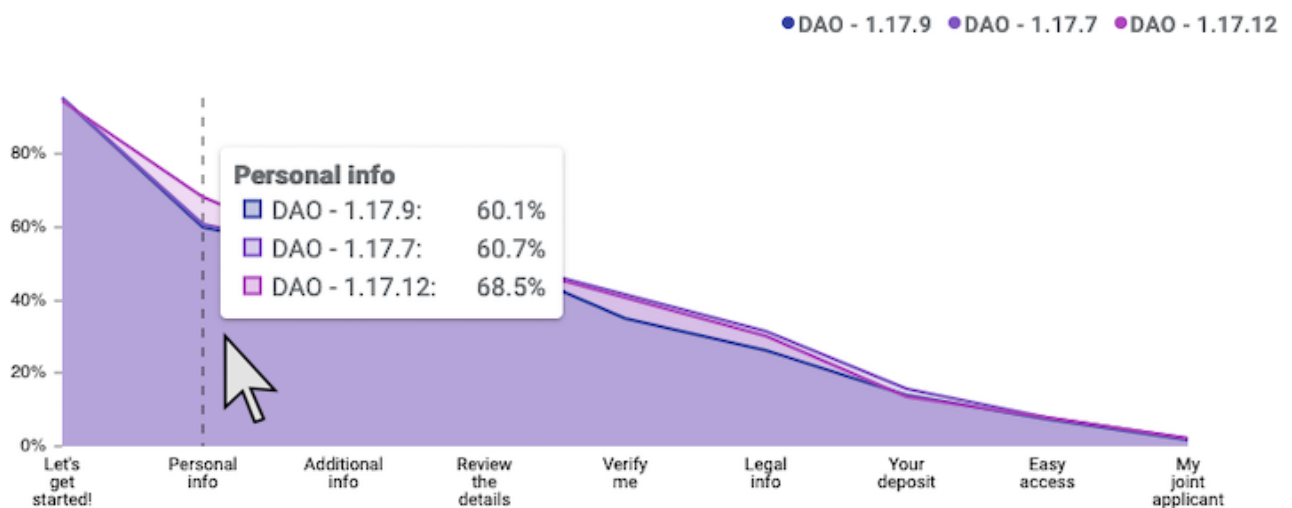
The milestone called Completed is standard milestone. You should make sure your custom milestone names do not clash with the [reserved milestone name](#).

Custom Reports View - Section Completion

This line chart highlights the rate at which users complete sections. Colored lines are drawn for each selected form version.

The x-axis represents each section (excluding modals and dialogs) and the y-axis and hover tooltip displays the rate of completion. The section sequence is deduced from transaction counts and is ordered across the x-axis from left to right. Use the report configuration to target specific sections. When multiple applications are selected, a line for each version is drawn on the chart.

Section Completion



Configuration

Click to modify the configuration options.

- Enable Dot Labels - Toggle display of rates for each section on the chart.
- Sections - Use this option to select which sections show on the chart. By default, all sections will display.
- Max Legend Items - Set the maximum number of legend items to display.

Example Analysis

In the example screenshot, multiple versions are selected via the [Scope Selector](#) which causes the chart draw different color trend lines for each version. Key takeaways are:

- As expected, we notice that most users are completing the sections which occur earlier in the journey like Let's get started! and Personal info.
- The least completed section at the end appears to be an optional section, only for joint applications, which would explain the lower number of completions.
- In the hover tooltip, we see the Personal Info section is associated with an increased completion rate of 68.5% for the latest version, 1.17.12.

Optimizations to the Personal info section appear to have led to more user completion for the section. This chart corroborates that those optimizations are working as intended.

Custom Reports View - Section Summary

This report is a table for comparing and sorting section-level stats for each section. Each table row lists the Section Name as well as the transaction counts for each form version. This data is presented as raw counts and makes it easier to compare the volume of transactions between the versions and sections.

Section Summary



Completed Transactions

	Section Name	DAO - 1.17.9	DAO - 1.17.7	DAO - 1.17.12 ↓
1	Let's get started!	17074	16113	84142
2	Personal info	10738	10248	60797
3	Additional info	9379	8867	46224
4	Review the details	9238	8759	45627
5	Verify me	6252	7030	36096
6	Legal info	4666	5332	26814
7	Your deposit	2492	2701	12264
8	Easy access	1318	1359	6988
9	My joint applicant	350	372	1939

Configuration

Click  to modify the configuration options.

- Metric - Choose the [transaction status](#) or metric to target.
 - Commenced Transactions - Show the number of transactions which started the section.
 - Completed Transactions - Show the number of transactions which completed the section.
 - Field Count - Show the number of fields within each section.

- Abandoned Transactions - Show the number transactions in which the section was the point of abandonment. This indicates it was the last section to receive user interaction before the user abandoned.

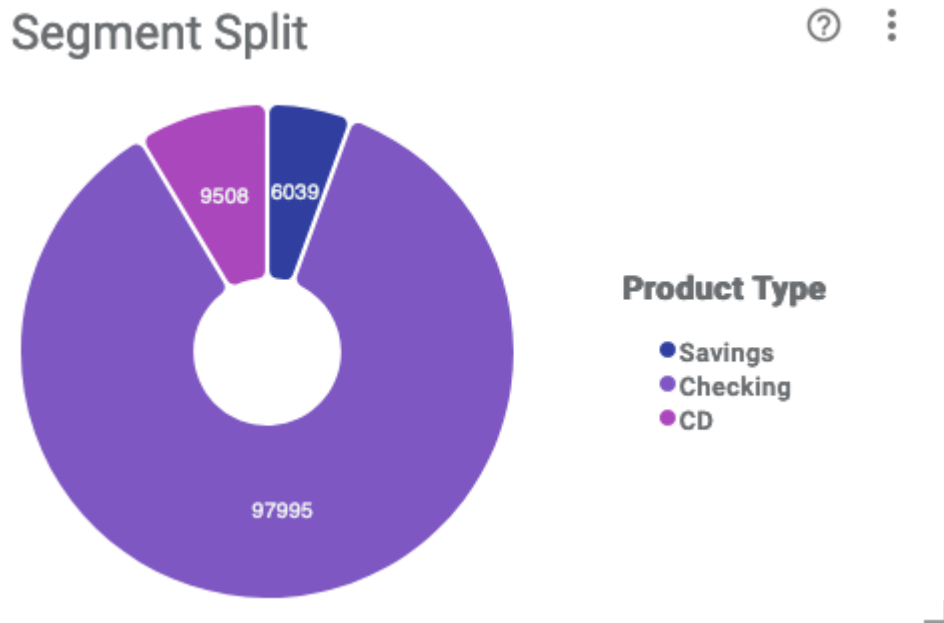
Example Analysis

In the example screenshot, three form versions are selected via the [Scope Selector](#), so three columns are shown in the table. Key takeaways are:

- The table has been sorted by version DAO - 1.17.12 to highlight completed transaction counts from high to low.
- The bold values indicate the highest value for the section.
- The number of transactions associated with DAO - 1.17.12 is much greater compared to other versions.
- A relatively small volume of transactions completed the section called My joint applicant.

Custom Reports View - Segment Split

This pie chart shows the breakdown of [segment](#) values that were received for a specific segmentation, or segment type, for transactions within the selected scope. The visualization can be used to evaluate and measure segment values that occur during transactions.



Configuration

Click  to modify the configuration options.

- Segment - Set the [segmentation](#), or segment type, to target. Available options are based on the selected form.
- Group Smallest Values - If many segment values exist, use this option to group lower values as Others.
- Max Legend Items - Set the maximum number of legend items, or segment values, to display.

Example Analysis

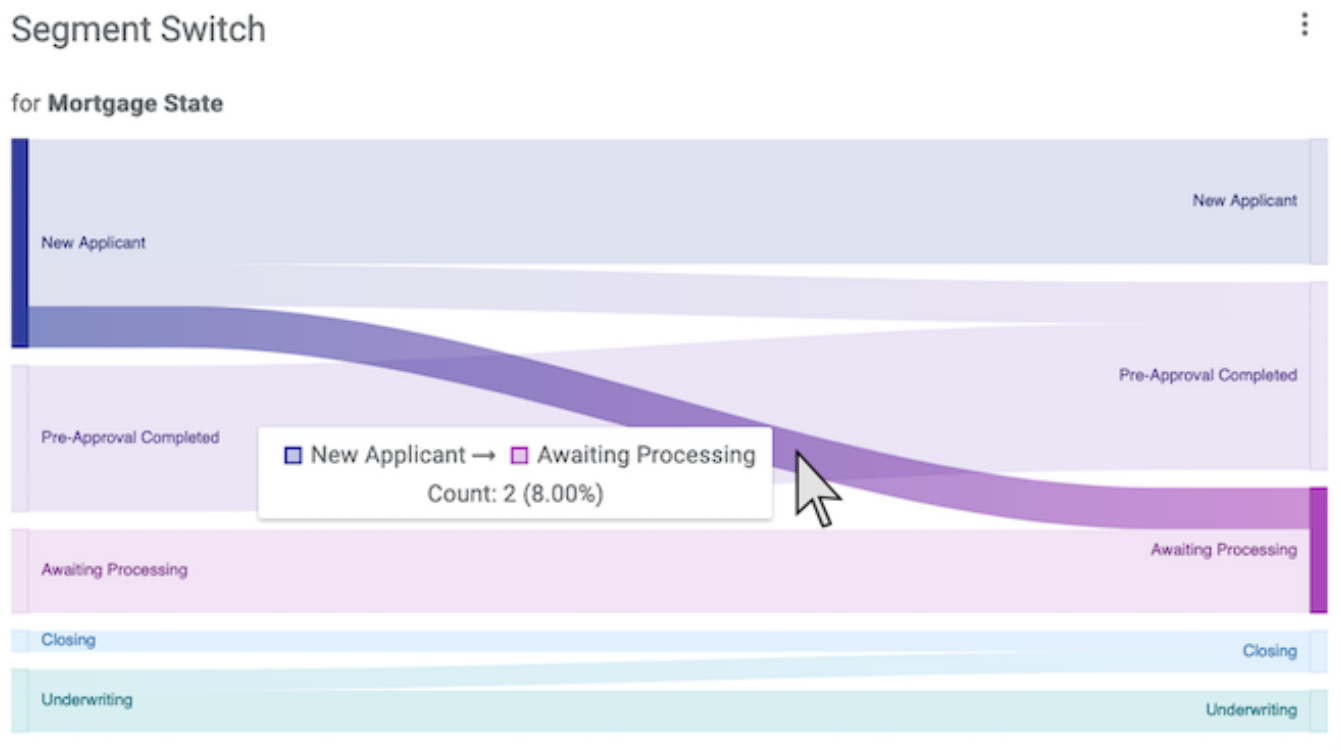
In the example screenshot, multiple versions are selected via the [Scope Selector](#), so segmentation data from all selected applications display in a single pie chart. Key takeaways are:

- The pie chart shows a breakdown of segment values within the Product Type segment type.

- For transactions with Product Type segment types, segment values include Savings, Checking and CD.
- The chart indicates that most of the Product Type segmentation is from users applying for Checking accounts.

Custom Reports View - Segment Switch

This sankey chart, or flow diagram, highlights how [segment](#) values, within a specific segment type, change during transactions. The visualization shows the flow from initial segment values to final segment values for the selected segment type. This chart is used to evaluate and measure improvements for segment switching.



Configuration

Click  to modify the configuration option.

- Segment - Set the [segmentation](#), or segment type, to target. Available options are based on the selected form.

Example Analysis

In the example screenshot, multiple versions are selected via the [Scope Selector](#), so segment data for the entire selection is shown in a single chart. Key takeaways are:

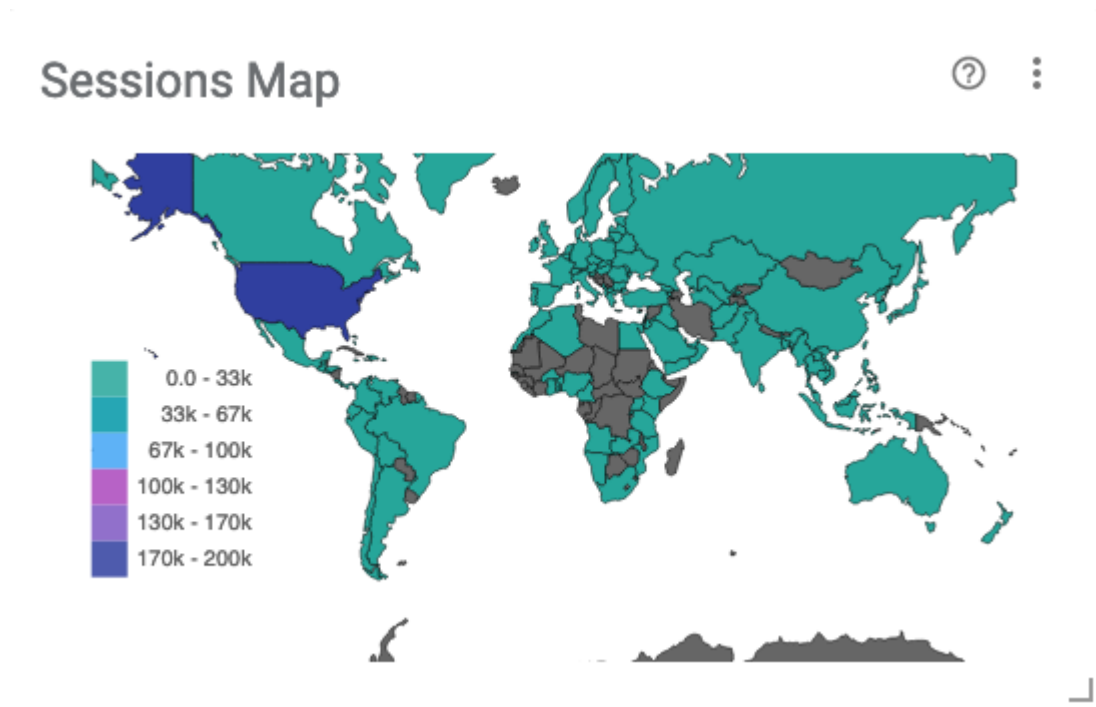
- The chart shows how segment values change over the course of a transaction for the segment type called Mortgage State. The segment type tracks end users' mortgage status throughout the transaction.

- The hover tooltip shows that 8%, or two transactions, began with the New Applicant segment value and then ended the transaction with Awaiting Processing.
- Some user transactions transitioned from New Applicant to Pre-Approval Completed.
- Some user transactions also transitioned from Underwriting to Closing.

This graph suggests that most users start and end the transaction without transitioning through Mortgage Status segment values. Generally, users appear to struggle to advance their status within a single transaction.

Custom Reports View - Session Map

This choropleth map indicates the number of sessions occurring per country. A single transaction may be comprised of one or more sessions, such as when a user saves and resumes a transaction. This information can be used to evaluate global engagement and understand which locations users are coming from.



Configuration

- No configuration options.

Example Analysis

In the example screenshot, multiple versions are selected via the [Scope Selector](#), so the number of sessions for all selected forms displays on the map. Key takeaways are:

- It seems clear from the chart that most sessions were from users located in USA.
- It appears that no sessions were from users located in central Africa or Antarctica, indicated by grey.

Custom Reports View - Top Fields

This report is a table for comparing and sorting field-level stats such as Abandonment, Completion rate, or Median Time to complete transactions. This data is presented as raw counts and can be used to compare the volume of transactions between the versions.

Top Fields

by Abandoned Count

Field	DAO - 1.17.9	DAO - 1.17.7	DAO - 1.17.12 ↓
1 Social Security Number	336	382	6684
2 Would you like an individual or joint account?	1210	1079	5519
3 Yes, I am	1319	1267	5300
4 I've lived at this address for less than a year	40	24	2677
5 Promo Code	171	158	1849
6 Date of Birth	251	202	1638
7 First name	313	271	1566
8 Suffix	43	46	1375
9 Which of the following best describes your occupation?	—	—	1213

Configuration

Click  to modify the configuration options.

- Metric - Choose the [transaction status](#) or metric to target.
 - Abandonment - Shows the number of abandoned transactions in which the field was the last to receive user interaction.
 - Completion - Shows the number of times each field was completed.
 - Median Times - The median time it took to complete each field.
- Label Fields By - Change the labels to use field path or name.
- Limit - Specify a limit to the number of fields shown.

Example Analysis

In the example screenshot, because three versions are selected via the [Scope Selector](#), the three form versions' field-level statistics can be compared. Key takeaways are:

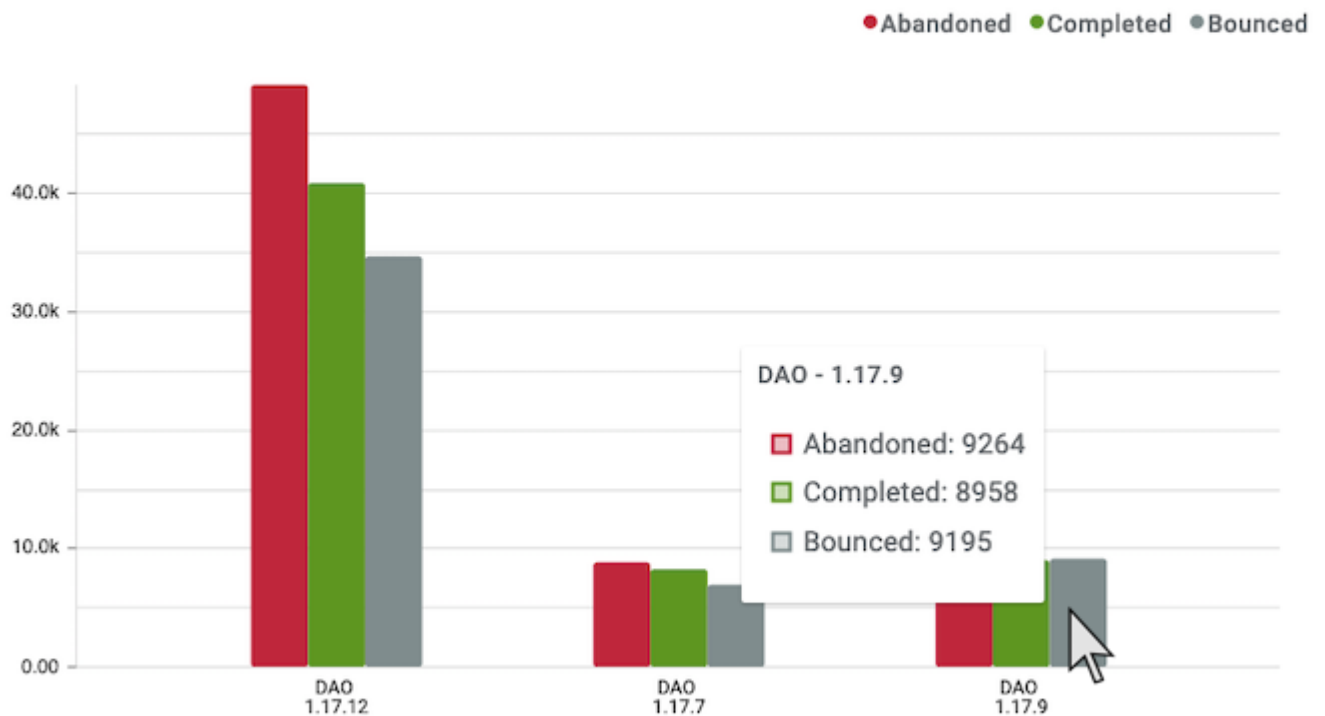
- The configured metric is Abandonment which shows Abandoned Count for each field. This shows the number of abandoned transactions in which this field was the last to receive user interaction (before the user abandoned).
- The bold values indicate the highest value for the field.
- The table has been sorted to show abandonment counts for DAO - 1.17.12 from high to low.
- For DAO - 1.17.12, the Social Security Number field seems to have rather poor performance relative to other fields.

The high abandonment could be due many factors but the Social Security Number field is indicated as an investigative starting point.

Custom Reports View - Transaction Summary

This simple grouped bar chart displays Abandoned, Completed and Bounced [transaction status](#) counts for each selected form version. It is useful for comparing the volume of transactions, and transaction statuses, between the versions.

Transaction Summary



Configuration

Click  to modify the configuration option.

- Enable Grids - Toggle the grid markings on and off.

Example Analysis

In the example screenshot, multiple form versions are selected via the [Scope Selector](#), so [transaction statuses](#) for each version display. Key takeaways are:

- The hover tooltip, and the y-axis, indicate the number of Abandoned, Completed and Bounced transactions for version DAO - 1.17.9 of the form.

- It appears that there was a significant increase across all types of transactions in version DAO - 1.17.12.

Version DAO - 1.17.12 saw much more overall user traffic than the other versions. Perhaps, this increase in traffic demonstrates the success of a new campaign launched with that version.

User Journey View Overview

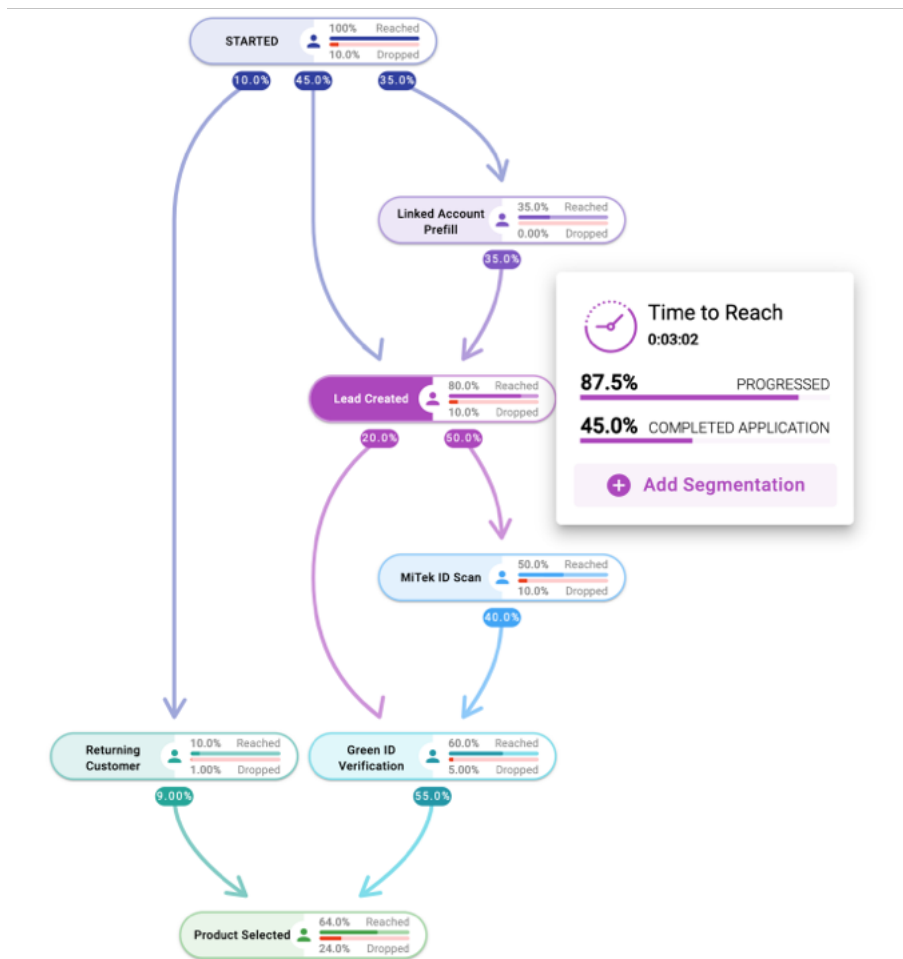
The [Journey Analytics](#) User Journey View is available from v18.05 and presents an easy to follow diagram that illustrates all possible journey paths taken by users through an application.

By default, the User Journey graph shows the standard milestones Started and Completed. Using custom milestones, sent via Milestone APIs from a [supported](#) application or host system, you can customize the nodes that display on the graph. You can select one or more [custom milestones](#) to display the most relevant data for analysis.

Important:

- Each node in the graph represents a milestone.
- At each milestone, the number of users who reached this point in the journey are shown.
- Also, the number of users who reached this milestone, and dropped out of the application is shown.
- Additional metrics are presented when a milestone is selected.
- Segmentation charts, which let you break down each milestone encountered, can be added for any of the displayed milestones.
- Any number of segmentation charts can be added, on any milestone, as long as they are pre-configured and associated transactions have occurred.

User Journey View

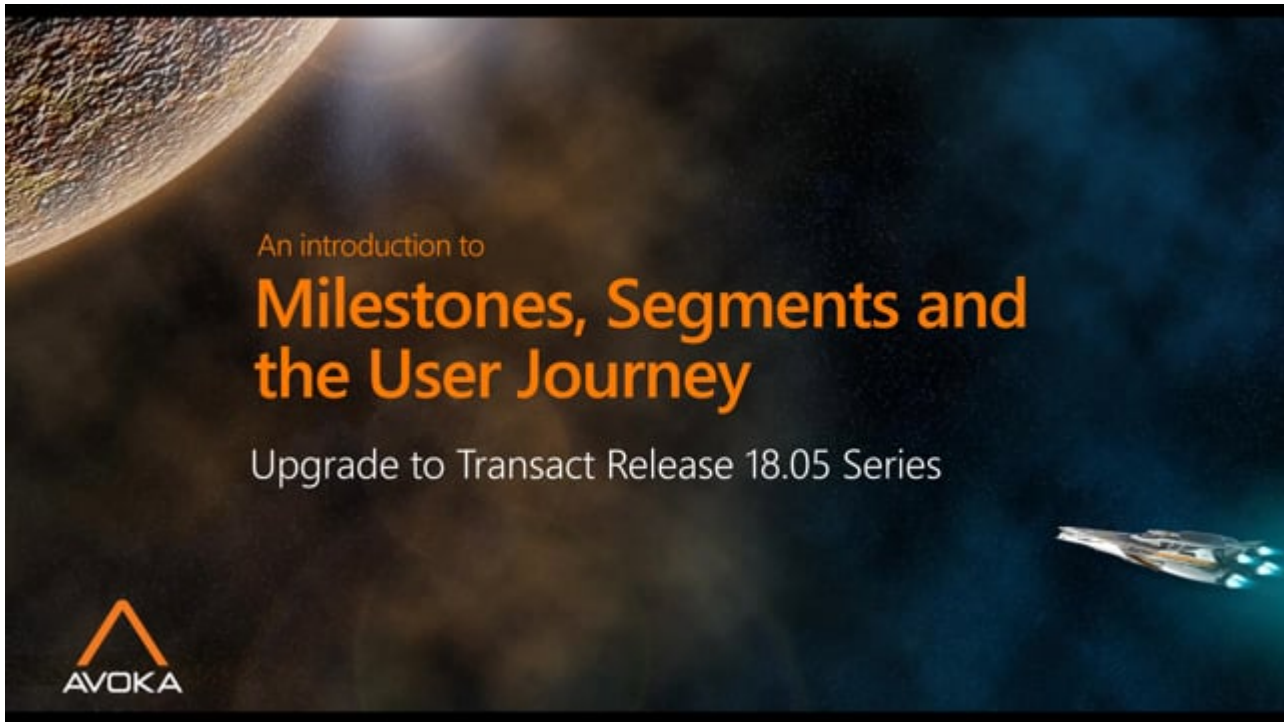


Tip

To monitor changes to User Journeys over time, it is recommended to use [form versioning](#) in Maestro to isolate particular versions of a form, and to carefully select the timeframes the specific form versions were in use, to use as a comparison.

Video

Watch the video for an introduction to the User Journey View, Milestones and Segments.



Next

Next, learn about [Using the User Journey View](#) and [How to Send Custom Milestones and Segments](#).

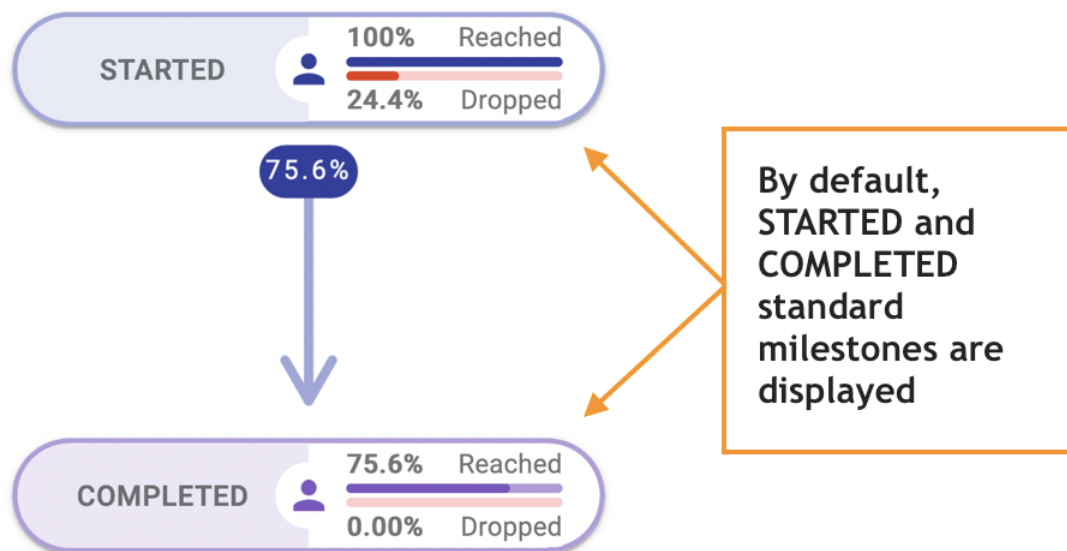
Using the User Journey View

To access the [User Journey View](#) of [Journey Analytics](#):

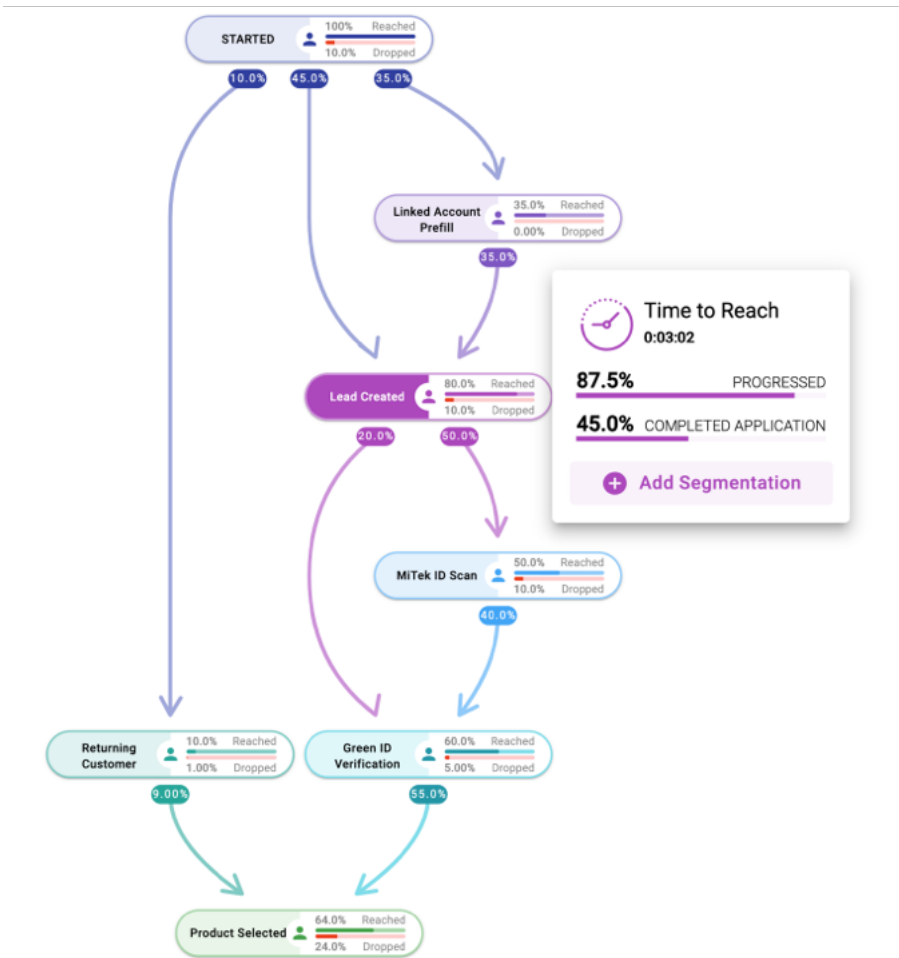
1. Select User Journeys from the [Navigation Panel](#).
2. Select the [application and time period](#) to analyze.

To monitor changes to User Journeys over time, it is recommended to use [form versioning](#) in Maestro to isolate particular versions of a form, and to carefully select the time-frames the specific form versions were in use, to use as a comparison.

3. The User Journey View displays with just the Start and Finish milestones.



4. Select the pre-configured custom milestones in the application from the Milestones drop-down menu.
5. Click Apply or OK to add those milestones to the User Journey View.
6. The User Journey View now shows the custom milestones in the application.



In this example, LinkedIn Prefill, MiTek ID Scan, Green ID Verification and Returning Customer custom milestones were selected and now appear in the User Journey View.

By adding the custom milestones it is now possible to see how users are progressing through the different paths towards the eventual completion of the application.

The percentage on the User Journey path represents the number of users that took that path to the next milestone. Hover over the individual milestones and paths to highlight them.

Additional milestone metrics

To understand the impact of a milestone on application completion rates, click on the milestone to display more useful metrics.



Additional metrics:

- Median time for users to reach the milestone from the start of the application.
- Percentage of users, who reached this milestone, who then progressed onto other milestones in the application.
- Percentage of users, who reached this milestone, who eventually completed the application.

On the popup, use the Add Segmentation link to segment the users who reached this milestone by adding a segmentation chart.

NAVIGATION TIP

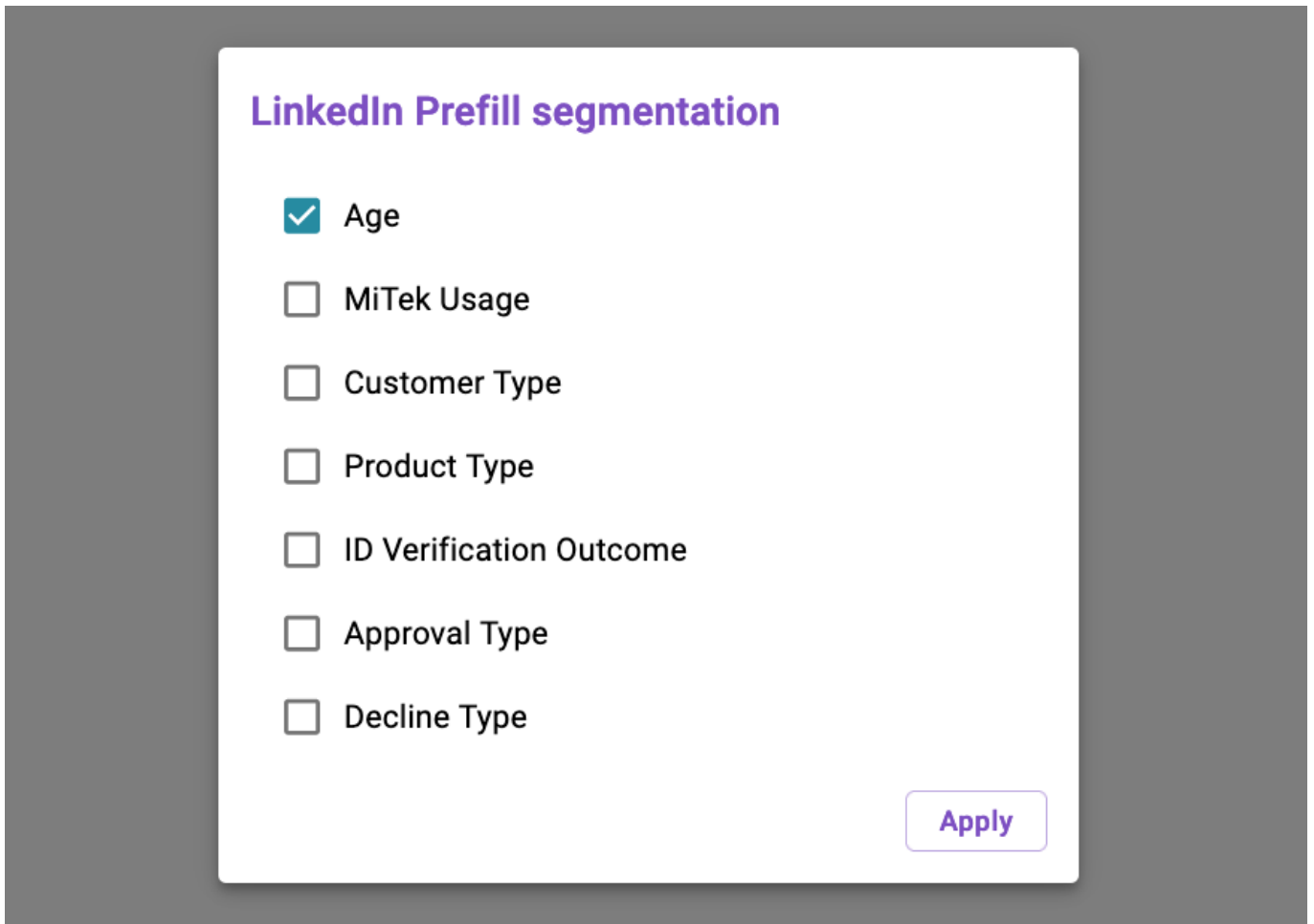
To move around a large User Journey View with multiple milestones, hover over the milestones and user journey paths to highlight them, and scroll to zoom in and out. To move the User Journey View around the screen, click and drag the diagram.

Add Segmentation Charts

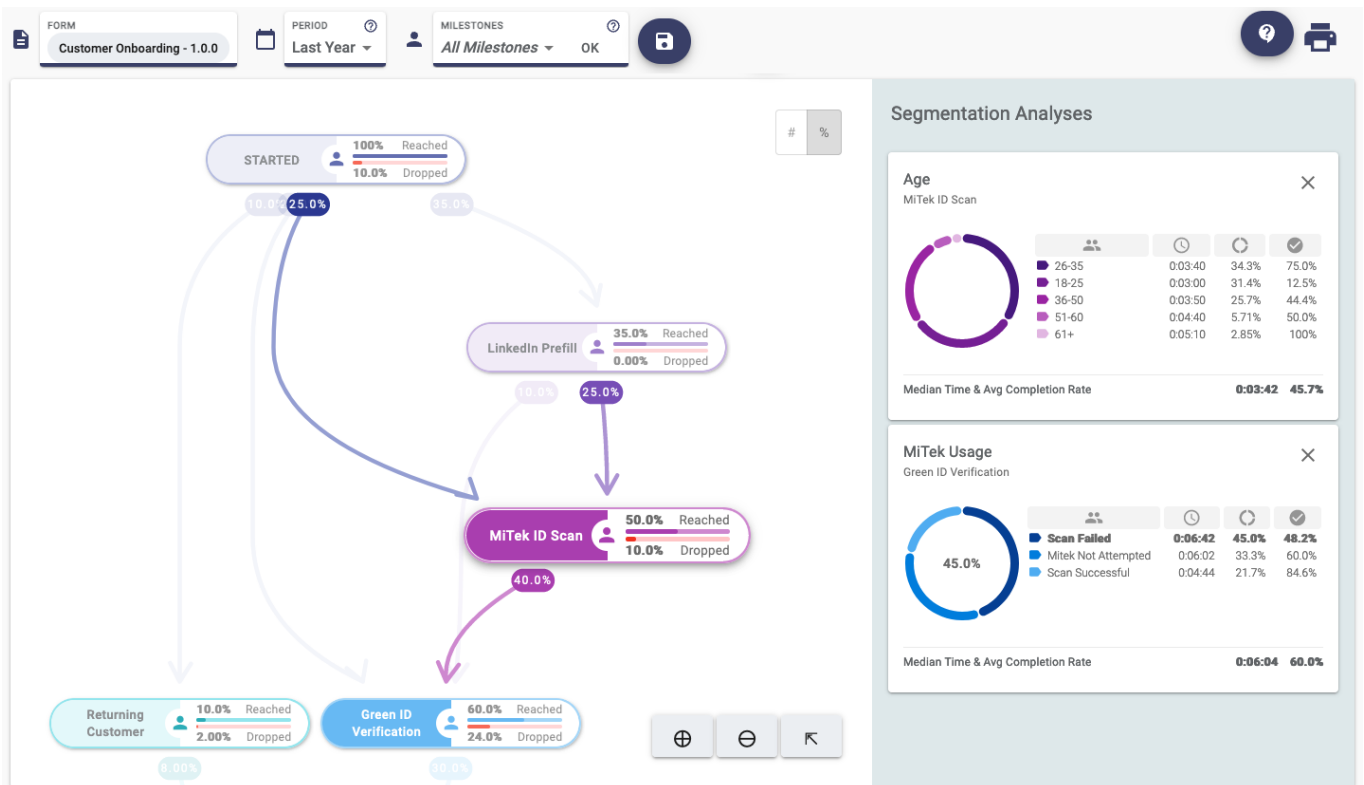
If you have broken up your users into segments or groups by sending custom segment events from a [supported](#) application, you can also perform segmentation analysis in this view.

Segmentation analysis is a powerful tool that helps understand the behavior of a group of users who share common characteristics. You can identify what group of users abandon the application and at what stage of the journey and understand key metrics for each group of users that have reached a specific milestone. Using this feature, you can slice and dice the data to improve the granularity of the analysis.

To add a segmentation chart for a milestone, click on the Add Segmentation link on the milestone, select the pre-configured segment name from the dropdown, and then click Apply.



The segmentation chart for that milestone will display at the bottom of the screen. In this example, the Age segmentation chart was added to the LinkedIn Prefill milestone.



Metrics in segmentation charts

Metrics	Icon	Description
Segment		The Segment column displays the segment values sent via Segment APIs from a supported application.
Time		The Time to reach milestone column displays the time it took each group of users (segments) to reach this milestone from the start of the application. Use this metric to identify any bottlenecks in the user journey. Legend: d=days h=hours m=minutes s=seconds.
Application completion rate		The Application completion rate column displays the percentage of each group of users (segments) who eventually completed the application. Use this metric to determine which group of users (segment) has a better probability of eventually completing the application. There may be a reason why a certain age bracket of users took another path through the application, such as young or mature users do not have a LinkedIn profile, or existing customers find it easier to navigate through an application if their account details are pre-populated during the application process.

In the above example 75% of the users in the 26-35 age bracket went on to complete the application, 44.4% of the 36-50 age bracket went on to complete the application, and 100% of the 61+ age bracket went on to complete the application.

Median
Time

The Median time metric is the middle value of all segment time values displayed for this milestone.

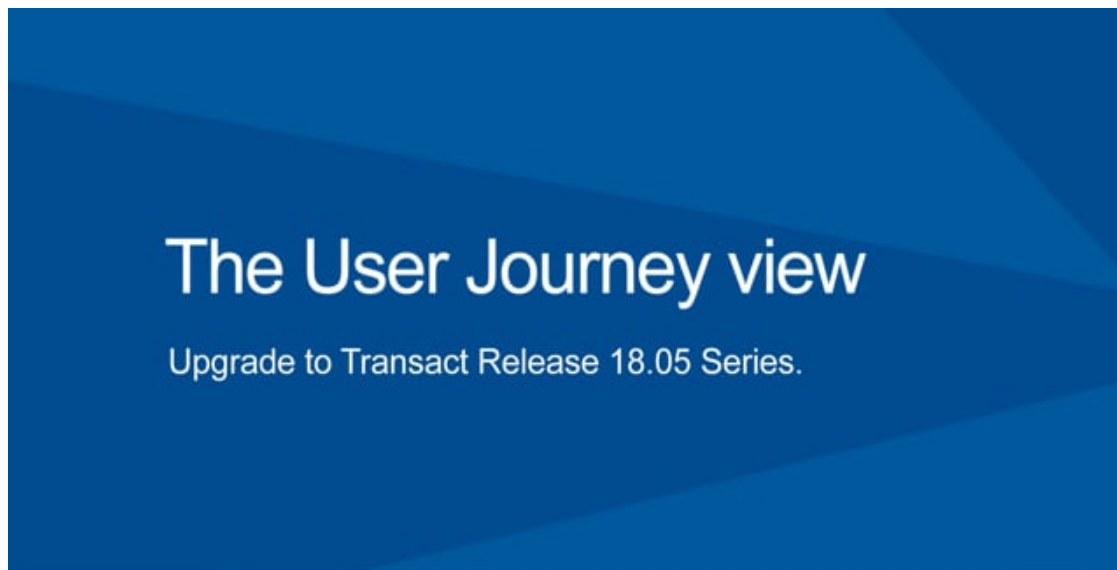
Avg Com-
pletion
Rate

The Average completion rate metric averages the completion rates for all segments displayed for this milestone.

Any number of segmentation charts can be added, on any milestone, as long as they have been pre-configured. It is recommended to show the same segmentation chart for each milestone in the User Journey View to identify how the different users respond at different points throughout the user journey.

Video

Watch the video for more information on how to read the metrics in this view.



Next

Next, learn [How to Send Custom Milestones and Segments](#).

How to send Custom Milestones and Segments

It is important to implement the correct logic to send custom milestones and segments in [Maestro/Composer/Journey Manager](#) before the application is live, as the [User Journey View](#) is built using these custom milestone and segment events.

Choose from the list below to find out how to send custom milestone and segment events from each product.

Maestro

| All versions This feature is related to all versions.

[Send Custom Milestones from Maestro Applications](#)

[Send Segments from Maestro Applications](#)

Composer

| v4.4 & Higher This feature is related to v4.4 and higher.

[Send Custom Milestones from Composer Applications](#)

[Send Segments from Composer Applications](#)

Journey Manager

| 17.10 This feature was introduced in 17.10.

[Send Custom Milestones from Journey Manager](#)

| 18.05 This feature was introduced in 18.05.

[Send Segments from Journey Manager](#)

Milestones vs Segments

[Milestones vs Segments](#)

When to Use What?

[Deciding between Milestones and Segments](#)

User Journey View Examples

The following examples illustrate the value that can be gained from configuring milestones and segments and using them to enhance the granularity of data provided in the User Journey View in [Journey Analytics](#).

Example 1

Goals

- To determine the cost effectiveness of third party service fees for two Exchange packages, a financial verification service and a prefill service.
- Also to identify which age brackets are more likely to use these services, and how often, when completing their applications.

Milestones and segments required

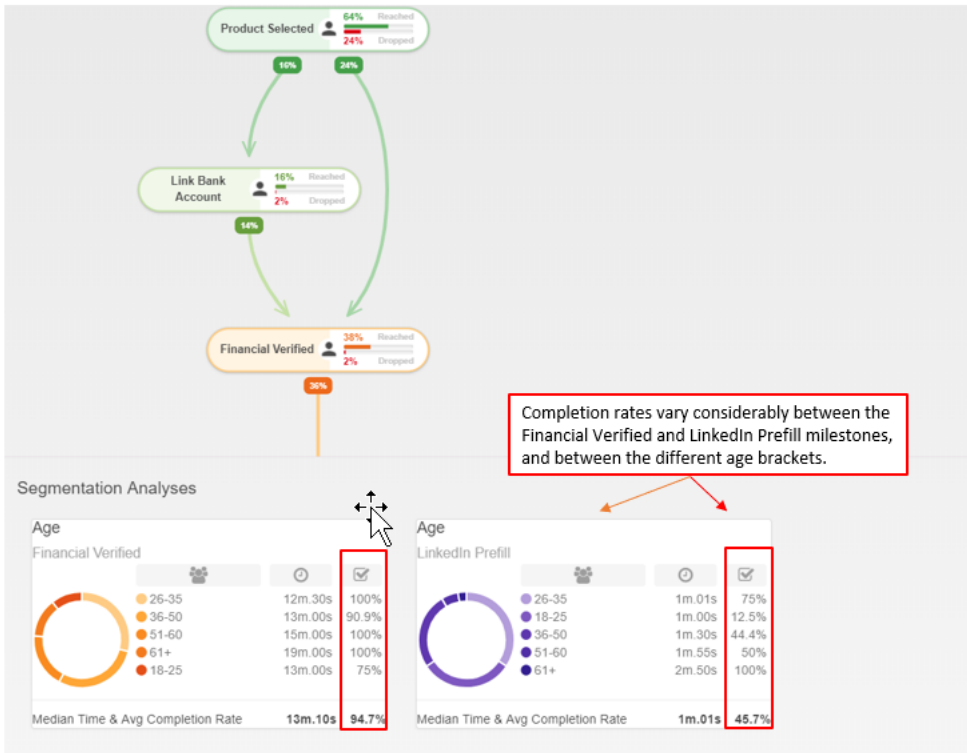
Configure the following milestones and segments.

Type	Required
Custom milestones	LinkedIn Prefill
	Product Selected
	Link Back Account
	Financial Verified
Segments	Age 18-25
	Age 26-35
	Age 36-50
	Age 51-60
	Age 61+

NOTE

Always add segments to the Whitelist segments filter in Preferences otherwise they will not flow through into Journey Analytics.

Results in the User Journey View



Example 2

Goals

- To determine the cost effectiveness of third party service fees for ID Scan and ID Verification Exchange packages, and identify how many ID verifications are successful and how many fail.
- Also to identify which age brackets are more likely to use these services, and how often, when completing their applications.

Milestones and segments required

Configure the following milestones and segments.

Type	Required
	Approved
	Declined
Custom milestones	MiTek ID Scan
	Equifax IDMatrix Verified

	Lead Created
	PhotoID Scan
	Age 18-25
	Age 26-35
	Age 36-50
	Age 51-60
	Age 61+
Segments	Mitek Usage Scan Failed
	Mitek Usage Mitek Not Completed
	Mitek Usage Scan Successful
	Equifax IDMatrix Verified Successful
	Equifax IDMatrix Verified Out of Wall
	Equifax IDMatrix Verified Failed

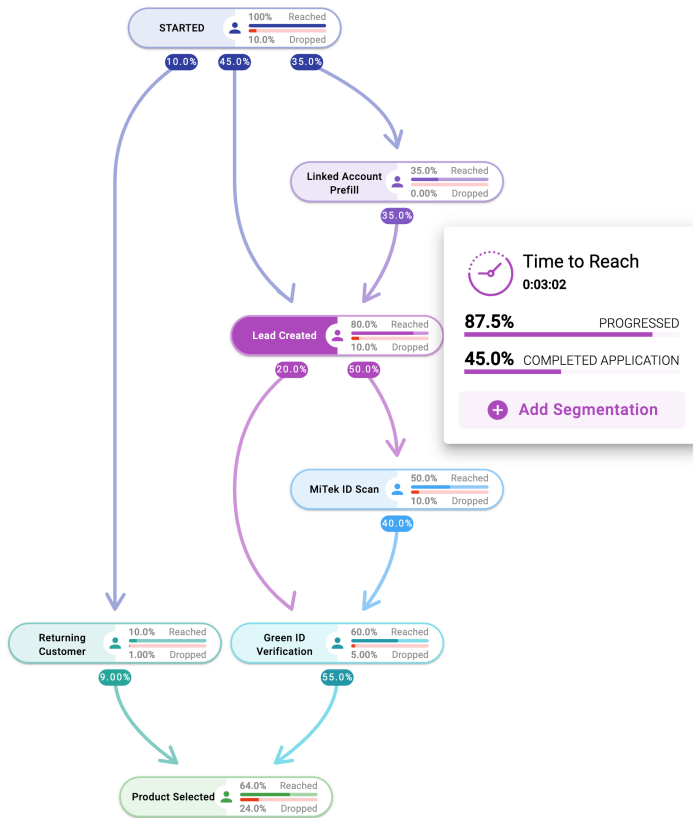
NOTE

Always add segments to the Whitelist segments filter in Preferences otherwise they will not flow through into Journey Analytics.

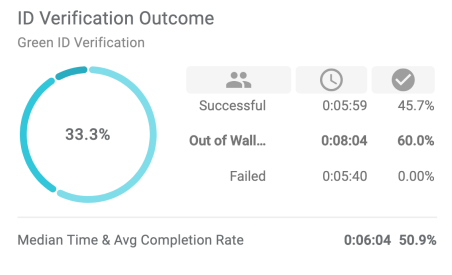
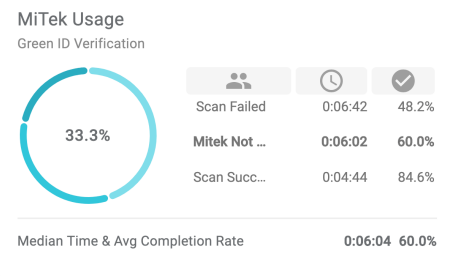
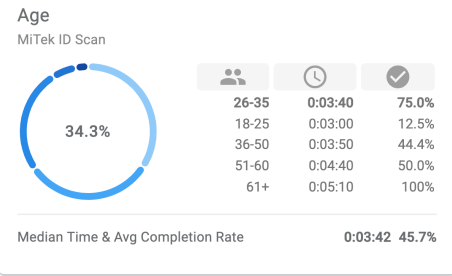
Results in the User Journey View

User Journey

Approved Declined MiTek ID Scan Equifax IDMatrix Verified Lead Created Photo ID Scan OK



Segmentation Analyses



Collaboration Jobs View Overview

The Collaboration Jobs View uses a node graph to represent the Collaboration Job workflow, and provides a view into key metrics at the job, step, action, section and field level. The Collaboration Job workflows are built using configured [collaboration jobs](#) in Manager.

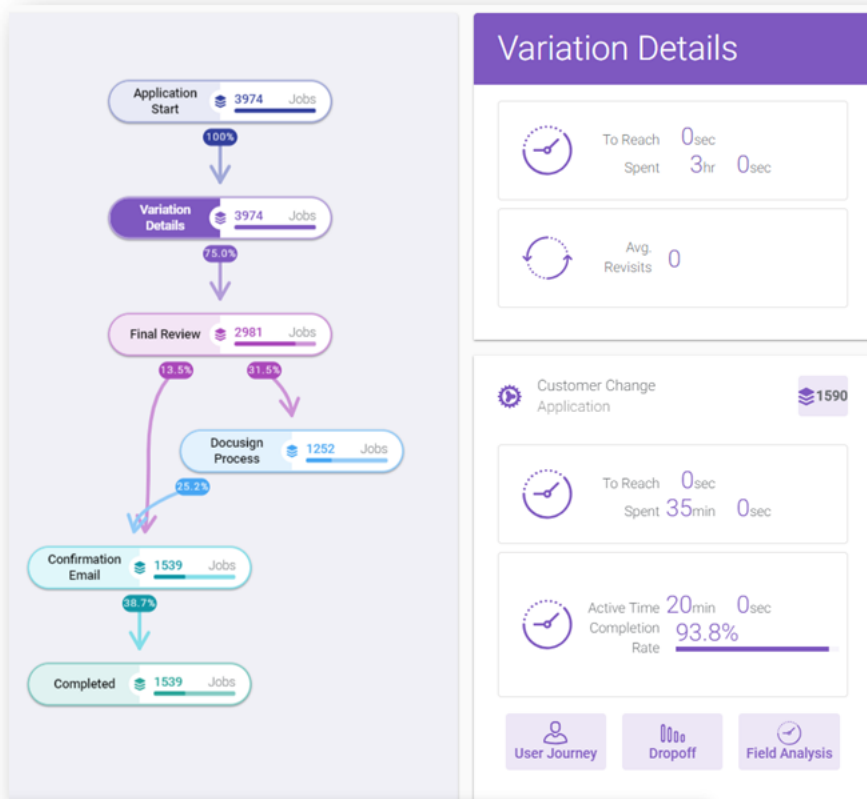
Key Features:

- Each node in the collaboration job graph represents a step configured in the Collaboration Job in Manager.
- Between each step, on the line between nodes, the rate of total job transactions which reached each step is shown as a percentage.
- Job transactions are displayed regardless of their current status as long as 1 step has been completed.
- Dates specified in the period selector filter transactions using the start date of the first step.
- Select a step in the graph to display additional statistics about the step.
 - For steps that include interactive applications, from the step detail, you may navigate into the Field Analysis, Dropoff, and User Journey to look at form transaction analytics.

NAMING COLLAB JOBS

If you are using multiple jobs, use distinct names for each job definition to ensure you can differentiate between them in the Journey Analytics [scope selector](#).

Collaboration Job View



Configuration

Configuration in Manager and Maestro, to define the characteristics of the [collaboration job](#), is required for the job to display in this view.

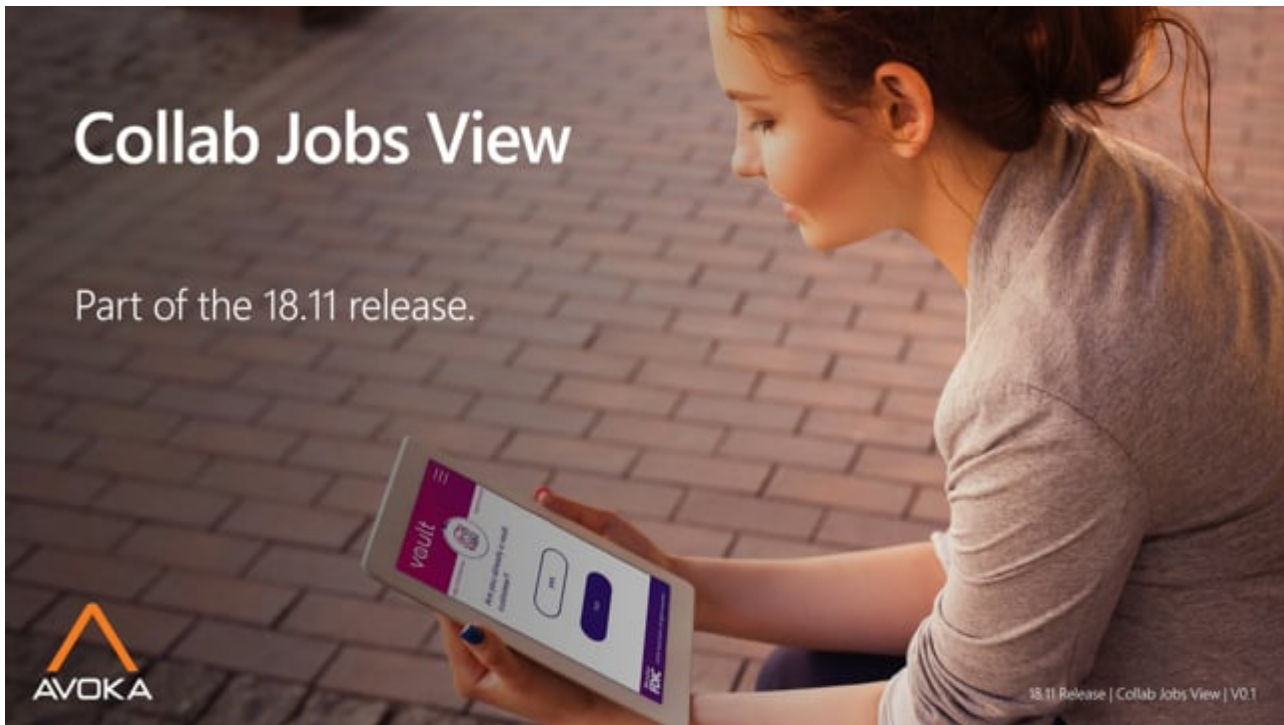
Enable Journey Analytics Collab Job Event collection

Assuming you already have a functioning collaboration job, the only configuration required to capture Journey Analytics events is to set a single parameter on the job service definition: `insightsEnabled = true`.

Name	Type	Value	Description	Read Only	Bind Parameter	Last Modified	Action
actionRetryDelayMins	Number	5	Specify the default action retry delay in minutes for 'In Progress' and 'Error' actions.		✓	26 Nov 2018 by nphennel@avoka.com	
jobControllerEnabled	Boolean	true	Specify whether the Job Controller service is enabled and can process jobs.		✓	26 Nov 2018 by nphennel@avoka.com	
jobDefinition	JSON	{ "jobDetails": { "name": "ECCL Review & Appr..."	Job definition configuration (JSON format).		✓	27 Nov 2018 by nphennel@avoka.com	
logJobHistory	Boolean	true	Specify whether to log Job execution history.		✓	26 Nov 2018 by nphennel@avoka.com	
<u>insightsEnabled</u>	Boolean	<u>true</u>				26 Nov 2018 by nphennel@avoka.com	

Video

Watch the video for an introduction to the new Collab Jobs View.



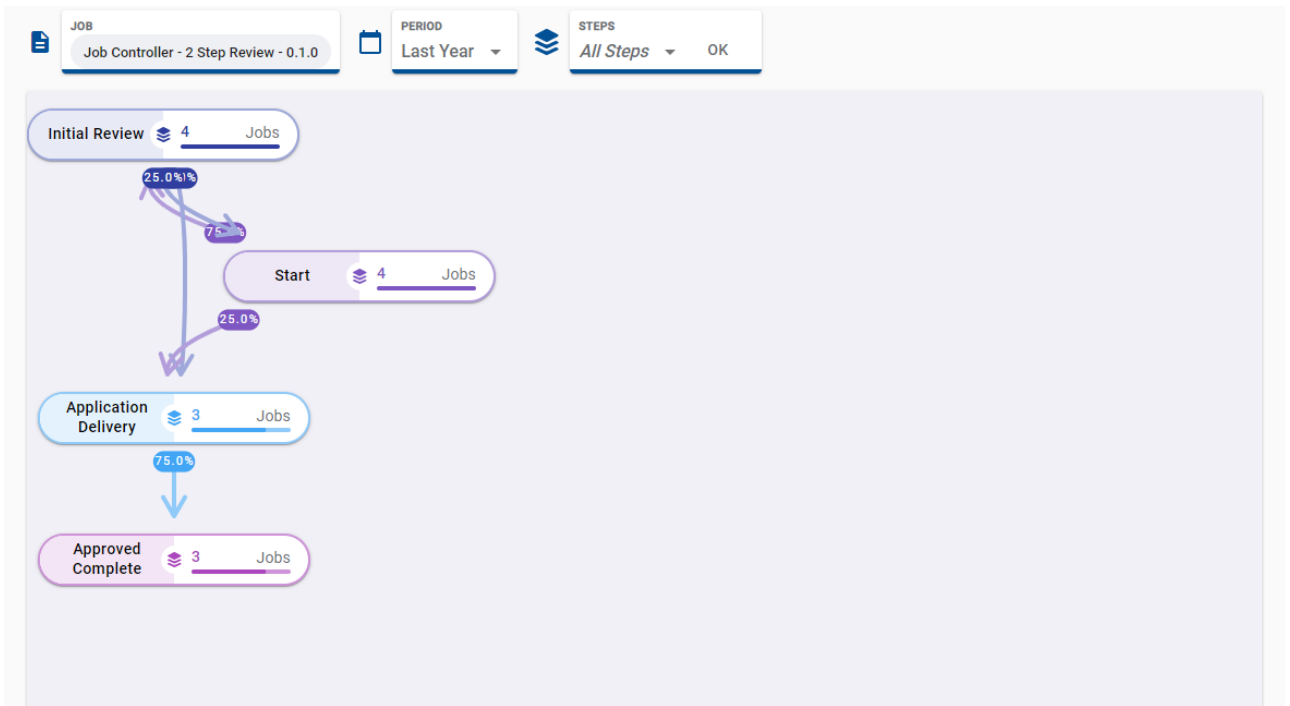
Next

Next, learn about [Using the Collab Jobs View.](#)

Using the Collaboration Jobs View

To access the [Collaboration Jobs View](#) of [Journey Analytics](#), follow these steps:

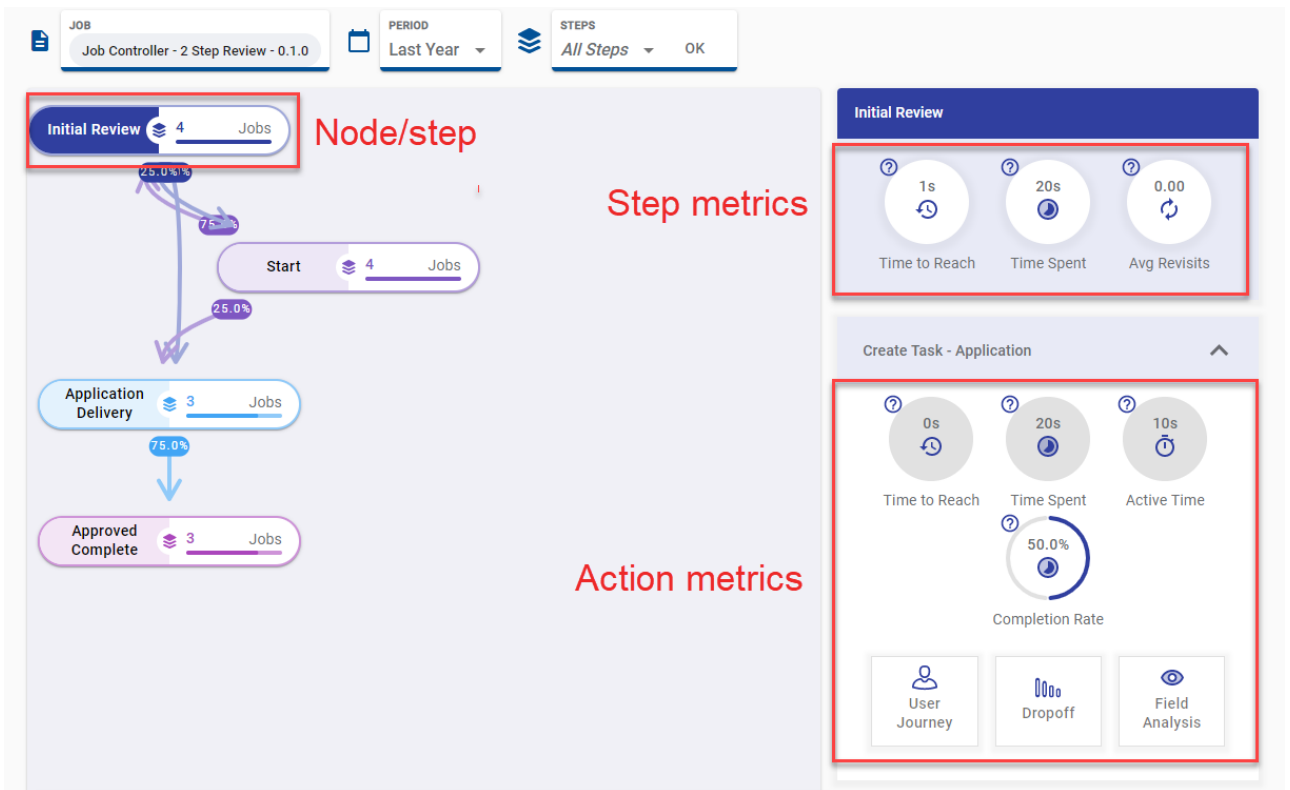
1. Select Collab Jobs from the [Navigation Panel](#).
2. Select the required [collaboration job and time period](#) to analyze.
3. The Collaboration Job View displays.



4. Optionally, select one or more configured collaboration job steps from the Steps selector and click OK to display only those steps in the graph.



5. Click on the individual nodes to display the details for that step, and to further drill down into the Actions performed in that step.



- 6. Hover over the question mark icons to view the definitions of each metric displayed. | 19.05
This feature was updated in 19.05.

JOB AND FORM TRANSACTION SYNCHRONIZATION

Form transactions are linked to Jobs only after a Job step is finished. This means that if you apply Global Filters to show only the Job's event, some form transactions may not appear as the associated first Job step is not yet complete.

Step and action metrics

Metric	Description
Step	
Time to Reach	Median time to reach this step from the beginning of the job.
Time Spent	Median time for this step to complete from its creation.
Avg Revisits	The average number of times that the step was restarted within a single collaboration job transaction.
Action	
Time to	Median time to reach the action from the beginning of the job.

Reach

Time Spent Median time for the action to complete from its creation.

Active Time The duration from the action's start to completion (not including wait time).

Completion Rate The percentage of transactions for the action that were submitted.

NAVIGATION TIP

To move around a large Collab Job View graph, hover over the nodes and paths to highlight them, and scroll to zoom in and out. To move the Collab Job View graph around the screen, click and drag the diagram.

Best Practices - Sending Custom Milestones

Always consider the following points when sending [Journey Analytics custom milestones](#) from [Maestro](#), [Composer](#) or [Journey Manager](#).

Priority	Product	Best practice
		Naming conventions:
Essential	Maestro	<ul style="list-style-type: none"> Do not use the standard milestone names. Do not use double pipes () in the milestone name. Do not use the same milestone name for different purposes or intent. Do not use the milestone name if it is already part of an Exchange component included in the application. Make sure the milestone name reflects the event it represents and captures the intent of sending that milestone.
	Composer	
	Journey Manager	
	Maestro	Do not use a programming variable in the milestone name parameter when sending it via the Maestro API.
	Composer	
	Journey Manager	Do not use a programming variable in the addMilestone method of TxnUpdater.
Recommended	Maestro	Identify the right place to send the milestone - discuss whether it should be sent from a supported application or host system.
	Composer	
	Journey Manager	
	Maestro	Decide precisely when, and under what circumstances, in the journey the milestone should be sent.
	Composer	
	Maestro	Identify the right time/condition to send the milestone - discuss on what trigger or condition the milestone should be sent.
	Composer	
	Maestro	Check whether an Exchange component added in the application already sends the milestone you are planning to implement.

Standard Milestones

The following is a list of standard [milestones](#) used by [Journey Analytics](#). Do not use these names as custom milestone names.

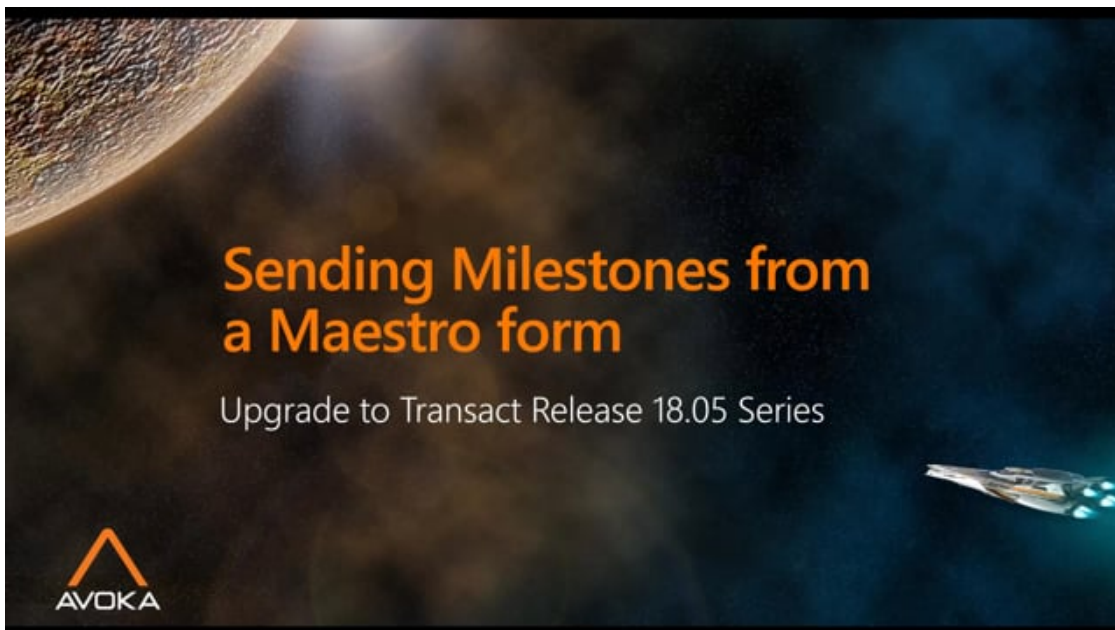
Milestone	Description
Opened	Transaction is created by the user, but no other activity or interaction has been recorded as yet.
Resumed	Transaction is resumed after the user previously saved it.
Started	Transaction is started by some activity or interaction with the application, such as entering data in a field or clicking in a checkbox.
Saved	Transaction is saved by the user.
Submitted	A completed transaction is submitted by the user to Journey Manager.
Completed	A completed transaction is submitted by the user to Journey Manager.
AbandonedBounced	Transaction is abandoned in Journey Manager by the user leaving the application, without interacting with it.
AbandonedStarted	Transaction is abandoned in Journey Manager by the user leaving the application, after starting it.
AbandonedCancelled	Transaction is abandoned in Journey Manager by the user leaving the application, by canceling it.
AbandonedIneligible	Transaction is abandoned in Journey Manager by the user leaving the application, as it is deemed ineligible by, for example, a groovy script.
AbandonedSaved	Transaction is abandoned in Journey Manager by the user leaving the application, after saving, but never returning to it.
AbandonedSubmitted	Transaction is abandoned in Journey Manager by the user submitting the application, but it was not completed due to a post submission delivery service not completing.

Send Custom Milestones from Maestro Applications

[Milestones](#) are significant events that occur in a transaction. There are two types of milestones in [Journey Analytics](#):

- [Standard milestones](#) that are generated automatically as part of the Journey Analytics business logic, such as Started, Abandoned, Saved or Submitted, and are used to populate the Journey Analytics analytics views.
- [Custom milestones](#), which can be used to record significant events in the user journey, based on the customer's application or business requirements.

Custom milestones can be used for several purposes based on the needs of the business and/or the application. Custom milestones allow customers to build Analytics reports that answer specific questions to enable data-driven decisions that improve the onboarding experience and conversion. It is important to note that once a milestone is sent, it will forever be recorded against this transaction in Journey Analytics and cannot be revoked.



To send a custom milestone from a Maestro application, use the following Maestro Milestone API:

```
Insights.milestone("Custom milestone name");
```

Presently, there are two ways Journey Analytics uses custom milestone data:

1. To generate User Journeys.
2. As a global filter type to filter data in all Journey Analytics views.

Custom milestone compatibility

- Maestro - since version 5.1.x.

Examples

User Journey

In the context of [User Journeys](#), custom milestones are markers that represent the path the users take within a transaction. A common example of where a milestone can be used in a [Maestro application](#) is when an applicant prefills data using the LinkedIn prefill exchange component. In this example, the moment the applicant clicks Use This Profile, a click rule will initiate, and the milestone will be recorded by Insights. This milestone records that the applicant has used the LinkedIn prefill component to prefill data in the form. Another example could be when Applicants validates their identity using a Green ID or Mitek Tiden ID verification.

Note that some of the Exchange components like LinkedIn prefill, Mitek ID scan etc, come with pre-built custom milestones. However, you may modify the pre-built logic to meet your business requirements.

```
A script to run when the user clicks on this form item
1 Form.items.linkedinSignIn.$populateFields();
2 if(item.$$component.properties.insightsLinkedinPrefill === true) {
3   Insights.milestone("LinkedIn Prefill");
4 }
```

As a Global Filter to Separate Applicant and Review Transactions

Custom milestones are a good way to distinguish between transactions made by applicants and transactions made by reviewers. A common use-case is once an applicant has completed an application, the submitted transaction will be reviewed by a review team which creates a second transaction. In Insights, the events from review transactions will skew all metrics for applicant transactions. For example, for one end-user completed application, Insights will show the completed count as 2. In most cases, you will only want to consider and analyze transactions made by applicants. To address this issue, you can implement custom milestones to identify when a transaction is an “Applicant Transaction” (transactions initiated by applicants) and when a trans-

action is a “Review Transaction” (transactions initiated by reviewers/someone other than the applicant).

The screenshot below displays sample logic to identify and send applicant and reviewer milestones. For this use case, an appropriate place to send this milestone would be in the form load rule.

```
a script to run when the form loads
1 if (data.prefillApplicationType != "") {
2   data.applicationType = data.prefillApplicationType;
3 }
4 var dobItem = Form.items.dateOfBirth ;
5 dobItem.$hasValue = function(data){
6   return Util.children(dobItem).some(function(child) {
7     return !child.exLayout && !Util.isBlank(data[child.id]);
8   });
9 };
10 if (Form.isStep("Application Review")) {
11   Insights.milestone("Review Transaction")
12 } else {
13   Insights.milestone("Applicant Transaction")
14 }
15
```

In the above example, when an application is loaded in the browser, a milestone is sent to Insights. This milestone sent will vary depending on the collaboration job step from where the transaction is created. If the application is at the “Application Review” step, the “Review Transaction” milestone is sent to Insights. If the application loads on any other step, the “Applicant Transaction” milestone is sent to Insights. With these milestones in place, you can now filter the transactions for a specific milestone in Insights and hence see the data for either applicant transactions or review transactions.

Send Custom Milestones from Journey Manager Applications

[Milestones](#) are significant events that occur in a transaction. There are two types of milestones:

- [Standard milestones](#) that are generated automatically as part of the Journey Analytics business logic, such as Started, Abandoned, Saved or Submitted, and are used to populate the Journey Analytics analytics views.
- [Custom milestones](#), which can be used to record significant events in the user journey, based on the customer's application or business requirements.

Custom milestones can be used for several purposes based on the needs of the business and/or the Application. They allow customers to build Analytical reports that answer specific questions to enable data-driven decisions that improve the onboarding experience and conversion. It is important to note that once a milestone is sent, it will forever be recorded against this transaction in Journey Analytics and cannot be revoked.

You can send custom milestones from a Groovy or Fluent service running on Journey Manager by updating the transaction's submission object by using `TxnUpdater.addMilestone()` API as shown below.

```
import com.avoka.tm.svc.*
import com.avoka.tm.vo.*
import com.avoka.tm.query.*
Txn txn = new TxnQuery()
    .setTrackingCode("[transaction tracking code]")
    .firstValue()
    .addMilestone("Sample Milestone")
    .update()
new TxnUpdater(txn)
```

Presently, there are two ways Insights uses custom milestone data.

1. To represent backend processing milestones in the User Journeys.
2. As a global filter type to filter data in all Journey Analytics views.

Custom milestone compatibility

- Journey Manager - since 17.10.

Examples

User Journey

In the context of [User Journeys](#), custom [milestones](#) are markers that represent the path the users take within the transaction. These custom milestones are captured from either a Maestro or Composer application or from Journey Manager. Custom milestones from Journey Manager could be sent while a user is completing the application, or after the user submits the application.

Credit Check example

As part of checking the credit background of an Applicant, a "Credit Check Done" milestone could be sent soon after the credit check is completed on Journey Manager.

```
new TxnUpdater(txn)
    .addMilestone("Credit Check Done")
    .update()
```

Approval Rate analytics example

If you want to understand the Approval and Rejection rate of submitted applications, you could send "Approved", "Declined" or "Review" milestone based on the decision as part of a Collaboration Job Action.

Approved

```
new TxnUpdater(txn)
    .addMilestone("Approved")
    .update()
```

Declined

```
new TxnUpdater(txn)
    .addMilestone("Declined")
    .update()
```

Review

```
new TxnUpdater(txn)
    .addMilestone("Review")
    .update()
```

As a Global Filter to Separate Applicant and Review transactions

Custom milestones are a good way to distinguish between transactions made by applicants and transactions made by reviewers. A common use-case is once an applicant has completed an application, the submitted transaction will be reviewed by a review team which creates a second transaction. In Insights, the events from review transactions will skew all metrics for applicant transactions. For example, for one end-user completed application, Insights will show the completed count as 2. In most cases, you will only want to consider and analyze transactions made by applicants. To address this issue, you can implement custom milestones on Journey Manager to identify the type of transaction and send a custom milestone to reflect that type.

Applicant Transaction

```
new TxnUpdater(txn)
    .addMilestone("Applicant Transaction")
    .update()
```

Review Transaction

```
new TxnUpdater(txn)
    .addMilestone("Review Transaction")
    .update()
```

Depending on which Collaboration Job Step the transaction gets created, you could send either an “Applicant Transaction” (transactions initiated by applicants) or when a transaction is a “Review Transaction” (transactions initiated by reviewers).

- **SessionInvalid** - When a Session belonging to a Transaction doesn't have user interaction (that transitions the status of the transaction to Started), and if the Transaction status remains in Anonymous Saved status at the end of the session, then upon the creation of a subsequent new Session, Journey Manager will invalidate the previous Session by sending a SessionInvalid milestone. This design makes sure that both Journey Manager and

Journey Analytics clamp the transactions to the same date/time and that there are no discrepancies in Transaction Counts between Journey Manager and Journey Analytics.

Send Custom Milestones from Composer Applications

[Milestones](#) are significant events that occur in a transaction. There are two types of milestones in [Journey Analytics](#):

- [Standard milestones](#) that are generated automatically as part of the Insights business logic, such as Started, Abandoned, Saved or Submitted, and are used to populate the Journey Analytics analytics views.
- [Custom milestones](#), which can be used to record significant events in the user journey, based on the customer's application or business requirements.

Custom milestones can be used for a number of purposes based on the needs of the business and/or the application. It allows customers to build Analytics reports that answer specific questions to enable data-driven decisions that improve the onboarding experience and conversion. It is important to note that once a milestone is sent, it will forever be recorded against this transaction in Insights and cannot be revoked.

Presently, there are two ways Journey Analytics uses custom milestone data.

1. To generate User Journeys.
2. As a global filter type to filter data in all Journey Analytics views.

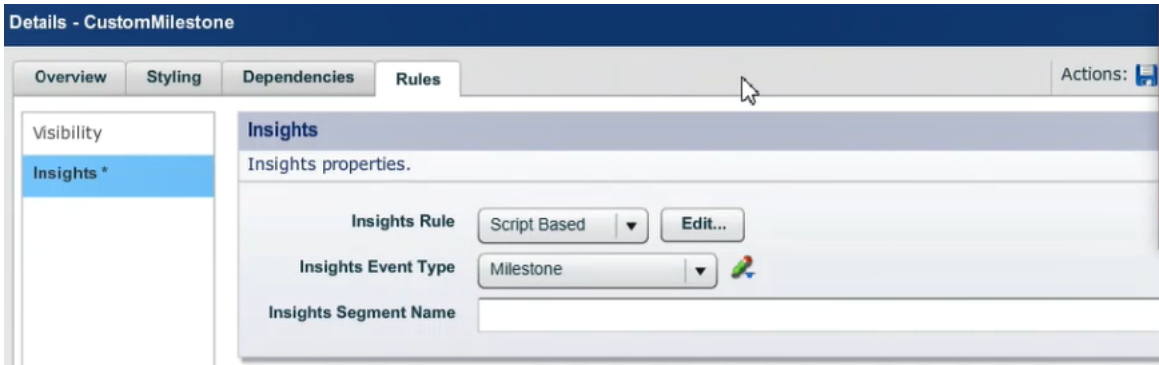
Custom milestone compatibility

- Composer - since version 4.4.

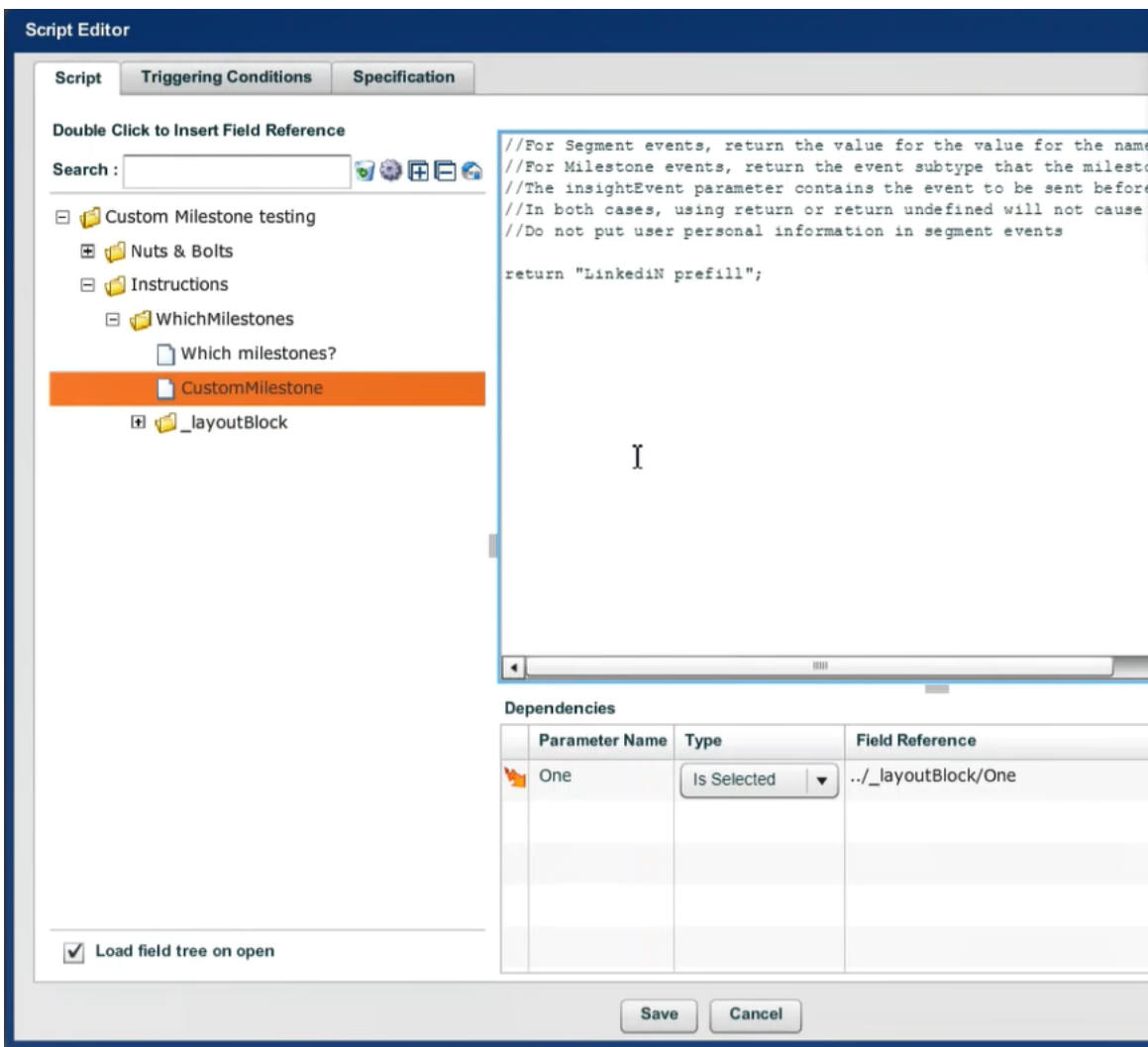
Send a custom milestone

To send a custom milestone from a Composer application, follow these steps:

1. Add the Transact Insights datapack to the organization of the form.
2. Drag and drop the Insights Rule onto a component where you would like to implement the logic to send a custom milestone.
3. Click and open the rule. Click on the Rules tab and then select the Insights Rule.
4. Select Milestone in the Insights Event Type dropdown and select Script Based from the Insights Rule dropdown.

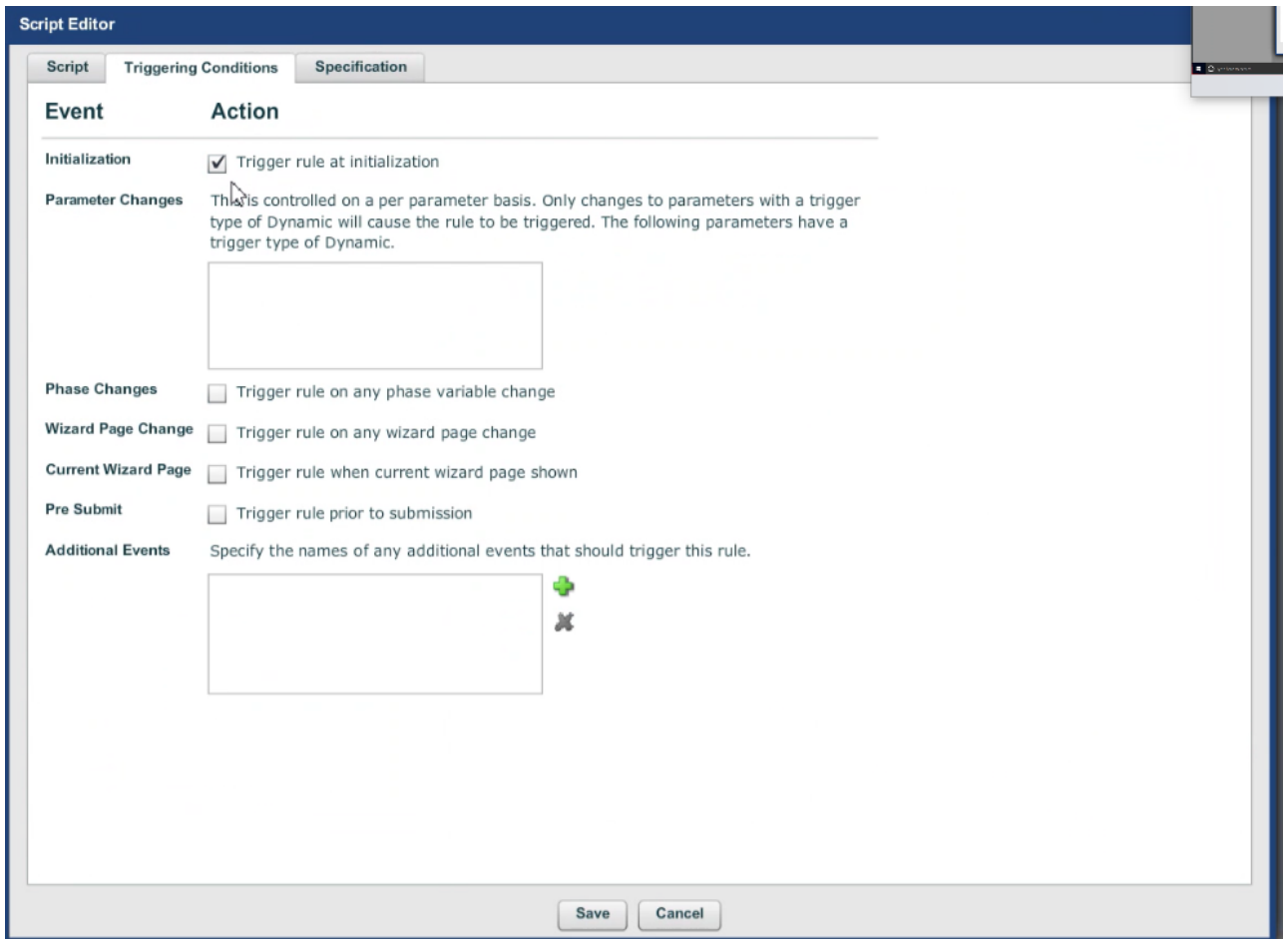


5. Click Edit to implement the logic to send Custom milestones in the script based rule. This opens a dialog as shown below.



6. Under the Script tab of the dialog, put the logic to send a custom milestone in the code section. To send a milestone, you must return a string value. Whatever string is returned at the end of this script execution, that will be sent as a custom milestone to Insights.

7. Select the Triggering Conditions tab and select the appropriate triggering condition to execute this script. For example, if you want to run this as the time of application load, select the Initialization checkbox. As another example, if you want to execute this script on a change in parameter used in the script, make sure that parameter is listed under the Parameter Changes field.



8. Save and Close the dialogs.

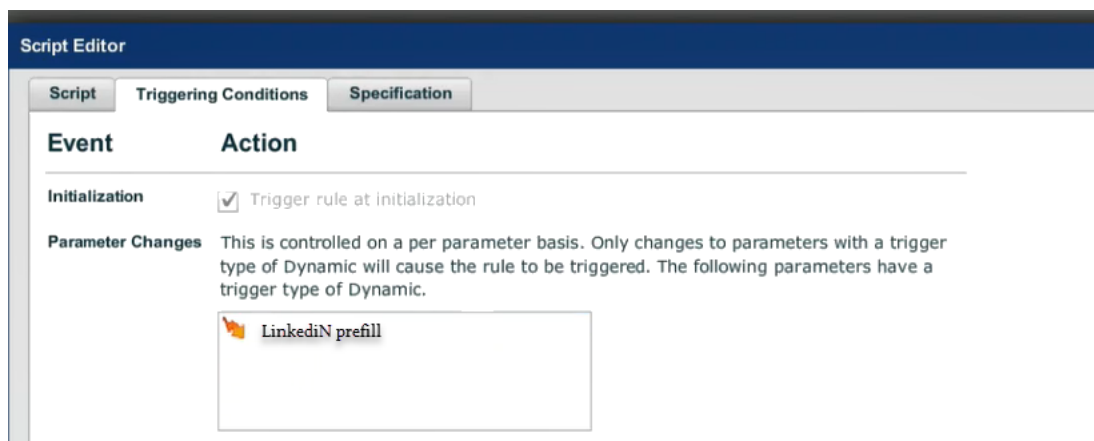
Examples

User Journey

In the context of User Journeys, [custom milestones](#) are markers that represent the path the users take within the transaction. A common example of where a milestone can be used in a Composer application is when an applicant prefills data using the LinkedIn prefill exchange component. In this example, the moment the applicant clicks the Use This Profile button, a Transact Insights milestone rule can be triggered to send the LinkedIn Prefill milestone to Journey

Analytics. This milestone records that the applicant has used the LinkedIn prefill component to prefill data in the form. Another example could be when Applicants validates their identity using a Green ID or Mitek Tiden ID verification.

In this example, the script returns something like "LinkedIn Prefill" which will be treated as a LinkedIn Prefill Milestone. Also, it is important to make sure that any dynamic variable used in the script are listed under Parameter Changes triggering condition. For instance, the screenshot below displays the triggering conditions tab with "LinkedIn prefill" as a variable which triggers this rule when its value changes.



As a Global filter to Separate Applicant and Review transactions

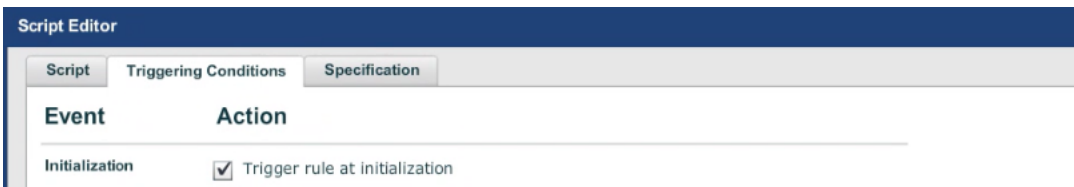
Custom milestones are a good way to distinguish between transactions made by applicants and transactions made by reviewers. A common use-case is once an applicant has completed an application, the submitted transaction will be reviewed by a review team which creates a second transaction. In Insights, the events from review transactions will skew all metrics for applicant transactions. For example, for one end-user completed application, Insights will show the completed count as 2. In most cases, you will only want to consider and analyze transactions made by applicants. To address this issue, you can implement custom milestones to identify when a transaction is an "Applicant Transaction" (transactions initiated by applicants) and when a transaction is a "Review Transaction" (transactions initiated by reviewers/someone other than the applicant).

The screenshot below displays a sample logic to identify and send applicant and reviewer milestones from a Composer application.

```
//For Segment events, return the value for the value for the named segment
//For Milestone events, return the event subtype that the milestone has occurred
//The insightEvent parameter contains the event to be sent before the updates liste
//In both cases, using return or return undefined will not cause an event to be fir
//Do not put user personal information in segment events

if ($STEPNAME() = "Application Review") {
  return {"Review Transaction"}
} else {
  return {"Applicant Transaction"}
}
```

For this use case, an appropriate triggering condition is Trigger rule at initialization as shown below.



Best Practices - Sending Segments

Always consider the following points when sending [Journey Analytics segments](#) from [Maestro](#), [Composer](#) or [Journey Manager](#).

Priority	Product	Best practice
Essential	Maestro	Naming conventions:
	Composer	<ul style="list-style-type: none"> Do not use the same segment name for different purposes or intent. Make sure the segment name reflects the segment of users it represents.
	Journey Manager	
	Maestro	Do not use a programming variable in the segment name parameter when sending it via the Maestro API.
	Maestro	It is also recommended to avoid using a programming variable in the segment value parameter where possible.
	Composer	Do not use a programming variable when returning a segment value in the script which sends the segment event.
Recommended	Composer	It is also recommended to avoid using a programming variable in the segment value parameter where possible.
	Journey Manager	Do not use a programming variable in the segment name parameter of the addSegment method of TxnUpdater.
	Journey Manager	It is also recommended to avoid using a programming variable in the segment value parameter where possible.
	Maestro	
	Composer	Always add the expected segment names and segment values in the Journey Analytics Segment Whitelist prior to the application going live on Journey Manager.
	Journey Manager	
Recommended	Maestro	Identify the right place to send the segment events - discuss whether it should be sent from a supported application or host system.
	Composer	

Caution	Journey Manager	Decide precisely when and under what circumstances the segment should be sent.
	Maestro Composer	Identify the right time/condition to send the segment event - discuss on what trigger or condition the segment event should be sent.
	Maestro Composer	The Segment Whitelist is shared across all Journey Manager environments (DEV, UAT, TEST, STAGING, PROD). Changes to the Segment Whitelist in one environment will be reflected in all environments.
	Journey Manager	

Send Segments from Maestro Applications

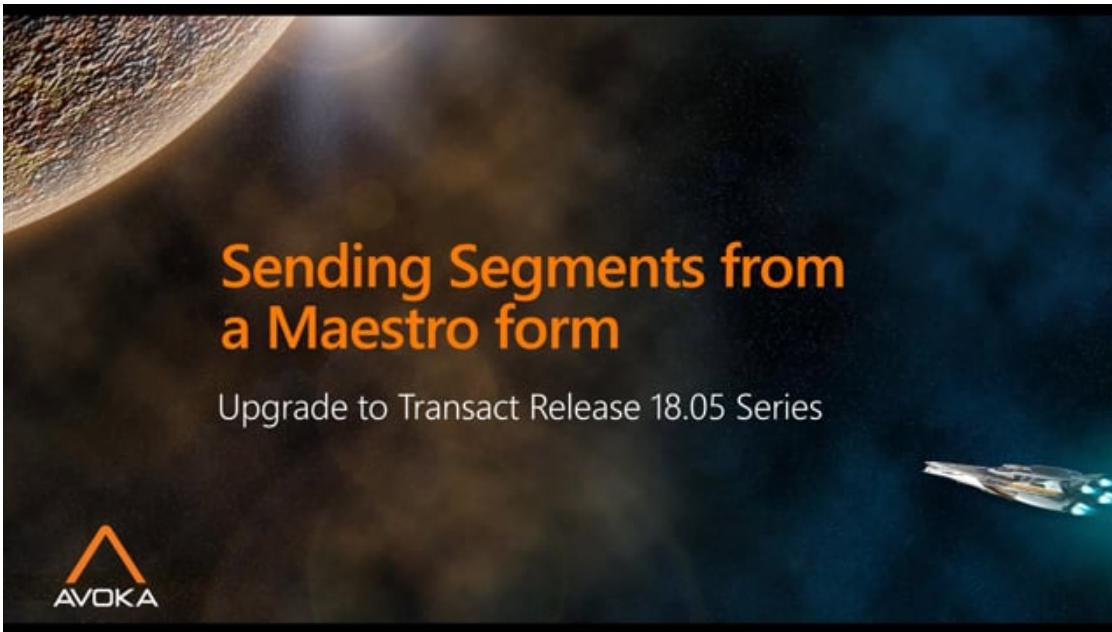
Overview

[Segmentation](#) analysis is a powerful tool that helps you to understand the behavior of specific groups of users who share a common trait. It allows you to slice and dice Insights data to provide more granularity and identify usability issues that may impact onboarding performance for specific groups of users. In short, you can identify "what group of users" abandon the application, and "at what stage" of the journey. This capability helps businesses increase ROI by focusing investments on optimizing journeys for specific groups of users.

Segmentation analysis is powered by segment events data sent to Journey Analytics. Segments are custom events that can be sent via Segment APIs from a [supported](#) application or from a groovy/fluent service on Journey Manager, to [Journey Analytics](#). Each segment event lets Journey Analytics know to which segment a transaction belongs to. A transaction can only belong to one segment or group. For instance, transactions can be grouped by gender, age or age brackets, products selected, or Exchange package used to complete an application, such as LinkedIn prefill or Mitek drivers license scan.

It is important to make sure each segment name and value sent as part of the segment event do not contain any PII (data that could identify an individual user, such as an address, telephone number or account number). For more information on PII, see [Data Privacy and Security](#).

As a safeguard against unintentionally sent personally identifiable information (PII), a segment whitelisting mechanism has been introduced to Journey Analytics. No segments are stored in Journey Analytics unless they have been whitelisted under Preferences > Whitelist segments first. For more information on the Segment Whitelist, see [Preferences](#).



To send a segment from a Maestro application use the following Maestro Segment API:

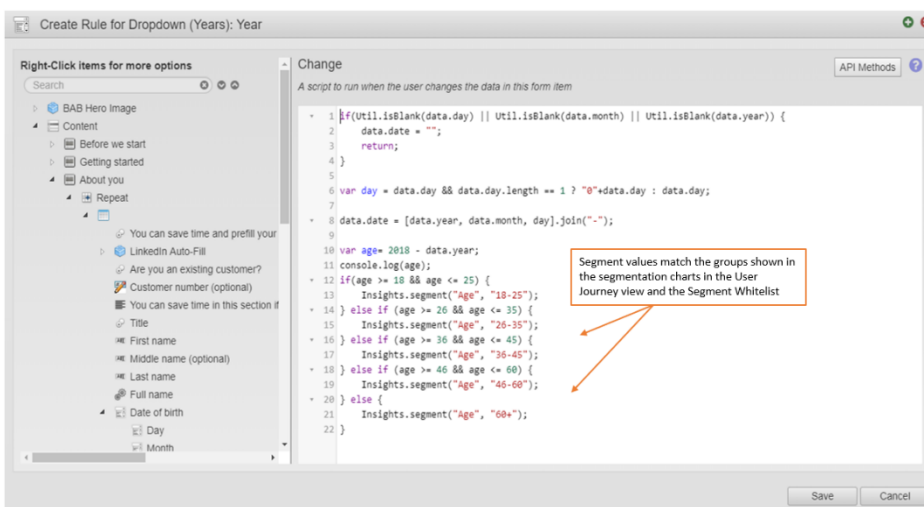
```
Insights.segment("name of segment", "value");
```

Segment compatibility

- Maestro - From 5.1.x.

Example

Below is an example of adding age segmentation using a Change Rule on the year of birth field in the Maestro form. The corresponding Segment Whitelist is also shown as no segmentation data is stored in Journey Analytics unless it has been added to the Segment Whitelist first.



For Journey Analytics to store these segment names and values they need to be added to the Segment Whitelist as shown below.

Preferences

Segment Whitelist Entries

Segment Name	Type	Values
Age	Discrete	18-25, 26-35, 36-45, 46-60, 60+
State	Discrete	ACT, NSW, NT, QLD, SA, TAS, VIC, WA

Annotations:

- Segment names match the segment names sent from Maestro, Composer or Transact Manager via API or script.
- Segment values match the groups shown in the segmentation charts in the User Journey view.

Buttons: Add Segment, Apply

The Segment Whitelist is shared across all Journey Manager environments (DEV, UAT, TEST, STAGING, PROD). Changes to the Segment Whitelist in one environment will be reflected in all environments.

Send Segments from Journey Manager

Overview

[Segmentation](#) analysis is a powerful tool that helps you to understand the behavior of specific groups of users who share a common trait. It allows you to dissect data to provide more granularity and identify usability issues that may impact onboarding performance for specific groups of users. In short, you can identify "what group of users" abandon the application, and "at what stage" of the journey. This capability helps businesses increase ROI by focusing investments on optimizing journeys for specific groups of users.

Segmentation Analysis is powered by segment events. Segments are custom events that can be sent via Segment APIs from a [supported](#) applications or host systems to [Journey Analytics](#). Each transaction can only belong to one segment or group. For instance, transactions can be grouped by gender, age or age brackets, products selected, or Exchange package used to complete an application, such as LinkedIn prefill or Mitek drivers license scan.

It is important to make sure each segment name and value sent as part of the segment event do not contain any PII (data that could identify an individual user, such as an address, telephone number or account number). For more information on PII, see [Data Privacy and Security](#).

As a safeguard against unintentionally sent personally identifiable information (PII), a segment whitelisting mechanism has been introduced to Journey Analytics. No segments are stored unless they have been whitelisted under [Preferences](#) > Segment Whitelist prior to collection.

Example

Most commonly, Applications may have a review step prior to approval or declination if the Applicant doesn't get automatically Approved or Declined. Typically, a review step will involve a manual review of the Application before making a decision. If you want to study bottlenecks in the backend processing of the application, you can use Segmentation in combination with Milestones.

- Send Approved, Declined or Review milestone when an application moves to one of those states.
- When an application moves to Approved or Declined status, send a Segment event whether the Approval or Declination was Instant or Reviewed.

Approved

```
TxnUpdater(txn)
.addMilestone("Approved")
.update()
TxnUpdater(txn)
.addSegment("Approval Type", "Instant")
.update()
    or
    .addSegment("Approval Type", "Reviewed")
    .update()
```

Declined

```
TxnUpdater(txn)
.addMilestone("Declined")
.update()
    new TxnUpdater(txn);
    .addSegment("Decline Type", "Instant")
    .update()
    or .addSegment("Decline Type", "Reviewed")
```

Review

```
TxnUpdater(txn)
.addMilestone("Review")
.update()
```

For Journey Analytics to store these segment names and values they need to be added to the Segment Whitelist.

NOTE

The Segment Whitelist is shared across all Journey Manager environments (DEV, UAT, TEST, STAGING, PROD). Changes to the Segment Whitelist in one environment are reflected in all environments.

Send Segments from Composer Applications

[Segmentation](#) analysis is a powerful tool that helps you to understand the behavior of specific groups of users who share a common trait. It allows you to slice and dice Insights data to provide more granularity and identify usability issues that may impact onboarding performance for specific groups of users. In short, you can identify "what group of users" abandon the application, and "at what stage" of the journey. This capability helps businesses increase ROI by focusing investments on optimizing journeys for specific groups of users.

Segmentation analysis is powered by segment events data sent to Journey Analytics. Segments are custom events that can be sent via Segment APIs from a [supported](#) application or from a groovy/fluent service on Journey Manager, to [Journey Analytics](#). Each segment event lets Journey Analytics know to which segment a transaction belongs to. A transaction can only belong to one segment or group. For instance, transactions can be grouped by gender, age or age brackets, products selected, or Exchange package used to complete an application, such as LinkedIn prefill or Mitek drivers license scan.

It is important to make sure each segment name and value sent as part of the segment event do not contain any PII (data that could identify an individual user, such as an address, telephone number or account number). For more information on PII, see [Data Privacy and Security](#).

As a safeguard against unintentionally sent personally identifiable information (PII), a segment whitelisting mechanism has been introduced to Journey Analytics. No segments are stored in Journey Analytics unless they have been whitelisted under Preferences > Whitelist segments first. For more information on the Segment Whitelist, see [Preferences](#).

Segment compatibility

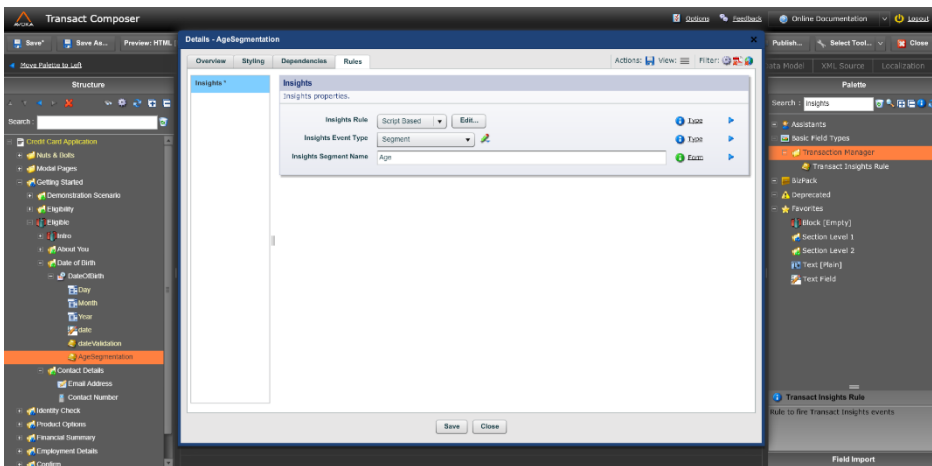
- Composer - since version 4.4.

Example

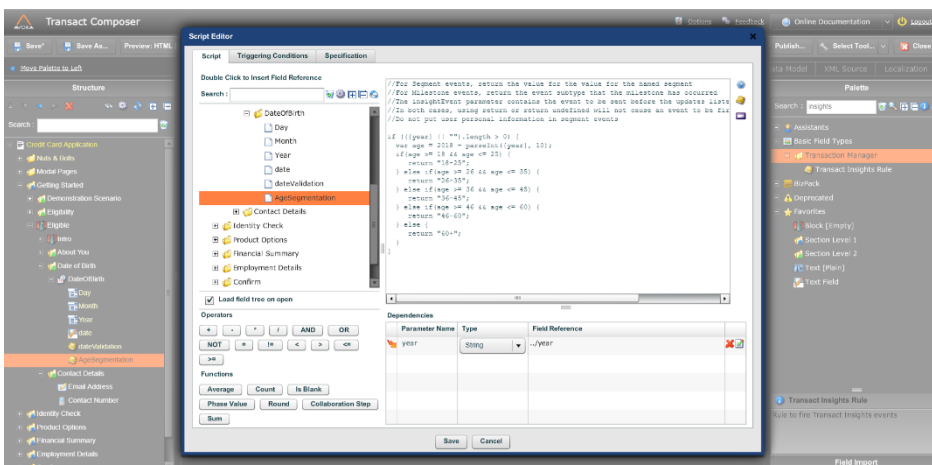
To send a segment from a Composer application, follow these steps:

1. Add the Transact Insights datapack to the organization of the form.
2. Drag and drop the Insights Rule onto a component where you would like to implement the logic to send a segment.
3. Click and open the rule. Click on the Rules tab and select the Insights Rule.
4. Select Script Based from the Insights Rule dropdown menu.
5. Select Segment from the Insights Event Type dropdown menu.

6. Enter the segment name in the Insights Segment Name field.

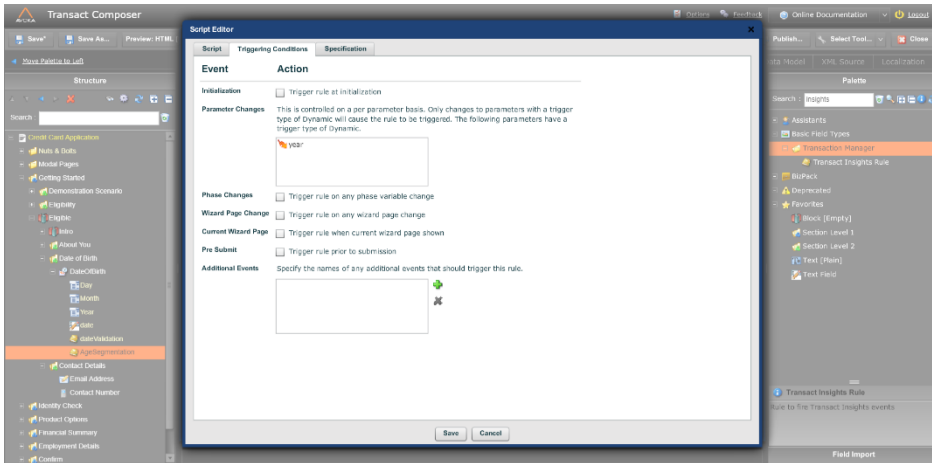


7. Click Edit to implement the logic to send a segment in the script-based rule. This opens a dialog as shown below.

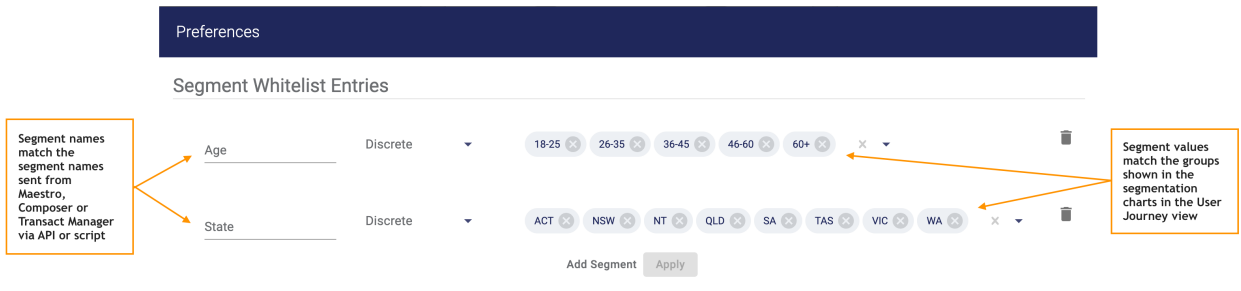


8. Under the Script tab of the dialog, put the logic to send a segment in the code section. To send a segment, you have to return a string value. Whatever string is returned at the end of this script execution, that will be sent as a segment to Journey Analytics.

9. Then select the Triggering Conditions tab and select the appropriate triggering condition to execute this script. For example, if you want to run this as the time of application load, select the Initialization checkbox. As another example, if you want to execute this script on a change in parameter used in the script, make sure that parameter is listed under the Parameter Changes field.



10. After everything is set up, Save and Close the dialogs.
11. For Journey Analytics to store these segment names and values they need to be added to the Segment Whitelist as shown below.

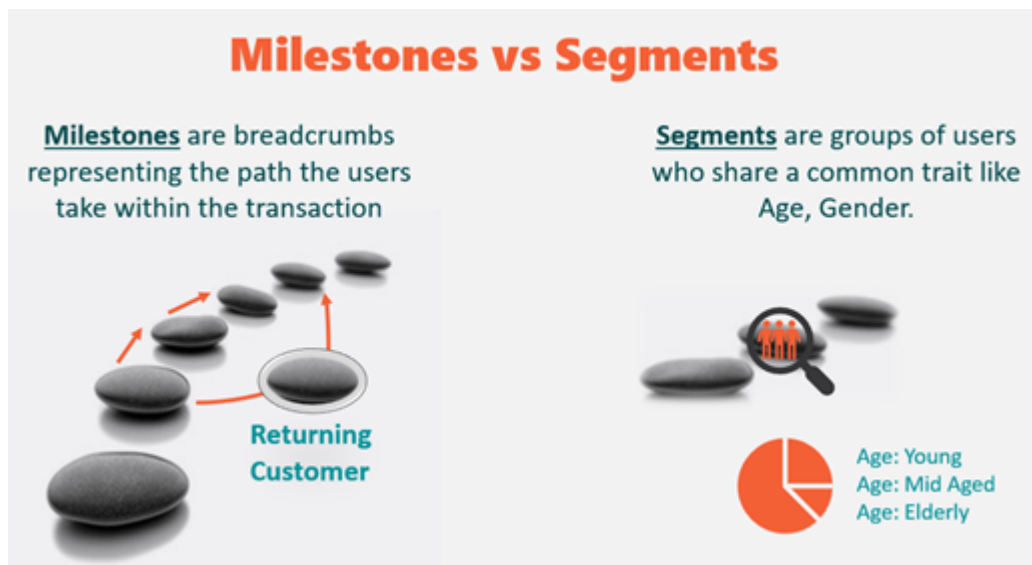


The Segment Whitelist is shared across all Journey Manager environments (DEV, UAT, TEST, STAGING, PROD). Changes to the Segment Whitelist in one environment will be reflected in all environments.

Milestones vs Segments

Overview

[Journey Analytics](#) collects two custom event types – [Milestones and Segments](#). These events can be sent from either an application built from Maestro or Composer, or from Journey Manager. These custom events can be leveraged to capture analytics data to cater to a specific application, business or market requirements, that cannot otherwise be achieved with out-of-the-box analytics data that Journey Analytics presents. The diagram below presents the key differences in the concepts of Milestones and Segments.



In the context of User Journeys, milestones help you understand:

- How users engage with different parts of the application.
- How long it takes for users to reach each milestone and its implication on the effort it takes to progress through different parts of the user journey.
- The impact of an Exchange component on completion rates.

Segments, on the other hand, help you understand:

- Completion rate of different groups of users.
- Usage of Exchange components by different groups of users.
- Time to reach a milestone for different groups of users.
- User journey patterns for specific groups of users.

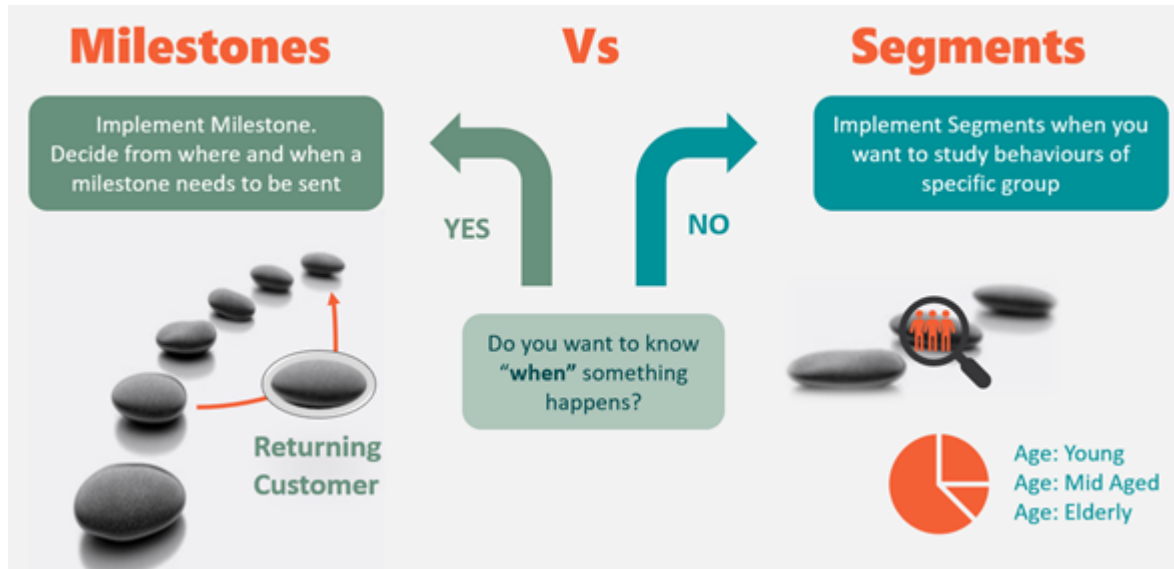
Milestones vs Segments Video

Watch the video below to see the difference between milestones and segments, with examples.



When to Use What?

It is important to pick the right [custom event](#) to get the desired outcome. The diagram below provides a good way to decide between milestones and segments.



Milestones are useful when you want to know when, or if, a significant event happens, such as if a ID validation package is used in an application. If however, you simply want to differentiate between different groups of users, then segments are the way to go, such as age bracket, gender, and other demographics.

As milestones are essentially breadcrumbs, they cannot be revoked once they have been sent to Insights. Therefore, it is important not to implement milestones, for example, to track age or gender or other things based on user's input. If the user changes their option, there will be multiple milestones sent for each selection, which distorts the data collected in Insights.

Note also that segment events that are implemented in a [supported](#) application or on Journey Manager need to be added to the Segment Whitelist in Journey Analytics. For more information on the Segment Whitelist, see [Preferences](#). This additional step is intended to act as a deterrent for personally identifiable information (PII) data from being stored in the Journey Analytics database.

In most cases, either milestone or segment events get the desired result in terms of answering specific questions from the business, however, it may sometimes be necessary to implement both. The decision to implement either, or both, depends on what insights you want to get from the User Journey View and analytics report.

User Administration

This information is intended for [Journey Manager](#) Administrators who have permission to edit Spaces, Organizations, and Roles for other Journey Manager [user accounts](#).

Journey Analytics User Roles

Two user roles are available for [Journey Analytics](#).

User Role	Definition
Transact Insights User	User accounts with this role have access to all analytics features and functionality of Journey Analytics.
Transact Insights Administrator	User accounts with this role have access to all analytics features and functionality of Journey Analytics. They also have access to the administrative capabilities that globally affect all users; the ability to add, edit and delete Global Filters.

Assigning Journey Analytics User Roles

To grant access to Journey Analytics, assign one of the Journey Analytics user roles to an existing Journey Manager user account.

For more information on adding the Journey Analytics user roles, see [assigning roles](#) to a User Account. If the user is a new Journey Manager user, see [creating](#) a User Account.

NOTE

Use Journey Manager to reset your Journey Analytics password.

Organization and Space

To grant access to Journey Analytics, you also need to assign the Transact Insights space to the user's account in Journey Manager.

Without access to this space, login to the Insights Web Application will be unsuccessful.

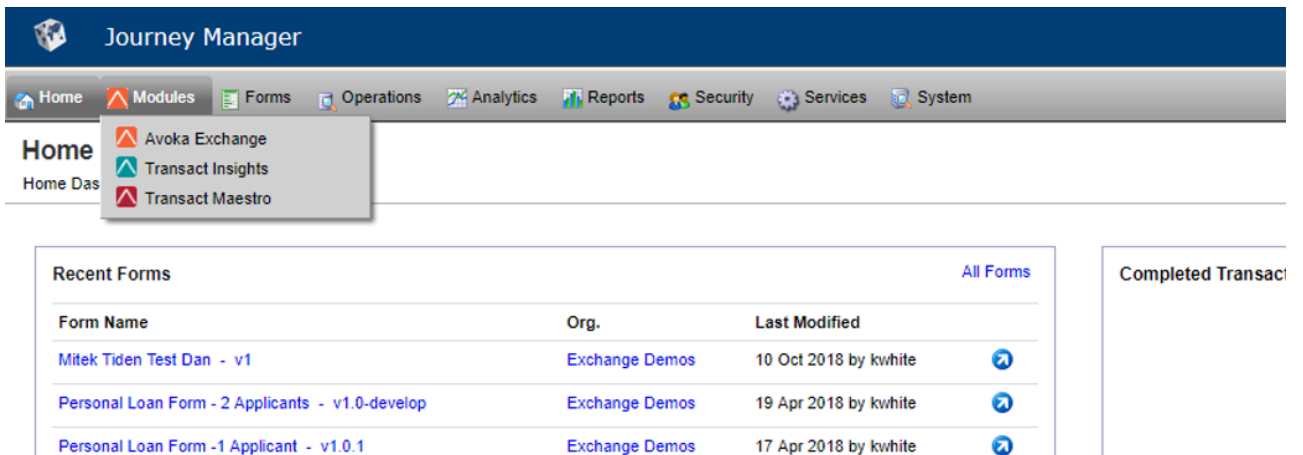
The Journey Analytics user can then access all forms in the Organization(s) they have access to in Journey Manager.

Users are allowed to see transactional data for the Organizations that they are assigned in Journey Manager. More info on organizational access can be found in [Data Privacy and Security](#).

Access Journey Analytics

Journey Analytics can be accessed in two ways:

- Via the Journey Manager Web Server <https://<ManagerServerName>/Insights>
- From the Journey Manager menu bar.

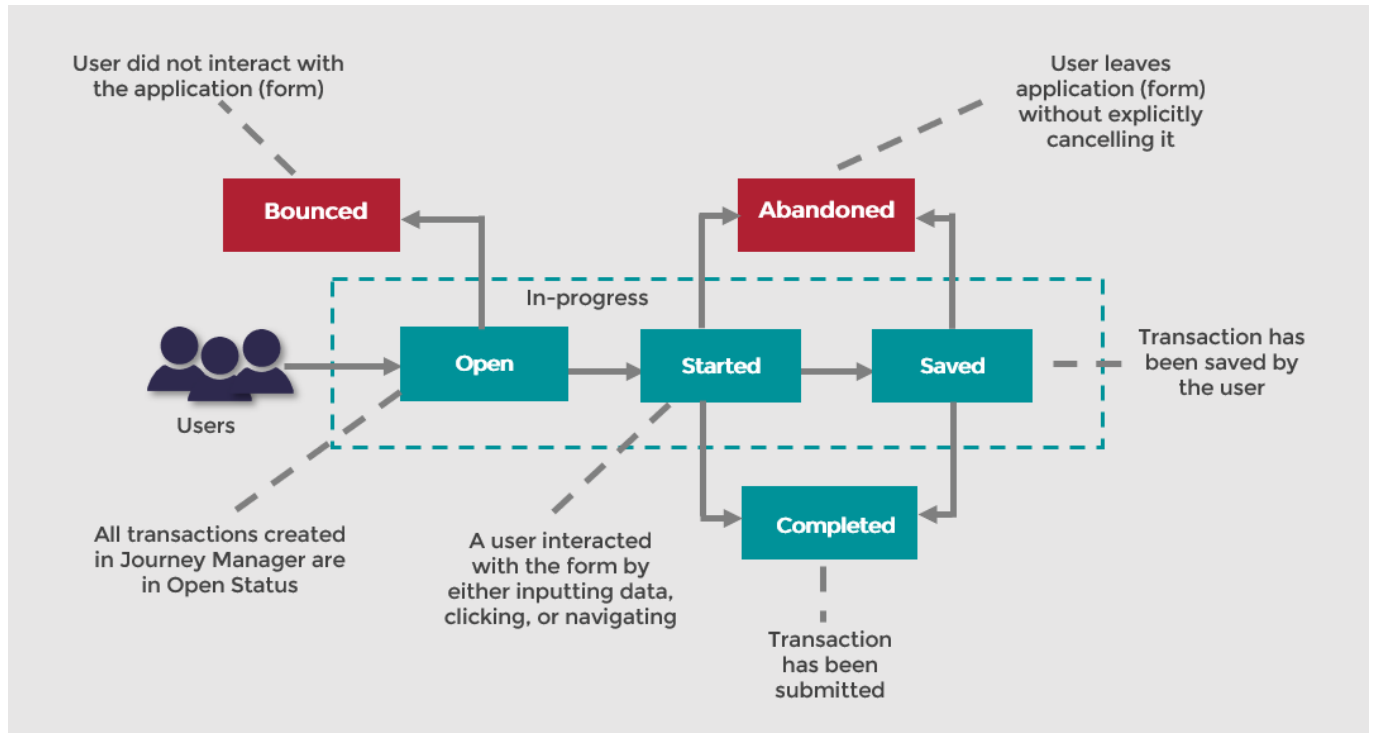


The screenshot shows the Journey Manager web application interface. At the top is a dark blue header with the 'Journey Manager' logo and name. Below this is a light grey navigation bar with icons and labels for 'Home', 'Modules', 'Forms', 'Operations', 'Analytics', 'Reports', 'Security', 'Services', and 'System'. A dropdown menu is open under 'Modules', listing 'Avoka Exchange', 'Transact Insights', and 'Transact Maestro'. Below the navigation bar, the main content area is divided into sections. On the left, there is a 'Home' section with a 'Home Dashboard' link. The central part of the page features a 'Recent Forms' table with columns for 'Form Name', 'Org.', and 'Last Modified'. To the right of the table is a partial view of a 'Completed Transactions' section.

Form Name	Org.	Last Modified
Mitek Tiden Test Dan - v1	Exchange Demos	10 Oct 2018 by kwhite
Personal Loan Form - 2 Applicants - v1.0-develop	Exchange Demos	19 Apr 2018 by kwhite
Personal Loan Form -1 Applicant - v1.0.1	Exchange Demos	17 Apr 2018 by kwhite

Transaction Status Flow

The diagram below illustrates the statuses that a transaction can achieve in [Journey Analytics](#).



Transactions on Journey Manager may progress through any of the following statuses; Open, Bounced, Started, Abandoned, Saved and Completed.

Status	Definition
Open Transactions	All transactions created by Journey Manager are considered to be in Open status. From this status, a transaction can either proceed to Started or Bounced status.
Bounced Transactions	Any transaction where the applicant (user) did not interact with the application (form). Navigation across the form or scrolling the page does not count as an interaction. A legitimate interaction is one where a user inputs data into the form in some way - text input, radio button input, clicking on a checkbox, clicking the Save button, attaching a file etc. It typically takes 24-48 hours for a transaction in Open status to transition to Bounced status. This time will vary based on the settings configured in Journey Manager.
Started Transactions	Any transaction where a user interacted with the application (form) by inputting some data. A started transaction is a progressive step towards completion. Started transactions and Bounced transactions are mutually exclusive. For instance, a started transaction can never become a bounced transaction or vice versa.

Saved Transactions

Any transaction that has explicitly been Saved by the user. When a user resumes a Saved transaction, it can move to Completed status if the user submits the form. Or it can move to Abandoned status if the user abandons the application (form).

Any transaction that is:

In-Progress Transactions

- Open Status
- Started Status
- Saved Status

Completed Transactions

Any transaction that has been submitted to Journey Manager.

Abandoned Transactions

Any transaction that has been deemed as Abandoned in Journey Manager. When a user leaves the application without explicitly canceling it, the transaction lives in Started status for a period defined in Journey Manager, after which it is considered as an Abandoned transaction.

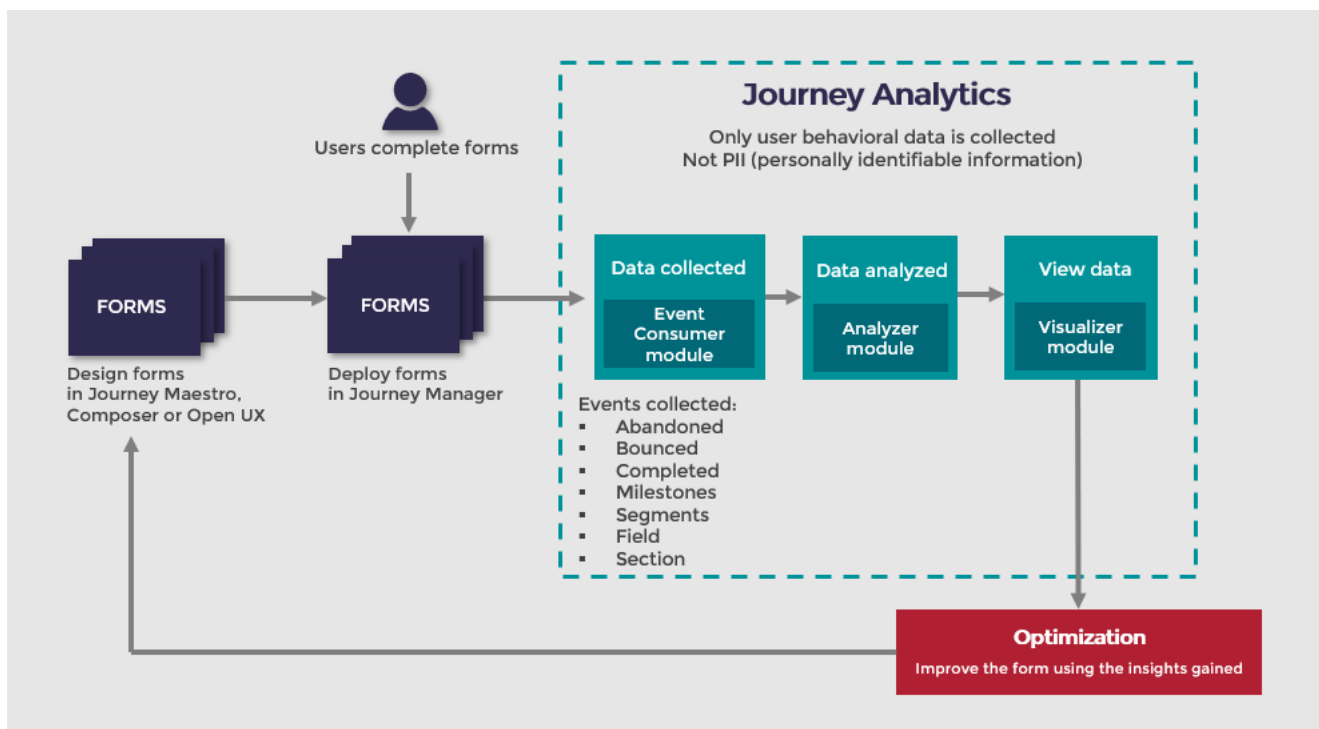
Data Privacy and Security

Journey Analytics Architecture

To support detailed statistical analysis of user behavior with applications, [Journey Analytics](#) collects events from two sources – [Journey Manager](#) and the browser where the application is rendered. Journey Manager sends transaction status events and applications rendered in the browser send user interaction events. The user interaction events include information such as - field visit, field completion, validation error, section navigation etc.

These analytical events are directly comparable to the Google Analytics or Adobe Analytics events recorded by these analytics services. These events DO NOT include any user input data itself and therefore Journey Analytics DOES NOT collect any [Personally Identifiable Data](#)¹ (PII). The Journey Analytics service has been explicitly designed to NOT record or store user input data and PII. You may verify this by using the browser's F12 tool to monitor the network traffic of an Journey Analytics enabled application.

The figure below describes the high-level architecture of how Journey Analytics fits into the [Temenos Journey Manager](#).



¹Personally identifiable information (PII) is any data that could potentially identify a specific individual. Any information that can be used to distinguish one person from another and can be used for de-anonymizing anonymous data can be considered PII.

Journey Analytics is built and hosted on the Google Cloud Platform (GCP) infrastructure. It is a fully managed service built using the GCP.

Data in Transit

Journey Analytics code runs on GCP's App-Engine servers. This includes both the code that processes events coming from an application and Journey Manager and the code that delivers analytics views on Journey Analytics. All communication between an application (rendered on the browser), Journey Manager and Journey Analytics occur over secured network protocols (using Transport Layer Security). Journey Analytics does not support non-secure communication protocols.

Authorization of incoming Events

When a user opens an application (that has Journey Analytics [enabled](#)), Journey Manager embeds a JWT (JSON Web Token) in the header of the network response. The JWT is signed by Journey Manager with a secret key only known to Journey Manager and the Journey Analytics backend. The application further embeds this JWT in all interaction events sent to Journey Analytics. The JWT contains the required information for the Journey Analytics backend to; first, Authenticate and Authorise the interaction events (behavioral data) from the applications; second, map the events to the corresponding customer's GCP project and the associated BigQuery dataset.

Data at Rest

Each customer's data is isolated and stored in a separate GCP project, and each Journey Manager Instance that has Journey Analytics provisioned is allocated a dedicated Dataset on BigQuery within the customer's GCP project. GCP BigQuery is the same massively paralleled query service that powers Google Analytics. Refer to <https://cloud.google.com/resource-manager/> to understand how GCP projects are managed. We adhere to best practices advised by GCP documentation. When at rest, all events data is encrypted using AES-256 encryption and stored securely in BigQuery. Google encrypts all data by default with Google-managed keys. It is possible for us to manage the encryption keys ourselves, but we don't currently do this. Please refer to the following links for more details:

<https://cloud.google.com/security/encryption-at-rest/>

<https://cloud.google.com/security/encryption-at-rest/default-encryption>

Authentication and Authorization to access Journey Analytics Analytics UI

Customer's business teams can access their Journey Analytics analytics data through their Journey Manager server deployed on the Cloud or on-premise.

A customer's business user must have an appropriate Journey Manager's user account with Journey Analytics roles to access Journey Analytics analytics data. Access to Journey Analytics is managed by Journey Manager's security protocols. All access controls are also managed by Journey Manager, such as access to Organizations, Spaces, and Applications.

The Journey Manager's security architecture supports 2FA user authentication and temporary role assignments. After Journey Manager authenticates the user, it redirects all Journey Analytics analytics through iFrames. Communication between the user's browser and the Journey Analytics data visualizer happens via Journey Manager using HTTPS protocol (i.e. with TLS) which delivers all Journey Analytics analytics data securely.

After a user is authenticated and authorized by Journey Manager, Journey Analytics provides access to Analytics data for only those Orgs and Applications for which the user has access to.

Organizations Data Privacy

Users of Journey Analytics can only view data from the Organizations they are assigned.

Journey Analytics is designed to support single and multi-tenancy usage by leveraging [Journey Manager Organizations](#). Single tenant environments can be self-managed to use Organizations to group Individual business units so they can access specific applications and the resulting Journey Analytics data from the specified applications. In a multi-tenant environment, application and analytics access is centrally managed on behalf of all tenants.

Strict No PII policy

As described in the above section, Journey Analytics employs all possible mechanisms and strategies to NOT store data relating to PII.

Personal data is effectively anything related to an individual that can be used or combined to identify that person. Examples include Names, addresses, phone numbers, credit card, bank and other account numbers, IP and email addresses, license plate numbers, VAT codes, passports, driver's licenses, national identification numbers, biometric identifiers.

Journey Analytics collects three types of events:

Transact Status events

These events include an ID to uniquely identify a transaction in Journey Analytics so that all interaction events can be linked to that transaction. Journey Analytics receives Transaction status events primarily from Journey Manager. However, Started and Submitted transact [status](#) events are received from an application rendered in the users' browser.

Standard user Interaction events (Behavioural data)

These events include a wide variety of user interaction data arising from user engagement with the application. A detailed list of these events is provided in the Data stored in Journey Analytics section below. In short, it only includes information pertaining to user interaction and guaranteed to exclude PII.

Custom events

There are two types of custom events customers can send from a [supported](#) application or host system: Milestones and Segments.

Event	Description
Custom Milestones	<p>These are custom events that customers can implement to capture key events specific to their business, context of the application and the application workflow. These can be implemented in an application using APIs provided in Maestro or a business rule in Composer. These events can also be sent from a service running on Journey Manager.</p> <p>These events only include the name of the Milestone itself and nothing more. The Customer's implementation team must make sure that no PII is sent in the API's Milestone name parameter. It is strongly recommended to not use programming variables in the API parameter. Instead, the best practice is to explicitly hardcode the name of the custom Milestone in the API parameter at implementation time and use conditional logic where needed.</p>
Custom Segments	<p>These are events that assist customers to capture user Segments to analyze transactional data specific to a set of transactions having similar characteristics. Like custom milestones, these can be sent from a supported application or host system. These events include a Segmentation Name and a Segmentation Value.</p> <p>The Customer's implementation team must make sure that no PII is sent in the API's Segmentation Name and Segmentation Value parameters. It is strongly recommended to not use programming variables in the segment API parameters. Instead, the best practice is to explicitly hardcode Segmentation Name and Segmentation</p>

Value in the API parameter at implementation time and use conditional logic where needed.

As an added PII deterrence measure, for Segment events, a Segment Whitelist feature has been implemented in Insights. Customers have to explicitly whitelist all Segment Names and Values that should be allowed by the Journey Analytics backend to be stored in the Journey Analytics database. If the Journey Analytics backend receives a Segment Name or Value that is not listed in the Segment Whitelist, the Segment event will NOT be stored in the Journey Analytics database.

Network Rules

To support Journey Analytics, Journey Manager servers deployed on-premises must have firewall rules which support outbound access to the following Google Cloud Platform endpoints:

- <https://eventconsumer-dot-transact-insights.appspot.com>
- <https://dataproducer-dot-transact-insights.appspot.com>
- <https://apiserver-dot-transact-insights.appspot.com>
- <https://dashboard-dot-transact-insights.appspot.com>
- <https://accounts.google.com>

In addition, for all internal users who need access to Journey Analytics UI, their machine should be able to make outbound calls to the following URLs:

- The on-premises Journey Manager URL.
- <https://dashboard-dot-transact-insights.appspot.com>

In addition, for all internal users who test applications (rendering forms in the browser to generate transactional data), their machine should be able to make outbound calls to the following URLs:

- <https://eventconsumer-dot-transact-insights.appspot.com>
- <https://accounts.google.com>

All traffic is REST JSON service calls over HTTPS, typically message payloads are very small measuring a few KB at most.

Data Stored in Journey Analytics

Journey Analytics stores the following data:

Transaction and Session data

- Manager information.
- Transaction ID.
- Form Organization information.
- Form Space information.
- Form and version information.
- Browser session information (Time when the session was established, user_agent, device location, device info, time-zone).

Milestone events: Opened, Started, Bounced, Abandoned, Saved, Completed (Submitted)

- Transaction identification.
- Timestamp of the event.

Section name and sequence ID for Saved and Abandoned milestones

- Section (page/dialog) events: Section navigation, Section completion.
- Transaction identification.
- Timestamp of the event.
- Section name.

Field events: Field navigation, Field completion, Field validation

- Transaction identification.
- Timestamp of the event.
- Section name.
- Field name.
- Field sequence.
- Field path, for example `ContactDetails/PrimaryContact/AddressLine1`.
- Key Strokes (Count of key-ups in the field. Sent as part of field completion event).
- Data Length (Length of data in the field. Sent as part of field completion event).
- Time in field (Time spent in the field. Sent as part of field completion event).

Custom Milestone events: These could be sent through milestone APIs from a Maestro form, by adding an Insights business rule in a Composer form, or from a service running on Manager using TxnUpdater API.

- Transaction identification.
- Timestamp of the event.
- Milestone name.

Segment events: These could be sent through segment APIs from a Maestro form, by adding an Insights business rule in a Composer form, or from a service running on Manager using TxnUpdater API.

- Transaction identification.
- Timestamp of the event.
- Segmentation name.
- Segmentation value.

Known Issues and Workarounds

This topic identifies the known issues in [Journey Analytics](#) and identifies several workarounds that can be used to address these issues.

Journey Analytics data collection issue with Journey Manager Version 5.1.8 or earlier

Issue	When the submission object in Journey Manager is created using <code>SubmissionTaskService::createAnonymousSavedForm</code> , <code>insightsFlag</code> submission property is never set.
Impact	The impact of this is that Journey Manager will never send <code>FormRequest</code> for these submissions to Journey Analytics. This is important as the Journey Analytics backend uses <code>FormRequest</code> data to identify the appropriate BigQuery dataset where the event data is to be stored. Without <code>FormRequest</code> data from Journey Manager, Journey Analytics discards all events for the corresponding submission.
Fix Availability	This issue has been fixed and available in Journey Manager 5.1.9 or any subsequent releases.
Workaround	The workaround is to set the <code>insightsFlag</code> property of the submission object to <code>true</code> in the script where you are creating the saved transaction. You need to make sure the changes are committed to Journey Manager. <pre>submission.setInsightsFlag(true)</pre>

Collaboration Jobs created via Journey SDK

Issue	Journey Manager doesn't properly indicate 'insightsEnabled' status for Collaboration Jobs defined by Journey SDK .
Impact	Despite indicating that 'insightsEnabled' is set to 'true', no events are actually captured for the job's transactions.
Fix Availability	This issue has yet to be fixed and affects any Collaboration Job created via Journey SDK .
Workaround	To workaround this issue, ensure that any <code>service-def.json</code> for affected Collaboration Jobs, includes the "insightsEnabled" parameter as noted in the example below:

```

{
  "name": "Deposits Onboarding",
  "description": "Lorem ipsum",
  "type": "Job Controller",
  "tmMinVersion": "5.0.0",
  "legacyGroovy": false,
  "parameters": [
    {
      "name": "jobDefinition",
      "type": "JSON",
      "filePath": "job-definition.json",
      "bind": true,
      "required": true,
      "clearOnExport": false,
      "readOnly": false
    },
    {
      "name": "insightsEnabled",
      "value": true,
      "type": "Boolean",
      "bind": false,
      "required": false,
      "clearOnExport": false,
      "readOnly": false
    }
  ]
}

```

Collaboration Jobs chart displays disconnected steps

Issue

If data received by Journey Analytics is incomplete for a Collaboration Job ie. when partial job step events are sent to Journey Analytics, the chart may show job steps that are disconnected from the rest of the steps. This will only become possible when the steps are filtered to a subset that includes a step that is part of a job that's data does not intersect with the other steps chosen. For example:



Impact

This is a very rare issue and does not affect the majority of Job transactions. When it occurs, the Collaboration Jobs graph can include disconnected steps.

Fix Availability

The issue is not with the Collaboration Jobs view but is a result of an issue that has sent incomplete job steps to Journey Analytics.

Workaround

To mitigate this rare issue, choose a broader scope of transactions to analyze. By widening scope, outliers will be less prominent in the overall graph as the margin of error is reduced.

Journey Analytics FAQs

FAQs	Answer
Are the Journey Analytics screens and the Journey Manager Analytics screens the same?	<p>No, the screens in Journey Manager include all transaction whether or not analytics has been enabled. However, Journey Analytics only tracks transactions which are analytics enabled.</p> <p>The charts therefore will not match for that reason.</p>
Are all user interactions captured by Journey Analytics?	<p>No, users may have settings or extensions in their browsers that block analytics events. For example, “Do Not Track” settings, ad blockers, or privacy-focused extensions can prevent the collection of behavior analytics.</p>
Can you confirm the Journey Analytics data only shows fields that have been interacted with?	<p>This is correct. Journey Analytics is a behavioral analytics tool and is only aware of fields if it receives at least one event for a field. This includes navigation, validation or completion, such as clicking in a field, auto population of a field or one or more keystrokes to complete the field.</p> <p>It is not possible with the current architecture of the application to know anything about fields that are never actually touched by a user.</p>
In the Dropoff view, what is the difference between the Conversion Rate and the Completion Rate?	<p>Conversion Rates are calculated based on all incoming traffic to the form, which includes robots, search indexers and other non-user activity. Completion Rates, however, are calculated based on only the transactions where users actually interacted with fields on the form, or Started the application.</p>
In the Dropoff view, why do stats differ between Transaction Metrics and Section Completion?	<p>Stats may differ between Transaction Metrics (form transaction-level stats) and Section Completion (form section-level stats) when users install browser addons which can block analytics events being captured for sections.</p>
Is rounding used?	<p>Rounding is used only to display larger numbers in a readable manner. Rounded numbers can be identified by the k (thousand), m (million) or b (billion) abbreviation. However, calculations use the actual raw counts, not the rounded figures. These can be found anywhere throughout the application where large numbers are presented.</p>

Why do the Journey Analytics Dashboard Duration statistics display as a median value, whereas Field Errors and Field Help are displayed as an average?

Because Duration can have such a wide variation in values, we throw out the very high and very low values, to display the median.

However the Field Errors and Field Help are often a much tighter bunch of values, so it makes sense to display them as an average. The range of numbers of errors is typically smaller compared to the time taken to complete a transaction.

How long does it take for data to flow into Journey Analytics?

It usually takes around 90 minutes from the time the user interacts with the application. However, when a new form is introduced, please allow up to 24 hours for the new form to be available in Journey Analytics dashboards due additional processing requirements.

How long before a transaction is considered abandoned?

Typically it takes 24 hours, and is configurable in Manager.

How long is historical data available for viewing?

Currently Journey Analytics data is warehoused indefinitely.

Why do the same segments appear in our DEV and UAT environments?

The Segment Whitelist is shared across all Journey Manager environments (DEV, UAT, TEST, STAGING, PROD). Changes to the Segment Whitelist in one environment will be reflected in all environments.

Why are transactions from the last 24hrs not included in the preset periods?

The preset periods do not contain the last 24 hours. Simply use the custom period with an end date of today.

Why after logging into Journey Analytics are the views all blank?

Log out, clear your browser cache and log back into Journey Analytics.