



mParticle Data Plan Builder | Media

This sheet helps you understand how to use an mParticle Data Plan in this Data Plan Builder.
[Read the docs for Data Plans here.](#)

To get started, follow these steps:

1. Clone this template

To clone this Google Sheets template, select **File > Make a copy**.
Note: It can take up to 30 seconds for the mParticle add-on to load after cloning a sheet – this is normal.

2. Define your data model

Edit the **Users** and **Events** tabs to match the user and event data you plan to collect.

3. Generate the data plan

In the Google Sheets menu, select **mParticle > Generate Data Plan** to create your data plan. The script takes you to the **Export** tab after it's completed.



Note: You'll only see the mParticle menu option in your cloned sheet.

4. Upload to mParticle

To upload the plan JSON to mParticle [in the UI](#) or use the [Data Planning API](#).

5. [Optional] Generate code snippets

Generate code snippets that you can use to implement your data plan with [mParticle Snippets](#).

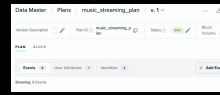
To use an **EXISTING** data plan, follow these steps:

1. Clone this template

To clone this Google Sheet template, select **File > Make a copy**.
Note: It can take up to 30 seconds for the mParticle add-on to load after cloning a sheet – this is normal.

2. Download your existing Data Plan as JSON

Download your plan [in the UI](#) or use the [Data Planning API](#).



3. Import your existing data plan into the Builder

In the **Import** tab below, paste the JSON from Step 2 into the specified area. In the Google Sheets menu, select **mParticle > Populate Builder From Data Plan** to populate the Builder with your data plan. The script takes you to the **Events** tab after it's completed.

Note: You'll only see the mParticle menu option in your cloned sheet.

4. Edit your data model

Edit the **Users**, **Events**, and **Products** tabs below to match the user and event data you plan to collect.

5. Generate an updated data plan

In the Google Sheets menu, select **mParticle > Generate Data Plan** to generate an updated data plan.
The script takes you to the **Export** tab after it's completed.



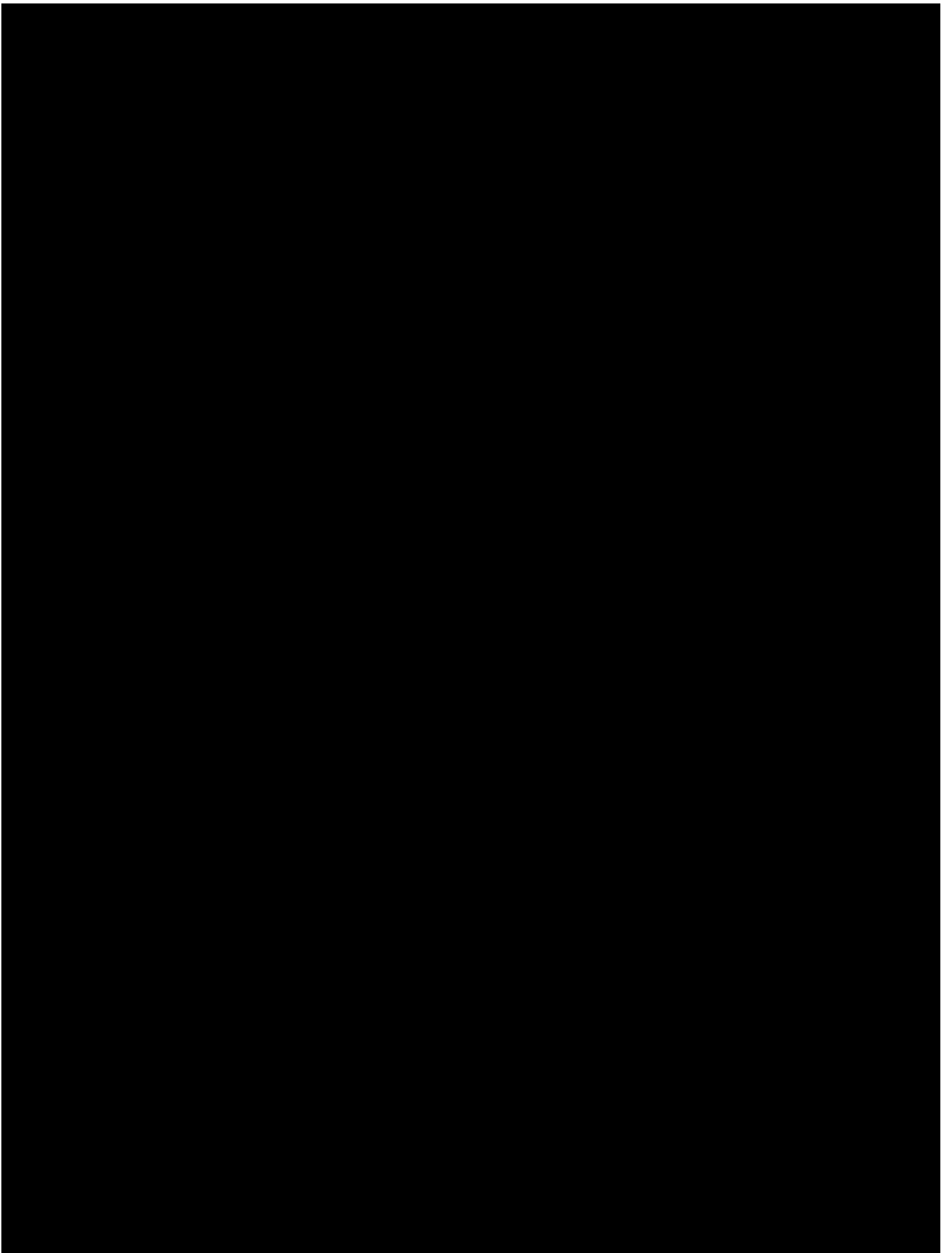
Note: You'll only see the mParticle menu option in your cloned sheet.

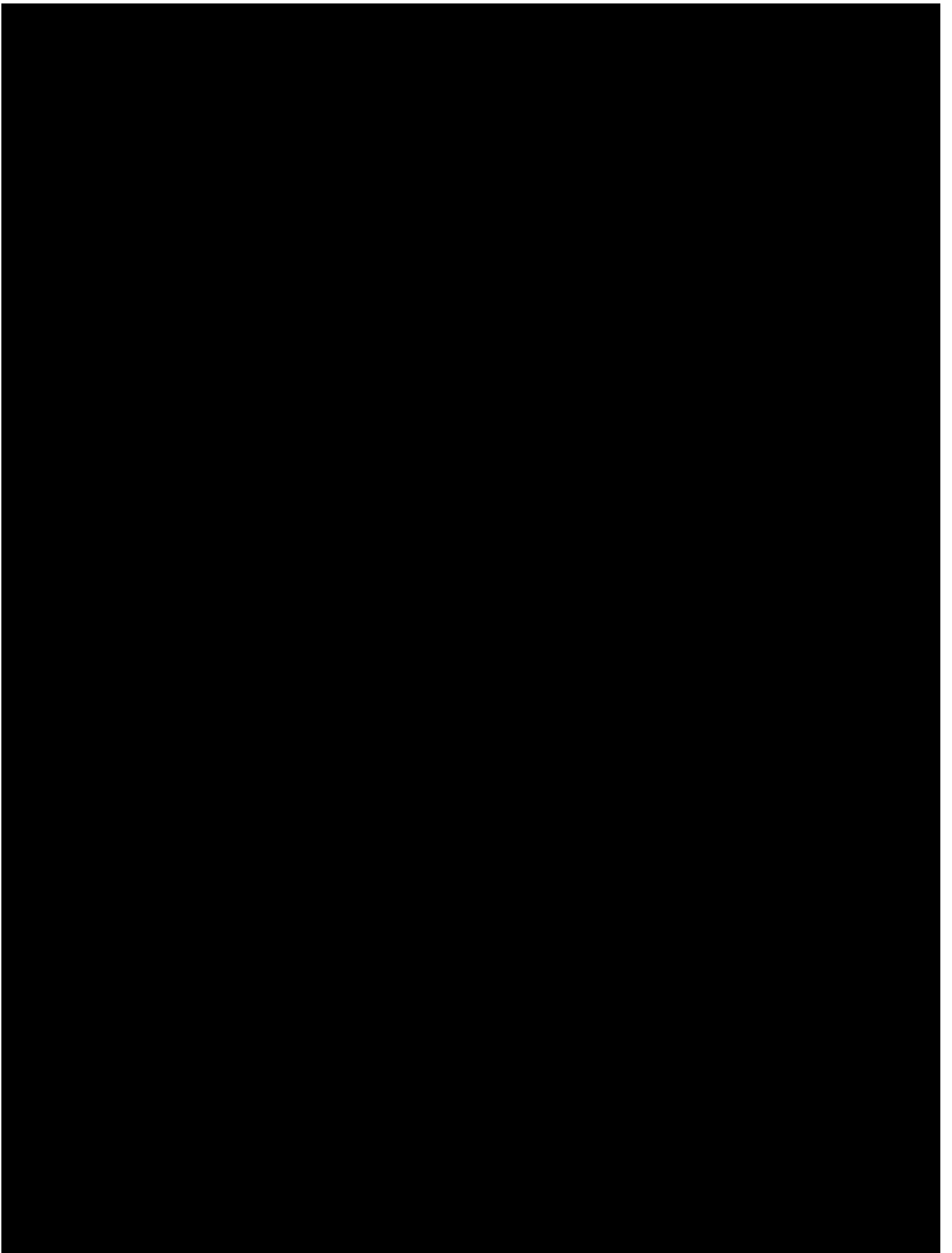
6. Upload to mParticle

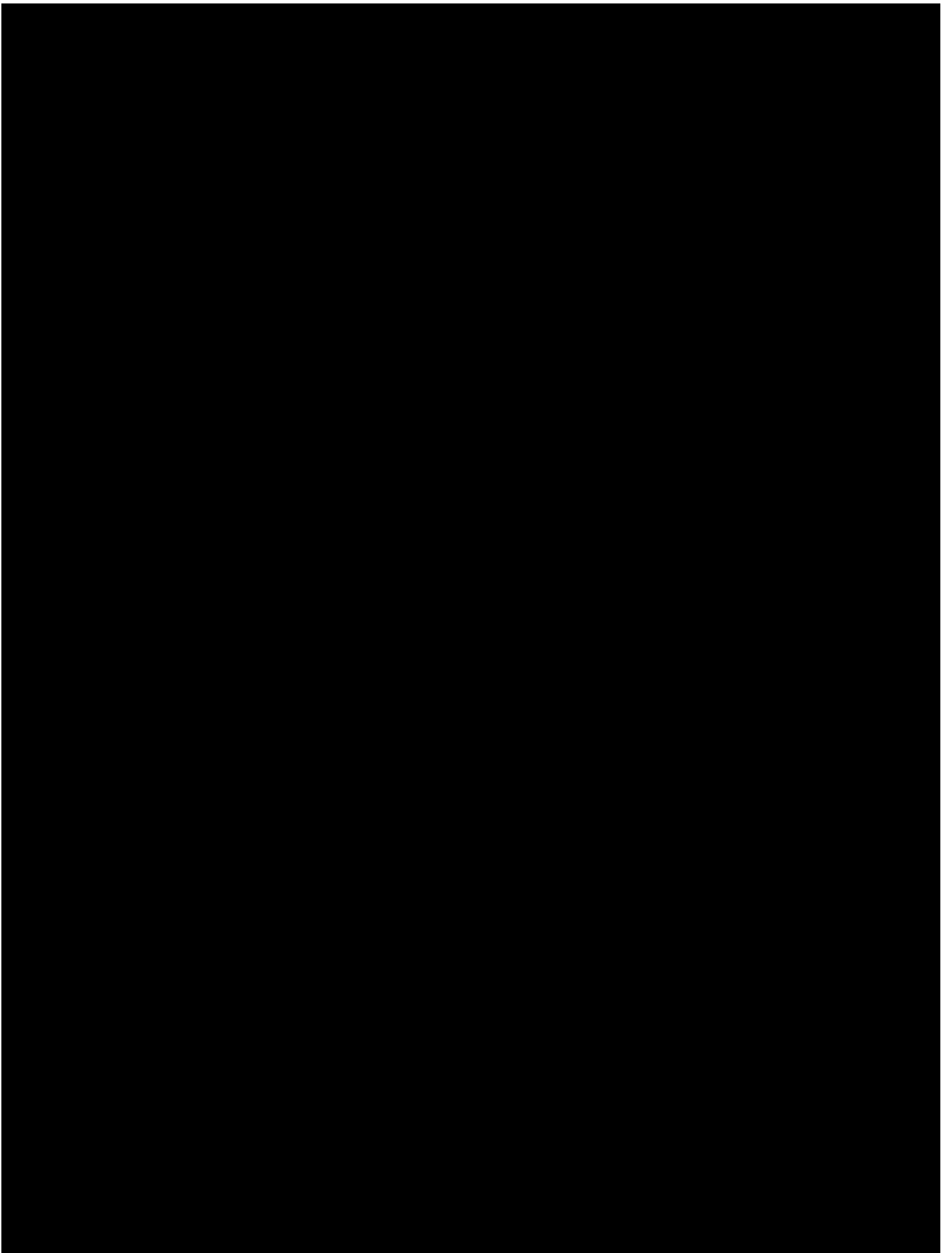
Upload the updated plan JSON to mParticle [in the UI](#) or use the [Data Planning API](#).

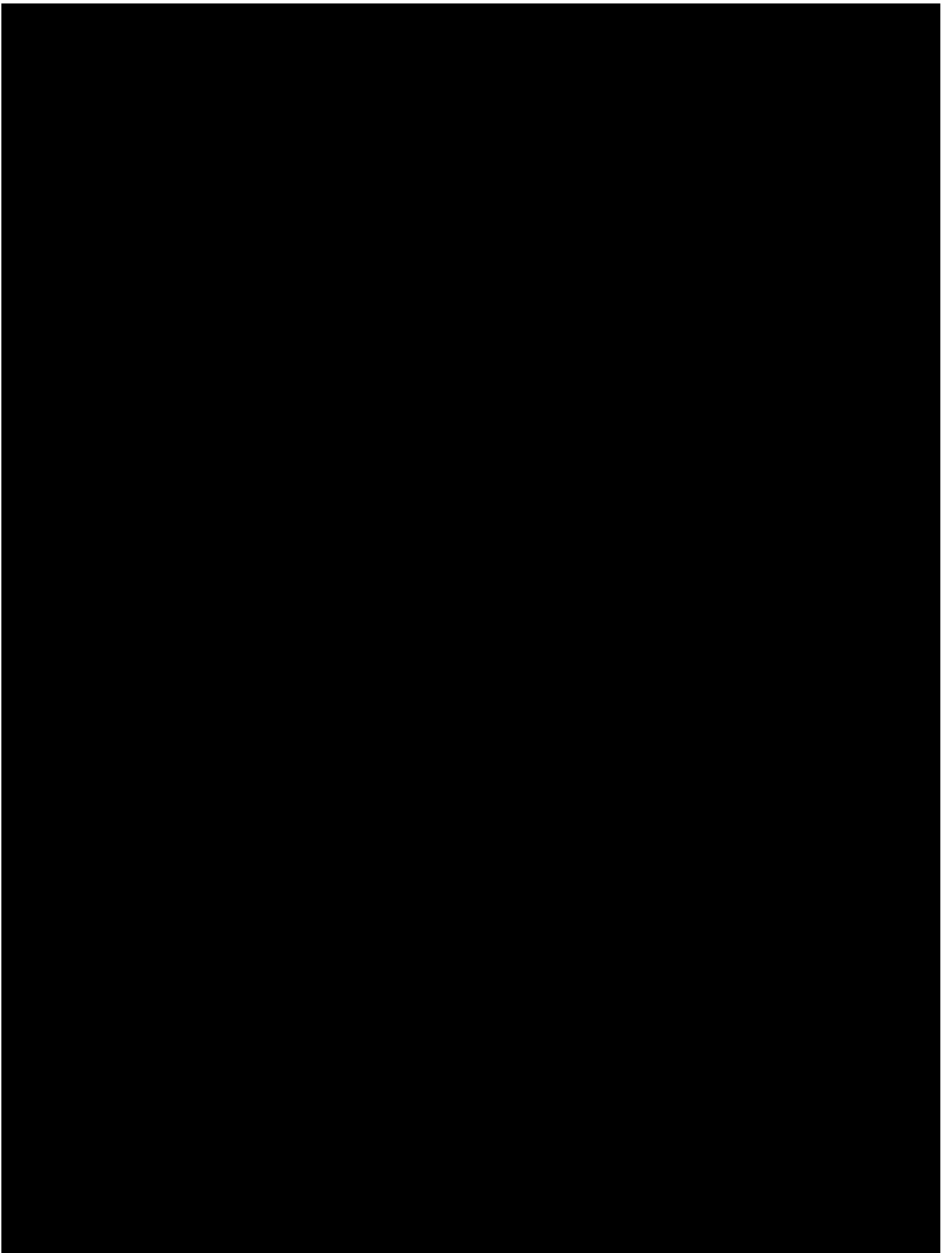
7. [Optional] Update code snippets

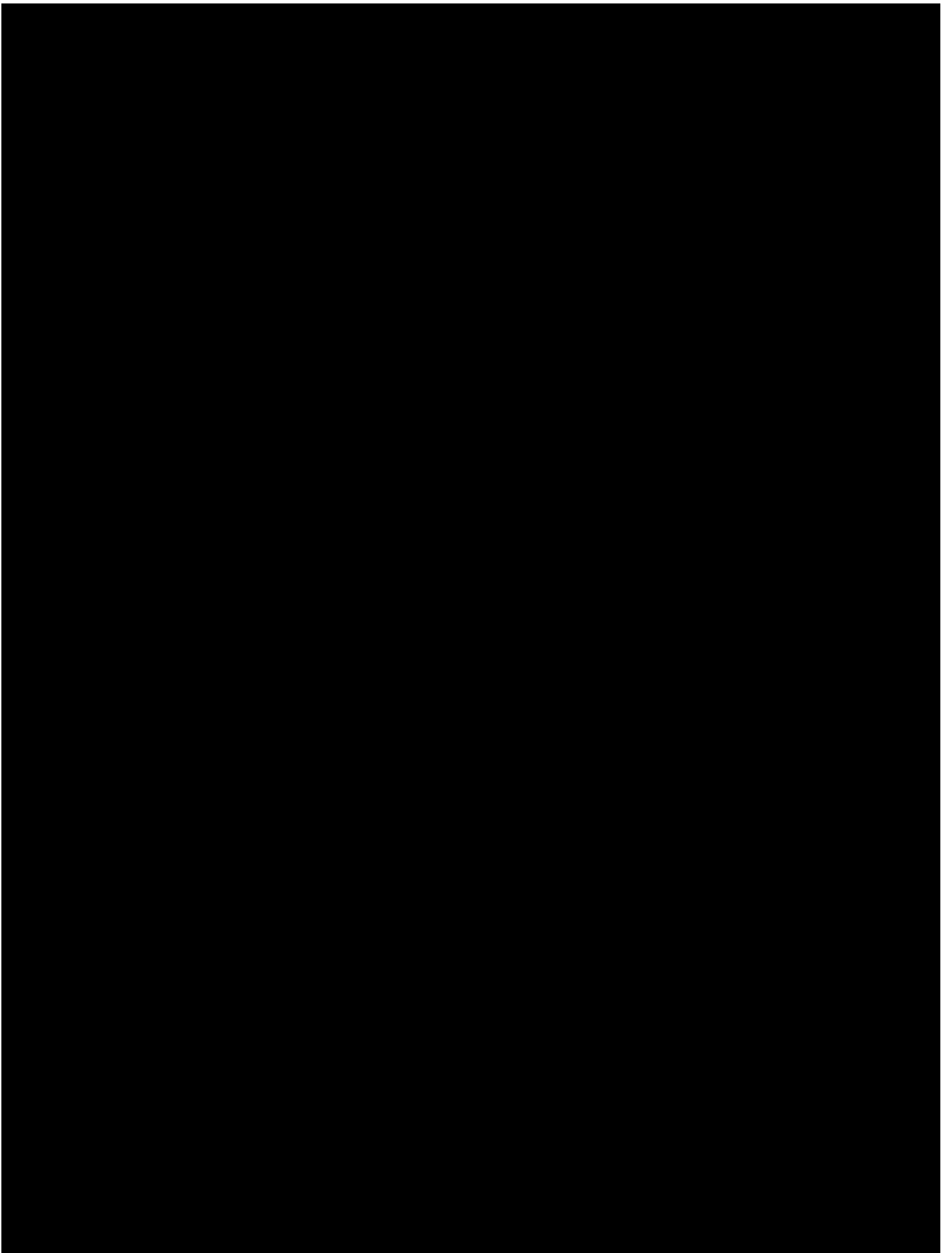
Generate updated code snippets that you can use to implement your data plan with [mParticle Snippets](#).

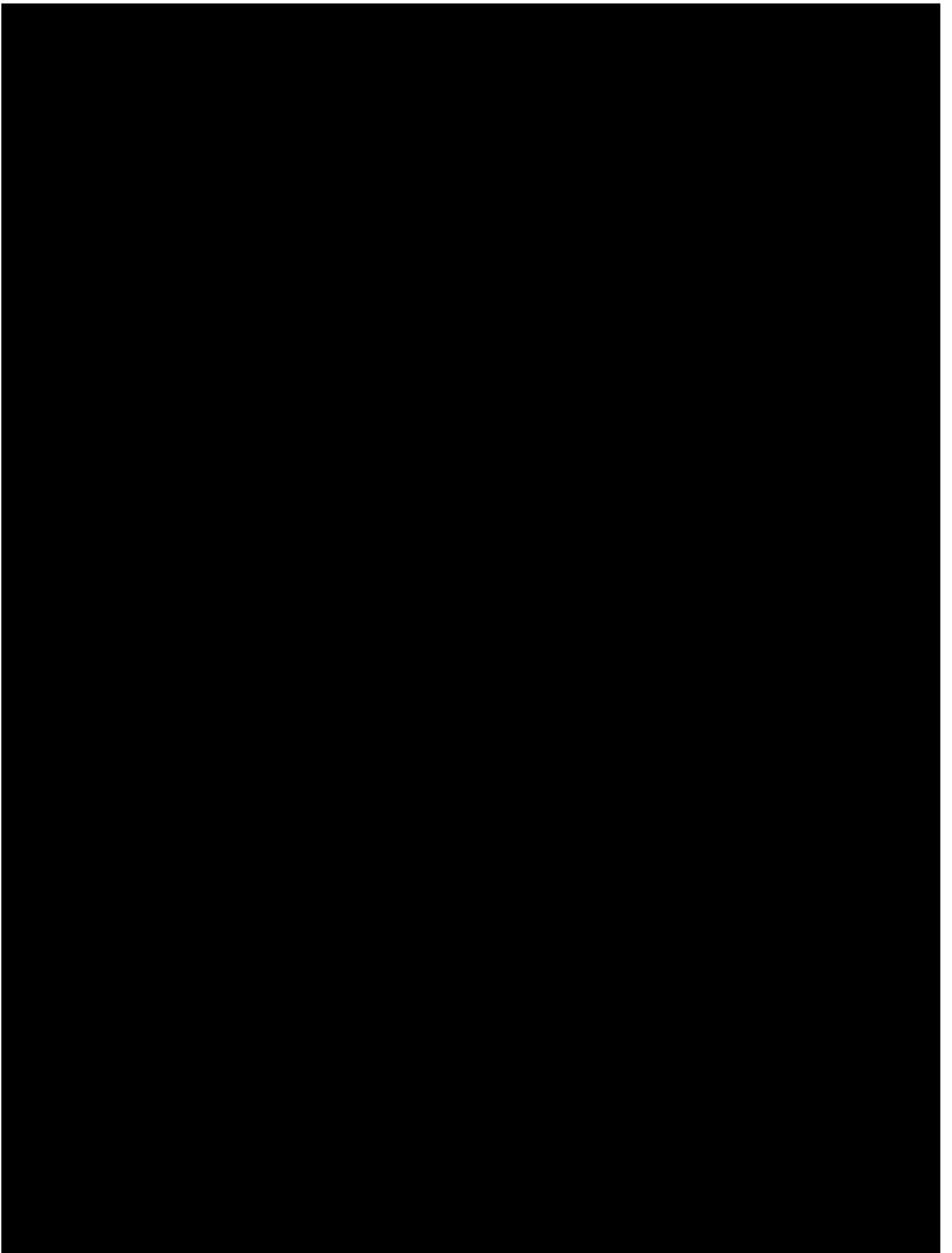


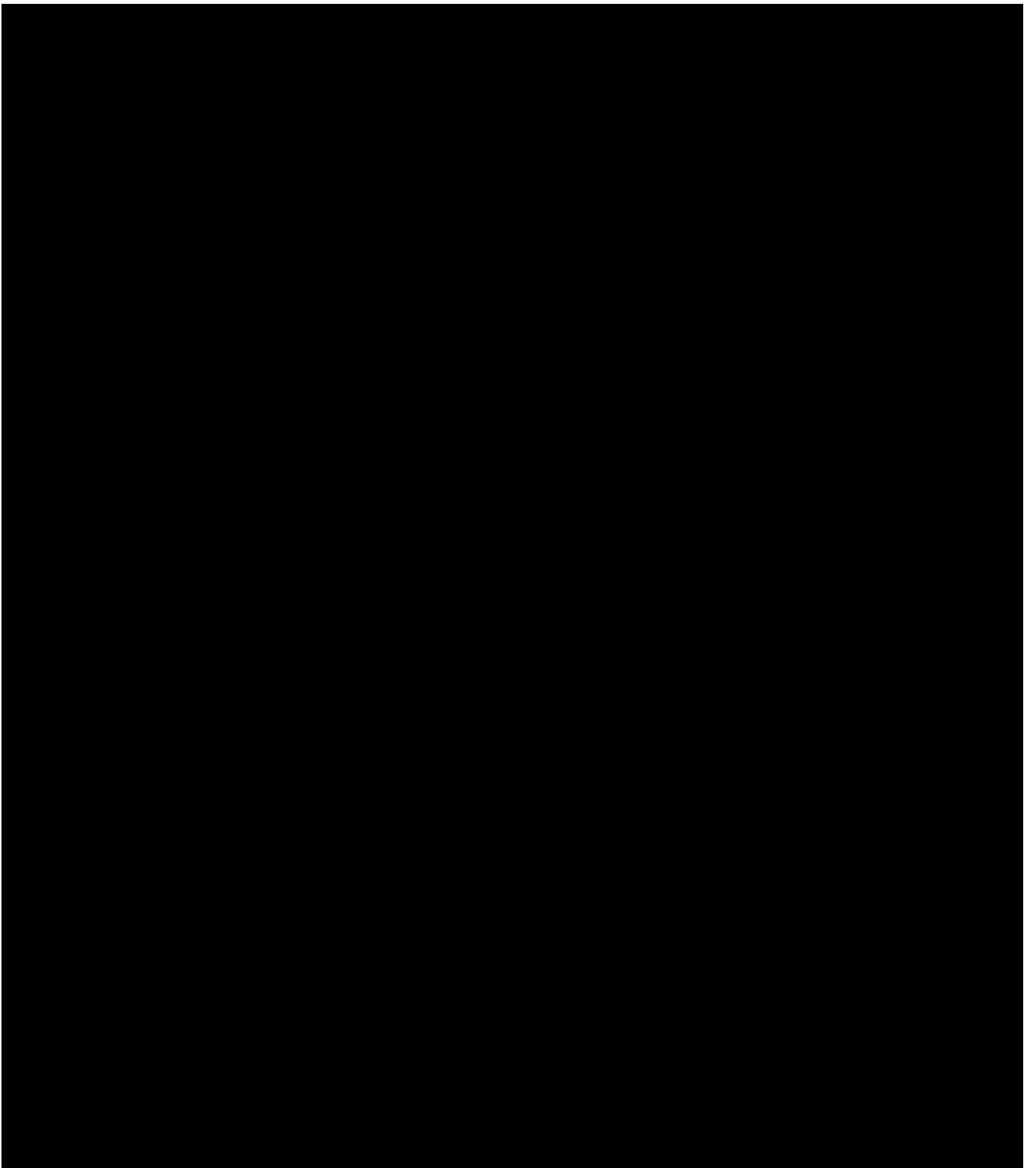












User Identities

[Related docs](#)
[User Identities](#) | [mParticle Identity Framework](#)

All data in mParticle is attributed to a user. It's therefore critical to correctly identify users before collecting data. When it comes to identifying users with mParticle, there are a few important concepts to understand: user identity, identity hierarchy, and identity strategy. You can learn more about these [here](#). A user profile stores the most recent value for a user attribute at any given time.

[Identity Hierarchy](#)
[Identity Strategy](#)

Click on each of the [User Attributes](#) sections to edit user properties in your profile.

Identity ID	Data Type ID	Allow Null ID	Required ID	Description ID	Validation ID	Validation Value ID	Format ID
Connected ID	string	<input type="checkbox"/>	<input type="checkbox"/>	Known Identifier	pattern	^[\w-]+@[\w-]+\.[\w-]+	Email
Email Address	string	<input type="checkbox"/>	<input type="checkbox"/>	Known Identifier			
Apple IDV	string	<input type="checkbox"/>	<input type="checkbox"/>	Anonymous Identity			
Apple IDFA	string	<input type="checkbox"/>	<input type="checkbox"/>	Anonymous Identity			
Google Advertising ID	string	<input type="checkbox"/>	<input type="checkbox"/>	Anonymous Identity			
Android Device ID	string	<input type="checkbox"/>	<input type="checkbox"/>	Anonymous Identity			

User Attributes

[Related docs](#)
[User Attributes](#)

Every mParticle event is attributed to a user profile. User Attributes enable you to capture user-specific data on the user profile.

Attribute ID	Data Type ID	Allow Null ID	Required ID	Description ID	Validation ID	Validation Value ID	Format ID
ScreenId	string	<input type="checkbox"/>	<input type="checkbox"/>	User's profile	enum	max(255),min(5)	
screenName	string	<input type="checkbox"/>	<input type="checkbox"/>	User's screenName	pattern	^[a-z-0-9_]{1,25}\$	Email
email	string	<input type="checkbox"/>	<input type="checkbox"/>	User's email			Date
birthdate	string	<input type="checkbox"/>	<input type="checkbox"/>	User's birthdate			
firstName	string	<input type="checkbox"/>	<input type="checkbox"/>	User's first name			
lastName	string	<input type="checkbox"/>	<input type="checkbox"/>	User's last name			
ip	number	<input type="checkbox"/>	<input type="checkbox"/>	User's current IPv4 address	numeric	max(8)	
Marketing Opt In	boolean	<input type="checkbox"/>	<input type="checkbox"/>	Whether a user has opted in to marketing			

Events

Report docs

Every event is attributed to a user. Events describe what a user does and how they interact with your business. mParticle supports three types of events:

- Screen View: An explicit pageview across device screens in your app.
- Custom Event: A manually triggered event across device screens in your app.
- Custom Event: For any other user activity you'd like to track in your app.

Every event you capture has a `custom_attributes` object for that event. Attributes are added in the code immediately before the event fire. The field contains key-value pairs for Custom events and for Screen Views. You can also read your event attributes here.

Note: To get a full view of all attributes associated with events, check out the [Shared Event Attributes](#) tab.

Event Type [17]	Subtype [16]	Name [15]	Event Description [14]	Attributes [13]	Data Type [12]	Allow Null [11]	Required [10]	Description [9]	Validation [8]	Validation Value [7]	Format [6]
Custom	Other	Sign up - Attempted	User attempted to sign up for an account on mobile	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				consent_to_marketing	boolean	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				region	string	<input type="checkbox"/>	<input type="checkbox"/>				
Custom	Other	Sign up - Successful	User successfully signed up for an account	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				region	string	<input type="checkbox"/>	<input type="checkbox"/>				
Custom	Other	Sign up - Failed	User failed to sign up for an account	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				error_message	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				region	string	<input type="checkbox"/>	<input type="checkbox"/>				
Custom	Other	Log in - Attempted	User attempted to log into account (in addition to	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				region	string	<input type="checkbox"/>	<input type="checkbox"/>				
Custom	Other	Log in - Successful	User successfully logged into account	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				region	string	<input type="checkbox"/>	<input type="checkbox"/>				
Custom	Other	Log in - Failed	User failed to log into account	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				error_message	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				region	string	<input type="checkbox"/>	<input type="checkbox"/>				
Custom	Other	Activate Subscription	Activate a new subscription	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				subscription_id	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>		pattern	^p-m-20-0_2\$	
				subscription_name	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				subscription_url	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				consent_to_marketing	boolean	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
Custom	Other	Set Marketing Consent	User set marketing consent	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				consent_to_marketing	boolean	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
Custom	Other	Play Song	Play song	custom_attributes	object	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				track_name	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
Custom	Other	Pause Song	Pause song	custom_attributes	object	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				track_name	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
Custom	Other	Next Song	Skip to next song	custom_attributes	object	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				track_name	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
Custom	Other	Previous Song	Skip to previous song or beginning of song	custom_attributes	object	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				track_name	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
Custom	Other	Add to Library	Add song to library	custom_attributes	object	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				track_name	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
Custom	Other	Remove from Library	Remove song from library	custom_attributes	object	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
				track_name	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
Screen View	Home	Viewed Home screen	Viewed home screen	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				screen_id	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>		pattern	^p-m-20-0_2\$	
Screen View	Playlist	Viewed Playlist	Viewed playlist	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				screen_id	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>		pattern	^p-m-20-0_2\$	
Screen View	Artist	Viewed Artist	Viewed artist	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				screen_id	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>		pattern	^p-m-20-0_2\$	
Screen View	Album	Viewed Album	Viewed album	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				album_id	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>		pattern	^p-m-20-0_2\$	
Screen View	Song Playlist	Viewed playlist	Viewed playlist	custom_attributes	object	<input type="checkbox"/>	<input type="checkbox"/>				
				song_id	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>		pattern	^p-m-20-0_2\$	

Shared Event Attributes

Shared event attributes can be applied to broad categories of events (eg. all communications, all user actions, all events, or a user-defined group).
 Double-click on any attribute to edit its name, type, and format. Double-click on any attribute to edit its description. The data type attribute will automatically expand and collapse the attribute associated with the type when you generate the data file.

Attribute	Add to all Event Types	Add to all New Event Types	Add to all Existing Event Types	Attribute ID	Event Type ID	Attribute ID	Event Type ID	Description ID	Validation ID	Validation Value ID	Format ID
Region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	region	string			URL of the current session			URL
Region - Country	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	region_country	string			Country/region code			By, ISO3166-1
Region - City	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	region_city	string			City name			ISO-3166-2
Region - State	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	region_state	string			State name			ISO-3166-2
Region - Postal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	region_postal	number			Postcode of postal area			none

Products

Review and edit Commerce Events, you can't edit this tab.
 Products capture information about individual products referenced in mParticle's Commerce Events (specifically Product Action and Product Impression events).

[Related docs](#)

[API](#)
[Schema](#)

These attributes are pre-defined by mParticle and can be used to track commonly collected metadata, such as the name and quantity of a product. These will be added to all Commerce events. You can control how they are validated but you cannot edit the attribute names.

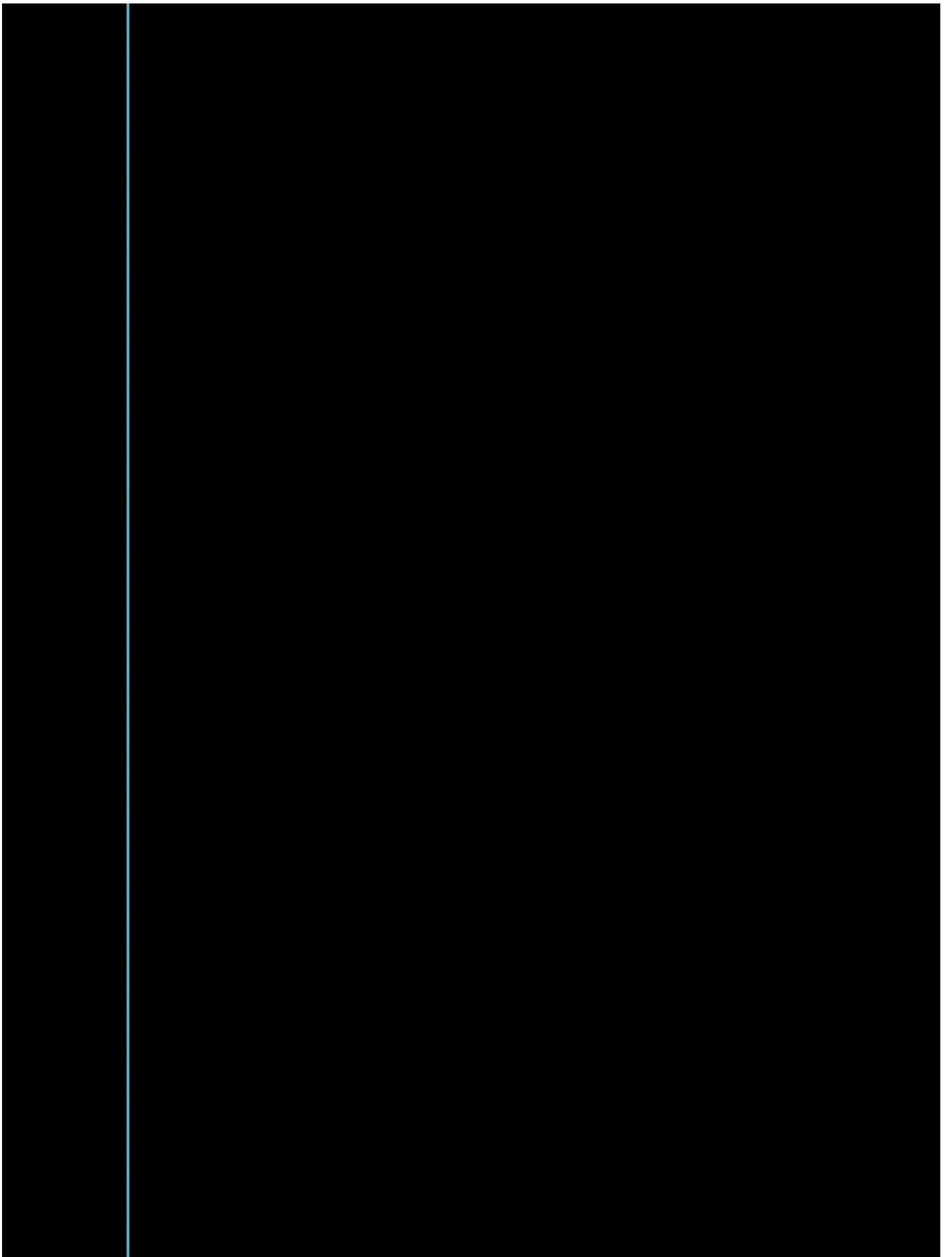
Product Attribute [4:1]	Data Type [4:2]	Allow Null [4:3]	Required [4:4]	Description [4:5]	Validation [4:6]	Validation Value [4:7]	Format [4:8]
id	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>		pattern	%a-zA-Z0-9_*\$	
name	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
quantity	number	<input type="checkbox"/>	<input checked="" type="checkbox"/>		minmax	min:0	
price	number	<input type="checkbox"/>	<input checked="" type="checkbox"/>		minmax	min:0, max:100	
variant	string	<input type="checkbox"/>	<input type="checkbox"/>				
category	string	<input type="checkbox"/>	<input type="checkbox"/>				
brand	string	<input type="checkbox"/>	<input type="checkbox"/>				
position	number	<input type="checkbox"/>	<input type="checkbox"/>				
coupon_code	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

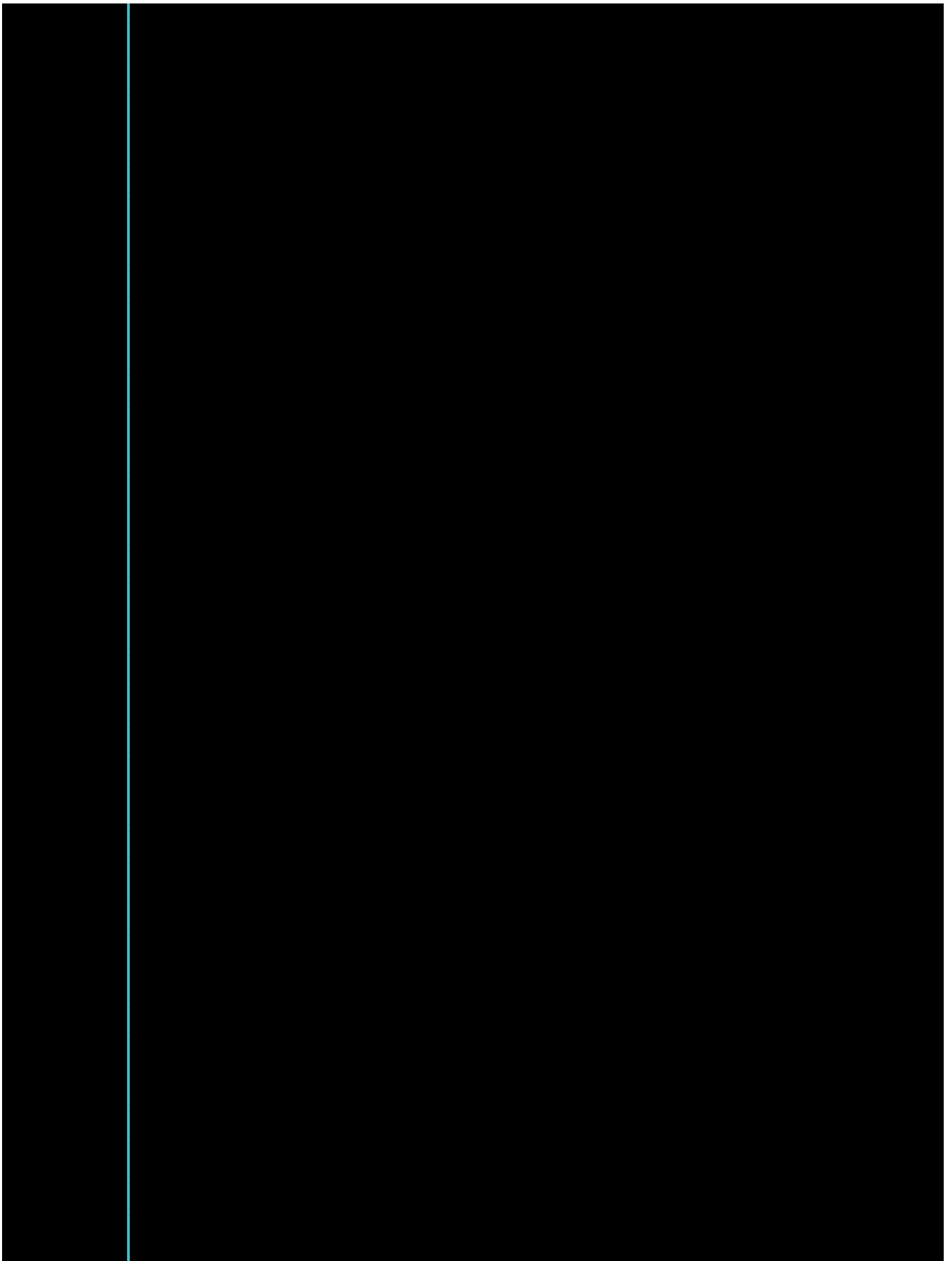
Product Action events can optionally include metadata on the transaction with a product. These pre-defined attributes will appear on any Product Action events (Action Call, Purchase, and Delivery).

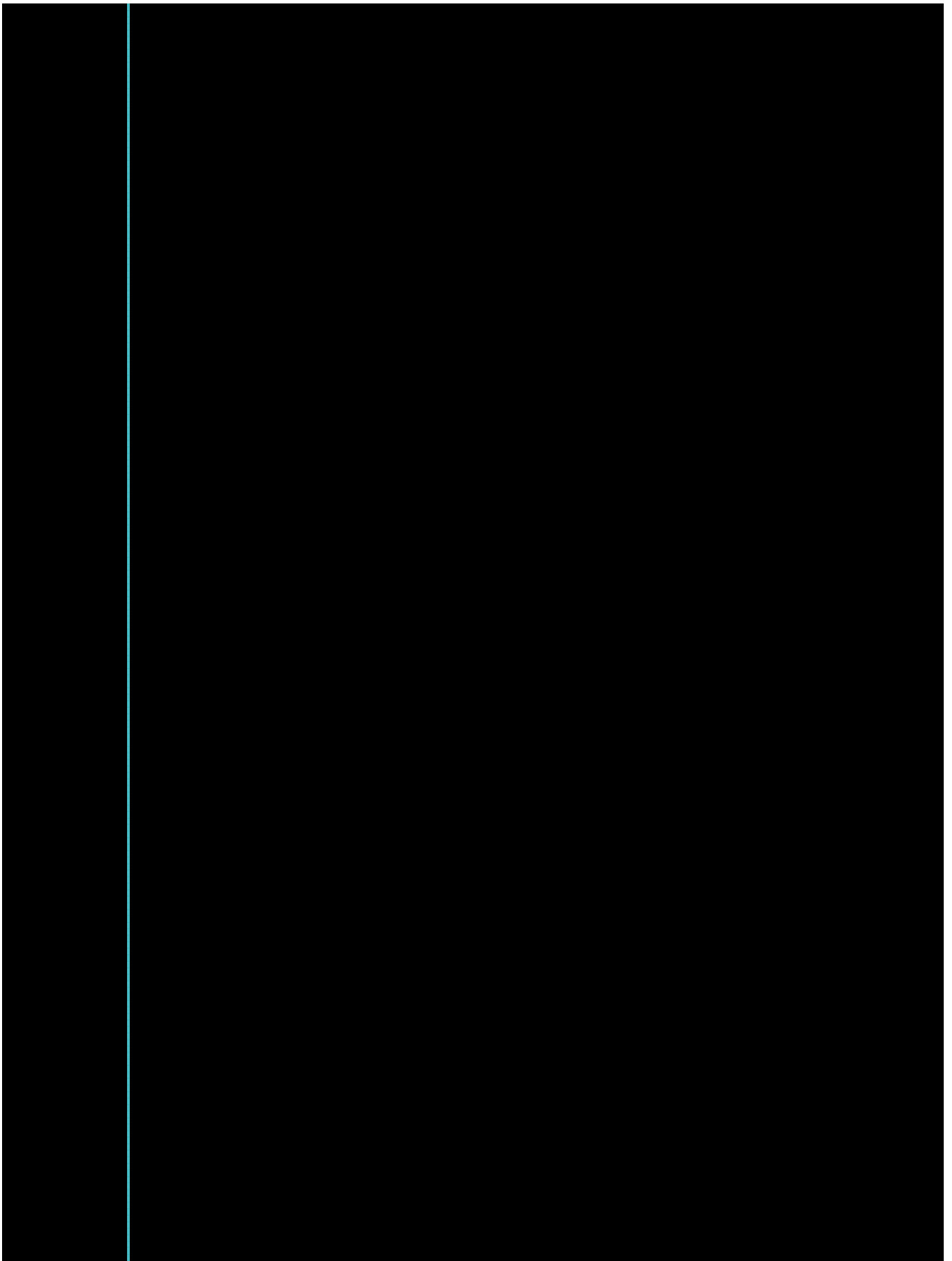
Product Attribute [4:1]	Data Type [5:1]	Allow Null [5:2]	Required [5:3]	Description [5:4]	Validation [5:5]	Validation Value [5:6]	Format [5:7]
transaction_id	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A transaction id attributed to an event.	pattern	%a-zA-Z0-9_*\$	
total_amount	number	<input type="checkbox"/>	<input type="checkbox"/>	The total amount of the transaction.	minmax	min:0	
tax_amount	number	<input type="checkbox"/>	<input type="checkbox"/>	The tax amount of the transaction.	minmax	min:0	
shipping_amount	number	<input type="checkbox"/>	<input type="checkbox"/>	The shipping amount of the transaction.	minmax	min:0	
coupon_code	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Any coupon code associated with the transaction.	pattern	%a-zA-Z0-9_*\$	
checkout_step	number	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The step of the checkout process.	minmax	min:0	

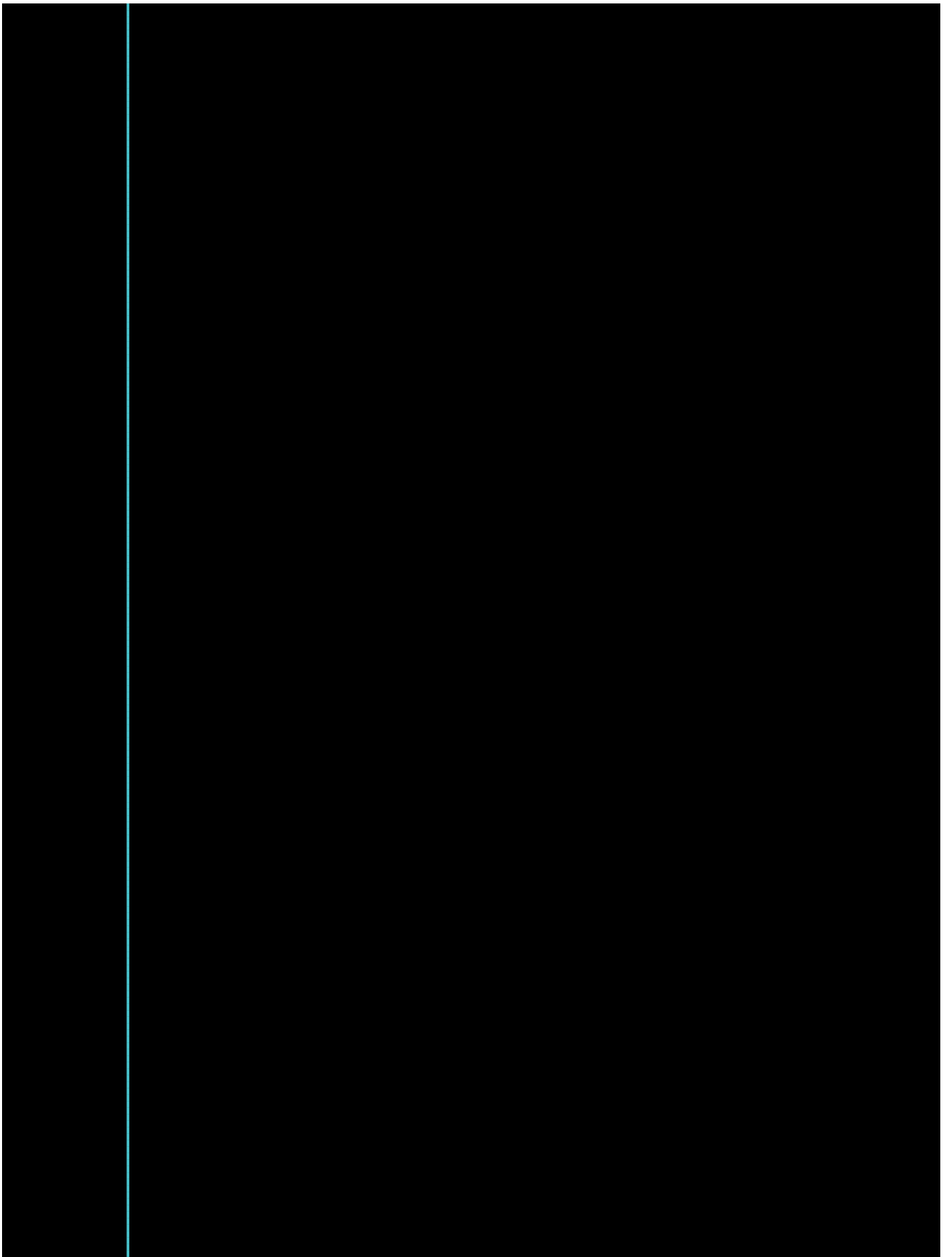
These are user-defined attributes that can capture any attributes relevant to your use case (e.g., the size of a beverage if you're selling coffee). They will be added to all Product events. These attributes should describe the product only, and any custom attributes describing the action event involving the product should be captured as custom event attributes on the Events tab.

Product Custom Attribute [3:7]	Data Type [3:8]	Allow Null [3:9]	Required [3:10]	Description [3:11]	Validation [3:12]	Validation Value [3:13]	Format [3:14]
		<input type="checkbox"/>	<input type="checkbox"/>				







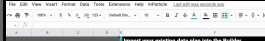




1. HOVER HERE [65]

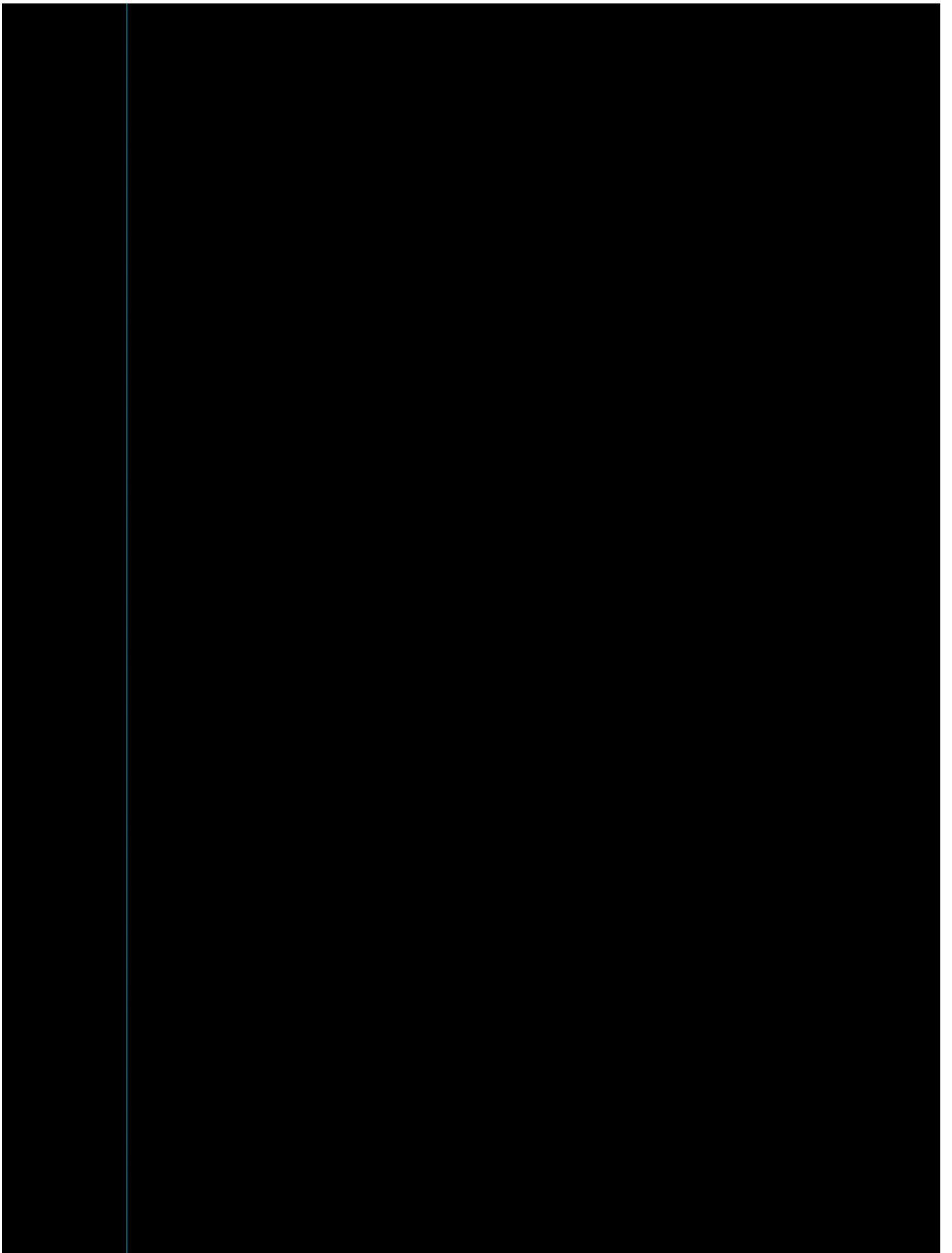
Import your existing data plan into the Builder

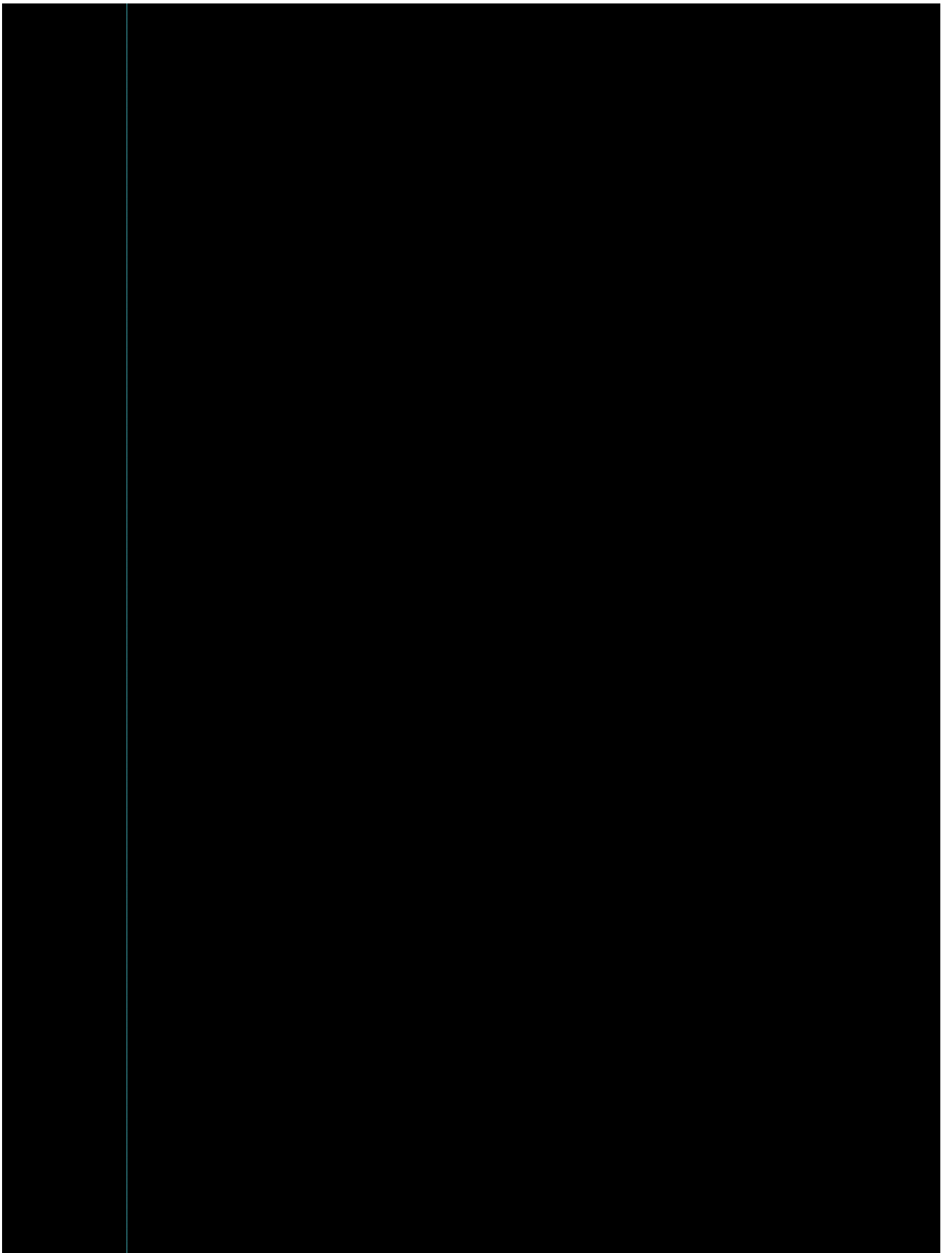
1. Copy your Data Plan JSON and then hover over the gray box to the left.
2. In the dialog box appears, click the instructional text, paste your Data Plan JSON and then click out of the dialog. You will not see your JSON box again. (The screenshot below shows the dialog box.)
3. In the Google Sheets menu, select **Import > Populate Builder from Data Plan** to populate the Builder with your data plan. The script takes you to the **Events** tab after it's completed. The script can take several seconds to execute depending on the size of the data plan.

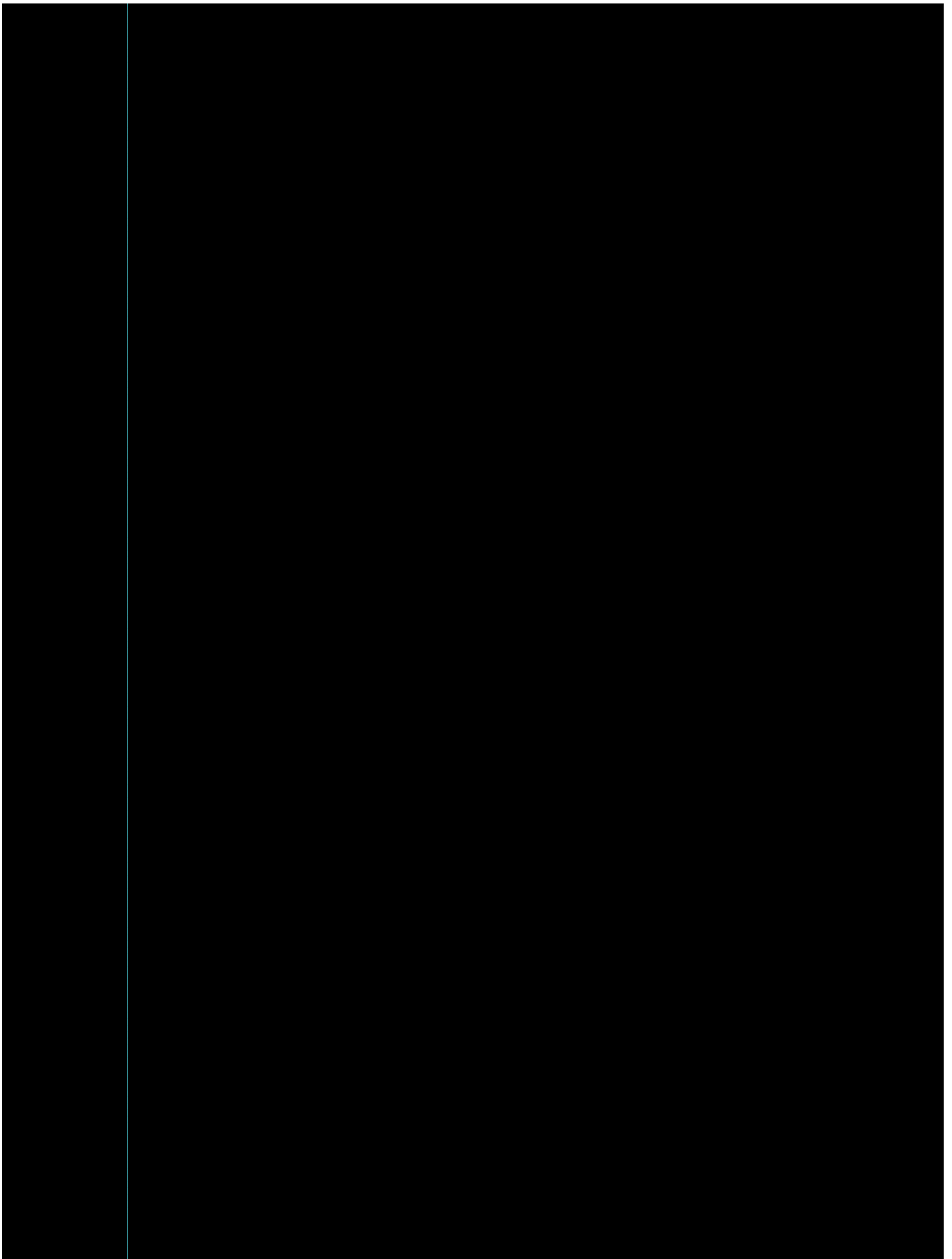


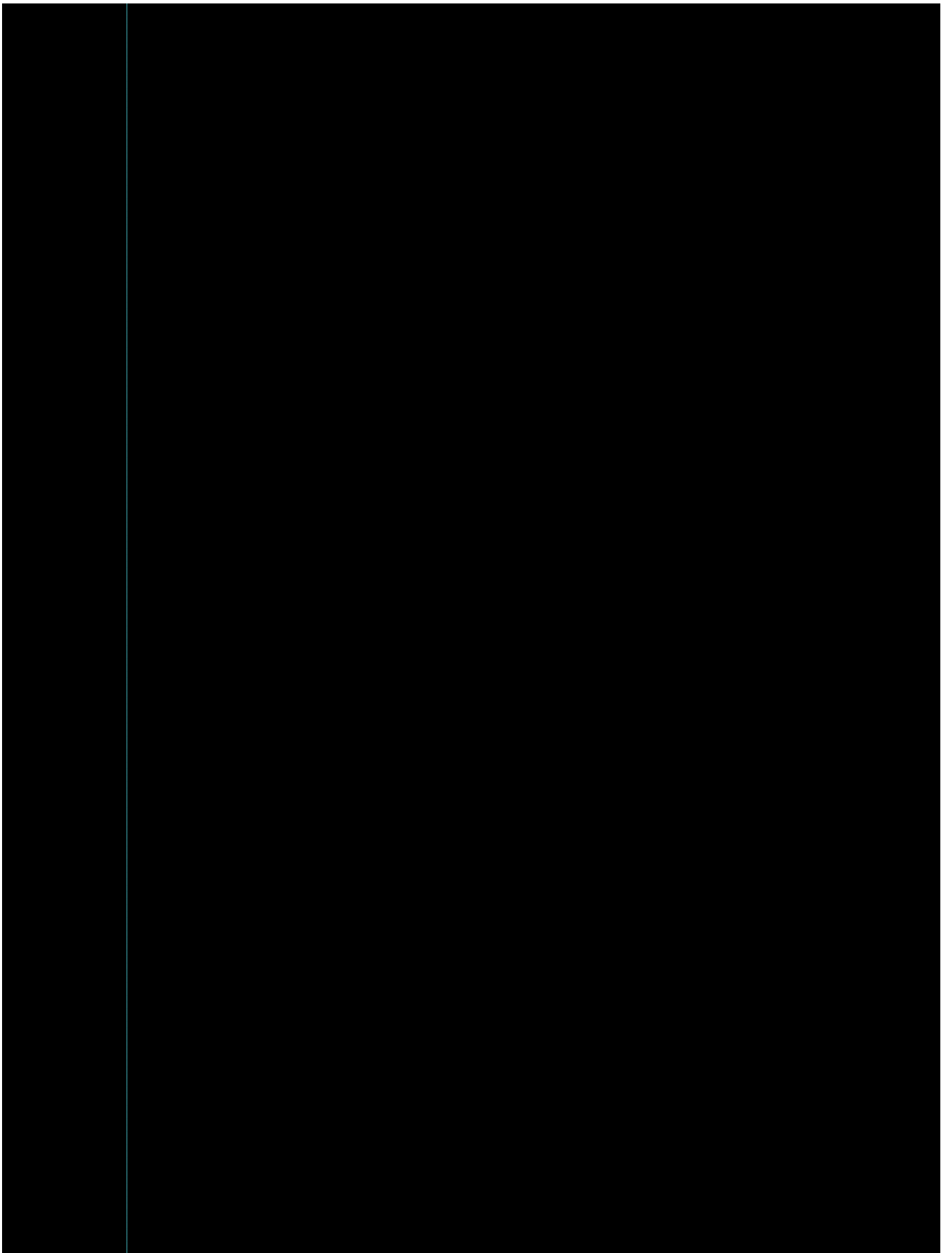
Import your existing data plan into the Builder

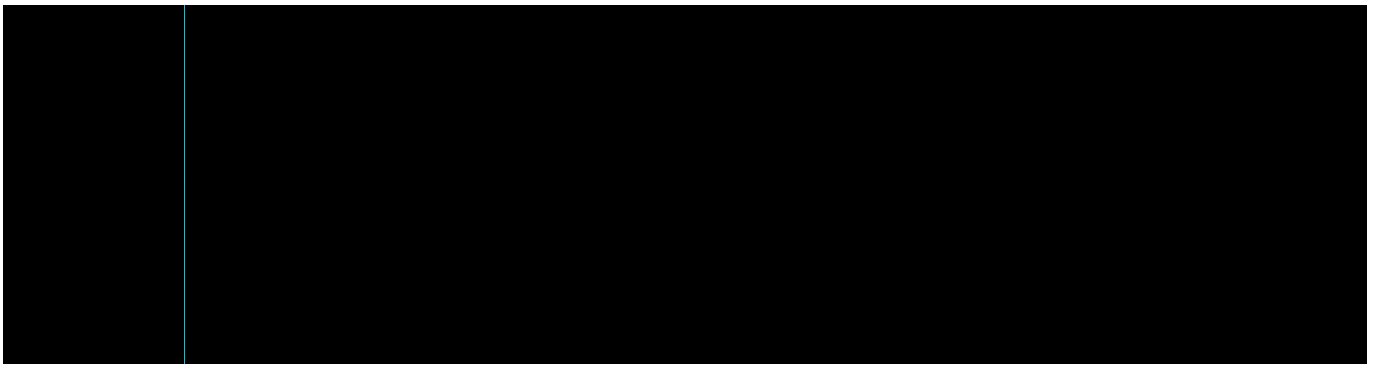
1. Copy your Data Plan JSON and then hover over the gray box to the left.
2. In the dialog box appears, click the instructional text, paste your Data Plan JSON and then click out of the dialog. You will not see your JSON box again. (The screenshot below shows the dialog box.)
3. In the Google Sheets menu, select **Import > Populate Builder from Data Plan** to populate the Builder with your data plan. The script takes you to the **Events** tab after it's completed. The script can take several seconds to execute depending on the size of the data plan.
4. Check the **Users**, **Events**, and **Products** tabs to see the imported data points from your data plan.











User Identities

There are a few important concepts to understand when it comes to identity. You can learn more about them here and in the docs pages linked in the right margin.

User Identity

mParticle distinguishes between known (e.g. customer id or email) and anonymous identities (e.g. IDFA). In a typical implementation, the anonymous identities will be passed automatically by the mParticle SDK and known identities will be passed explicitly in your code. The combination of user identities associated with a user form an identity record.

Identity Hierarchy

User identities are governed by your identity hierarchy - a hierarchy imposes a prioritization on your identities. The order dictates which identities are used to identify a user when more than one is provided. To see your identity hierarchy and the identity strategy that governs how user profiles are constructed from anonymous to known, click the icon in the bottom left corner of the mParticle app and navigate to the "Identity Settings" tab.

Identity Strategy

From the details of user identities impacts identity records is governed by your account's identity strategy. mParticle offers various strategies that you can learn about in the "An Overview of mParticle" docs link in the right margin. For example, if you want to track single ad events derived from incremental data by related to users, the Profile Conversion strategy will ensure that both anonymous and known usage is captured on a user's profile.

Related docs

[Configure an IDSpec](#)

[Configure an IDSpec](#), mParticle's identity

framework

Implementation,

[iOS](#)

[Android](#)

[mPaaS](#)

[mPaaS](#)

- [1] The mParticle user identity used to identify users.
- [2] Data type (string, number, boolean, etc) of the assigned value.
- [3] When allowed, null values will not trigger a violation.
- [4] When required, a missing attribute will trigger a violation.
- [5] Description of the identity.
- [6] Validation method used for the value.
- [7] Values accepted by the validation method.
- [8] Pre-defined formats that can be used for validation.
- [9] Name of the attribute.
- [10] Data type (string, number, boolean, etc) of the assigned value.
- [11] When allowed, null values will not trigger a violation.
- [12] When required, a missing attribute will trigger a violation.
- [13] Description of the identity.
- [14] Validation method used for the value.
- [15] Values accepted by the validation method.
- [16] Pre-defined formats that can be used for validation.
- [17] The event's type (Custom, Screen View, Commerce).
- [18] The event's subtype (e.g. Product Action, Promotion Action, Product Impression for Commerce Events).
- [19] Name of the event.
- [20] Description of the event.
- [21] Name of the attribute.
- [22] Data type (string, number, boolean, etc) of the assigned value.
- [23] When allowed, null values will not trigger a violation.
- [24] When required, a missing attribute will trigger a violation.
- [25] Description of the event's custom attribute.
- [26] Validation method used for the value.
- [27] Values accepted by the validation method.
- [28] Pre-defined formats that can be used for validation.

- [29] Add shared attribute to all events in a user-defined group (use the "Group" column in the events sheet to define groups).
- [30] Select to add shared attribute to all Custom Events.
- [31] Add shared attribute to all Screen View Events.
- [32] Add shared attribute to all Commerce Events.
- [33] Name of the shared event attribute.
- [34] Data type (string, number, boolean, etc) of the assigned value.
- [35] When allowed, null values will not trigger a violation.
- [36] When required, a missing attribute will trigger a violation.
- [37] Description of the identity.
- [38] Validation method used for the value.
- [39] Values accepted by the validation method.
- [40] Pre-defined formats that can be used for validation.
- [41] Pre-defined attributes of the product object.
- [42] Data type (string, number, boolean, etc) of the assigned value.
- [43] When allowed, null values will not trigger a violation.
- [44] When required, a missing attribute will trigger a violation.
- [45] Description of the identity.
- [46] Validation method used for the value.
- [47] Values accepted by the validation method.
- [48] Pre-defined formats that can be used for validation.
- [49] Pre-defined attributes of the product object.
- [50] Data type (string, number, boolean, etc) of the assigned value.
- [51] When allowed, null values will not trigger a violation.
- [52] When required, a missing attribute will trigger a violation.
- [53] Description of the identity.
- [54] Validation method used for the value.
- [55] Values accepted by the validation method.
- [56] Pre-defined formats that can be used for validation.

[57] Name of the user-defined attribute of the product object.

[58] Data type (string, number, boolean, etc) of the assigned value.

[59] When allowed, null values will not trigger a violation.

[60] When required, a missing attribute will trigger a violation.

[61] Description of the identity.

[62] Validation method used for the value.

[63] Values accepted by the validation method.

[64] Pre-defined formats that can be used for validation.

[65] 2. Replace this text with your JSON.