

# Technical Guides

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# Variables From Tags to Custom Codes

This document explains how to define variables inside **INS tags** and **VAST tags**, and how these variables are accessed inside your **custom methods**.

It also includes syntax, examples, naming conventions, usage flow, and best practices.

## 1. Overview

Variables allow you to pass dynamic values from the **ad tag** (INS or VAST) directly into your custom code logic.

You can control creative behavior such as:

- Colors
- Text
- URLs
- Durations
- Images & assets
- Screen properties
- Widget-level properties

This helps make creatives dynamic without re-uploading or editing visuals.

## 2. Variables in INS Tags

INS tags use the following syntax:

```
data-var-{name}="{value}"
```

### Rules

- Replace **{name}** with your variable name
- Replace **{value}** with your desired value
- Use lowercase, hyphen-friendly variable names
- Add unlimited variables
- All variables become available in your custom code

```
<ins id="adctv"
    class="adctv-ads"
    data-tenant="1"
```

```
data-cdn="https://ads.adctv.com/"
data-user="54"
data-campaign="69284d2b2282b"
data-placement="69313f977d871"
data-creative="69313829e374f"
data-height="600"
data-width="300"
data-responsive="false"
data-adtype="generic_ad"
data-env="false"
data-var-img="https://ads.adctv.com/assets/1/3b/6931551b16f3b.png"
data-var-bgcolor="yellow">

</ins>

<script src="https://ads.adctv.com/scripts/src/v2/tag.ins/tag.ins.js"></script>
```

How variables appear inside your custom method

```
variables.bgcolor
variables.img
```

### 3. Variables in VAST Tags

VAST tags support variables by appending them as query parameters:

`&var-{name}={value}`

Example — VAST URL

`https://example.com/vast.xml?creative=123&placement=45 &var-theme=dark &var-autoplay=true &var-volume=0.5`

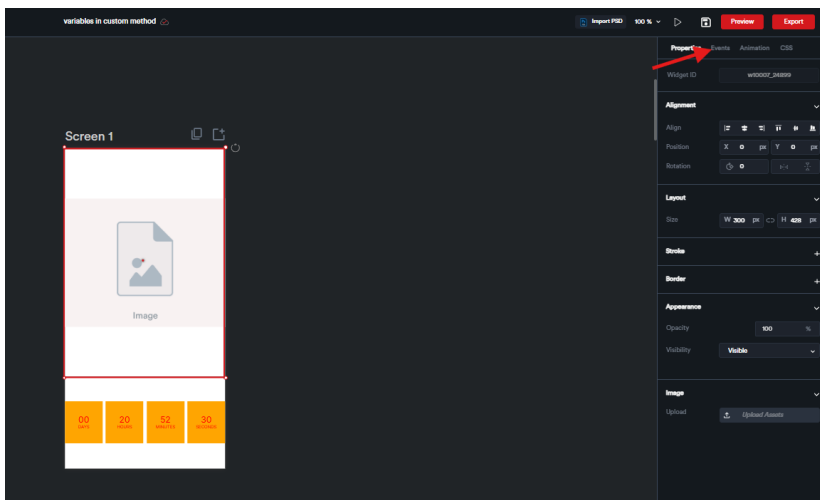
Inside your custom logic

```
variables.theme      // "dark"
variables.autoplay   // "true"
variables.volume     // "0.5"
```

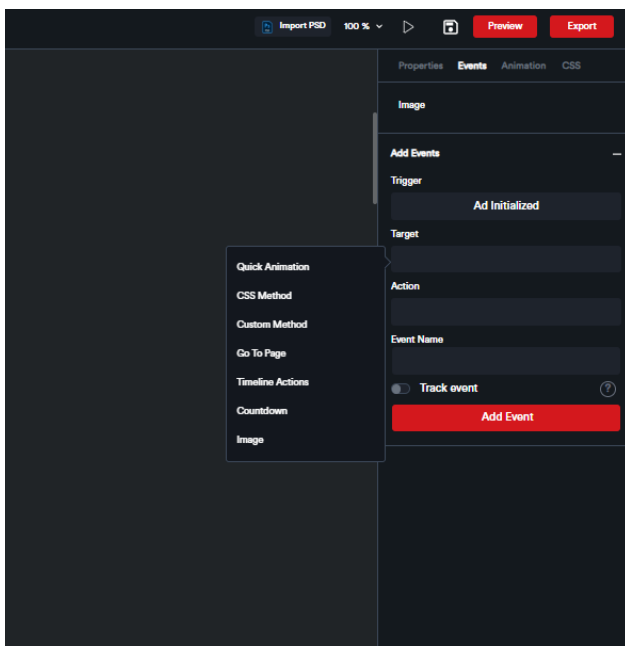
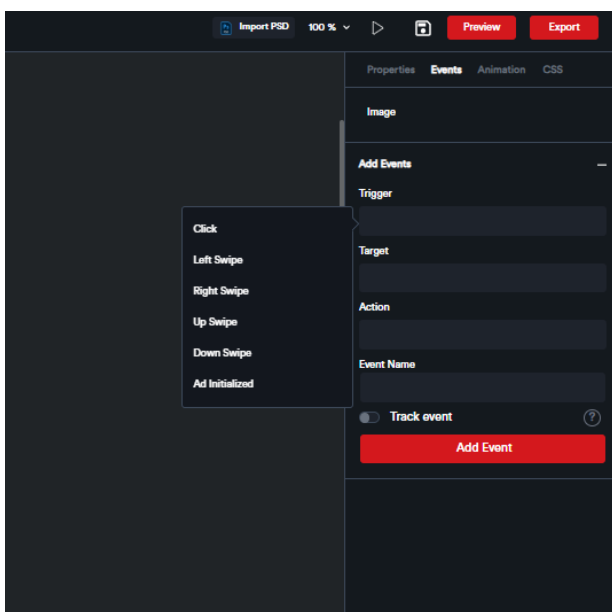
### 4. Accessing Variables Inside Custom Methods

Below are the steps required to apply tag variables inside your creative.

#### 4.1 Select “Events” Tab

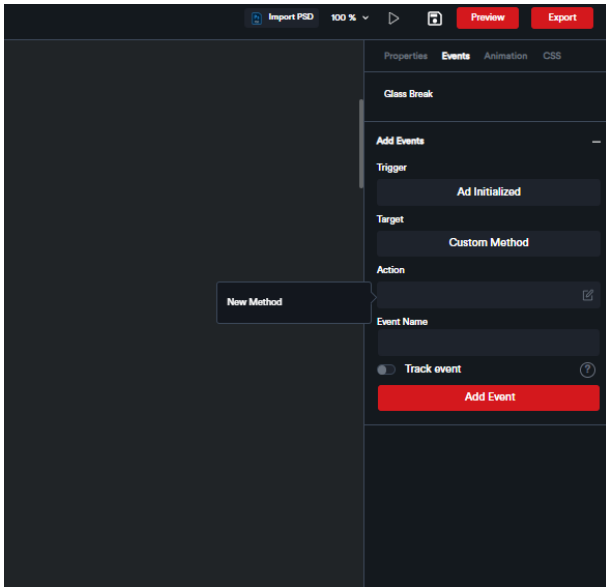


## 4.2 Select a Trigger from the List



## 4.4 Create a New Method

You can now write your own custom code.



## 4.5 Writing Custom Code (Example)

In this example, the creative uses two components:

### Countdown Timer

### Image Component

The image component has **no uploaded asset**.

Instead, we inject the image **dynamically** using a variable from the tag.

We use:

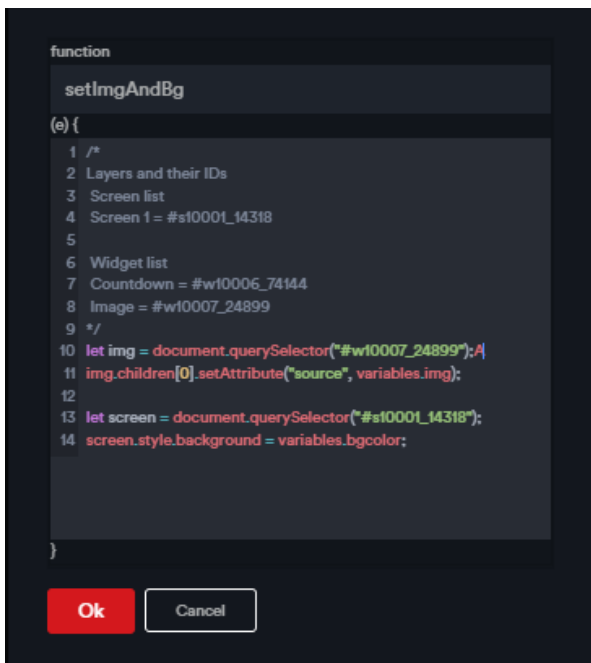
- `img` → for image URL
- `bgcolor` → for screen background color

### Accessing variables

```
variables.img  
variables.bgcolor
```

### Important:

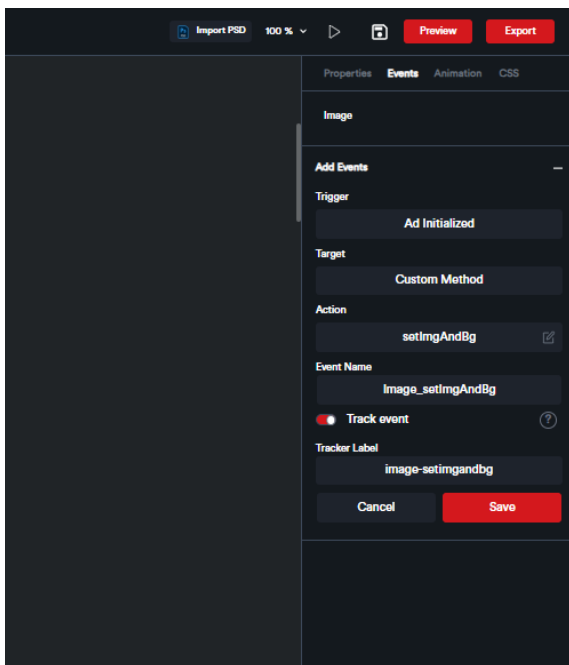
To apply variables to a specific component, **select the element by its ID** first. The widget and screen IDs will be visible on custom method codeblocks



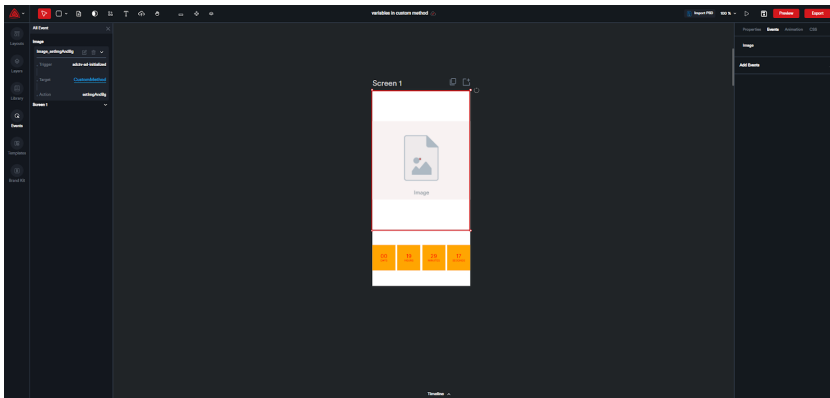
## Sample Custom Code

```
/*  
Layers and their IDs  
Screen list  
Screen 1 = #s10001_14318  
  
Widget list  
Countdown = #w10006_74144  
Image = #w10007_24899  
*/  
  
let img = document.querySelector("#w10007_24899");  
img.children[0].setAttribute("source", variables.img);  
  
let screen = document.querySelector("#s10001_14318");  
screen.style.background = variables.bgcolor;
```

## 4.6 Save the Custom Event



## 4.7 Export the Creative



## 5. Updating Variables in the Tag

Use the exported INS/VAST tag on your domain and append the variables you want to control.

These variables will be available inside your custom code through:

```
variables.{name}  
// or  
variables["{name}"]
```

Example INS Tag with Variables

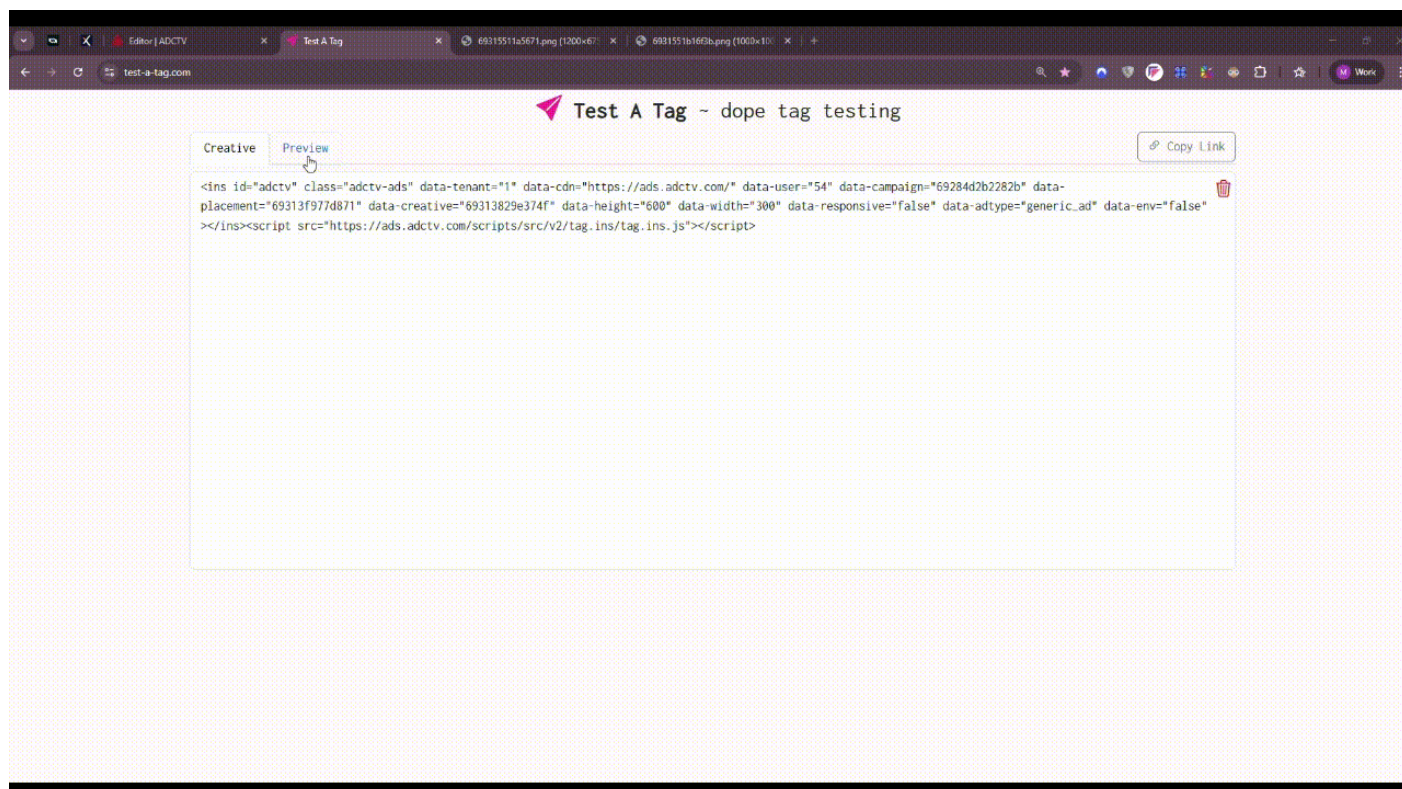
```
<ins id="adctv"  
  class="adctv-ads"  
  data-tenant="1"  
  data-cdn="https://ads.adctv.com/"
```

```
data-user="54"
data-campaign="69284d2b2282b"
data-placement="69313f977d871"
data-creative="69313829e374f"
data-height="600"
data-width="300"
data-responsive="false"
data-adtype="generic_ad"
data-env="false"
data-var-img="https://ads.adctv.com/assets/1/3b/6931551b16f3b.png"
data-var-bgcolor="yellow">
</ins>
<script src="https://ads.adctv.com/scripts/src/v2/tag.ins/tag.ins.js"></script>
```

## Variables used

- data-var-img
- data-var-bgcolor

## Preview



## 6. Usage

Variables make creatives dynamic and reusable **without modifying the creative.**

By simply changing the variables inside the tag, you can deliver different versions instantly.

**This eliminates the need to:**

- Create multiple creatives
- Upload separate assets
- Manage separate placements
- Duplicate analytics

Analytics remain **centralized in a single placement**.

## **7. What Users Can Do With This**

### **7.1 Update Widget-Specific Properties**

Change component properties using variables:

- Text
- Colors
- Images
- Sizes
- Timings
- Visibility
- URLs

### **7.2 Create Region-Specific or Partner-Specific Content**

Output variations for different:

- Headlines
- Offers
- CTAs
- Images

Perfect for large-scale distribution.

### **7.3 Enable Real-Time Content Updates**

Marketing teams can change content instantly by editing tag variables.

- No rebuild
- No re-upload
- No developer needed

### **7.4 Reduce Operational Overhead**

One creative → unlimited variations  
Cuts down asset creation time and maintenance.

## **7.5 Support Dynamic Personalization**

Variables allow personalization based on:

- Domain
- Audience segment
- Publisher
- Geo
- Campaign logic

Everything becomes adjustable from the tag.

# Context Variables

## Overview

Context Variables are values describing the user's current environment. They are resolved before the creative is rendered and are available for binding directly in components.

Context variables are divided into two categories:

- **Context Variables** – Values obtained directly from backend services (Geo, Weather, Network, Bot, Time).
- **Advanced Context Variables** – Values computed from one or more raw context variables.

## Variable Categories

| Category | Source  | Description                |
|----------|---------|----------------------------|
| Geo      | Backend | User location              |
| Weather  | Backend | Current weather conditions |
| Network  | Backend | ISP, protocol, RTT         |
| Bot      | Backend | Bot detection              |
| Time     | Backend | Local time information     |
| Device   | Browser | Device characteristics     |
| Viewport | Browser | Viewport dimensions        |
| Derived  | Backend | Computed contextual values |

## Context Variables

### Geo

| Variable    | Type   | Description      |
|-------------|--------|------------------|
| geo.country | String | ISO country code |
| geo.city    | String | City name        |
| geo.region  | String | State or region  |
| geo.lat     | Number | Latitude         |
| geo.lng     | Number | Longitude        |

|              |        |               |
|--------------|--------|---------------|
| geo.timezone | String | IANA timezone |
|--------------|--------|---------------|

## Weather

| Variable           | Type    | Description            |
|--------------------|---------|------------------------|
| weather.temp       | Number  | Temperature (°C)       |
| weather.feels_like | Number  | Feels-like temperature |
| weather.humidity   | Number  | Humidity (%)           |
| weather.condition  | String  | Weather condition      |
| weather.icon       | String  | Icon URL               |
| weather.text       | String  | Description            |
| weather.is_day     | Boolean | Day/Night              |
| weather.precip     | Number  | Precipitation          |
| weather.wind_speed | Number  | Wind speed             |
| weather.uv_index   | Number  | UV Index               |
| weather.visibility | Number  | Visibility             |
| weather.sunrise    | String  | Sunrise                |
| weather.sunset     | String  | Sunset                 |

## Time

| Variable         | Type   | Description    |
|------------------|--------|----------------|
| time.timestamp   | Number | Unix timestamp |
| time.hour        | Number | Hour (0-23)    |
| time.day_of_week | Number | Day index      |
| time.timezone    | String | IANA timezone  |

## Network

| Variable         | Type   | Description     |
|------------------|--------|-----------------|
| network.isp      | String | ISP name        |
| network.asn      | Number | ASN             |
| network.protocol | String | HTTP protocol   |
| network.rtt      | Number | Round-trip time |

# Bot

| Variable               | Type          | Description     |
|------------------------|---------------|-----------------|
| bot.score              | Number   Null | Bot score       |
| bot.is_bot             | Boolean       | Bot detection   |
| bot.is_corporate_proxy | Boolean       | Corporate proxy |

# Advanced Context Variables

## Overview

Advanced Context Variables provide higher-level contextual information that creatives can consume directly without implementing business logic.

## Weather

| Variable                  | Parameters            | Type   | Possible Values                                                               | Description                                           |
|---------------------------|-----------------------|--------|-------------------------------------------------------------------------------|-------------------------------------------------------|
| weather.temperature_b and | temp                  | String | hot<br>,<br>warm<br>,<br>cold                                                 | Categorizes the current temperature.                  |
| weather.condition_type    | condition             | String | sunny<br>,<br>cloudy<br>,<br>rainy<br>,<br>stormy<br>,<br>snowy<br>,<br>foggy | Normalizes weather conditions into common categories. |
| weather.uv_level          | uv_index              | String | low<br>,<br>moderate<br>,<br>high<br>,<br>extreme                             | Classifies UV intensity.                              |
| weather.comfort_level     | temp<br>,<br>humidity | String | comfortable<br>,<br>humid<br>,<br>hot_humid<br>,<br>cold                      | Indicates perceived outdoor comfort.                  |

|                                           |                                                                                                             |         |                                                                                                        |                                               |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <code>weather.wind_level</code>           | <code>wind_speed</code>                                                                                     | String  | <code>calm</code><br>,<br><code>moderate</code><br>,<br><code>windy</code><br>,<br><code>stormy</code> | Categorizes wind intensity.                   |
| <code>weather.is_daylight</code>          | <code>is_day</code>                                                                                         | Boolean | <code>true</code><br>,<br><code>false</code>                                                           | Indicates whether it is currently daytime.    |
| <code>weather.precipitation_level</code>  | <code>precip</code>                                                                                         | String  | <code>none</code><br>,<br><code>light</code><br>,<br><code>moderate</code><br>,<br><code>heavy</code>  | Classifies precipitation intensity.           |
| <code>weather.visibility_level</code>     | <code>visibility</code>                                                                                     | String  | <code>clear</code><br>,<br><code>moderate</code><br>,<br><code>poor</code>                             | Categorizes current visibility.               |
| <code>weather.activity_suitability</code> | <code>temp</code><br>,<br><code>precip</code><br>,<br><code>uv_index</code><br>,<br><code>wind_speed</code> | String  | <code>excellent</code><br>,<br><code>good</code><br>,<br><code>poor</code>                             | Indicates suitability for outdoor activities. |

## Time

| Variable                             | Parameters                                        | Type    | Possible Values                                                                                                                                | Description                                                     |
|--------------------------------------|---------------------------------------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <code>time.daypart</code>            | <code>hour</code>                                 | String  | <code>early_morning</code><br>,<br><code>morning</code><br>,<br><code>afternoon</code><br>,<br><code>evening</code><br>,<br><code>night</code> | Current part of the day.                                        |
| <code>time.is_weekend</code>         | <code>day_of_week</code>                          | Boolean | <code>true</code><br>,<br><code>false</code>                                                                                                   | Indicates whether today is Saturday or Sunday.                  |
| <code>time.is_work_hours</code>      | <code>hour</code><br>,<br><code>is_weekend</code> | Boolean | <code>true</code><br>,<br><code>false</code>                                                                                                   | Indicates whether current time falls within typical work hours. |
| <code>time.is_commuting_hours</code> | <code>hour</code>                                 | Boolean | <code>true</code><br>,<br><code>false</code>                                                                                                   | Indicates typical commuting periods.                            |

|                                      |                                                      |        |                                                                                                                                          |                                       |
|--------------------------------------|------------------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <code>time.meal_period</code>        | <code>hour</code>                                    | String | <code>breakfast</code><br>,<br><code>lunch</code><br>,<br><code>snack</code><br>,<br><code>dinner</code><br>,<br><code>late_night</code> | Current meal period.                  |
| <code>time.productivity_state</code> | <code>hour</code><br>,<br><code>is_work_hours</code> | String | <code>productive</code><br>,<br><code>relaxed</code><br>,<br><code>sleeping</code>                                                       | General activity state based on time. |

## Network

| Variable                                 | Parameters                                            | Type    | Possible Values                                                           | Description                                                  |
|------------------------------------------|-------------------------------------------------------|---------|---------------------------------------------------------------------------|--------------------------------------------------------------|
| <code>network.speed_tier</code>          | <code>rtt</code><br>,<br><code>protocol</code>        | String  | <code>fast</code><br>,<br><code>moderate</code><br>,<br><code>slow</code> | Overall network performance classification.                  |
| <code>network.supports_rich_media</code> | <code>speed_tier</code><br>,<br><code>protocol</code> | Boolean | <code>true</code><br>,<br><code>false</code>                              | Indicates whether the connection is suitable for rich media. |
| <code>network.video_quality_tier</code>  | <code>speed_tier</code>                               | String  | <code>low</code><br>,<br><code>medium</code><br>,<br><code>high</code>    | Recommended video quality tier.                              |

## Traffic

| Variable                           | Parameters                                                                                 | Type    | Possible Values                                                        | Description                               |
|------------------------------------|--------------------------------------------------------------------------------------------|---------|------------------------------------------------------------------------|-------------------------------------------|
| <code>traffic.quality_tier</code>  | <code>bot_score</code><br>,<br><code>is_bot</code><br>,<br><code>is_corporate_proxy</code> | String  | <code>high</code><br>,<br><code>medium</code><br>,<br><code>low</code> | Overall traffic quality assessment.       |
| <code>traffic.is_suspicious</code> | <code>bot_score</code><br>,<br><code>is_bot</code><br>,<br><code>is_corporate_proxy</code> | Boolean | <code>true</code><br>,<br><code>false</code>                           | Indicates potentially suspicious traffic. |
| <code>traffic.trust_score</code>   | <code>bot_score</code><br>,<br><code>is_bot</code><br>,<br><code>is_corporate_proxy</code> | Number  | <code>0-100</code>                                                     | Numeric trust score for the request.      |

# Audience

| Variable                       | Parameters                                                                                                       | Type   | Possible Values                                                               | Description                                                         |
|--------------------------------|------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------|---------------------------------------------------------------------|
| audience.outdoor_score         | temp<br>,<br>precip<br>,<br>uv_index<br>,<br>wind_speed<br>,<br>is_daylight                                      | Number | 0-100                                                                         | Indicates how suitable current conditions are for outdoor activity. |
| audience.outdoor_likelihood    | outdoor_score                                                                                                    | String | high<br>,<br>medium<br>,<br>low                                               | Likelihood that the user is outdoors.                               |
| audience.commerce_intent       | hour<br>,<br>is_weekend<br>,<br>is_work_hours<br>,<br>daypart<br>,<br>temp<br>,<br>precip<br>,<br>condition_type | String | high<br>,<br>medium<br>,<br>low                                               | Estimated shopping intent.                                          |
| audience.engagement_likelihood | quality_tier<br>,<br>speed_tier<br>,<br>daypart<br>,<br>is_work_hours                                            | String | high<br>,<br>medium<br>,<br>low                                               | Estimated likelihood of interacting with the creative.              |
| audience.mobility_state        | hour<br>,<br>is_weekend<br>,<br>is_work_hours<br>,<br>daypart<br>,<br>activity_suitability                       | String | sleeping<br>,<br>commuting<br>,<br>working<br>,<br>leisure<br>,<br>stationary | Estimated current mobility state.                                   |
| audience.session_mood          | daypart<br>,<br>is_work_hours<br>,<br>is_weekend<br>,<br>mobility_state<br>,<br>condition_type                   | String | productive<br>,<br>relaxed<br>,<br>entertainment<br>,<br>rushed               | Estimated user mindset.                                             |

|                                        |                                                                                                                                                                 |        |                                                                                   |                               |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-------------------------------|
| <code>audience.purchase_context</code> | <code>daypart</code><br>,<br><code>is_work_hours</code><br>,<br><code>is_weekend</code><br>,<br><code>mobility_state</code><br>,<br><code>condition_type</code> | String | <code>impulse</code><br>,<br><code>relaxed</code><br>,<br><code>functional</code> | Estimated purchasing context. |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-------------------------------|

## Device

| Variable                             | Parameters                                                                                                                       | Type    | Possible Values                                                              | Description                                                                          |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <code>device.rich_media_ready</code> | <code>speed_tier</code><br>,<br><code>trust_score</code>                                                                         | Boolean | <code>true</code><br>,<br><code>false</code>                                 | Indicates whether the device and connection are suitable for rich media experiences. |
| <code>device.experience_tier</code>  | <code>speed_tier</code><br>,<br><code>trust_score</code><br>,<br><code>quality_tier</code><br>,<br><code>rich_media_ready</code> | String  | <code>premium</code><br>,<br><code>standard</code><br>,<br><code>lite</code> | Recommended creative experience tier.                                                |

## Media

| Variable                         | Parameters                                                      | Type   | Possible Values                                                                                  | Description                                                      |
|----------------------------------|-----------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <code>media.video_quality</code> | <code>speed_tier</code><br>,<br><code>video_quality_tier</code> | String | <code>240p</code><br>,<br><code>480p</code><br>,<br><code>720p</code><br>,<br><code>1080p</code> | Recommended maximum video resolution for the current connection. |