

# Tracking conversions and transactions with the data layer

A [conversion](#) is an action you want your website visitors to take, such as purchasing a product, signing up for a newsletter, downloading a brochure, or watching a video. The most common type of conversion is a [transaction](#), that is, the purchase of one or more products. You track conversions to measure how successfully your site is meeting its business goals: how effectively it gets visitors to do what you want them to do.

Tracking conversions with the data layer means triggering a conversion event whenever a visitor completes an action that qualifies as a conversion. You can track two basic types of conversion events in the Frosmo Platform:

- **Conversion** is a conversion event that does not involve a purchase.
- **Transaction** is a conversion event that involves the purchase of one or more products.

The data layer supports the following object models for triggering conversion events:

- [Conversion](#)
- [Transaction](#)

For an introduction to conversions and conversion tracking in the Frosmo Platform, see [Introduction to conversion tracking](#).

For a transaction tracking example that uses the data layer from a modification, see [Example: Recommending products purchased together](#).

## Triggering conversion events

To trigger a conversion event, call `dataLayer.push()` with a conversion object:

### Conversion object model

```
{
  conversionId: 'string',
  conversionType: 'string',
  conversionValue: 0,
  frosmoConversionName: 'string'
}
```

The call triggers the event and sends the conversion data to the Frosmo back end.

For example, if you want to track a specific file download as a conversion, call `dataLayer.push()` in response to the click event that occurs when a visitor clicks the file download link.

Use the conversion object also for tracking product conversions that do not involve a purchase. If you want to track product conversions that involve a purchase, use the [transaction](#) object.



While you can use the conversion object to track product purchases, it is recommended that you instead use the transaction object for this. The transaction object is not only a more convenient container for purchase data, but also allows you to treat the purchase of multiple products as a single conversion. The conversion object only allows you to track single-product conversions.

## Conversion object

The conversion object describes a conversion event. The object properties together define the conversion data.

**Table: Conversion object properties**

Property	Description	Type	Role
<code>conversionId</code>	<p>Conversion ID.</p> <p>If you're tracking a product conversion, use the product ID as the conversion ID. The product ID is the same value you pass in the <code>frosmoProductId</code> property of a <a href="#">product</a> object when tracking products.</p> <div><p> If you're tracking a product conversion, and if you do not use the product ID as the conversion ID, the platform has no way of mapping the conversion to the corresponding product in the Frosmo database. For example, if you wanted to create a <a href="#">product recommendation</a> based on the conversions, the recommendation engine would not be able to automatically map the conversions to products and would therefore fail to return the product data for the conversions.</p></div>	String (128)	Required
<code>conversionType</code>	<p>Conversion type.</p> <p>If you're tracking a product conversion, use the product type as the conversion type. The product type is the same value you pass in the <code>frosmoProductCategory</code> property of a <a href="#">product</a> object.</p>	String (128)	Required

conversionValue	<p>Monetary value of the conversion (in the currency set for your site).</p> <p>If you're tracking a product conversion, this property should not reflect the product price, but rather some other monetary value associated with the conversion, as this property does not map to any product data. If you want to track a purchase-based product conversion, use a <a href="#">transaction</a> object instead.</p>	Number	Required
frosmoConversionName	<p>Conversion description.</p> <p>If you're tracking a product conversion, use the product name as the conversion description. The product name is the same value you pass in the <code>frosmoProductName</code> property of a <a href="#">product</a> object.</p>	String (128)	Required

## Examples

### Example: Triggering a conversion event

```
dataLayer.push({
  conversionId: 'download_1',
  conversionType: 'Download',
  conversionValue: 0,
  frosmoConversionName: 'Trial software download'
});
```

### Example: Triggering a product conversion event

```
// Set the product data variables...

dataLayer.push({
  conversionId: productId,
  conversionType: productType,
  conversionValue: 0,
  frosmoConversionName: productName
});
```

## Triggering transaction events

To trigger a transaction event, call `dataLayer.push()` with a transaction object:

### Transaction object model

```
{
  transactionProducts: [{
    id: 'string',
    name: 'string',
    price: 0,
    sku: 'string',
    /* Optional */
    quantity: 0
  }],
  /* Optional */
  transactionId: 'string',
  transactionTotal: 0
}
```

The call triggers the event and sends the transaction data to the Frosmo back end. The transaction is automatically registered as a conversion.

You track transactions to determine which products visitors purchase, how much revenue those purchases generate, and which modifications drive the purchases. You can use the tracking data to, for example, implement [product recommendations](#). If you want to track non-purchase product conversions, use the [conversion](#) object.

## Transaction object

The transaction object describes a transaction event. The object properties together define the transaction data.

### Table: Transaction object properties

Property	Description	Type	Role
transactionId	Unique transaction ID. <div style="border: 1px solid #ffc107; padding: 5px; margin-top: 10px;">  The platform registers a transaction with a given ID only once. If you trigger a transaction event with the same ID multiple times, the platform ignores all but the first event.           </div>	String (32)	Optional
transactionProducts	List of products purchased in the transaction. For more information about the product data, see the following table.	Array of transaction product objects	Required
transactionTotal	Total purchase value of the transaction.	Number	Optional

**Table: Transaction product object properties**

Property	Description	Type	Role
id	Product ID. The product ID is the same value you pass in the <code>frosmoProductId</code> property of a <a href="#">product</a> object when tracking products. <div style="border: 1px solid #ffc107; padding: 5px; margin-top: 10px;">  If you do not use the product ID as the property value, the platform has no way of mapping the purchased product to the corresponding product in the Frosmo database. For example, if you wanted to create a <a href="#">product recommendation</a> based on the transactions, the recommendation engine would not be able to automatically map the purchased products to tracked products and would therefore fail to return the product data for the transactions.           </div> This property is optional if <code>name</code> or <code>sku</code> is defined. You must define at least one of the three.	String (128)	Required /Optional
name	Product name. The product name is the same value you pass in the <code>frosmoProductName</code> property of a <a href="#">product</a> object when tracking products. This property is optional if <code>id</code> or <code>sku</code> is defined. You must define at least one of the three.	String (128)	Required /Optional
price	Unit price used for the product in the transaction.	Number	Required
quantity	Number of items purchased in the transaction.	Number	Optional
sku	Stock keeping unit (SKU) code for the product. This property is optional if <code>id</code> or <code>name</code> is defined. You must define at least one of the three.	String (128)	Required /Optional

## Examples

### Example: Triggering a transaction event with one product

```
dataLayer.push({
  transactionId: '1010101010',
  transactionProducts: [{
    id: '123456',
    name: 'Cheetah Plushy',
    price: 9.99,
    quantity: 3
  }]
});
```

### Example: Triggering a transaction event with two products

```
dataLayer.push({
  transactionId: '1010101011',
  transactionProducts: [{
    id: '123456',
    name: 'Cheetah Plushy',
    price: 9.99,
    quantity: 3
  }, {
    id: '123457',
    name: 'Lion Plushy',
    price: 19.99,
    quantity: 2
  }]
});
```