

# Tracking products with the data layer

A product is a good or service offered to visitors on a site.

Product tracking comprises:

- Collecting product data from a website and storing the data in a product database.
- Counting the number of views different products receive from visitors.

You can use product views for implementing product recommendations and visitor segmentation. For example, you can recommend products that visitors view often, or you can segment visitors based on the types of products they have viewed.

Tracking products with the data layer means triggering a product view event whenever a visitor navigates to a product page or otherwise views a product on the site.

The Frosmo data layer supports the [product](#) object for triggering product view events.

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

## Triggering product view events

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

```
{
  frosmoProductId: 'string',
  /* Optional */
  frosmoProductCategory: 'string',
  frosmoProductData: {},
  frosmoProductDiscountPrice: 0,
  frosmoProductImage: 'string',
  frosmoProductName: 'string',
  frosmoProductPrice: 0,
  frosmoProductPromotionLabel: 'string',
  frosmoProductUrl: 'string'
  /* ... */
}
```

The call triggers the event and sends the product data to the Frosmo back end. By default, the platform registers the data push as a single view for the product, incrementing the product view count by one.

If the product is already in the database, the product data is updated in case the new data from the call differs from the existing data. The product view count is incremented regardless of whether the product data is updated.

## Product object

The product object describes a product. The object properties together define the product data.

**Table: Product object properties**

Property	Description	Type	Role
<code>frosmoProductId</code>	Product ID.	String (128)	Required
<code>frosmoProductArea</code>	Geographical region, typically a part of a country, that applies to the product in some way. For example, if the product is a hotel room, this property can provide the name of the in-country region in which the hotel is located: <ul style="list-style-type: none"><li>• <code>frosmoProductCountry</code>: Greece</li><li>• <code>frosmoProductArea</code>: Rhodes</li><li>• <code>frosmoProductCity</code>: Lindos</li></ul>	String (32)	Optional
<code>frosmoProductCampaign</code>	Sales or other campaign with which the product is associated.	String (32)	Optional
<code>frosmoProductCategories</code>	Additional product categories to which the product belongs. For more information about the object type, see the instructions below this table.	Object or stringified object (1024)	Optional

frosmoProductCategory	<p>Product type.</p> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; margin-top: 5px;">  Even if you do not have a value for this property, it is recommended that you nonetheless pass an empty string. </div>	String (128)	Optional
frosmoProductCity	<p>City or town that applies to the product in some way.</p> <p>For example, if the product is a hotel room, this property provides the name of the city or town in which the hotel is located:</p> <ul style="list-style-type: none"> <li>• <code>frosmoProductCountry</code>: Greece</li> <li>• <code>frosmoProductArea</code>: Rhodes</li> <li>• <code>frosmoProductCity</code>: Lindos</li> </ul>	String (32)	Optional
frosmoProductColors	<p>Color options for the product.</p> <p>For more information about the object type, see the instructions below this table.</p>	Object or stringified object (1024)	Optional
frosmoProductCompany	<p>Company that offers the product.</p>	String (32)	Optional
frosmoProductConversion	<p>If you do not want the product data push to increment the view count for the product, set this property to 1. In this case, the Frosmo Platform merely stores the pushed product data.</p> <p>The default value is 0, which means that the Frosmo Platform also registers the product data push as a product view.</p> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; margin-top: 5px;">  Despite the name, this property does not trigger a conversion event for the product, regardless of the property value. If you want to trigger a conversion event for the product, use a <a href="#">conversion</a> or <a href="#">transaction</a> object, depending on whether the conversion is a product purchase. </div>	Number	Optional
frosmoProductCountry	<p>Country that applies to the product in some way.</p> <p>For example, if the product is a hotel room, this property provides the name of the country in which the hotel is located:</p> <ul style="list-style-type: none"> <li>• <code>frosmoProductCountry</code>: Greece</li> <li>• <code>frosmoProductArea</code>: Rhodes</li> <li>• <code>frosmoProductCity</code>: Lindos</li> </ul>	String (32)	Optional
frosmoProductCustomImages	<p>URLs of additional product images.</p> <p>For more information about the object type, see the instructions below this table.</p>	Object or stringified object (1024)	Optional
frosmoProductData	<p>Any piece of product data that does not logically belong to the other product properties but that you want to push with the product data. Use this property to send your own custom product attributes along with the product data.</p> <p>For more information about the object type, see the instructions below this table.</p>	Object or stringified object (2048)	Optional
frosmoProductDescription	<p>Product description.</p>	String (512)	Optional
frosmoProductDiscountPrice	<p>Discount unit price for the product.</p>	Number	Optional
frosmoProductIds	<p>Additional product IDs.</p> <p>For example, if the product consists of multiple child products, you can add their IDs to this property.</p> <p>For more information about the object type, see the instructions below this table.</p>	Object or stringified object (1024)	Optional
frosmoProductImage	<p>Product image URL.</p> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; margin-top: 5px;">  Even if you do not have a value for this property, it is recommended that you nonetheless pass an empty string. </div>	String (512)	Optional
frosmoProductMainCategory	<p>Main product category to which the product belongs.</p>	String (128)	Optional
frosmoProductManufacturer	<p>Company that produces the product, or the brand name for the product.</p>	String (512)	Optional
frosmoProductModel	<p>Product model name.</p>	String (32)	Optional
frosmoProductMultiPrices	<p>Additional unit price options for the product.</p> <p>For more information about the object type, see the instructions below this table.</p>	Object or stringified object (2048)	Optional

frosmoProductName	<p>Product name.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;">  Even if you do not have a value for this property, it is recommended that you nonetheless pass an empty string. </div>	String (128)	Optional
frosmoProductPrice	<p>Unit price for the product.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;">  Even if you do not have a value for this property, it is recommended that you nonetheless pass an empty string. </div>	Number	Optional
frosmoProductPromotionLabel	<p>Promotion-related label, such as "Weekend Sale" or "80% off!".</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;">  This property is intended for promotion-related label strings. Do not use this property for stringified objects. If you need to store extra product data beyond the standard product data properties listed here, use the <code>frosmoProductData</code> property. </div>	String (512)	Optional
frosmoProductRating	<p>Product rating.</p>	String (512)	Optional
frosmoProductStock	<p>Number of product units in stock.</p>	Number	Optional
frosmoProductSubCategory	<p>Subcategory to which the product belongs. The subcategory should be a child category of the main product category.</p>	String (128)	Optional
frosmoProductUrl	<p>Product page URL.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;">  Even if you do not have a value for this property, it is recommended that you nonetheless pass an empty string. </div>	String (512)	Optional
frosmoProductUrn	<p>Uniform Resource Names (URN) for the product.</p>	String (32)	Optional
frosmoProductVenue	<p>Venue in which the product is available.</p> <p>For example, if the product is a specific showing of a movie, this property would be the movie theater in which the movie is shown.</p>	String (64)	Optional

### Objects

Follow these rules for properties whose type is listed as "Object":

- The value can be either a JavaScript object or a JSON-stringified object. In the latter case, the maximum length of the string is either 1024 or 2048 characters, depending on the property (see above).
- The object properties can be anything you want them to be. The Frosmo back end does not validate the properties against any data model or schema.

If you assign a JavaScript object to a property, the Frosmo back end stringifies the value. If you assign a stringified object to a property, the value is used as-is.

## Examples

### Example: Triggering a product view event with a simple product object

```
dataLayer.push({
  frosmoProductId: '123456',
  frosmoProductCategory: 'Plushies',
  frosmoProductDiscountPrice: 9.99,
  frosmoProductImage: 'http://webshop.com/images/cheetah_plushy.png',
  frosmoProductName: 'Cheetah Plushy',
  frosmoProductPrice: 19.99,
  frosmoProductPromotionLabel: 'Weekend Sale',
  frosmoProductUrl: 'http://webshop.com/products/123456'
});
```

**Example: Triggering a product view event with a product object containing an object property**

```
dataLayer.push({
  frosmoProductId: '123456',
  frosmoProductCategory: 'Plushies',
  frosmoProductDiscountPrice: 9.99,
  frosmoProductImage: 'http://webshop.com/images/cheetah_plushy.png',
  frosmoProductName: 'Cheetah Plushy',
  frosmoProductPrice: 19.99,
  frosmoProductPromotionLabel: 'Weekend Sale',
  frosmoProductUrl: 'http://webshop.com/products/123456',
  frosmoProductColors: {
    black: '#000000',
    blue: '#0000ff',
    lime: '#00ff00',
    red: '#ff0000'
  }
});
```