

Frequently asked questions

We have compiled answers to some common questions about Frosmo.

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Didn't find an answer to your question? Having technical problems? [Contact Frosmo support.](#)

General questions

The Frosmo Platform works in the front end through JavaScript tags that are placed directly in the web page HTML code. These tags load the Frosmo JavaScript library that runs on top of the customer website in the visitor's browser.

Front-end-based implementation brings two major advantages:

- The majority of the development happens in the visitor's browser, rather than in the back end, so making changes and implementing new functionality is very fast. This means less server technology and fewer resources are needed, which makes UI development inexpensive.
- JavaScript can modify anything on a web page, so we can create flexible customizations that allow addressing specific pain points, such as shopping cart abandonment, customization of product recommendations, or the need to change the UI quickly but temporarily for a campaign.

To target visitors and display modifications, the Frosmo Platform passes information from the browser to the Frosmo back end using a set of APIs. The platform also stores data in the browser's local storage and cookies.

For more information about the Frosmo Platform, see [Technical overview](#).

In the Frosmo Platform, quality assurance (testing) is a built-in part of the development process and service. The final responsibility for the quality of any Frosmo customizations lies with Frosmo, and Frosmo always conforms to its own testing processes to ensure the high quality of its deliverables.

In addition to its own quality process, after testing is completed on Frosmo's side, the customer can test the deliverables using Frosmo test mode.

The Frosmo Platform works basically on all browsers and websites, including mobile, responsive, single-page application, and standard desktop websites. However, Frosmo does not support mobile and tablet applications.

To optimize performance, the Frosmo Platform uses content delivery networks (CDNs) to deliver the Frosmo JavaScript library and any Frosmo-specific media files used on websites. A CDN is a network of global servers connected to each other and used to store and deliver web content, such as images, videos, style sheets, and JavaScript files. When a visitor browses a website, the content of the site is delivered by the CDN server geographically closest to the visitor, decreasing page load time. The Frosmo Platform uploads the custom script and associated media files (ones added directly to modifications) to the CDN every time they need to be updated, that is, every time something on your site is changed using the Control Panel.

The Frosmo scripts are optimized for performance, making the loading times generally faster than that of advertising scripts. The Frosmo Core library is very compact, only about 54 KB in size. The size of the custom script usually varies between 16-32 KB. To prevent the custom script from growing too large, make sure that you don't maintain unnecessary segments, placements, or modifications whose content is preloaded for your site.

For more information about site performance, see [Measuring and improving website performance](#).

Content modifications

Yes, you absolutely can.

Frosmo modifications are real-time changes on a web page designed to improve the usability and user experience of a website and guide visitors to complete a conversion. Personalized modifications are based on visitor attributes, that is, segmentation.

Segments are used to target specific types of visitors with content that matches their interests. Content modifications displayed to a visitor depend on the segments that the visitor is in. You can define a set of rules that place a visitor into one or more segments – or remove a visitor from them. The best way to implement segmentation depends on your industry and the goals and plans you have for your website.

For more information about segmentation, see [Introduction to segmentation](#).

To target visitors, the Frosmo Platform can often use the data in your CRM. In addition, the Frosmo JavaScript library collects usage data in the visitor's browser, including:

- **Modification performance data:** Basic modification events used for monitoring and reporting
- **Visitor data:**
 - **Background data:** Information about the visitor not related to a specific website
 - **Behavior data:** Visitor's actions on the website
 - **Conversion and transaction data:** Visitor's actions on the website in connection with purchases and other conversions
 - **Account data:** Personal data collected and stored temporarily for the purpose of transferring it to your company's back end or third-party systems controlled by you; only tracked when explicitly agreed with your company

The Frosmo modifications are real-time changes on a web page designed to improve the usability and user experience of a website and guide visitors to complete a conversion. You can place them basically in any web page element. The modifications create an overlay on the page; the original page code is not affected.

You have several options to handle the original content of the page; you can replace it entirely (which temporarily removes the original content from the page), hide the original content and replace it with a modification, or place the new content before or after the original content.

By placing the modification script at the beginning of the page code (in the `<head>` element) and using synchronous loading of the content, you can ensure a seamless user experience and prevent the original content from appearing on the web page before a Frosmo modification is loaded and displayed (this is often called "flickering").

For more information about modification display methods, see [Creating and editing a placement](#).

Data handling and security

As of 25 May 2018, Frosmo must comply with the enforceable General Data Protection Regulation (GDPR). In a relationship between Frosmo and a customer, the customer always represents the data controller, and Frosmo acts as the data processor. This means that the legitimate and specific purpose for collecting personal data through the Frosmo Platform is always determined by the customer.

This is how Frosmo ensures GDPR compliance:

- Frosmo has a data protection steering group with members representing different roles and departments. The group meets regularly to review technical and process changes related to data protection.
- Frosmo is committed to protecting the security of visitors' personal data and has a variety of security technologies and procedures in place to prevent unauthorized access, use, or disclosure of data.
- By default, the Frosmo Platform collects and processes only anonymous and pseudonymous information about visitors and their behavior on a website. The platform does not collect data that in itself enables the identification of an individual data subject.
- Frosmo only cooperates with GDPR-compliant platform hosting partners. The agreements with the hosting partners prohibit any operations related to Frosmo customer data.
- The employment and subcontracting contracts used by Frosmo contain confidentiality and non-disclosure clauses whereby the employees and subcontractors are obliged to keep the personal data confidential and not to use that data to any other purpose than for the proper performance of Frosmo services for the benefit of the customer.
- Frosmo provides no legal advice but, as a data processor, is committed to assisting its customers in the responsibilities regarding any personal data collected through the Frosmo Platform.
- Frosmo has developed technical solutions to make it easier for its customers to comply with the GDPR. For example, the Frosmo Platform can be disabled for visitors who refuse profiling. Similarly, the Frosmo Platform can show personalized content only to visitors who have given their consent to profiling.

For more information, see [Frosmo compliance with the General Data Protection Regulation](#) and [Data privacy description](#).

The Frosmo JavaScript library collects usage data in the visitor's browser and sends the data to the Frosmo back end over an HTTPS connection. The Frosmo JavaScript library also stores selected data locally in the visitor's browser.

Frosmo is committed to protecting the security of the visitors' personal data and has a variety of security technologies and procedures in place to prevent unauthorized access, use, or disclosure of data.

By default, the Frosmo Platform collects and processes only anonymous and pseudonymous information about visitors and their behavior on a website. The purpose and lawfulness of data processing is invariably determined by the customer and documented in the subscription agreement between Frosmo and the customer, and in the [Frosmo General Terms of Service](#).

Customer data is always stored in such a way that the data of one customer cannot be mixed with the data of another customer. All software modifications can be tracked in change logs and a version control system (GitLab).

For more information about how Frosmo handles data privacy, see [Data privacy description](#). For more information about platform security, see [Security overview](#).

Frosmo, as a data processor, always handles requests related to a specific data subject's access to their own personal data through the customer, who acts as the data controller for the specific site. Any personal data will be delivered only based on a written request or instructions given by the customer to Frosmo. Based on instructions from the customer, Frosmo can provide the data subject with a copy of their personal data in a machine-readable format.

When a data subject refuses profiling on a site, the Frosmo Platform discontinues all profiling for the corresponding Frosmo visitor ID. This can be done by setting a cookie in the visitor's browser that prevents the use of the platform. Alternatively, Frosmo [selective profiling](#) can be used to show generic content modifications to visitors who refuse profiling, and continue to show personalized content to visitors who accept profiling.

When a data subject requests deletion of their personal data, all data processing related to the specific user ID ceases immediately. After this, the data is stored in a format that prevents the platform from using it or associating it with a person. The data is then removed from the Frosmo back end according to the normal data retention cycle.

For more information about access to data, see [Data privacy description](#).

When you browse the web, your browser normally stores data about your browsing behavior. When you visit a website, your browser remembers that visit and saves cookies from the website. The browser also saves other information, such as a history of files you've downloaded, searches you've entered in your browser's address bar, and parts of web pages you've visited to load the same pages faster next time (this is known as the browser cache). If you choose so, your browser can also remember form entries and passwords.

The Frosmo Platform relies on parts of this browsing data. For example, the Frosmo Platform stores data in the browser's local storage both to retrieve visitor-related data from the Frosmo back end and to personalize the site based on that data. The platform also sets cookies in the visitor's browser.

Clearing the various browser data affects the Frosmo Platform as follows:

- **Browser cache:** Clearing the cache means that the Frosmo scripts have to be reloaded for every page on the site. This does not affect visitor data used for personalization. However, loading the pages may be slightly slower, since the scripts need to be again retrieved from the Frosmo back end rather than the cache.
- **Browsing history:** Clearing the browsing history and/or download history does not affect Frosmo Platform features.
- **Cookies:** The cookies that the Frosmo Platform sets in the browser may hold information about the following:
 - Target group data (only when target groups are used)
 - Context data needed for cached modifications (only when cached modifications are used)
 - Data needed to disable the Frosmo Platform for the visitor
 - Frosmo visitor ID used to identify the visitor (browser) across different domains and websites
 - Data needed to operate the Frosmo Preview Tool

Clearing the cookies means that the data mentioned above, if available, is removed. However, clearing the cookies does not remove other visitor data used for personalization.

- **Local storage:** Clearing local storage removes the visitor's local Frosmo ID and all context information needed for personalization. The Frosmo Platform uses the ID to identify the visitor (browser) when retrieving visitor-related data from the Frosmo back end. Clearing local storage therefore means that, on the next page load, the platform treats the visitor as a new visitor on the site. Previous segmentation and other visitor data for the visitor is also no longer available.

For more information, see [Data storage and retention](#).

When you browse the web, your browser normally stores data about your browsing behavior. When you visit a website, your browser remembers that visit and saves cookies from the website. The browser also saves other information, such as a history of files you've downloaded, searches you've entered in your browser's address bar, and parts of web pages you've visited to load the same pages faster next time (this is known as the browser cache). If you choose so, your browser can also remember form entries and passwords.

Most web browsers have a private browsing feature that allows you to browse the web without accumulating data in the browser's local storage and cache, and without storing data in cookies. Private browsing also functions as a completely isolated browser session – for example, if you're logged into Facebook in your normal browsing session and open a private-browsing window, you won't be logged into Facebook in that private-browsing window.

The Frosmo Platform treats a private browsing session as a first-time visit by a new visitor. This means that any segmentation data or other data previously stored in the visitor's browser is not available. Each new private browsing session is counted as a new visitor for the site.

The Frosmo JavaScript library collects usage data in the visitor's browser and sends the data to the Frosmo back end over an HTTPS connection. The Frosmo JavaScript library also stores selected data, such as visitor IDs and segmentation data, locally in the browser. The Frosmo Platform collects product data, such as product name, category, and price.

The Frosmo Platform can track product views and purchases separately for each visitor. The platform also automatically collects site-specific data, such as visit sources, retention, and traffic information.

The data that is collected by default can be categorized into:

- **Modification performance data:** Basic modification events used for monitoring and reporting
- **Server logs:** "Raw data" not used for profiling or targeting

The platform can also collect other types of data:

- **Product data:** Information used in product recommendations
- **Visitor data:**
 - **Background data:** Information about the visitor not related to a specific website
 - **Behavior data:** Visitor's actions on the website
 - **Conversion and transaction data:** Visitor's actions on the website in connection with purchases and other conversions
 - **Account data:** Personal data collected and stored temporarily for the purpose of transferring it to your company's back end or third-party systems controlled by you; only tracked when explicitly agreed with your company

By default, the Frosmo Platform collects and processes only anonymous and pseudonymous information about visitors and their behavior on a website. The platform does not collect data that in itself enables the identification of an individual data subject.

The Frosmo Platform can collect additional information about visitors, including account data, such as email addresses and phone numbers. However, the processing of such data must always be determined by the customer and explicitly documented. Frosmo only collects account data for the purpose of transferring the data to the customer's back end systems or third-party systems controlled by the customer, such as customer relationship management (CRM) systems or marketing automation systems.

Frosmo never collects visitor data for its own purposes, or for the purpose of selling it to a third party.

For more information, see [Data storage and retention](#).

Search engine optimization

The Frosmo Platform uses JavaScript to make modifications on web pages. The original content of the page may be hidden or even temporarily removed. Depending on the display method and trigger event used to show a modification, it is possible that the modification content does not exist on the page in time for search bots to find it.

For example, Googlebot, the web crawler used by Google to discover web content, is treated as a new visitor by the Frosmo Platform. This means that Googlebot cannot access modification content targeting visitors segmented based on their previous behavior on the site.

Most implementations created using the Frosmo Platform use client-side rendering. The page content is not in the HTML file that is requested from the server (as in server-side rendering), but rendered in the browser using JavaScript. In this case, too, the page content may not be rendered when search bots try to find it.

When you use the Frosmo Platform to implement individual UI components on your site, using JavaScript does not have a big negative impact on the SEO of the site. If most or all visible content on your site is implemented using the Frosmo Platform, and especially if it's heavily personalized, the impact on SEO can be bigger. However, even in this case, the site SEO is more affected by the underlying JavaScript framework used on the site, and whether the site uses server-side or client-side rendering, than by the use of the Frosmo Platform.

Then again, if you use the Frosmo Platform to supplement or improve the generic content of your site, it can actually have a positive impact on your site SEO.

In any case, you should carefully plan and test your site for SEO to make sure that both the JavaScript framework used on your site and your Frosmo implementations are SEO-compatible.

For more information about how to make your JavaScript and CSS content available for search bots, see [Understanding web pages better](#) in Google Webmaster Central Blog.

Segmentation

When you set up the Frosmo Platform for your site, the platform starts collecting data about each visitor's actions on the website, including data about conversions made by the visitor. This data is stored in the Frosmo back end and used for visitor segmentation.

The Frosmo Platform segmentation features include various default options for defining segmentation rules, such as:

- Landing page through which the visitor entered the website
- New visitor
- Previously visited sites or pages
- Visitor's geolocation (based on IP address or GPS data)
- Purchased products

In addition, using custom rules, you can create basically any segments you want. You can define segments yourself using the Frosmo Control Panel, or your Frosmo team can do that for you.

For more information about segmentation, see [Introduction to segmentation](#).

System integrations

The Frosmo Platform can communicate with your back-end system and basically any analytics tool, marketing automation system, or data management platform, depending on the configuration of that system. There are many ways to implement the integration between the Frosmo Platform and a CRM or CMS, but the most common and future-proof way is through APIs.

For more information about integrations between the Frosmo Platform and other systems and services, see [System and service integrations](#).

Tips and tricks

To speed up your web experience, browsers store copies of the websites you visit. When you visit the same site again in your browser, the pages load faster than they did on your first visit. This is because the browser can now fetch the page content from the browser's local cache on your computer, as opposed to downloading it over the internet from a web server.

Caching also means that changes to pages you've already visited may not show up in the browser immediately. Often, a simple page reload fixes this. Sometimes, though, this is not enough, and you need to force the browser to re-download the current page, ignoring the cached content. This is called a **hard reload** (also **hard refresh**, **cache refresh**, or **cache bypass**).

As a general rule, to hard-reload a page in any desktop browser:

- Linux: Press **Ctrl + Shift + R** or **Ctrl + F5** on your keyboard.
- macOS: Press **Command + Shift + R** on your keyboard or, if using Safari, **Command + R** or **Command + Option + R**.
- Windows: Press **Ctrl + Shift + R** or **Ctrl + F5** on your keyboard.

If the above shortcuts do not work, check for additional options in the official browser documentation, where available:

- [Google Chrome](#)
- [Microsoft Edge](#)
- [Mozilla Firefox](#)
- [Opera](#)



If you're using [Frosmo Preview](#) to debug content on a page, the application will tell you when you need to hard reload the page to see the latest changes from the Frosmo Platform.



Mobile browsers do not, as a rule, support hard reload. However, you can always clear the cache of a mobile browser.