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Google Tag Manager & Consent Mode

User Guide
Version: 1.0.1
Compatibility: Adobe Commerce and Magento Open Source 2.4.7 – 2.4.9, PHP 8.1 – 8.5
Vendor: Webmaster Ramos

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1. Overview

Google Tag Manager & Consent Mode loads your Google Tag Manager container on every storefront page of Adobe Commerce and Magento Open Source, on Luma and Hyvä Theme. It is an extension for Magento built for the three things a snippet pasted into the HTML Head gets wrong:

- **Staging copies send production data.** Staging and local environments run on copies of the production database, and a pasted snippet travels with the data. Test visits and test orders end up in your real Analytics and Ads accounts. The extension loads the container only on the production hosts you list.
- **The checkout blocks it.** Since 2.4.7 the checkout runs under a strict Content Security Policy with inline scripts switched off. The extension hands the page's nonce to `gtm.js` and to your Custom HTML tags, and adds your tag hosts to the policy.
- **Consent comes too late.** Google Consent Mode v2 needs its defaults set before the container loads. The extension sets them first, and updates them from Magento's own cookie notice or leaves updates to your consent platform.

Your tags, triggers and variables stay in Tag Manager. The extension pushes no ecommerce events and sends nothing from the server.

Key Features

- Container on every storefront page, with the `<noscript>` fallback after the opening `<body>` tag
- Staging guard: loads only on listed production hosts; an empty list loads nothing
- Nonce on `gtm.js` and a `cspNonce` dataLayer value for Custom HTML tags on the checkout
- Tag hosts added to the storefront Content Security Policy from the admin
- Consent Mode v2 defaults before the container: denied in the EEA, the UK and Switzerland, your choice elsewhere
- Consent updates from Magento's cookie notice, or from your consent platform
- Your own `gtm.js` base URL for server-side Tag Manager or Google tag gateway
- Every field validated on save

Compatibility

Platform	Versions
Adobe Commerce	2.4.7 – 2.4.9
Magento Open Source	2.4.7 – 2.4.9
PHP	8.1 – 8.5
Themes	Luma, Hyvä Theme (with native Magento checkout)

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2. Installation

Via Composer

```
composer require webmaster-ramos/module-google-tag-manager
bin/magento module:enable WebRamos_GoogleTagManager
bin/magento setup:upgrade
bin/magento setup:di:compile
bin/magento cache:flush
```

`setup:di:compile` is required in production mode and harmless elsewhere. The extension adds no database table.

Verify

```
bin/magento module:status WebRamos_GoogleTagManager
```

The module should be enabled, and **Stores → Configuration → Webmaster Ramos → Google Tag Manager** should be available. Nothing loads on the storefront until you enable it there.

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3. Configuration

Navigate to **Stores → Configuration → Webmaster Ramos → Google Tag Manager**. The section has its own ACL resource, *Google Tag Manager*, under **Stores → Settings → Configuration**.

3.1 General

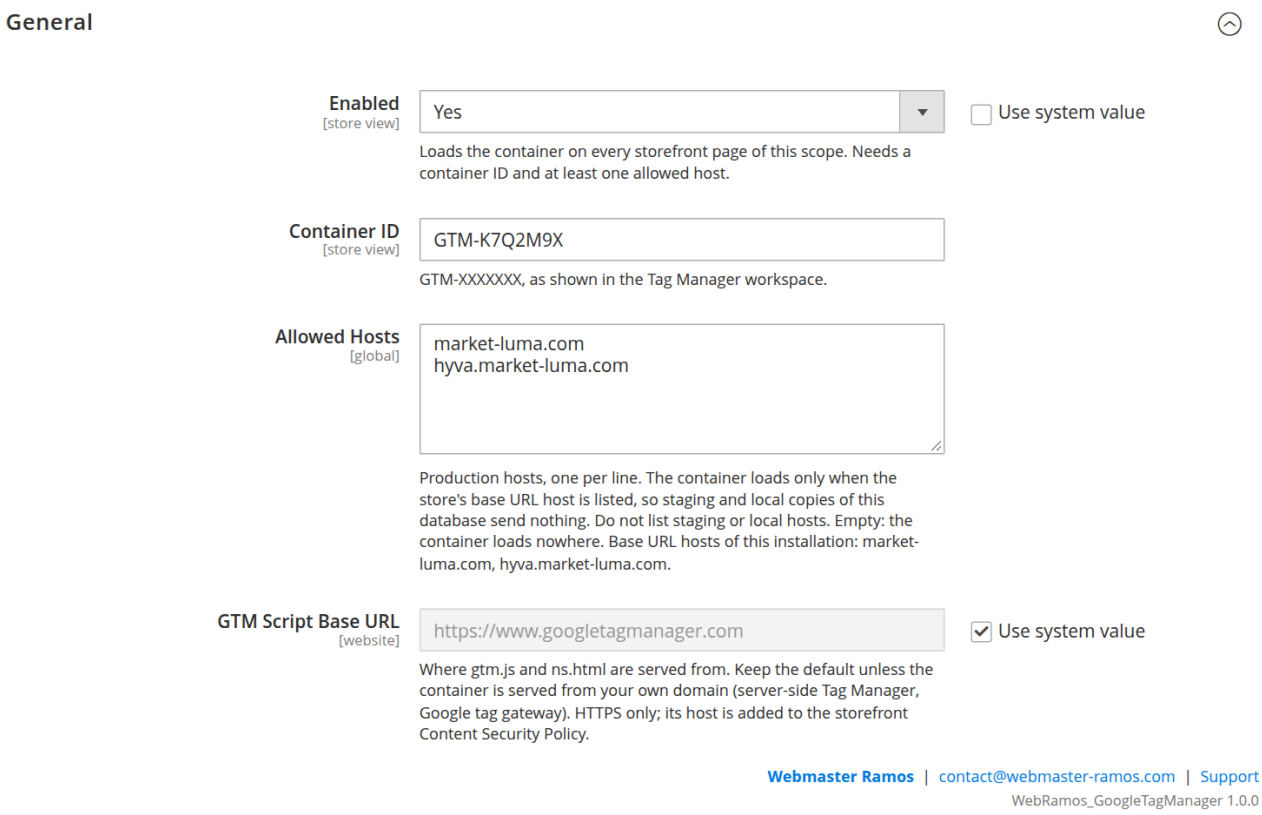


Figure 1: General settings

Field	Description	Default
Enabled	Loads the container on every storefront page of this scope. Saving Yes needs a container ID and at least one allowed host. Store view scope.	No
Container ID	Your `GTM-XXXXXXX` ID from the Tag Manager workspace. Stored upper-case. Store view scope.	–
Allowed Hosts	Production hosts, one per line. The container loads only when the store's base URL host is listed. The comment under the field lists the base URL hosts your installation has. Default scope only.	–
GTM Script Base URL	Where `gtm.js` and `ns.html` are served from: `https://` and a host, optionally a path. Website scope.	`https://www.googletagmanager.com`

At the foot of the group are the Webmaster Ramos links and the installed module version – quote that line in a support request.

3.2 Content Security Policy

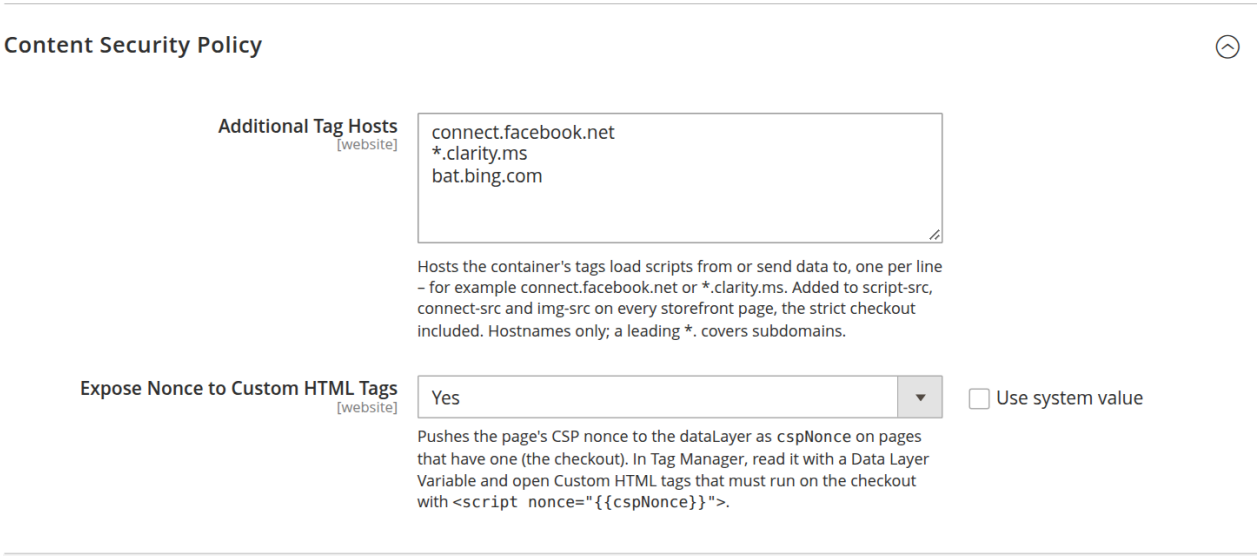


Figure 2: Content Security Policy settings

Field	Description	Default
Additional Tag Hosts	Hosts your tags load scripts from or send data to, one per line, for example `connect.facebook.net` or `*.clarity.ms`. Added to `script-src`, `connect-src` and `img-src` on every storefront page, the checkout included. Website scope.	–
Expose Nonce to Custom HTML Tags	Pushes the page's nonce to the dataLayer as `cspNonce` on pages that have one. Website scope.	Yes

Only hostnames are accepted, with an optional leading `*.` for subdomains. A bare `*`, a scheme such as `https:`, `data:` or a quoted keyword such as `'unsafe-inline'` is refused, so the field cannot switch the checkout policy off.

3.3 Consent Mode v2

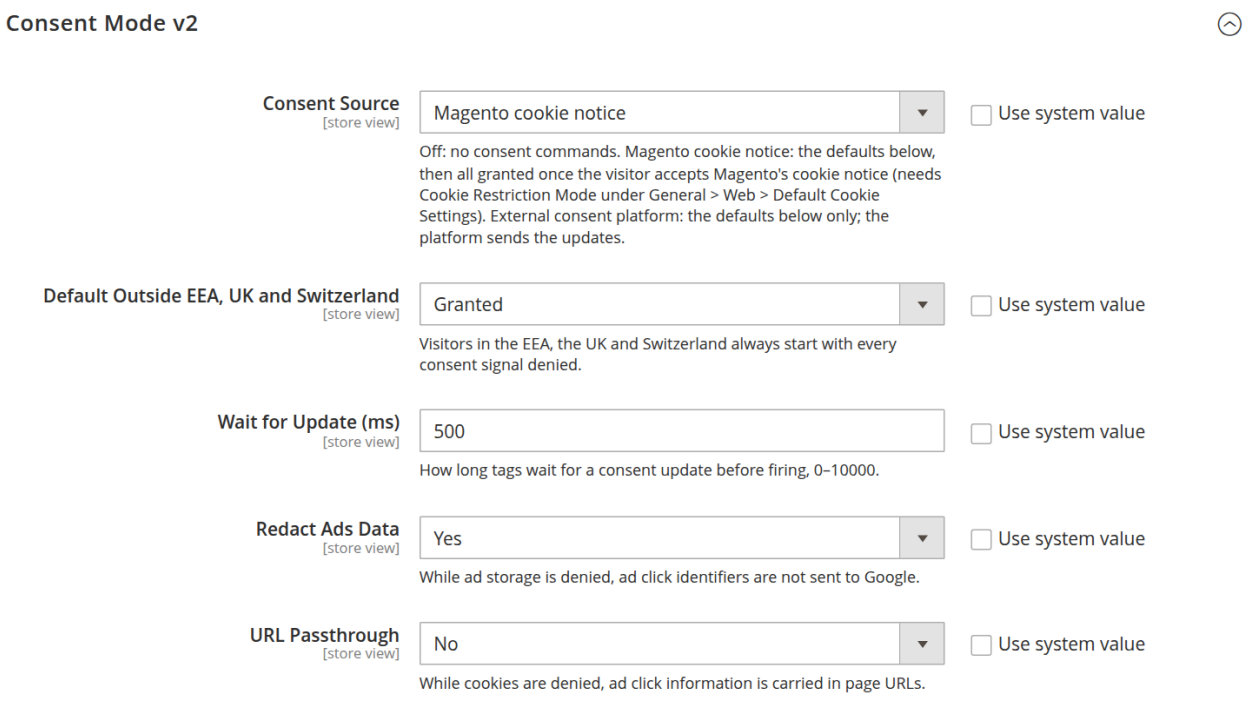


Figure 3: Consent Mode settings

Field	Description	Default
Consent Source	Off: no consent commands. Magento cookie notice: the defaults below, then all granted once the visitor accepts Magento's cookie notice. External consent platform: the defaults below only. Store view scope.	Off
Default Outside EEA, UK and Switzerland	Starting state for visitors elsewhere. In those regions every signal always starts denied.	Granted
Wait for Update (ms)	How long tags wait for a consent update before firing, 0 – 10000.	500
Redact Ads Data	While ad storage is denied, ad click identifiers are not sent.	Yes
URL Passthrough	While cookies are denied, ad click information is carried in page URLs.	No

The four fields below **Consent Source** are hidden while it is Off.

4. How It Works

4.1 The staging guard

The extension compares the host of the store's configured base URL with **Allowed Hosts**. It never reads the host a browser sends, so the result cannot be changed from outside. When the host is not listed, the storefront page carries no loader, no `<noscript>` iframe and no extra policy hosts.

To set it up, list every host your production stores answer on – `www.example.com` and `example.com` are different hosts. Give your staging environment its own base URL (it needs one anyway). After that, copying the production database to staging is safe: the container stays off there.

The module cannot be enabled while the list is empty:

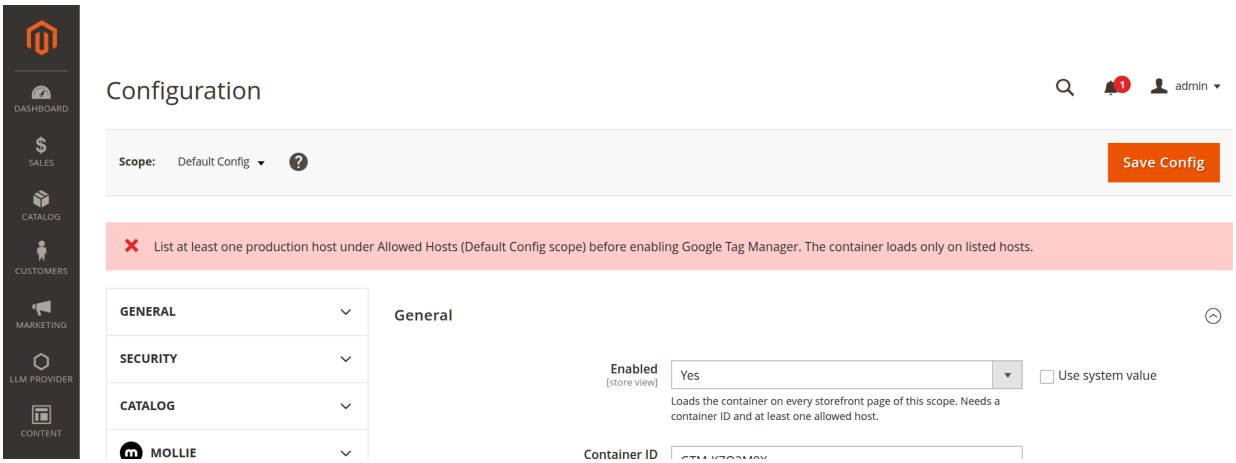


Figure 4: Saving without hosts is refused

4.2 The checkout under a strict Content Security Policy

Magento runs the checkout page with inline scripts switched off and a nonce per request. The loader receives that nonce and sets it on `gtm.js`. For Custom HTML tags, which Tag Manager writes into the page as inline scripts, the nonce is also pushed to the dataLayer:

1. In Tag Manager, create a **Data Layer Variable** named `cspNonce` that reads the key `cspNonce`.
2. In every Custom HTML tag that must run on the checkout, open the script with `<script nonce="{{cspNonce}}">`.
3. Add the hosts the tag loads from or sends to under **Additional Tag Hosts**.

Pages other than the checkout allow inline scripts, so nothing changes there, and they stay full-page cacheable.

4.3 Consent Mode

The defaults are set in the same script that loads the container, before it:

- every signal (`ad_storage`, `ad_user_data`, `ad_personalization`, `analytics_storage`) denied for visitors in the 30 EEA countries, the United Kingdom and Switzerland;
- **Default Outside EEA, UK and Switzerland** for everyone else.

With **Consent Source** set to **Magento cookie notice**, switch on Cookie Restriction Mode under **Stores → Configuration → General → Web → Default Cookie Settings**. When the visitor clicks *Allow Cookies*, all four signals become granted. On every later page they are granted before the container loads.

With **External consent platform**, the platform's Tag Manager template sends the updates. If that template also sets defaults, choose **Off** instead, so the defaults are not set twice.

In Tag Manager, use the built-in consent checks on your tags (Admin → Container Settings → Enable consent overview).

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5. Use Cases

5.1 A store that copies production to staging every night

List the production hosts once. Staging keeps its own base URL, so its pages render no container, while production is unaffected. No environment-specific configuration has to be remembered after each copy.

5.2 A Meta Pixel in a Custom HTML tag on the checkout

Add `connect.facebook.net` under **Additional Tag Hosts**, create the `cspNonce` variable and open the Custom HTML tag with `<script nonce="{{cspNonce}}">`. The pixel runs on the checkout like on every other page.

5.3 A store selling into the EU without a consent platform

Set **Consent Source** to **Magento cookie notice** and switch on Cookie Restriction Mode. EEA visitors start denied and become granted when they accept the notice; Tag Manager's consent checks decide which tags may fire.

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6. Troubleshooting

Symptom	Cause and fix
Nothing loads on the storefront	Check **Enabled** for the store view, the container ID, and that the store's base URL host is in **Allowed Hosts**. Then refresh the Page Cache.
"List at least one production host…" on save	**Allowed Hosts** is empty. Fill it at Default Config scope, then enable.
A tag works everywhere except the checkout	Its host is missing from **Additional Tag Hosts**, or it is a Custom HTML tag without `nonce="{{cspNonce}}"`. The browser console names the blocked address.
Consent never becomes granted	In Magento cookie notice mode, Cookie Restriction Mode must be on; without it Magento never asks and the defaults stay.
Two containers on the page	Another module or the HTML Head field also loads the container. Remove the other copy.

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7. Support & Changelog

- **Author:** Webmaster Ramos
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- **Website:** https://webmaster-ramos.com
- **Support:** https://webmaster-ramos.com/support
- **Changelog:** see `CHANGELOG.md` inside the package