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WebP & AVIF Product Images

User Guide

Version: 1.3.1

Compatibility: Adobe Commerce / Magento Open Source 2.4.7 – 2.4.9, PHP 8.1 – 8.5

Vendor: Webmaster Ramos

1. Overview

WebRamos Modern Images lets your store accept and serve **WebP** and **AVIF** product imagery without any theme changes or front-end markup tricks. Out of the box, Magento blocks WebP/AVIF uploads in the admin and serves only the legacy JPEG/PNG/GIF formats. This extension removes those restrictions and lets Magento resize and deliver modern formats as ordinary images through its own ImageMagick image adapter.

Modern formats are typically 25 – 50 % smaller than an equivalent JPEG at the same visual quality, which means faster product pages, better Core Web Vitals, and lower bandwidth. Because the images are served as a plain ``, the result works identically on Luma and Hyvä and needs no `<picture>` element, no JavaScript, and no per-theme integration.

A command-line tool migrates your existing catalogue: it converts current JPEG/PNG product images to WebP (or AVIF) and updates the catalogue references in a single, idempotent pass.

Key Features

- Accept `.webp` and `.avif` uploads across the admin, the image API and the storefront: product images, the Media Gallery, configurable/swatch images, Page Builder, the CMS/WYSIWYG image manager, theme logos and favicons, the REST and GraphQL product media API, and customer file uploads made by staff in the admin or by shoppers on the storefront.
- Native serving – modern images are delivered as plain `<img>` (no `<picture>`, no JavaScript), identical on Luma and Hyvä.
- One-command catalogue migration (existing JPEG/PNG → WebP/AVIF + reference rewrite), with a dry-run preview.
- Per-store configuration: encoder quality, converter backend and excluded paths.
- Built-in diagnostics panel that reports converter availability and warns when the image adapter is not set to ImageMagick.

Compatibility

Platform	Versions
Adobe Commerce	2.4.7 – 2.4.9
Magento Open Source	2.4.7 – 2.4.9
PHP	8.1, 8.2, 8.3, 8.4, 8.5
Themes	Luma and Hyvä (native serving is theme-independent)
Image adapter	ImageMagick (Imagick) with WebP and AVIF support

2. Installation

Via Composer

```
composer require webmaster-ramos/module-modern-images
bin/magento module:enable WebRamos_ModernImages
bin/magento setup:upgrade
bin/magento setup:di:compile      # production mode only
bin/magento cache:flush
```

Verify

```
bin/magento module:status WebRamos_ModernImages
```

Enable native serving

Magento resizes storefront images through its PHP image adapter. To serve WebP/AVIF natively, the server needs the **Imagick** PHP extension built with WebP and AVIF support, and Magento's adapter must be set to ImageMagick:

```
bin/magento config:set dev/image/default_adapter IMAGEMAGICK
bin/magento cache:flush
```

Confirm the environment is ready:

```
bin/magento webramos:modernimages:check
```

```
www-data@magento: /app

$ bin/magento webramos:modernimages:check
Preflight: WebRamos ModernImages

Converters
+-----+-----+-----+
| Name   | Status | Supported target formats |
+-----+-----+-----+
| cwebp  | Available | image/webp |
| imagick | Available | image/webp, image/avif |
| gd     | Available | image/webp |
+-----+-----+-----+

Effective configuration
+-----+-----+
| Setting | Value |
+-----+-----+
| enabled | yes |
| quality_webp | 82 |
| quality_avif | 60 |
| converter_preference | auto |
| exclude_patterns_count | 0 |
| image_adapter | IMAGEMAGICK |
| adapter_warning | no |
+-----+-----+

Product media root
+-----+-----+
| Property | Value |
+-----+-----+
| root_relative | catalog/product |
| root_absolute | /app/pub/media/catalog/product |
| root_exists | yes |
| root_writable | yes |
+-----+-----+
```

Figure 1: Preflight – CLI converter availability

3. Configuration

Navigate to **Stores → Configuration → Webmaster Ramos → Modern Images**.

Enabled
[global]

Yes

▼

☐ Use system value

No = the migrate command converts nothing, and the installation stops accepting new WebP/AVIF uploads – admin forms, the REST/GraphQL image API and the CMS media browser alike – though files already stored keep working. Applies to the whole installation, not per store view. Yes = migrate converts eligible galleries and every one of those paths accepts WebP/AVIF. Default: Yes.

[Webmaster Ramos](#) | contact@webmaster-ramos.com | [Support](#)
WebRamos_ModernImages 1.3.0

Figure 2: Config – Modern Images section

3.1 General

Field	Description	Default
Enabled	Master switch. Set to No and <code>webramos:modernimages:migrate</code> converts nothing, naming this setting instead, and the installation stops accepting new WebP/AVIF uploads – in the admin and through the API alike – while files already stored keep working.	Yes

This one field is **global** – it is not scoped per store view, because what it governs is a catalogue-wide command that has no single store to belong to. It is also the only field in the section that can be reset with **Use system value**.

The group also shows a support banner naming the extension and the installed version (**WebRamos_ModernImages 1.3.1**). It is read from the installation, not written into the page, so it always matches what is actually running – quote that line when you contact support.

3.2 Quality

Field	Description	Default
WebP quality	Encoder quality (1 – 100). Higher is better quality / larger file.	82
AVIF quality	Encoder quality (1 – 100).	60

3.3 Engine

Field	Description	Default
Converter preference	Which converter to use: auto , cwebp , imagemick , or gd .	auto
Converter Availability	Diagnostic panel: detected converters, the active image adapter, and a warning when the adapter is not ImageMagick.	–

Converter preference

[store view]

Auto-detect (first available)

▼

Auto-detect picks the first available converter; an explicit choice is honoured when available and falls back to auto-detect otherwise.

Converter Availability

[store view]

Converter	Status	Supported target formats
cwebp	Available	Image/webp
imagemagick	Available	Image/webp, Image/avif
gd	Available	Image/webp

Figure 3: Config – Engine group with Converter Availability

3.4 Advanced

Field	Description	Default
Exclude paths	One regular expression per line (delimited PCRE, e.g. <code>#catalog/category#</code>). Matching media paths are skipped.	(empty)

Quality, Engine and Advanced are configured per store view, so you can tune one store while leaving another untouched. **Enabled**, in the General group, is the exception and applies globally.

4. Migrating an Existing Catalogue

The **migrate** command converts existing product gallery images to WebP (or AVIF) and rewrites the catalogue so the storefront serves the modern format.

Always preview first with `--dry-run` (it writes nothing):

```
bin/magento webramos:modernimages:migrate --dry-run
```

```

www-data@magento: /app

$ bin/magento webramos:modernimages:migrate --dry-run
Would convert m/b/mb01-blue-0.jpg -> m/b/mb01-blue-0.webp (value_id 1)
Would convert m/b/mb04-black-0.jpg -> m/b/mb04-black-0.webp (value_id 2)
Would convert m/b/mb04-black-0_alt1.jpg -> m/b/mb04-black-0_alt1.webp (value_id 3)
Would convert m/b/mb03-black-0.jpg -> m/b/mb03-black-0.webp (value_id 4)
Would convert m/b/mb03-black-0_alt1.jpg -> m/b/mb03-black-0_alt1.webp (value_id 5)
Would convert m/b/mb05-black-0.jpg -> m/b/mb05-black-0.webp (value_id 6)
Would convert m/b/mb06-gray-0.jpg -> m/b/mb06-gray-0.webp (value_id 7)
Would convert m/b/mb02-gray-0.jpg -> m/b/mb02-gray-0.webp (value_id 8)
Would convert m/b/mb02-blue-0.jpg -> m/b/mb02-blue-0.webp (value_id 9)
Would convert u/b/ub02-black-0.jpg -> u/b/ub02-black-0.webp (value_id 10)
Would convert w/b/wb01-black-0.jpg -> w/b/wb01-black-0.webp (value_id 11)
Would convert w/b/wb02-green-0.jpg -> w/b/wb02-green-0.webp (value_id 12)
... 3404 further lines omitted from this screenshot ...
Would convert e/2/e2e_modernimages_migrate_10_15.jpg -> e/2/e2e_modernimages_migrate_10_15.webp (value_id 3700)
Would convert e/2/e2e_modernimages_migrate_14b_7.jpg -> e/2/e2e_modernimages_migrate_14b_7.webp (value_id 3704)
Would convert e/2/e2e_modernimages_migrate_15_7.jpg -> e/2/e2e_modernimages_migrate_15_7.webp (value_id 3705)
Would convert e/2/e2e_modernimages_migrate_17_1.jpg -> e/2/e2e_modernimages_migrate_17_1.webp (value_id 3707)

Done (dry-run, nothing written). Converted: 3420, Skipped: 16, Failed: 0.

```

Figure 4: Migrate – dry-run preview

Then run the migration. Because it rewrites catalogue references and is irreversible without a backup, the command asks for confirmation (use `--force` to skip the prompt):

```

# Whole catalogue
bin/magento webramos:modernimages:migrate --force

# A single product
bin/magento webramos:modernimages:migrate --sku=24-MB01 --force

# AVIF instead of WebP
bin/magento webramos:modernimages:migrate --format=avif --force

# Optional: resized images are built on first request anyway. This warms them
# ahead of traffic and reprocesses the ENTIRE catalogue (no per-SKU option).
bin/magento catalog:images:resize

```

The command is idempotent – images already in the target format are skipped – so it is safe to re-run. If no converter is available, it aborts cleanly without changing the database.

Back up first. The migration rewrites `catalog_product_entity_media_gallery` in place; the original reference is not retained. Take a database backup before a real run.

5. CLI Commands

Command	Description
<code>webramos:modernimages:check</code>	Preflight diagnostics – converters, effective configuration, image adapter, output root.
<code>webramos:modernimages:migrate</code>	Convert existing product images to WebP/AVIF and rewrite catalogue references.

Migrate command options

Option	Description
<code>--sku=SKU</code>	Limit to a single product (default: all products).
<code>--format=webp\ avif</code>	Target format (default: webp).
<code>--quality=N</code>	Encoder quality 1 – 100 (default: from configuration).
<code>--keep-originals</code>	Keep the source JPEG/PNG file on disk.
<code>--dry-run</code>	Print the plan without writing files or the database.
<code>--force</code>	Skip the confirmation prompt.

6. Use Cases

6.1 Switch a new store to WebP

1. Install the extension and confirm Imagick is available (**webramos:modernimages:check**).
2. Set `dev/image/default_adapter` to ImageMagick.
3. Under **Modern Images** → **General**, keep **Enabled** = Yes, or **migrate** will decline to run.
4. Run **webramos:modernimages:migrate --dry-run**, review, then **--force**. Resized images are rebuilt on first request – no further command is needed.
5. Open a product page – the product image is served as `image/webp`.

6.2 Accept WebP uploads from your team

With the extension enabled, merchandisers can upload **.webp** (or **.avif**) files directly in the product Media Gallery; Magento stores and serves them natively. The same applies away from the admin screens: an integration posting to `POST /V1/products/<sku>/media` over REST or GraphQL, and a shopper attaching a file to a customer or address attribute on the storefront, are accepted on the same terms. Set **Enabled** to No and those uploads are refused by the server – the picker still lets a file be chosen, but the upload comes back rejected – and the media browser stops listing modern-format files until the switch is back on.

7. Troubleshooting

Symptom	Resolution
Product images broken after enabling	The image adapter is not ImageMagick, or Imagick lacks WebP/AVIF support. Run webramos:modernimages:check – the Converter Availability panel warns when the adapter is wrong. Set <code>dev/image/default_adapter</code> IMAGE MAGICK and flush the cache.

Symptom	Resolution
<code>migrate</code> reports “no converter available”	Install Imagick (ImageMagick 7 with WebP/AVIF) or the <code>cwebp</code> binary, then re-run.
Storefront still serves JPEG after migrate	Regenerate the image cache: <code>bin/magento catalog:images:resize</code> , then flush the cache.
<code>.webp</code> upload rejected in admin	Confirm the module is enabled (<code>module:status</code>) and the cache is flushed.

Logs: `var/log/system.log` and `var/log/exception.log`.

8. Support & Changelog

- **Vendor:** WebRamos
- **Email:** contact@webmaster-ramos.com
- **Website:** <https://webmaster-ramos.com>
- **Support:** <https://webmaster-ramos.com/support>
- **Changelog:** see `CHANGELOG.md` inside the package.

When reporting an issue, include the identifier line from **Stores** → **Configuration** → **Webmaster Ramos** → **Modern Images** → **General** (`WebRamos_ModernImages` plus the version) and the output of `webramos:modernimages:check`. Together they state the version in use and the converter environment it runs in.