



BadCamp 2019

# A Recipe for Better Images in Drupal 8

by **Mike Lander**



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**The goal today is to start with a basic image implementation and walk-through step-by-step to a more advanced setup.**

# Images 101

(This will be brief)

# Basic Workflow

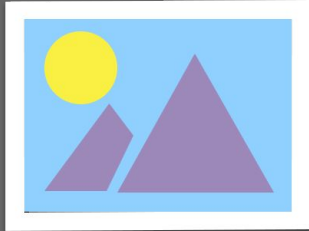


Image is  
uploaded to  
Drupal.



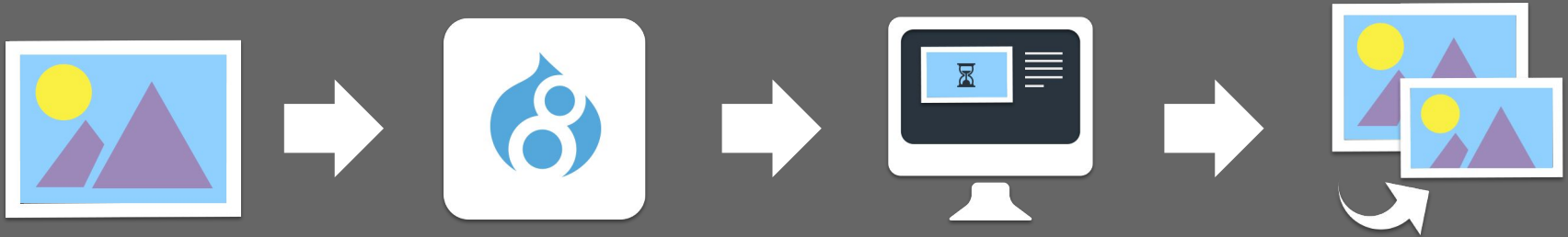
Drupal stores the  
original image.



Drupal renders  
page with original  
image.

# Basic Workflow

with Image Styles



**Drupal renders page with styled image.**

**Styled and compressed derivative is generated and returned to the browser.**

**This has been around since  
Drupal 5. If you are still only  
doing this..**

**Shame... Shame... Shame...**

# The Setup

**Banner: 3.1 MB**

**All images: 11.7 MB**



**Let's start the recipe**

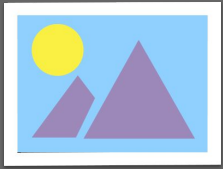
# Ingredients

- **Responsive Image** (core)
- **ImageAPI Optimize** (imageapi\_optimize)
- **ImageAPI Optimize GD** (imageapi\_optimize\_gd)
- **ImageAPI Optimize WebP** (imageapi\_optimize\_webp)
- **Blazy** (blazy)

# Responsive Image

**Responsive image** allows you to switch out image styles based on browser width and density.

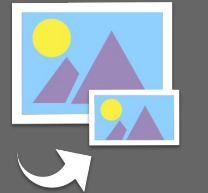
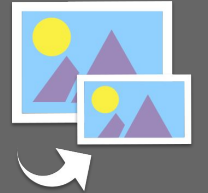
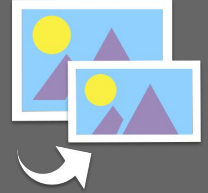
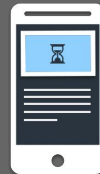
# Responsive Workflow



or



or



Drupal renders page with responsive image (html5 picture or srcset).

Based on breakpoints, image style is returned.

# Responsive Image Setup

**Banner: 3.1 MB (366 KB on mobile)**

**All images: 10.4 MB (7.6 MB on mobile)**

# ImageAPI Optimize

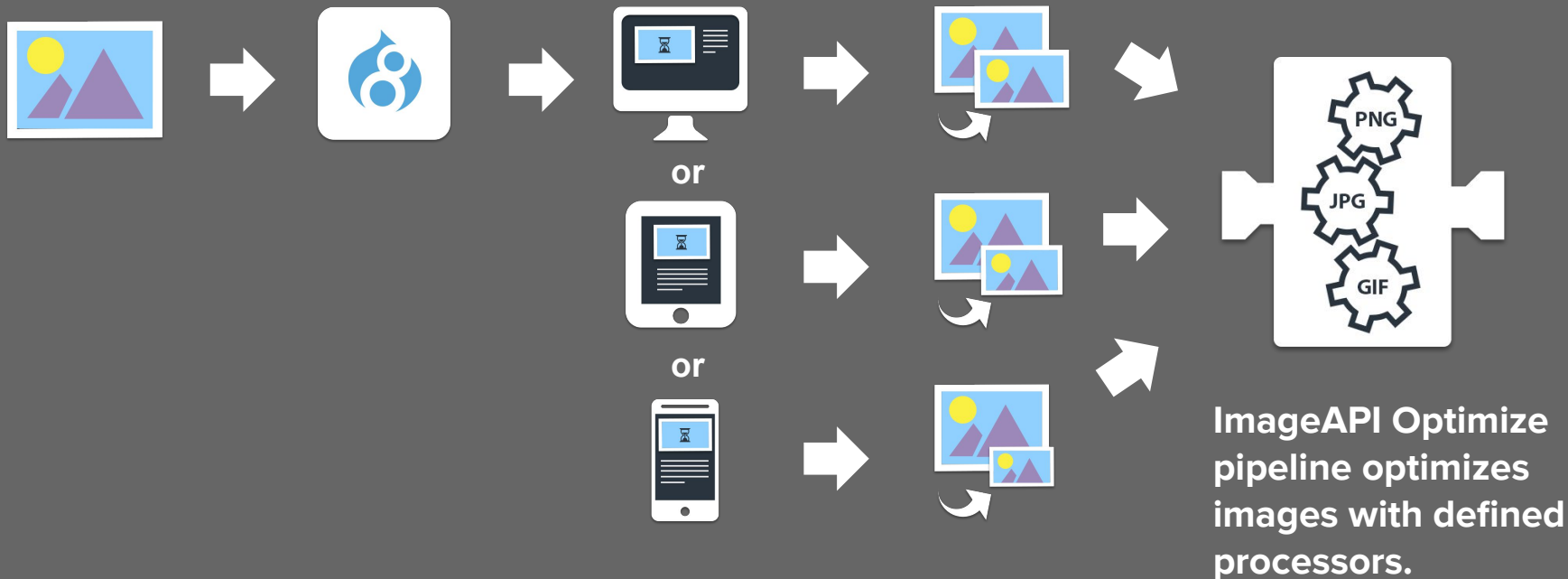
**ImageAPI Optimize** adds an optimization layer after image styles are generated.

**Pipelines** are created to allow optimization with local and 3rd party processors.



# Responsive Workflow

with ImageAPI Optimize



**ImageAPI Optimize GD**

## **ImageAPI Optimize GD**

**provides a pipeline processor  
to adjust image quality with  
the GD toolkit.**

## Why this is important:

- Defers compression to ImageAPI Optimize for more granular control.
- Avoids double compression

# ImageAPI Optimize Setup

**Banner: ~~3.1 MB~~ 288 KB (~~366 KB~~ 41.5 KB on mobile)**

**High Quality Banner: 806 KB**

**All images: ~~10.4 MB~~ 1.7 MB (~~7.6 MB~~ 980KB on mobile)**

**ImageAPI Optimize WebP**

## **ImageAPI Optimize WebP**

**provides a pipeline processor that generates a .webp image derivative from the source styled image.**

# Benefits of WebP

- Employs both lossy and lossless compression.
- Supports transparency in both lossy and lossless compression.
- 25% - 35% smaller than JPEG
- 26% smaller than PNG when lossless
- 3x smaller than PNG when lossy & still supports transparency



# Browser support

IE	Edge *	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *
			4-8		10.1			
			<sup>1</sup> 9-22		<sup>1</sup> 11.5			2.1-3
		2-64	<sup>2</sup> 23-31		<sup>2</sup> 12.1-18			<sup>1</sup> 4-4.1
6-10	12-17	65-67	32-75	3.1-12	19-60	3.2-12.1		4.2-4.4.4
11	18	68	76	12.1	62	12.3	all	67
	76	69-70	77-79	13-TP		13		

Source caniuse.com

**JPEG (GD 50%)**



**44kb**

**WebP (GD 50%)**



**38kb**

**JPEG (GD 50%)**

**WebP (GD 50%)**

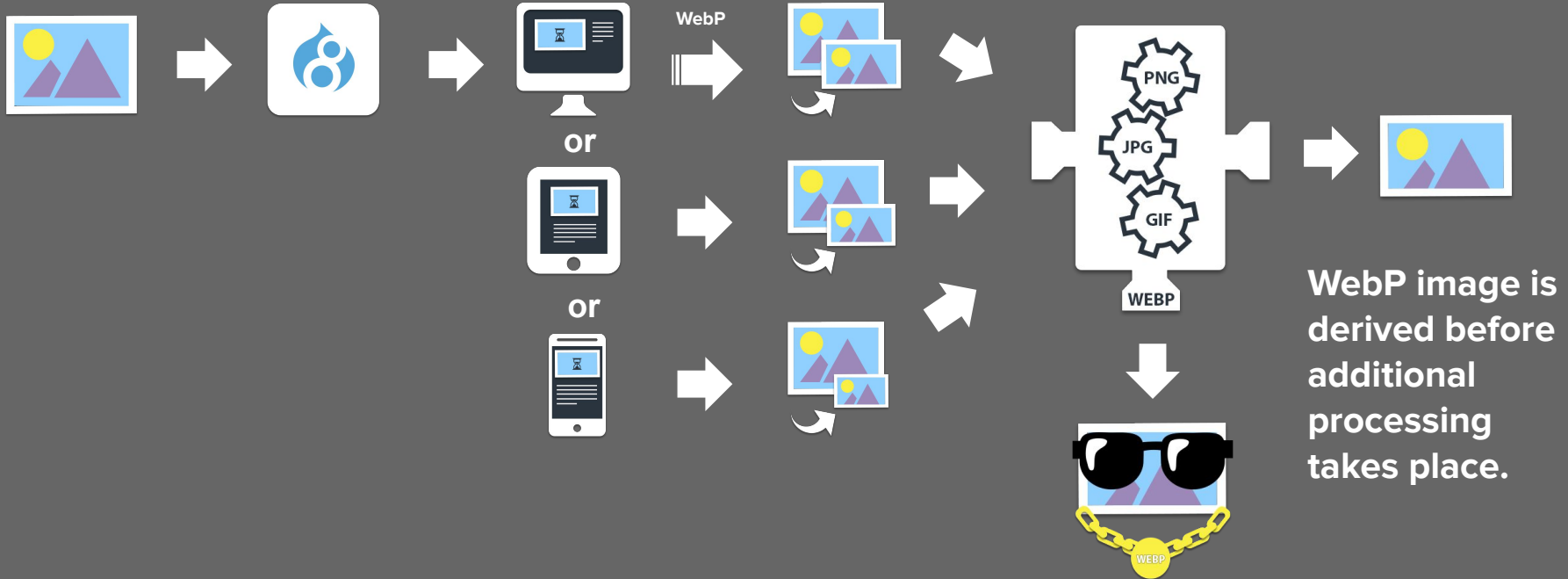


**48kb**

**41kb**

# Responsive Workflow

with ImageAPI Optimize & ImageAPI Optimize WebP



# ImageAPI Optimize WebP Setup

High Quality Banner: ~~3.1 MB~~ ~~806 KB~~ 419 KB (~~366 KB~~ ~~41.5 KB~~ 33 KB on mobile)

All images: ~~10.4 MB~~ ~~1.7 MB~~ 1.1 MB (~~7.6 MB~~ ~~980 KB~~ 735 KB on mobile)

**Blazy**

**Blazy** implements the **bLazy.js** library to defer loading images below the fold until the page is scrolled.



# Recipe additions



# Image Effects

[\(https://www.drupal.org/project/image\\_effects\)](https://www.drupal.org/project/image_effects)

**“The Image Effects module provides a suite of additional image effects that can be added to image styles. Image Effects tries to support both the GD toolkit from Drupal core and the ImageMagick toolkit.”**

# Focal Point

[https://www.drupal.org/project/focal\\_point](https://www.drupal.org/project/focal_point)

**“Focal Point allows you to specify the portion of an image that is most important. This information can be used when the image is cropped or cropped and scaled so that you don't, for example, end up with an image that cuts off the subject's head.”**

# ImageAPI Optimize Binaries

[https://www.drupal.org/project/imageapi\\_optimize\\_binaries](https://www.drupal.org/project/imageapi_optimize_binaries)

**“This allows optimizing images with the following command line tools installed on your webserver: AdvDef, AdvPNG, JfifRemove, JpegOptim, JpegTran, OptiPng, PngCrush, PngOut, PngQuant.”**

*These binaries must be installed on your webserver before you can use them.*

# ImageAPI Optimize reSmush.it

[https://www.drupal.org/project/imageapi\\_optimize\\_resmushit](https://www.drupal.org/project/imageapi_optimize_resmushit)

Provides a [reSmush.it](#) processor for ImageAPI Optimize.

# Image Optimize TinyPNG

[\(https://www.drupal.org/project/imageapi\\_optimize\\_tinypng\)](https://www.drupal.org/project/imageapi_optimize_tinypng)

Provides a [tinypng](#) processor for ImageAPI Optimize.

# Kraken

[\(https://www.drupal.org/project/kraken\)](https://www.drupal.org/project/kraken)

Provides a [kraken.io](https://www.kraken.io) processor for ImageAPI Optimize.

# Lazy-load

<https://www.drupal.org/project/lazy>

**“Lazy-load is a simple Drupal module which integrates [bLazy](#) lazy-loading script via image field display formatters and input-filters for inline images and iframes.”**

*This module started with a focus on inline-image support for blazy, but has since added formatter options. Can be used in tandem with bLazy module.*

# Media Entity Image Responsive

[https://www.drupal.org/project/media\\_entity\\_image\\_responsive](https://www.drupal.org/project/media_entity_image_responsive)

Provides a field formatter for [Media Entity](#) references to display as Responsive Images.



# Media Responsive Thumbnail

[https://www.drupal.org/project/media\\_responsive\\_thumbnail](https://www.drupal.org/project/media_responsive_thumbnail)

**Provides a field formatter for core Media references to display as Responsive Images.**

**Questions?**



# Thank you!

**If you have more questions, find me at our booth, on slack, twitter or on D.O.**

**D.O.: [@michaellander](#)**

**Twitter: [@MikeLand3r](#)**

**Drupal Slack: @michaellander**