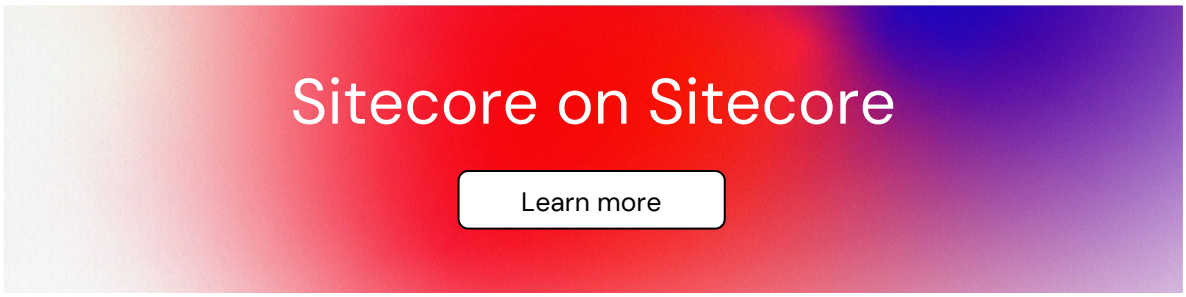
SITECORE



OPTIMIZING IMAGES FOR THE WEB WITH SITECORE XM CLOUD AND CONTENT HUB DAM

Author:	Derek Hunziker, Director, Digital Technology
Date:	October 9, 2024

Save Time, Improve SEO, and Boost Performance

In today's digital landscape, fast-loading, high-quality images are critical to delivering a seamless web experience. Using Sitecore XM Cloud™ alongside Content Hub DAM™ enables you to automate the optimization process for your website's images, ensuring perfect sizing, cropping, and compression for each placement. This guide will explain what image optimization is, why it matters for your website's performance, and how to implement this strategy using Sitecore's cutting-edge tools.

Contents:

What Image Optimization Means for Your Website

Optimizing images means reducing file sizes without sacrificing quality, while ensuring they're perfectly cropped and sized for the specific components and placements on your website. When using Sitecore XM Cloud and Content Hub DAM, you can automate this process to achieve an average image size reduction of 30% or more[1]. This is accomplished through the platform's ability to create responsive WebP renditions and automatically crop images for different devices and layouts.

Key benefits include:

- Automatically generated image renditions and public links
- Consistent image quality across your site
- Effortless cropping and resizing for each image placement

Why Optimized Images Matter for SEO, Performance, and Sustainability

Optimized images have a significant impact on several important aspects of your website:

1. **SEO and Ranking:** Search engines prioritize fast websites. By reducing image sizes, you'll speed up your site's load times, which can improve your search engine rankings.
2. **Carbon Footprint:** Smaller images require less data transfer, reducing the energy required to serve and view your content, which lowers your site's environmental impact.
3. **Performance:** Faster page load times lead to better user experiences, lower bounce rates, and higher conversion rates.
4. **Efficient Workflow:** By configuring automatic public link creation and cropping rules in Content Hub DAM™, designers and content authors can save time. On average, our team reduced image editing & processing time by 90 minutes per asset.

[1] https://developers.google.com/speed/webp/docs/webp_study

How to Optimize Images with Sitecore XM Cloud and Content Hub DAM

Here's a step-by-step breakdown of how to configure Sitecore Content Hub DAM™ and integrate it with Sitecore XM Cloud™ for seamless image optimization:

Configure Renditions and Public Links in Sitecore Content Hub

Start by defining an image rendition that is large enough to cover most sizes required by your website components. This ensures that a reasonable baseline image exists for which smaller crops are derived from. Using a custom Action, WebP public links will then be automatically generated for these renditions.

Steps:

1. Access the Content Hub interface.
2. Set up a web-optimized image rendition using a media processing flow. We recommend using the largest size required by your website. For example, a size of 1080p (1920x1080px) is large enough to cover most high-resolution renderings.
3. Configure automatic WebP public link generation for the rendition using a Script:

```
using System.Linq;

using System.Threading.Tasks;


var assetId = Context.TargetId;


// Check if public links don't exist yet

var query = Query.CreateQuery(entities => from e in entities

                                    where ...

                                    select e);

query.Take = 1;


var result = await MClient.Querying.QueryIdsAsync(query);

if (result.TotalNumberOfResults > 0)

{

MClient.Logger.Info("Public links already exist for asset with id '" + assetId + "'");

return;

}


// Create public links webpconvert rendition

try

{

await MClient.Assets.CreatePublicLinkAsync(assetId.Value, "webpconvert");

}

catch (Exception e)

{

MClient.Logger.Error($"Error creating public link for asset: {assetId}.  Error: {e}");

throw;

}

MClient.Logger.Info("Created public link 'webpconvert' for asset with id '" + assetId +
"'");e
```

Configure Transformations in Sitecore Content Hub DAM™

Leverage transformations to automatically crop and scale images based on predefined rules, ensuring that each image fits perfectly into its assigned layout component.

Steps:

1. Access the Content Hub interface.
2. Configure transformations for each image placement on your website.
3. Optional: Create scaling transformations to optimize for high-DPI screens (e.g., Retina).

Enable the DAM Connector in XM Cloud

Integrate Sitecore XM Cloud™ with Content Hub DAM™ by enabling the DAM Connector. This step allows your XM Cloud content to fetch and display optimized images stored in Content Hub DAM.

Steps:

1. Activate the DAM Connector in Sitecore XM Cloud.
2. Select images from the DAM using the "Browser Sitecore DAM" link on image fields.

Example front-end implementation

Here's an example of how to implement image optimization in your front-end application:

```
export enum ImageTransforms {

          t800 = 't800',

          t600 = 't600',

          t300 = 't300',

          t42h = 't42h',

          t24h = 't24h',

          None = '',

        }


<NextImage

field={teaser.fields.TeaserImage}

         className="absolute left-0 top-0 h-full w-full object-contain"

         imageParams={{ t: ImageTransforms.t800 }}

/>
```

This example shows how easy it is to integrate optimized images from Content Hub DAM into a Next.js application using XM Cloud.

Conclusion

By leveraging Sitecore XM Cloud™ and Content Hub DAM™, you can automate the process of image optimization, ensuring your website is fast, efficient, and environmentally friendly. The result is a streamlined workflow for content authors and designers, leading to improved SEO, performance, and sustainability.