

DAM Focal

This module offers different focal features:

- Focal areas: (Legacy) Allow the editors to choose the areas of the images to display per screen ratio
- Focal point: Allow the editors to choose the focal point on the original image
- Focal hotspot: Allow the editors to define hotspots on their images and to attach any type of field(s)

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JIRA	RESPDAM
Git	dam-focal

Installation

Maven is the easiest way to install the module. Add the following dependency to your [bundle](#):

```
<!-- To install the focal areas module -->
<dependency>
  <groupId>info.magnolia.dam</groupId>
  <artifactId>magnolia-dam-focal-area</artifactId>
  <version>${dam-focal.version}</version>
</dependency>

<!-- To install the focal point module -->
<dependency>
  <groupId>info.magnolia.dam</groupId>
  <artifactId>magnolia-dam-focal-point</artifactId>
  <version>${dam-focal.version}</version>
</dependency>

<!-- To install the focal hotspot module -->
<dependency>
  <groupId>info.magnolia.dam</groupId>
  <artifactId>magnolia-dam-focal-hotspot</artifactId>
  <version>${dam-focal.version}</version>
</dependency>

<!-- To install the samples module -->
<dependency>
  <groupId>info.magnolia.dam</groupId>
  <artifactId>magnolia-dam-focal-samples</artifactId>
  <version>${dam-focal.version}</version>
</dependency>
```

Versions

2.0.5	Magnolia 6.2
1.1.6	Magnolia 6.1
1.0.13	Magnolia 5.7
1.0.6	Magnolia 5.6.5

Usage

Start by configuring the variation sets according to the screen resolutions you wish to target.

Configuration

Define the images variations

Here is a sample of a variation.

```

dam-focal-common

dam-focal-common:
  config:
    variations:
      Cinema:
        description: Cinema
        minHeight: 120
        minWidth: 213
        ratio: 16/9
      Wide:
        description: Cinema wide
        minHeight: 120
        minWidth: 280
        ratio: 21/9
      Square:
        description: Square
        minHeight: 120
        minWidth: 120
        ratio: 1/1

```

Properties:

minHeight	optional , <i>required if <code>minWidth</code> is not set</i> The minimum height of the focal area in pixel.
minWidth	optional , <i>required if <code>minHeight</code> is not set</i> The minimum width of the focal area in pixel.
ratio	The display ratio of the focal area.
description	optional Used in the DAM detail subapp

Limit the size of the images in the editor

By default, the max width and the max height of the images in the editor are respectively **1024px** and **768px**. You can change these values as following:

dam-focal-common

```
dam-focal-common:
  config:
    editorConfig:
      mediaEditorMaxWidth: 400
      mediaEditorMaxHeight: 300
      editorMaxWidth: 684
      editorMaxHeight: 513
```

Properties:

mediaEditorMaxWidth	optional The maximum image width allowed in the editor for the focal areas.
mediaEditorMaxHeight	optional The maximum image height allowed in the editor for the focal areas.
editorMaxWidth	optional The maximum image height allowed in the editor for the focal points/hotspots.
editorMaxHeight	optional The maximum image height allowed in the editor for the focal points/hotspots.

Enhance the interpolation algorithm

To change the interpolation algorithm, you can set the following property `/modules/imaging/config/generators/focalpoint/operations/resize@interpolation` with one of the following values:

- **nearest_neighbor** : Fastest but least precise
- **bilinear** : Slower and more precise [default]
- **bicubic** : Slowest and most precise

To apply it for the focal areas, set the same property in `/modules/imaging/config/generators/focalarea/operations/resize@interpolation`

Define the hotspots dialog

You can define per DAM folder which dialog should be attached to the hotspots. The system will always take the longest matching path.

dam-focal-hotspot

```
dam-focal-hotspot:
  config:
    mapping:
      default:
        dialog: headless-ecommerce:focal/default
        path: '/'
    product:
        dialog: headless-ecommerce:focal/product
        path: '/products'
```

Build the image URL for the focal area

Examples:

- `/magnolia/.imaging/focalarea/1600x900/dam/jcr:aa26dabe-cdfc-4f4d-9f4a-6e1e1327806e/magazine.png`
- `/magnolia/.imaging/focalarea/Wide/1600x900/dam/jcr:aa26dabe-cdfc-4f4d-9f4a-6e1e1327806e/magazine.png`

<code>magnolia</code>	The context root
<code>/.imaging</code>	The imaging servlet and the related generator
<code>/focalarea</code>	The focal area imaging operation
<code>/Wide</code>	optional The screen variation to use
<code>/1600x900</code>	The requested size Width x Height
<code>/dam</code>	The JCR workspace
<code>/jcr:aa26dabe-cdfc-4f4d-9f4a-6e1e1327806e</code>	The asset JCR id
<code>/magazine.png</code>	The asset name (SEO purpose)

The system will return the configuration for the closest configuration. If the system cannot find any focal area, then it returns the original picture.

If you provide the screen variation, the system will then use the one you request.

Build the image URL for the focal point

Example: `/magnolia/.imaging/focalpoint/1600x900/dam/jcr:aa26dabe-cdfc-4f4d-9f4a-6e1e1327806e/magazine.png`

<code>magnolia</code>	The context root
<code>/.imaging</code>	The imaging servlet and the related generator
<code>/focalpoint</code>	The focal point imaging operation
<code>/1600x900</code>	The requested size Width x Height
<code>/dam</code>	The JCR workspace
<code>/jcr:aa26dabe-cdfc-4f4d-9f4a-6e1e1327806e</code>	The asset JCR id
<code>/magazine.png</code>	The asset name (SEO purpose)

The system will return the configuration for the closest configuration. If the system cannot find any focal area, then it returns the original picture.

Configure your REST client

In your rest client definition, add an asset resolver on the wished properties.

In order to get the focal data, you will need to set the *implementationClass* to `info.magnolia.dam.focal.rest.reference`.

`AssetFocalReferenceResolver`

rest-client
<pre>references: - name: assetReference propertyName: image referenceResolver: class: info.magnolia.rest.reference.dam.AssetReferenceResolverDefinition implementationClass: info.magnolia.dam.focal.rest.reference.AssetFocalReferenceResolver</pre>

Example of json response:

response.json

```
"image":{
  "@name":"creativ-eight-unsplash.jpg",
  "@path":"/inspirations/heroes/creativ-eight-unsplash.jpg",
  "@id":"jcr:59f76215-bbdd-4275-9e46-af089c3f67a7",
  "@link":"/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg",
  "metadata":{
    "fileName":"creativ-eight-unsplash.jpg",
    "mimeType":"image/jpeg",
    "fileSize":"1671300",
    "height":"1186",
    "width":"1801",
    "format":"image/jpeg",
    "creator":[
      "superuser"
    ],
    "date":"2020-07-14T11:34:12.743+02:00",
    "created":"2020-06-30T22:13:08.335+02:00",
    "modified":"2020-07-14T11:34:12.743+02:00"
  },
  "focal":{
    "hotspots":[
      {
        "left":47.22222222222222,
        "top":63.55555555555556,
        "title":"Point 3"
      },
      {
        "left":31.871345029239766,
        "top":12.0,
        "title":"Point 1"
      },
      {
        "left":68.71345029239767,
        "top":10.0,
        "title":"Point 2"
      }
    ],
    "point":{
      "left":80.11695906432749,
      "top":52.22222222222222,
      "urls":{
        "auto":"/.imaging/focalpoint/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg",
        "TabletPortrait":"/.imaging/focalpoint/TabletPortrait/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg",
        "TabletLandscape":"/.imaging/focalpoint/TabletLandscape/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg",
        "Wide":"/.imaging/focalpoint/Wide/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg",
        "PhoneLandscape":"/.imaging/focalpoint/PhoneLandscape/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg",
        "Square":"/.imaging/focalpoint/Square/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg",
        "Cinema":"/.imaging/focalpoint/Cinema/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg",
        "PhonePortrait":"/.imaging/focalpoint/PhonePortrait/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg"
      }
    },
    "areas":{
      "Cinema":{
        "url":"/.imaging/focalarea/Cinema/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creativ-eight-unsplash.jpg",
        "width":1801,
        "height":1013,
```

```
        "left":0,
        "top":172
    },
    "auto":{
        "url":"/.imaging/focalarea/_WIDTH_x_HEIGHT_/dam/jcr:59f76215-bbdd-4275-9e46-af089c3f67a7/creatv-
eight-unsplash.jpg"
    }
}
}
```



For the `hotspot` and `focal point` modules, the `left` and `top` positions are percentages of the width and the height. For legacy reason, the `focal area` module still store the area coordinates in pixels (from the original picture size).

Templating functions

The module provides 3 templating functions:

- `damfafn`: Provide helper on the focal areas
- `damfpfn`: Provide helper on the focal point
- `damfhfn`: Provide helper on the focal hotspots

You can find examples for each of them in the [magnolia-dam-focal-samples](#) project.

Limitations

The **animated gifs** images are not processed by the focal point module, the system will always return the original version stored in the DAM.

Warnings

- This module is at INCUBATOR level.

Changelog

- Version 2.0.5
 - [RESPDAM-42](#) - Getting issue details... STATUS
 - [RESPDAM-43](#) - Getting issue details... STATUS
- Version 2.0.4
 - [RESPDAM-41](#) - Getting issue details... STATUS
- Version 2.0.3
 - [RESPDAM-40](#) - Getting issue details... STATUS
- Version 2.0.2
 - [RESPDAM-38](#) - Getting issue details... STATUS
 - [RESPDAM-39](#) - Getting issue details... STATUS
- Version 2.0.1
 - [RESPDAM-37](#) - Getting issue details... STATUS
- Version 2.0
 - [RESPDAM-28](#) - Getting issue details... STATUS
 - [RESPDAM-29](#) - Getting issue details... STATUS
 - [RESPDAM-30](#) - Getting issue details... STATUS

- [RESPDAM-31](#) - Getting issue details... [STATUS](#)
- [RESPDAM-32](#) - Getting issue details... [STATUS](#)
- [RESPDAM-34](#) - Getting issue details... [STATUS](#)
- [RESPDAM-36](#) - Getting issue details... [STATUS](#)
- Version 1.1.6
 - [RESPDAM-22](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-23](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-20](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-17](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-21](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-25](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-19](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-26](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-27](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-18](#) - Getting issue details... [STATUS](#)
- Version 1.1.4
 - [RESPDAM-15](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-16](#) - Getting issue details... [STATUS](#)
- Version 1.1.3
 - [RESPDAM-14](#) - Getting issue details... [STATUS](#)
- Version 1.1
 - Updated for Magnolia 6.0 compatibility.
- Version 1.0.13
 - [RESPDAM-12](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-11](#) - Getting issue details... [STATUS](#)
- Version 1.0.12
 - [RESPDAM-10](#) - Getting issue details... [STATUS](#)
- Version 1.0.11
 - [RESPDAM-8](#) - Getting issue details... [STATUS](#)
- Version 1.0.10
 - [RESPDAM-5](#) - Getting issue details... [STATUS](#)
- Version 1.0.9
 - [RESPDAM-7](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-6](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-3](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-2](#) - Getting issue details... [STATUS](#)
 - [RESPDAM-1](#) - Getting issue details... [STATUS](#)
- Version 1.0.8
 - Fixed bug when uploading new assets
- Version 1.0.7 - Initial release of the extensions version of the module.
 - Moved the variation definition from the component level to the DAM level

