The Image Field Type

Field Type identifier: ezimage

Validators: File size

Value object: \eZ\Publish\Core\FieldType\Image\Value

Associated Services: ezpublish.fieldType.ezimage.variation_service

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The Image Field Type allows you to store an image file.

A variation service handles conversion of the original image into different formats and sizes through a set of preconfigured named variations: large, small, medium, black & white thumbnail, etc.

Value object

The value property of an Image Field will return an $\ensuremath{\texttt{VPublish\Core\FieldType\Image\Value}}\$ with the following properties:

| Property | Туре | Example | Description |
|-----------------|---|--|---|
| id | string | 0/8/4/1/1480-1-eng-GB/image.png | The image's unique identifier. Usually the path, or a part of the path. To get the full path, use URI property. |
| alternativeText | Text String This is a piece of text String image.png | | The alternative text, as entered in the Field's properties |
| fileName | | | The original image's filename, without the path |
| fileSize | int | 37931 | The original image's size, in bytes |
| uri | string | var/ezdemo_site/storage/images/0/8/4/1/1480-1-eng-GB/image.png | The original image's URI |
| imageId | string | 240-1480 | A special image ID, used by REST |

Using the variation Service, variations of the original image can be obtained. Those are $\ensuremath{\texttt{Valies}\scalebox{ImageVariation}\scalebox{Values}\scalebox{ImageVariation}\scalebox{objects}$ with the following properties:

| Property | Туре | Example | Description |
|----------|--------|---------|----------------------------------|
| width | int | 640 | The variation's width in pixels |
| height | int | 480 | The variation's height in pixels |
| name | string | medium | The variation's identifier |
| info | mixed | | Extra info, such as EXIF data |
| fileSize | int | | |
| mimeType | string | | |
| fileName | string | | |
| dirPath | string | | |

| uri | string | The variation's uri |
|--------------|----------|--------------------------------------|
| lastModified | DateTime | When the variation was last modified |

Field Type options

The Image Field Type supports one FieldDefinition option: the maximum size for the file.

Using an Image Field

In templates

When displayed using ez_render_field, an Image Field will output this type of HTML:

```
<img src="var/ezdemo_site/storage/images/0/8/4/1/1480-1-eng-GB/image_medium.png"
width="844" height="430" alt="Alternative text" />
```

ez_render_field accepts several parameters:

- which variation must be used can be set using the alias parameter
- size and height can be forced for the image, for instance to handle custom screen densities. If not specified, the variation's attributes will be used if available.

```
{{ ez_render_field( content, 'image', { 'parameters':{ 'alias': 'imagelarge', 'width': 400, 'height': 400 } } ) }}
```

The raw Field can also be used if needed. Image variations for the Field's content can be obtained using the ez_image_alias Twig helper:

```
{% set imageAlias = ez_image_alias( field, versionInfo, 'medium' ) ) %}
```

The variation's properties can be used to generate the required output:

```
<img src="{{ asset( imageAlias.uri ) }}" width="{{ imageAlias.width }}" height="{{ imageAlias.height }}" alt="{{ field.value.alternativeText }}" />
```

With the REST API

Image Fields within REST are exposed by the application/vnd.ez.api.Content media-type. An Image Field will look like this:

inputUri

From 5.2 version, new images must be input using the inputUri property from Image\Value.

The keys id and path still work, but a deprecation warning will be thrown.

Version >= 5.2

```
<field>
    <id>1480</id>
    <fieldDefinitionIdentifier>image</fieldDefinitionIdentifier>
    <languageCode>eng-GB</languageCode>
    <fieldValue>
        <value
key="inputUri">/var/ezdemo_site/storage/images/0/8/4/1/1480-1-eng-GB/kidding.png</valu
        <value key="alternativeText"></value>
        <value key="fileName">kidding.png</value>
        <value key="fileSize">37931
        <value key="imageId">240-1480</value>
        <value
key="uri">/var/ezdemo_site/storage/images/0/8/4/1/1480-1-eng-GB/kidding.png</value>
        <value key="variations">
            <value key="articleimage">
                <value
key="href">/api/ezp/v2/content/binary/images/240-1480/variations/articleimage</value>
            </value>
            <value key="articlethumbnail">
key="href">/api/ezp/v2/content/binary/images/240-1480/variations/articlethumbnail</val
ue>
            </value>
        </value>
    </fieldValue>
</field>
```

```
Before 5.2
                                                                          Expand
<field>
                                                                         source
    <id>1480</id>
    <fieldDefinitionIdentifier>image</fieldDefinitionIdentifier>
    <languageCode>eng-GB</languageCode>
    <fieldValue>
        <value
key="id">var/ezdemo_site/storage/images/0/8/4/1/1480-1-eng-GB/kidding.png</value>
        <value
key="path">/var/ezdemo_site/storage/images/0/8/4/1/1480-1-eng-GB/kidding.png</value>
        <value key="alternativeText"></value>
        <value key="fileName">kidding.png</value>
        <value key="fileSize">37931
        <value key="imageId">240-1480</value>
key="uri">/var/ezdemo_site/storage/images/0/8/4/1/1480-1-eng-GB/kidding.png</value>
        <value key="variations">
            <value key="articleimage">
                <value
key="href">/api/ezp/v2/content/binary/images/240-1480/variations/articleimage</value>
            </value>
            <value key="articlethumbnail">
                <value
key="href">/api/ezp/v2/content/binary/images/240-1480/variations/articlethumbnail</val
ue>
            </value>
        </value>
    </fieldValue>
</field>
```

Children of the fieldValue node will list the general properties of the Field's original image (fileSize, fileName, inputUri, etc.), as well as variations. For each variation, a uri is provided. Requested through REST, this resource will generate the variation if it doesn't exist yet, and list the variation details:

From PHP code

Getting an image variation

The variation service, ezpublish.fieldType.ezimage.variation_service, can be used to generate/get variations for a Field. It expects a VersionInfo, the Image Field and the variation name, as a string (large, medium, etc.)

```
$variation = $imageVariationHandler->getVariation(
    $imageField, $versionInfo, 'large'
);
echo $variation->uri;
```

Manipulating image content

From PHP

As for any Field Type, there are several ways to input content to a Field. For an Image, the quickest is to call setField() on the ContentStruct:

```
$createStruct = $contentService->newContentCreateStruct(
    $contentTypeService->loadContentType( 'image' ),
    'eng-GB'
);
$createStruct->setField( 'image', '/tmp/image.png' );
```

In order to customize the Image's alternative texts, you must first get an Image\Value object, and set this property. For that, you can use the Image\Value::fromString() method that accepts the path to a local file:

```
$createStruct = $contentService->newContentCreateStruct(
    $contentTypeService->loadContentType( 'image' ),
    'eng-GB'
);

$imageField = \eZ\Publish\Core\FieldType\Image\Value::fromString( '/tmp/image.png' );
$imageField->alternativeText = 'My alternative text';
$createStruct->setField( 'image', $imageField );
```

You can also provide a hash of Image\Value properties, either to setField(), or to the constructor:

```
$imageValue = new \eZ\Publish\Core\FieldType\Image\Value(
    array(
        'id' => '/tmp/image.png',
        'fileSize' => 37931,
        'fileName' => 'image.png',
        'alternativeText' => 'My alternative text'
    )
);

$createStruct->setField( 'image', $imageValue );
```

From REST

The REST API expects Field values to be provided in a hash-like structure. Those keys are identical to those expected by the Image\Value con structor: fileName, alternativeText. In addition, image data can be provided using the data property, with the image's content encoded as base64.

Creating an image Field

```
<?xml version="1.0" encoding="UTF-8"?>
<ContentCreate>
    <!-- [...metadata...] -->
    <fields>
        <field>
            <id>247</id>
            <fieldDefinitionIdentifier>image</fieldDefinitionIdentifier>
            <languageCode>eng-GB</languageCode>
            <fieldValue>
                <value key="fileName">rest-rocks.jpg</value>
                <value key="alternativeText">HTTP</value>
                <value
key="data"><![CDATA[/9j/4AAQSkZJRgABAQEAZABkAAD/2wBDAAIBAQIBAQICAgICAgICAwUDAwMDAwYEBA
MFBwYHBwcG
BwcICQsJCAgKCAcHCg0KCgsMDAwMBwkODw0MDgsMDAz/2[...]</value>
            </fieldValue>
        </field>
    </fields>
</ContentCreate>
```

Updating an image Field

Updating an Image Field requires that you re-send existing data. This can be done by re-using the Field obtained via REST, removing the variations key, and updating alternativeText, fileName or data. If you do not want to change the image itself, do not provide the data key.

Naming

Each storage engine determines how image files are named.

Legacy Storage Engine naming

Images are stored within the following directory structure:

 $\label{lem:condition} $$\operatorname{CongeDir}/\operatorname{EieldId[-1]}/\operatorname{FieldId[-2]}/\operatorname{FieldId[-3]}/\operatorname{FieldId[-4]$

With the following values:

- VarDir = var (default)
- StorageDir = storage (default)
- ImagesStorageDir = images (default)
- FieldId = 1480
- VersionNumber = 1
- LanguageCode = eng-GB

Images will be stored to web/var/ezdemo_site/storage/images/0/8/4/1/1480-1-eng-GB.

Using the field ID digits in reverse order as the folder structure maximizes sharding of files through multiple folders on the filesystem.

Within this folder, images will be named like the uploaded file, suffixed with an underscore and the variation name:

- Mylmage.png
- Mylmage_large.png
- Mylmage_rss.png

Changelog

| Version | Description | | |
|----------------|--|--|--|
| 5.2 | adding inputURI for input by API | | |
| 5.4 2014.11 | id property contains only the path of the image, not the full path | | |