

EXT: Resize Images Automatically

Extension Key: image_autoresize

Language: en

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The content of this document is related to TYPO3

- a GNU/GPL CMS/Framework available from www.typo3.org

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Introduction

What does it do?

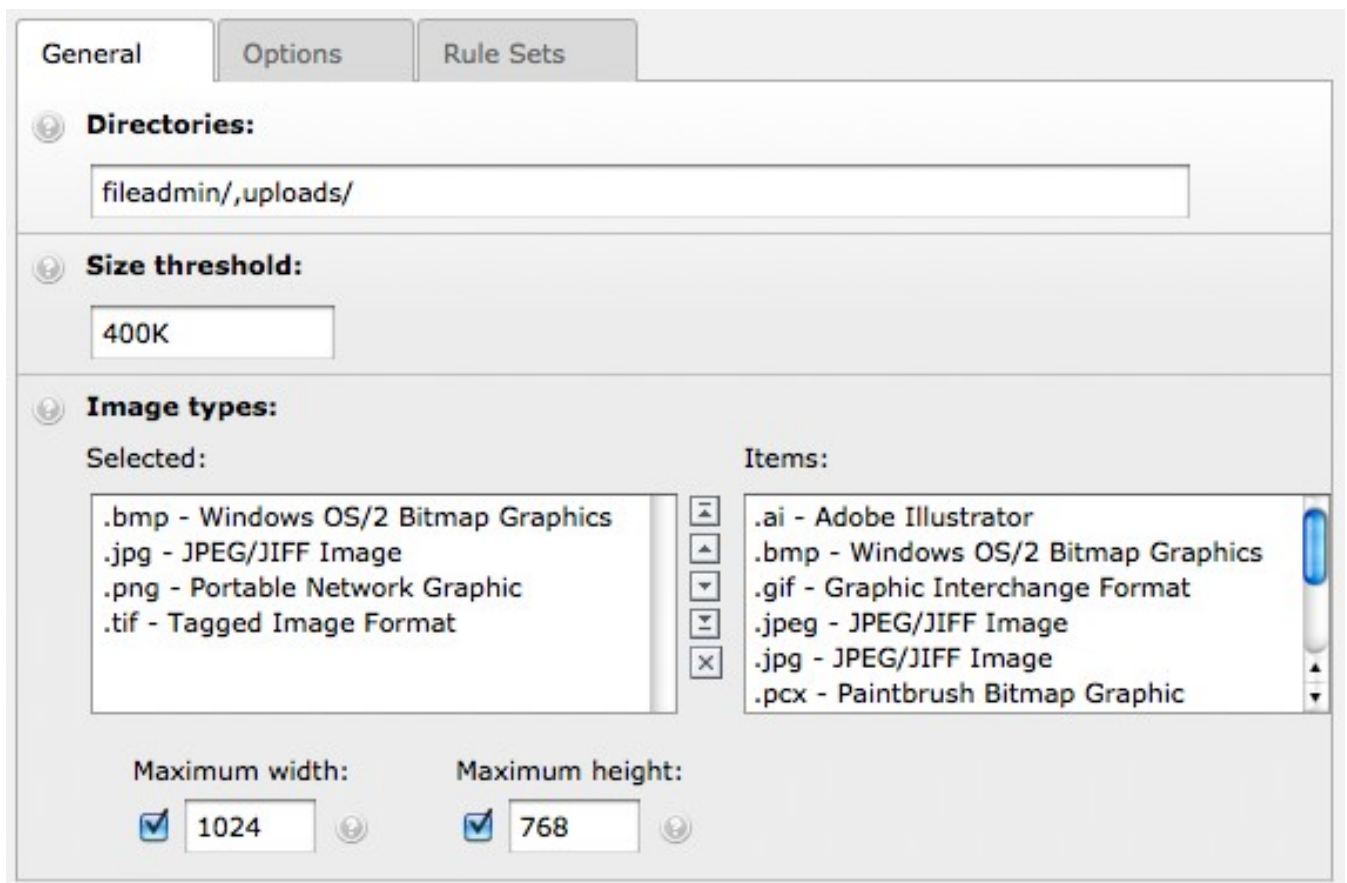
This extension automatically resizes images to a given maximum height/width right after they have been uploaded to the TYPO3 website. The aspect ratio is of course kept.

The idea behind this extension is that TYPO3 should make both administrators and editors happy. Administrators want the website's footprint on server as small as possible to be able to handle backups efficiently and want the web server to deliver the pages as quick as possible. On the other hand, editors should be able to do their job and not bother with technical considerations such as the size of a picture on disk or that uploading their wonderful sunset taken during holidays with their 12 MP camera will slow down the time rendering of their great photo gallery where pictures are shown with a maximum definition of 800 × 600 pixels. Moreover, editors are either not aware of this or are simply unable to "prepare" their pictures as they are using a foreign computer (in a cyber café) or on the road with their laptop, neither of them running their beloved image editing software.

General configuration settings let you choose which directories should be somehow "monitored" for uploaded pictures and define the file types that should be handled (e.g., "jpg" and "tif" but not "png" nor "gif") and a file size threshold (e.g., "skip any picture smaller than 300 KB"). After all, if an editor managed to create a picture of many mega-pixels that weights only a few KB, why should we bother?

Screenshots

General configuration settings:



General options:

General	Options	Rule Sets
<p><input checked="" type="checkbox"/> Automatic orientation</p>		
<p><input type="checkbox"/> Keep profile and metadata</p>		
<p><input type="checkbox"/> Image type conversion mapping</p> <pre> ai => jpg bmp => jpg tif => jpg tiff => jpg </pre>		

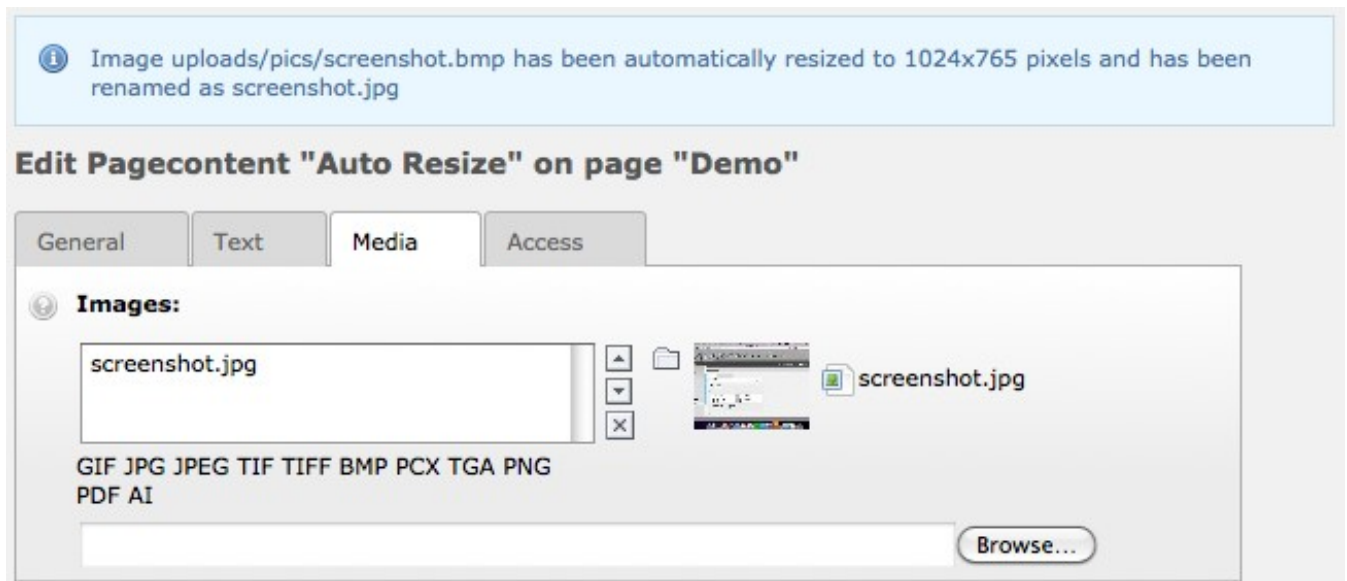
Users manual

Simply upload your unmodified pictures either from the File > Filelist module (fileadmin) or from the edit form of a content element (text with image, image, ...) and enjoy the automatic resizing and orientation in portrait of your pictures (here with an original picture in 4080 × 2720, 3.6 MB with EXIF orientation set to "portrait"):



As you see, the constraints of 1024 × 768 have been taken into account even with the correct orientation of the picture. If the reorientation did not have been taken into account, the picture would have been resized to 682 × 1024 instead (maximum ratio using the other dimension).


Here is another example, from a content element "text w/image" where a BMP (screenshot.bmp, 3.2 MB, 1184 × 884) has been added to the list of associated images:




The uploaded file screenshot.bmp has automatically been both resized and converted to a new file screenshot.jpg (according to the image type conversion mapping option described in the Administrator manual).

Details of this image show that its footprint is now quite small:

View Item

 **File:** screenshot.jpg **Size:** 151 K
Dimensions: 1024x765 Pixels



References to this item:

Table:	Uid:	Field:	Flexpointer:	Softref Key:	Sorting:
tt_content	12	image			0

Supported image types

This extension performs the resize with the standard image library API from TYPO3 meaning that on a well-configured system, following formats are supported:

- **ai** Adobe Illustrator
- **bmp** Windows OS/2 Bitmap Graphics
- **gif** Graphic Interchange Format
- **jpg/jpeg** JPEG/JIFF Image
- **pcx** Paintbrush Bitmap Graphic
- **png** Portable Network Graphic
- **tga** Truevision Targa Graphic
- **tif/tiff** Tagged Image Format

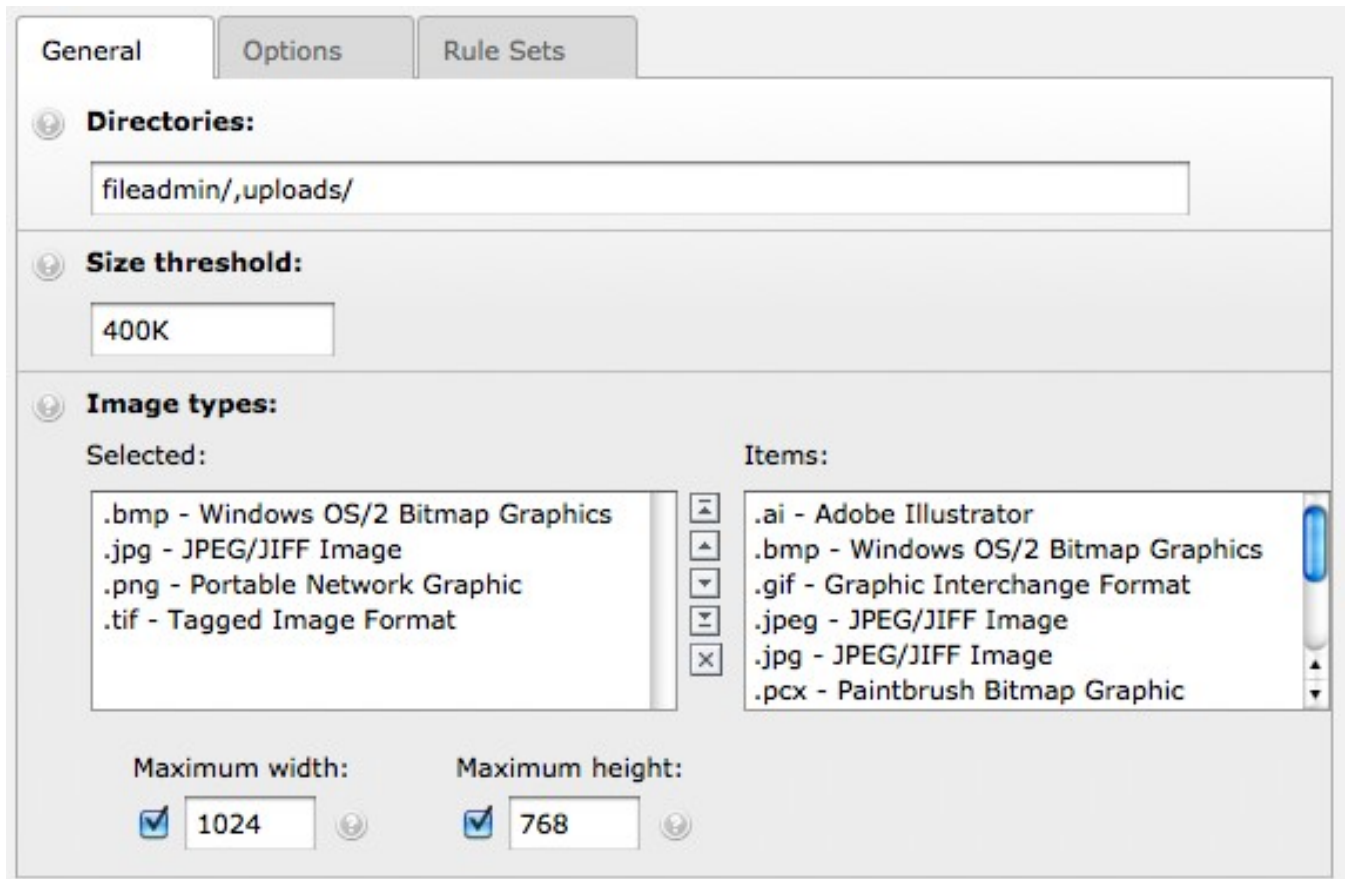
Administrator manual

This extension relies on two hooks that were added to TYPO3 Core in July 2010¹. These hooks are thus available starting from TYPO3 4.5.0. As I'm sure this extension is likely to be adopted for earlier versions of TYPO3, it comes with additional code as XCLASS for TYPO3 4.3 and TYPO3 4.4. It should be compatible with even earlier versions of TYPO3 but then Flash messages should be removed.

Install this extension as usual with Extension Manager. The whole configuration is made within Extension Manager. Unlike any other extension I know, it is based on a FlexForm to increase the user experience and allow creation of complex rule sets.

General settings

General settings are configured with the first tab of the configuration panel:



Directories

This is a comma-separated list of directories that should be monitored for image uploads. This includes any subdirectory of them too. In the example above, both fileadmin/ and uploads/ will be monitored.

You may use two different wildcards characters:

- The single asterisk (*) searches for a single directory. E.g., "fileadmin/*/images/" will match "fileadmin/directory1/images/" and "fileadmin/directory2/images/" but not "fileadmin/directory3/subdirectory/images/".
- The double asterisk (**) searches for any number of subdirectories. E.g., "fileadmin/**/images/" will match any subdirectory "images" within "fileadmin", and of course any sub-subdirectory of them too.

Size threshold

Only original pictures bigger than this value will be processed. The field accepts suffices "B" for bytes, "K" for KB and "M" for MB. The number itself is interpreted as an integer.

Image types

This is the list of image formats that should be processed, if both the directory and the size threshold match. The actual list of

¹ RFC #15192 (<http://bugs.typo3.org/view.php?id=15192>) for support in fileadmin/ and RFC #15221 (<http://bugs.typo3.org/view.php?id=15221>) for support in uploads/.

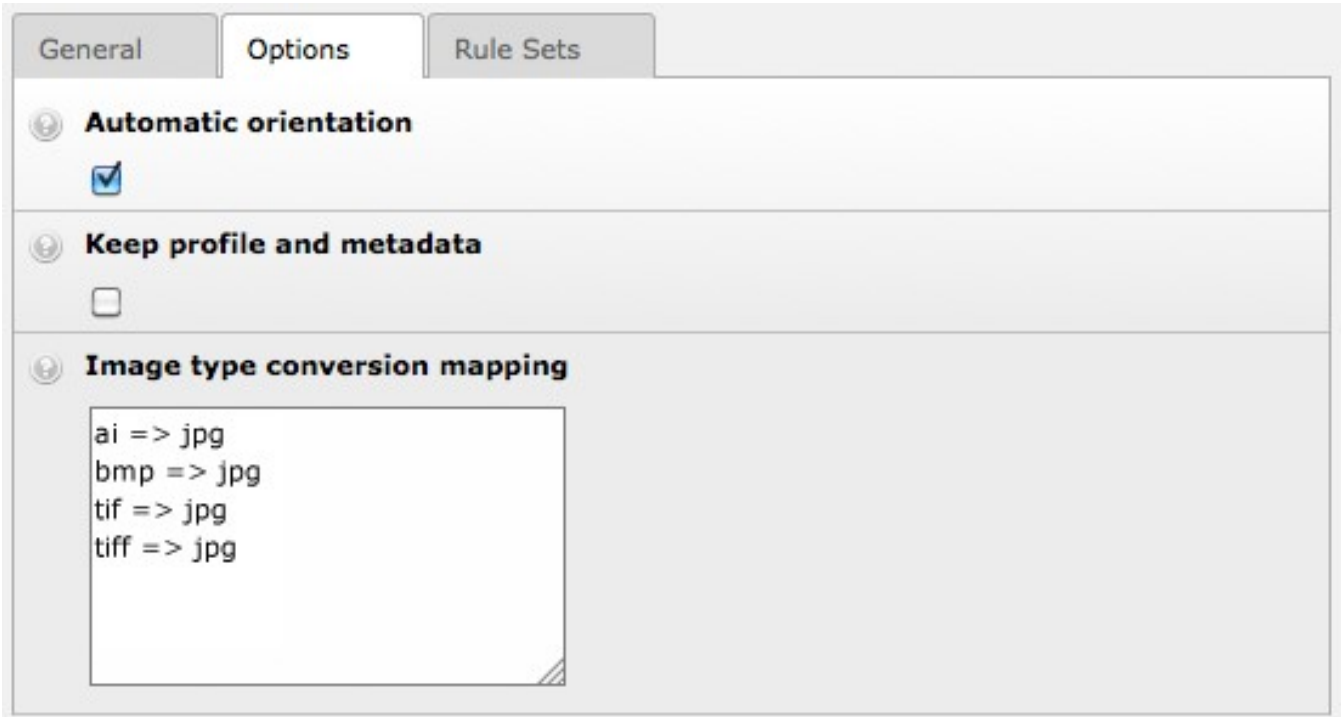
available types is read from \$YPO3_CONF_VARS['GFX']['imagefile_ext']. PDF type is always removed from this list, whenever it is available as it usually is not considered being an image even if it can be processed by TYPO3 as such (to extract preview of the cover page for instance).

Maximum width / height

These are the maximum dimensions in pixels a picture will be bound to after the resize processing. Aspect ratio will of course be preserved.

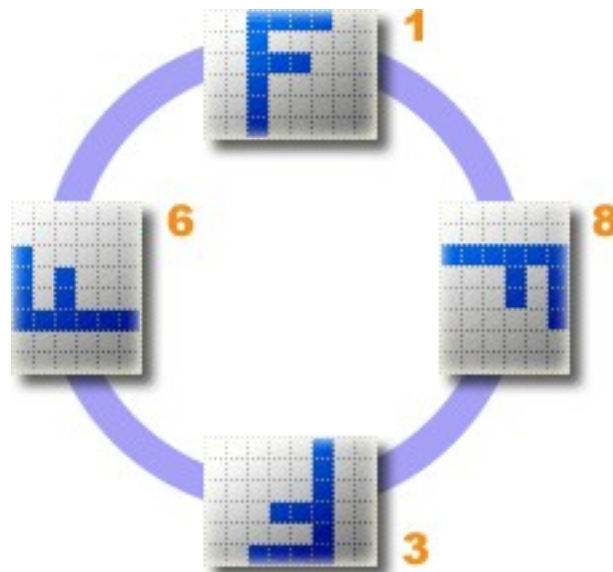
Options

General options are configured with the first tab of the configuration panel:



Automatic orientation

If this checkbox is ticked, TYPO3 will try to automatically rotate the picture. Many newer digital cameras (both dSLR and Point & Shoot digicams) have a built-in orientation sensor. Virtually all Canon and Nikon digital cameras have an orientation sensor. The output of this sensor is used to set the EXIF orientation flag in the image file's metadata to reflect the positioning of the camera with respect to the ground. Canon calls their sensor the "Intelligent Orientation" sensor. It is presumably a 2-axis tilt sensor, allowing 4 possible orientations to be detected (shown in the diagram below).¹



1 Description and diagram adapted from <http://www.impulseadventure.com/photo/exif-orientation.html>

Keep profile and metadata

Normally color profile and metadata information such as EXIF, IPTC and XMP are removed from the picture during the resize process. This option lets you keep them. Example of such information is shown below.

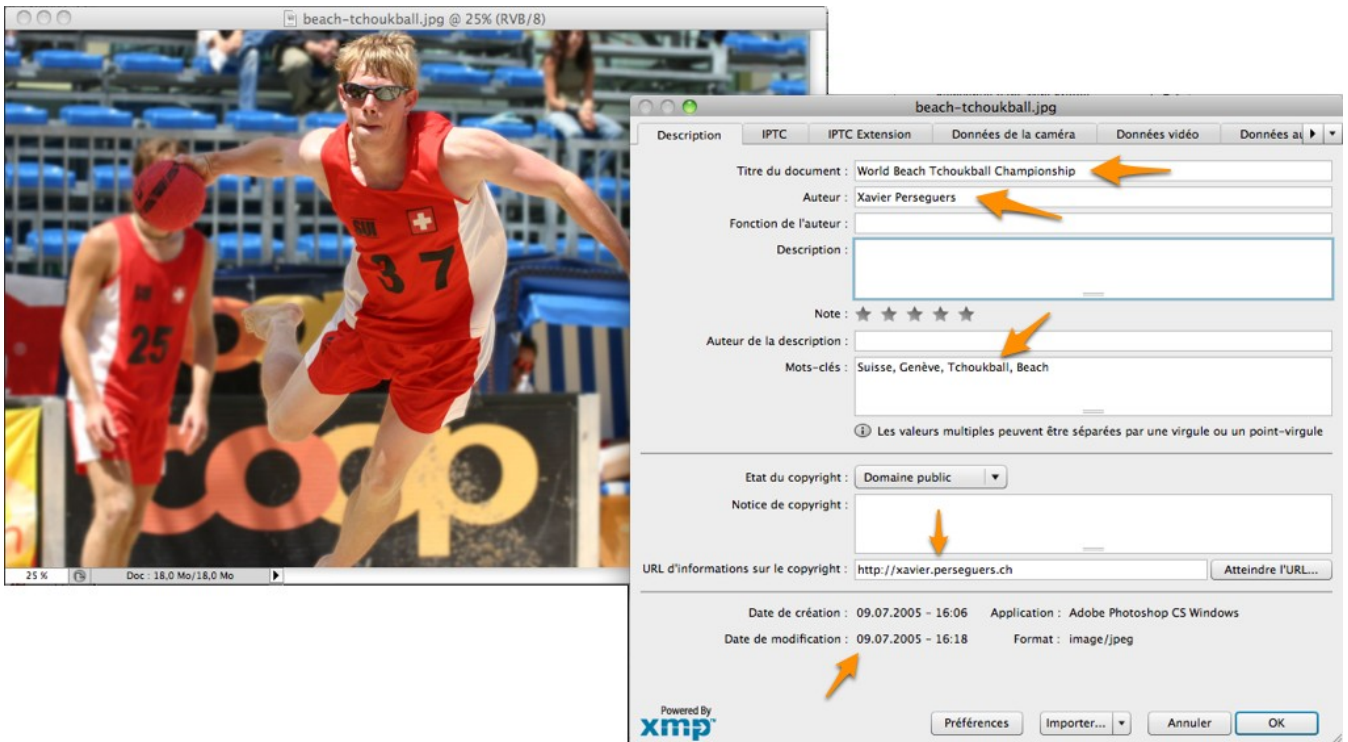
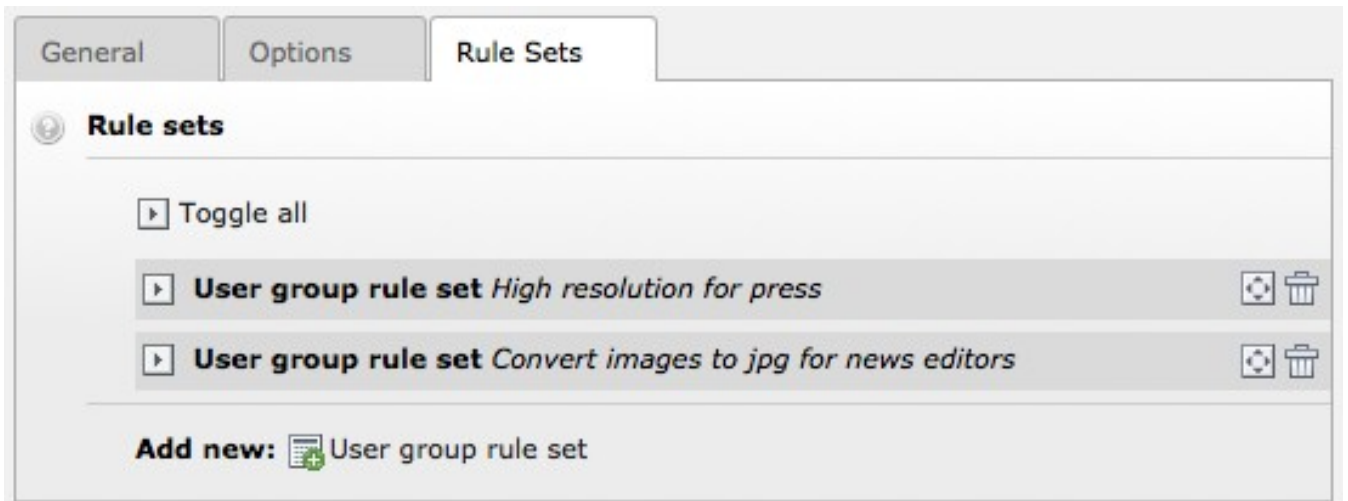


Image type conversion mapping

The mapping lets you automatically convert images from one format to another one during the resize processing. This is typically useful to convert non-Web formats (e.g., bmp and tif/tiff) to jpg and png.

Rule sets

Rule sets are managed with the third tab of the configuration panel:



They basically are a set of options that should override the general settings under certain circumstances. The picture above shows two rules:

- Allow higher resolution pictures if they are targeted at the press (e.g., allow pictures to be as wide as 4000px). This may either be group-related (user of group "Press and Communication" are allowed to upload such big pictures) and/or directory-related (photos uploaded in a special "press/" directory are allowed to be that large).
- Convert all images to jpg for news editors. You may define that members of a group "News Editors" have all their pictures converted to jpg, whatever the original format was.

The following picture shows how a rule set is configured:

User group rule set

Title:

Group:

Selected:

Items:

Editors
 News Editors
 Press and Communication

Directories:

Image types:

Selected:

Items:

.ai - Adobe Illustrator
 .bmp - Windows OS/2 Bitmap Graphics
 .gif - Graphic Interchange Format
 .jpeg - JPEG/JIFF Image
 .jpg - JPEG/JIFF Image
 .pcx - Paintbrush Bitmap Graphic

Maximum width:

Maximum height:

Keep profile and metadata

Use general setting

Image type conversion mapping

The parameters are identical to those for the general settings. The mechanism is easy to understand:

- Rule sets are tested in the order of their definition. You may reorder them by drag-and-drop. First rule set that matches will be used. If no rule set matches, general settings will be taken into account.
- Settings in the rule set which are left empty or undefined (groups) will inherit the corresponding value from general settings.

Known problems

None known currently.

To-Do list

- Please use the extension's bug tracker on Forge to propose new features.

Further information

Do not hesitate to visit the extension's website on Forge:

http://forge.typo3.org/projects/show/extension-image_autoresize

Have more fun with TYPO3!

ChangeLog

The following is a high level overview of the changes in this extension. For more details, see the ChangeLog file included with the extension.

Version	Changes
0.5.0	First release on TER