dataIMAGING Server

Version 2.6

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Publisher:

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Contents

Introduction

ExifExtractorServer is an application for barcodebased photo documentation, which renames photos based on predefined rules, restructures in different folders and creates PDF-reports.

The application is part of a complete solution of alta4 AG, which consists of dataIMAGING Server and the barcode-camera Ricoh G700SE. This system is a perfect combination for an easy and automatic barcode photo documentation, which simplifies Your perpetuation of evidence. You can find more information about this complete solution at www.data-imaging.de.

The process is very easy:

1. Before using the application the first time, You have to specify the input- and output-directories and which informations You want to use for the renaming of Your images. Additionally You specify which informations You want to use for creating of PDF reports. After configuring the application one time the application will run in the background. The configuration is designed on one hand for an intuitive using on the other hand You have numerous possibilities for designing Your PDF reports.

2. With the barcode camera You scan the individual barcode for every image, define additional informations and photograph the desired object. The barcode and the additional informations will be saved within the image.

3. After the transmission of the images, dataIMAGING Server renames automatically the incoming pictures based on the specified rules. Additionally the application creates the desired PDF reports, which contain all images and selected informations.

As result You have renamed photos and PDF reports in the desired directory structure.

You can find possible application examples here.

System requirements

The operating system, which are supported are Windows XP,Windows Vista, Windows 7, Windows 8, Windows Server 2008 and Windows Server 2008. Furthermore the .Net Framework 2.0 will be required.

Important Notice
UNC paths with hidden shared folders can cause problems, so that no more images are processed.
The UNC path must without giving further credentials (credentials) accessible and be provided with read / write

permissions.
There will be no error message because checking of the path is prevented at configuration time. Instead each access will be checked and logged at each access interval.

If photos remain unexpectedly in folders, please check whether you are using UNC paths with hidden shared folders.

If the computer connected to the camera or the computer running "dataIMAGING Server" is registered in a domain the other part must also be registered in the same domain.

Support

Please send all dataIMAGING Server support requests to *support@alta4.com* or call us at +49.651.96626-166.

When contacting us via email, please mention the used version of dataIMAGING Server, as well as basic information about Your operating system. If problems occur only with a specific number of images, please attach these to Your request, in order to give our support team the chance to run all necessary tests.

Setup

.Net-Frameworks setup

To make sure .NET Framework 2.0 and higher is installed on Your PC, please follow the instructions (this is not required for all users of Microsoft Vista or Microsoft Windows 7):

1. Open Windows **Start Menu** and go to
   Preferences > *Control Panel* > *Software*.
2. Look for *Microsoft .NET Framework 2.0* entry (if applicable a different version number)
3. If this entry does not exist, please install .NET Framework manually. Please follow the following URL to download the latest .NET-Framework version:
   http://www.alta4.com/de/produkte/dotnetsupport.php
   (adminrights required for installation)

dataIMAGING Server setup

Please make sure to run the setup as the local administrator of Your system in order to have sufficient rights for this process. Otherwise the setup may not be executed correctly.

Click on the setup file and follow the instructions given during the setup.

Update

Auto update
To update the dataIMAGING Server application automatically You can use the *Auto update* function. You find this function by clicking on the *?* for the help functions.

Manual update
Before installing the new version, You should do following steps:

- Start the dataIMAGING Server service tab
- Stop the service

If You want to keep the configured settings, You have to save the setting file. If You want reconfigure the dataIMAGING Server application after the update You can skip this section:

- Open Your file browser and navigate to Your program folder (standard: C:\programs\ExifExtractorServer)
- Copy the file *config.json* in a safe folder

Reinstallation of dataIMAGING Server:

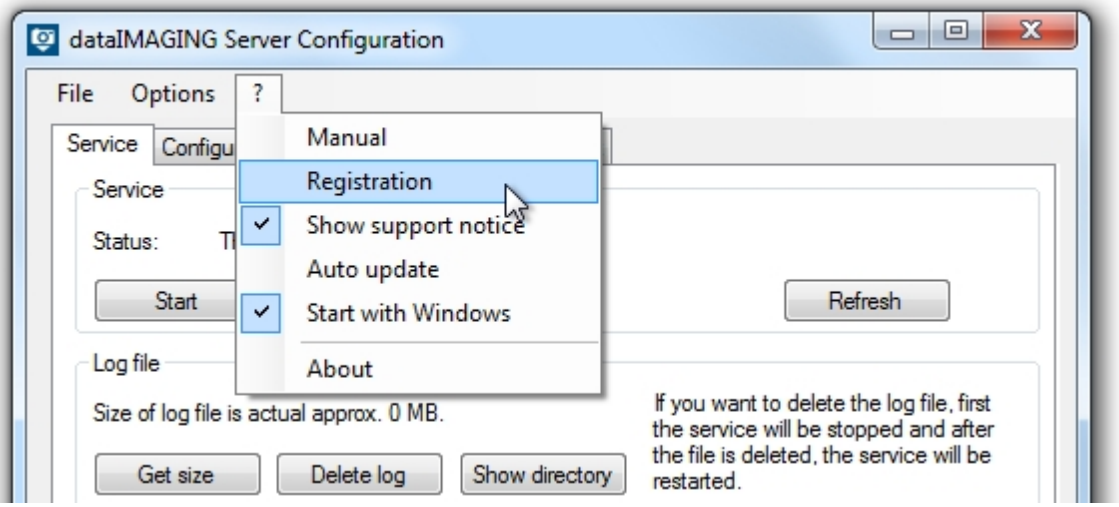
- Please execute *Start -> All programs -> dataIMAGING Server -> Uninstall dataIMAGING Server*
- Install the new version by executing the setup file
- If You want to restore Your settings, copy the saved file *config.json* in Your program folder (standard: C:\programs\dataImagingServer)
- Start the dataIMAGING Server application. Integrate Your new license file and start the service

Licensing

The completion of the installation process of dataIMAGING Server leads to the activation of a demo-license, which will expire after a period of 45 days. In addition, the registration of merely one camera serial number is allowed. When the testing period ends, You have to purchase a commercial license to continue using dataIMAGING Server.

After purchasing a commercial license, open the registration window. There You can push the *Change license*

button and provide the received license file (file extension: lic).



Application examples

You can find here several application examples, which demonstrate possible usings of dataIMAGING Server.

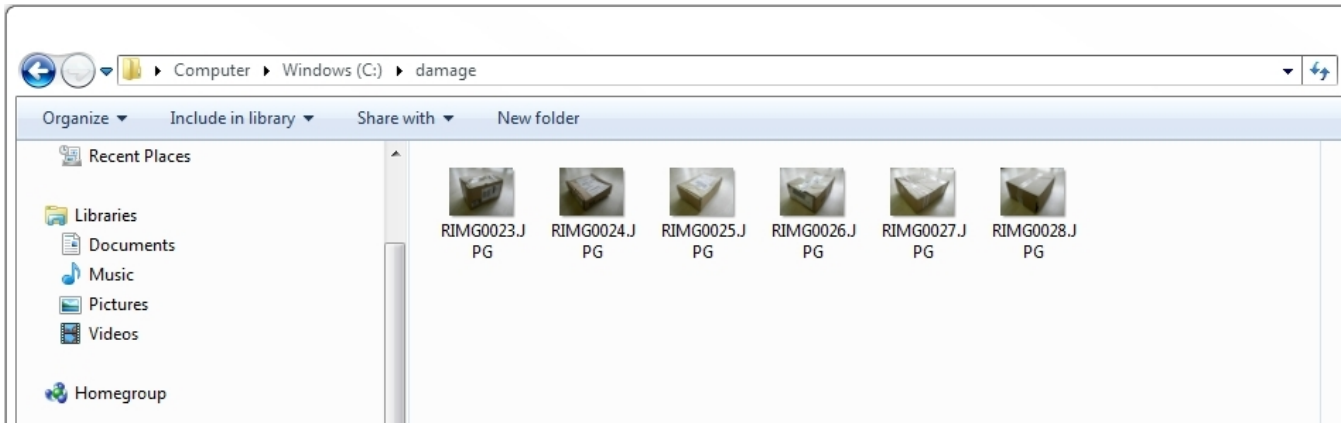
- Creating a PDF report of damaged products
- Sorting of photos in directories based on the damage

Creating a PDF report of damaged products

This example shows how to create a PDF report of damaged products to show the damage and present the needed informations in one document. In this case a Ricoh G700SE with a barcode module is used to document the damage.

You can find more informations about this camera and the complete solution for the photo documentation on this website www.data-imaging.de.

Now You make photos of the damaged boxes, scan the barcode and classify the damage. The images will be copied automatically in a network directory by the camera.



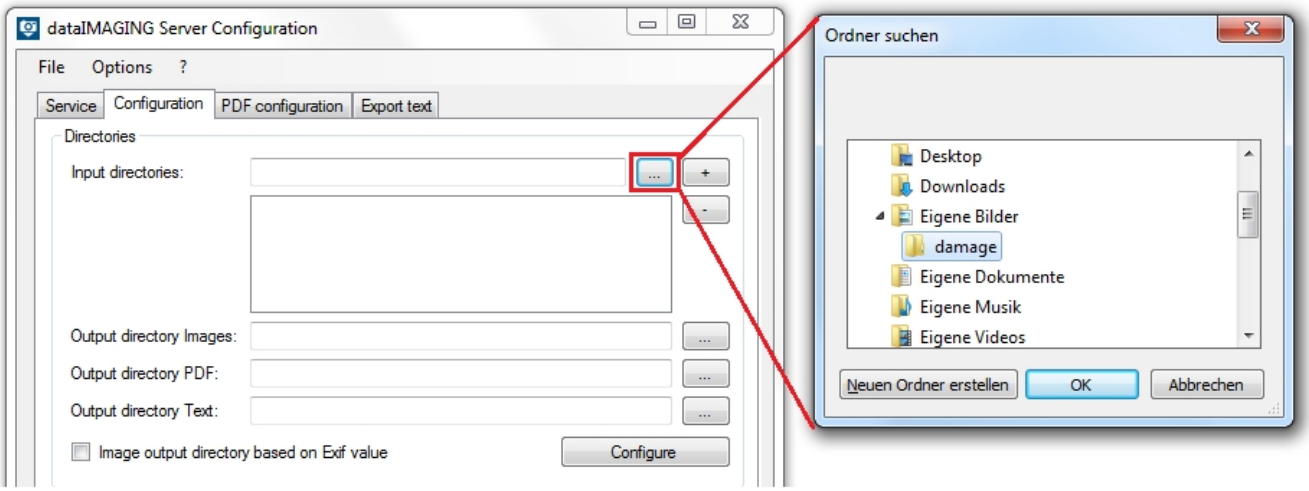
At this point dataIMAGING Server will be used. You just have to configure the application once, afterwards the service will run in the background and creates automatically the desired PDF reports.

Start dataIMAGING Server Configuration

To start the application dataIMAGING Server Configuration open *Start -> All Programs -> dataIMAGING Server -> dataIMAGING Server Configuration.* Now open the tab *Configuration*.

Choose input and output directories

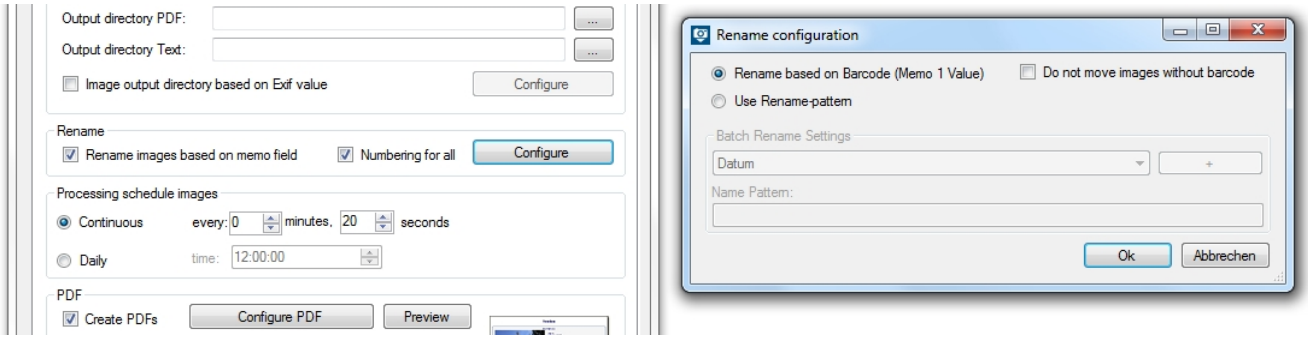
First You have to choose the folder, where the images are saved, as input directory. Click the button [...] and navigate to the desired input directory.



Afterwards You choose the output directories for the images and the PDF report in the same way like the input directories.

Image editing

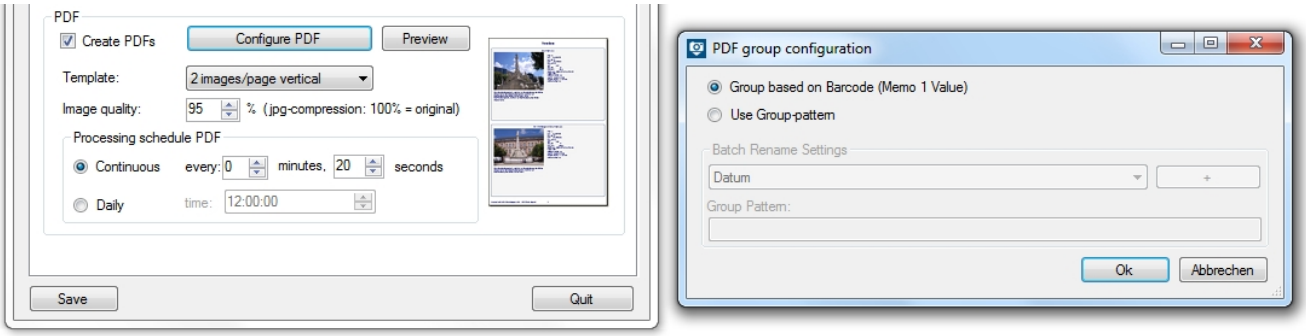
Now You can edit more preferences for the image processing. You can choose, if the images shall be renamed and in what time period they shall be processed.



PDF configuration

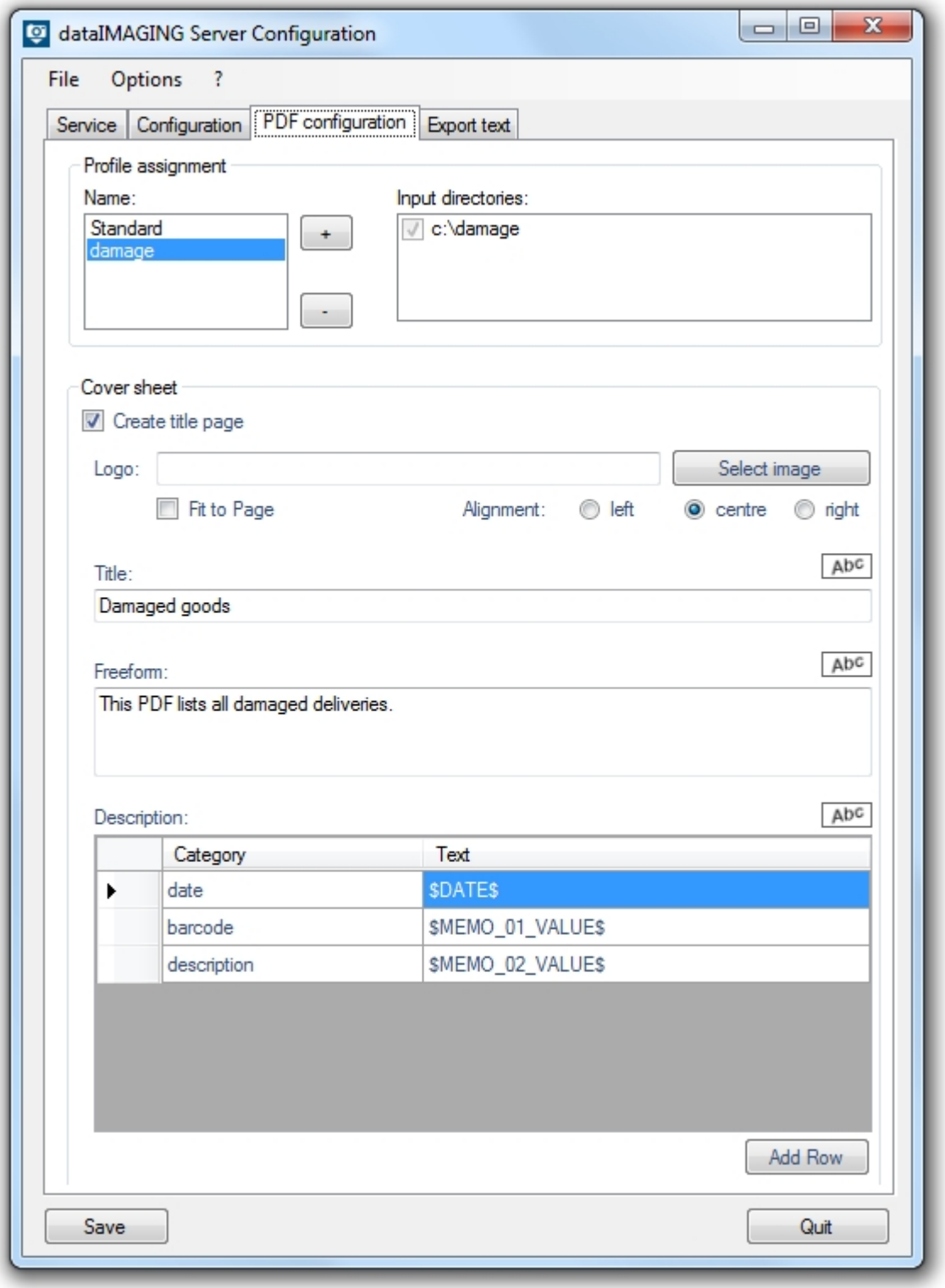
You choose now how much images will be on one page, which image quality is used and in which time periods the PDF reports will be created. You test Your settings by open the preview by pushing the *Preview* button. If You want to use the preview function, You need to have images in Your input directory otherwise the tool asks You which

images shall be used to generate the preview PDF report.



Design the cover sheet

In the end You configure the appearance of the cover sheets an save the configuration.


dataIMAGING Server Configuration
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Name:
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Cover sheet
Create title page
Logo:
Select image
Fit to Page
Alignment:
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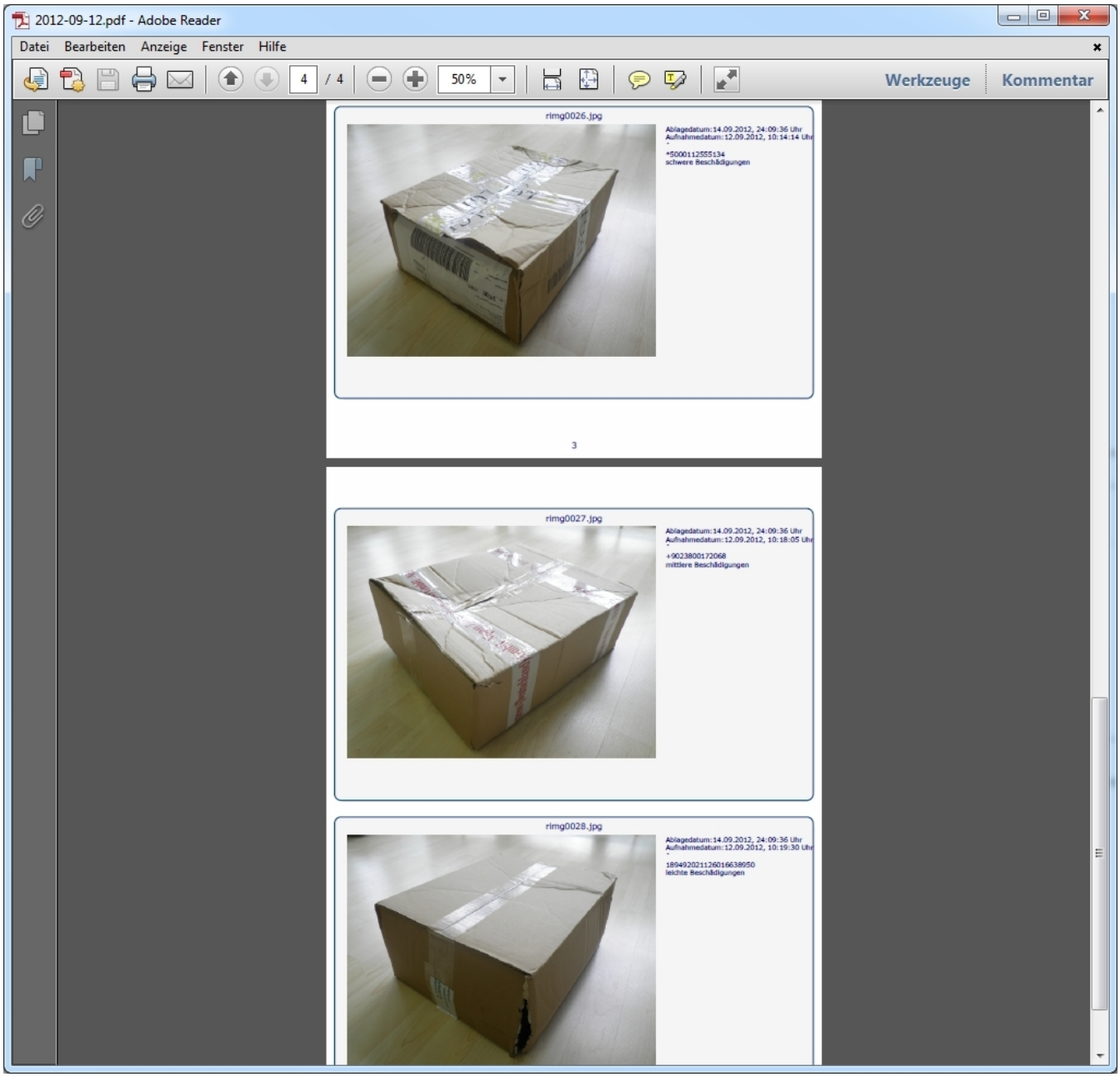
centre
right
Title:
Damaged goods
Freeform:
This PDF lists all damaged deliveries.
Description:
Category
Text
date
$DATE$
barcode
$MEMO_01_VALUE$
description
$MEMO_02_VALUE$
Add Row
Save
Quit

Once the service is started the images will processed and the PDF report will be created once a day.
The finished PDF reports contain all the images of the damaged boxes with their barcode and all collected informations.



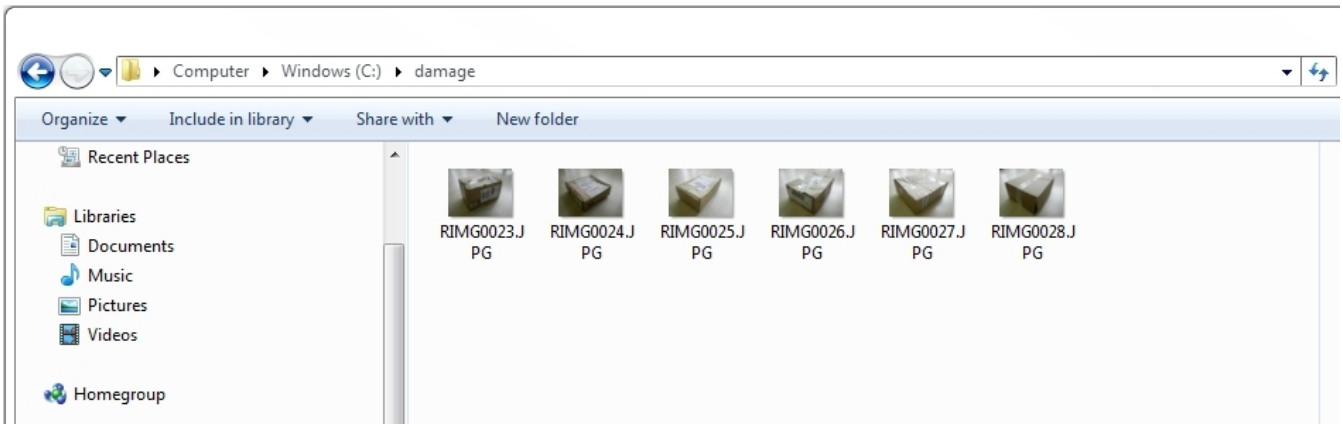
Sorting of photos in directories based on the damage

This example shows how to sort different images of damaged products in a predefined directory structure based on

the damage. In this case a Ricoh G700SE with a barcode module is used to document the damage.

You can find more informations about this camera and the complete solution for the photo documentation on this website: www.data-imaging.de.

Now You make photos of the damaged boxes, scan the barcode and classify the damage. The images will be copied automatically in a network directory by the camera.



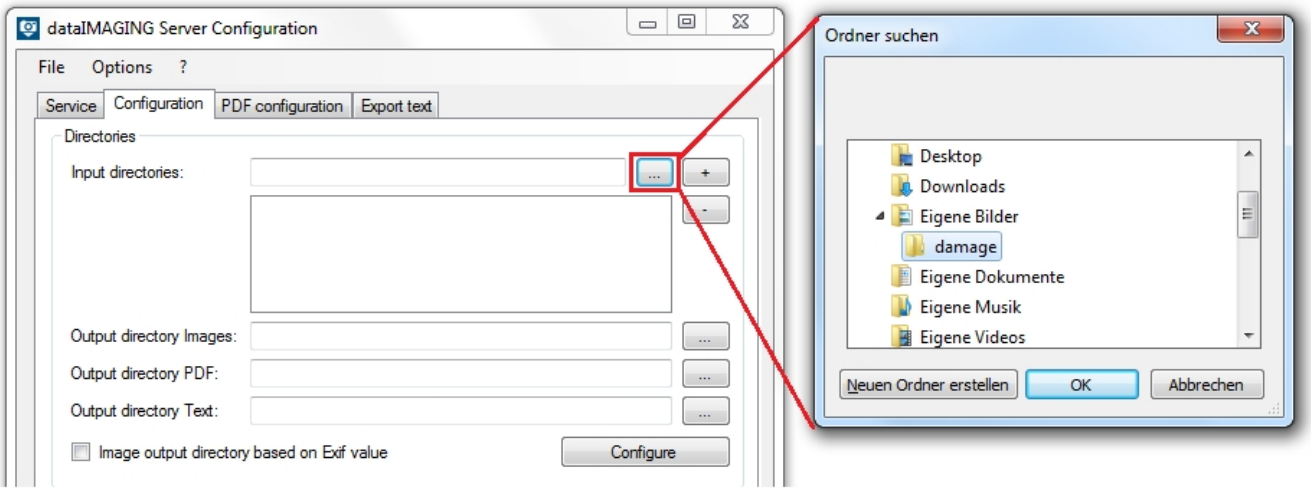
At this point dataIMAGING Server will be used. You just have to configure the application once, afterwards the service will run in the background and creates automatically the desired PDF reports.

Start dataIMAGING Server Configuration

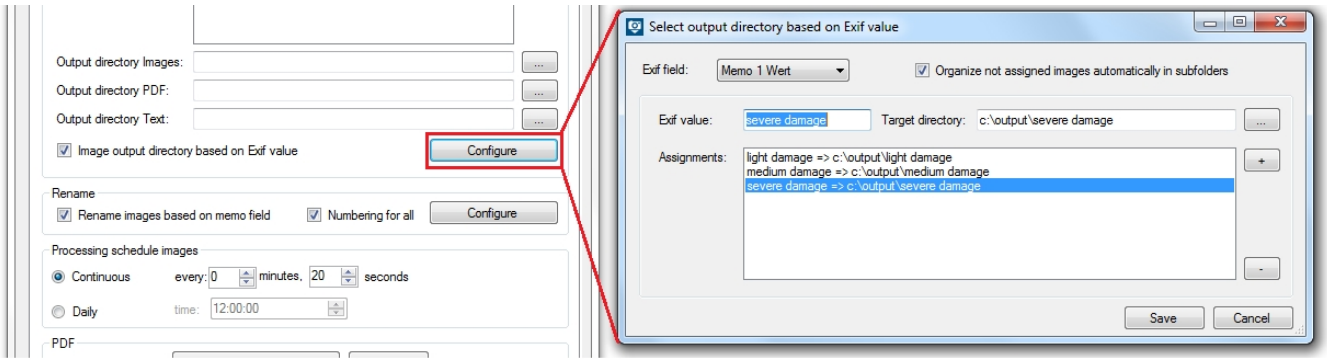
To start the application dataIMAGING Server Configuration open *Start -> All Programs -> dataIMAGING Server -> dataIMAGING Server Configuration.* Now open the tab *Configuration*.

Choose input and output directories

First You have to choose the folder, where the images are saved, as input directory. Click the button [...] and navigate to the desired input directory.



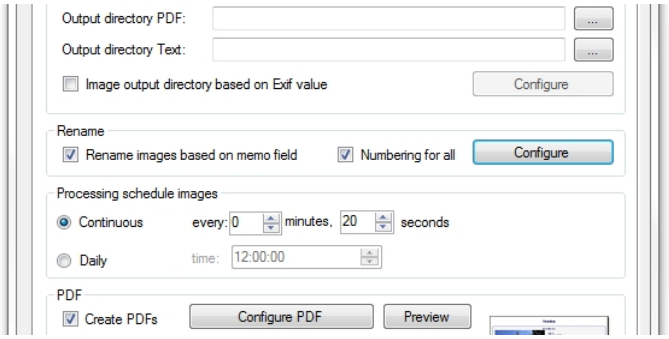
Afterwards You choose the output directories for the images and the PDF report. In this case You use the function *Image output directory based on memo value* and assign the memo values to a directory.

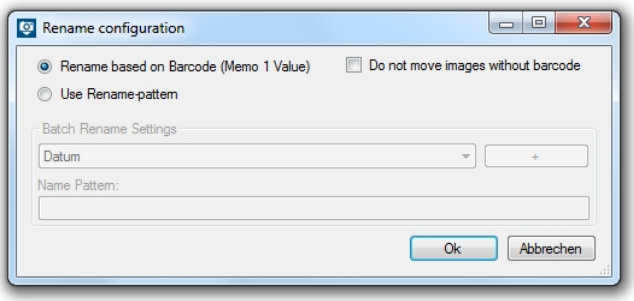


Additionally, You can activate the checkbox *Organize not assigned images automatically in subfolders*, which will automatically create the directories and assign the memo values to the corresponding directories.

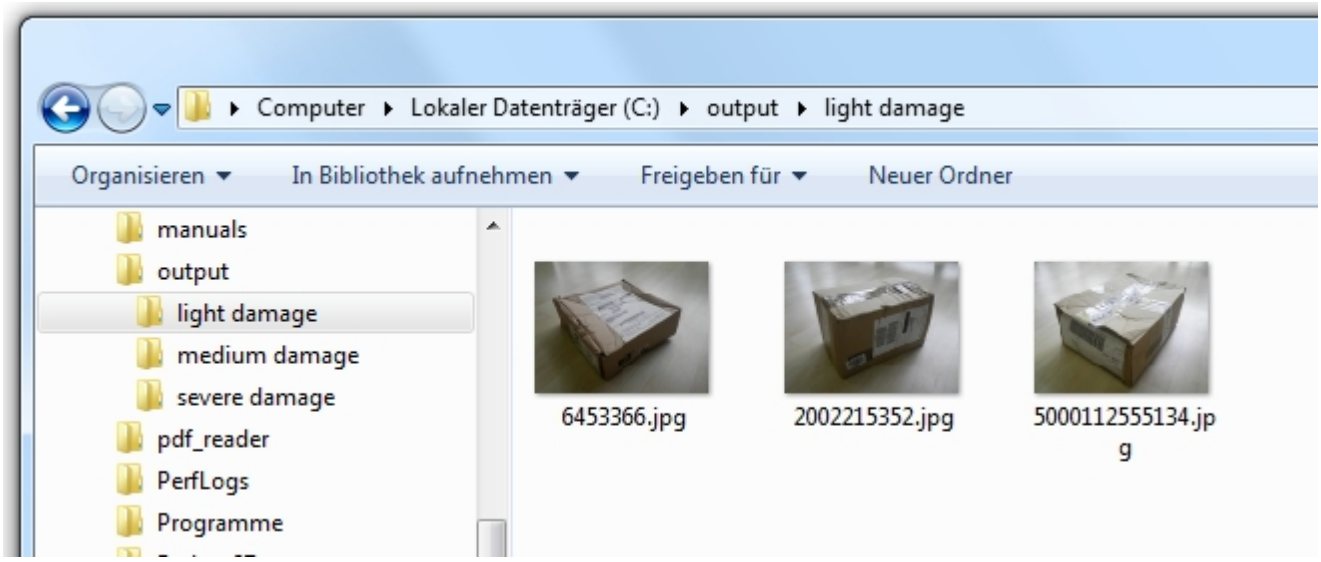
Image editing

Now You can edit more preferences for the image processing. You can choose, if the images shall be renamed and in what time period they shall be processed.





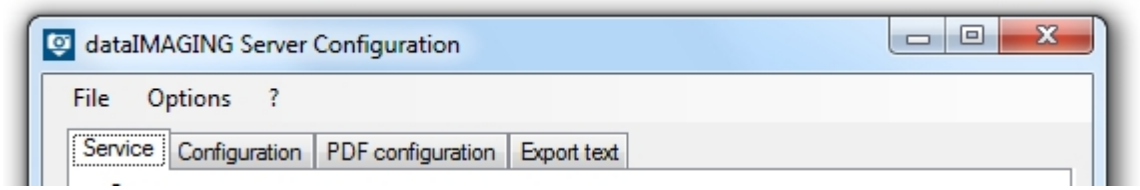
After setting this configuration every day the uploaded images will be processed and rearranged in the desired folder structure.



ExifExtractor Server configuration

Launch dataIMAGING Server with a click on the created application alias. Make sure You run the application with the local admin rights.

In the application window You can choose between the tabs Service, Configuration, Cover sheet, Export Text as well as the menu entry Options. In addition, settings relating to the System configuration can be done.

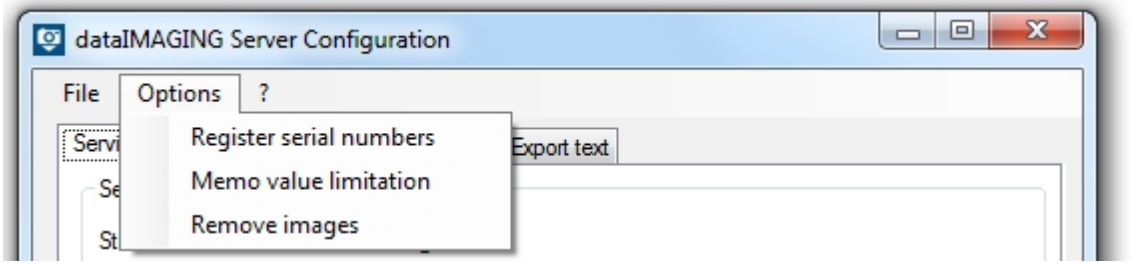


To save the configurations made, go to the menu *File* > *Save* or use the *Save*-button on every tab at the bottom left.

Options

The entry *Options* of the menu bar allows You to define a global configuration regarding:

- Registration of serial numbers
- Limitation of the character length of memo values
- Time triggered deletion of photos in the output directory

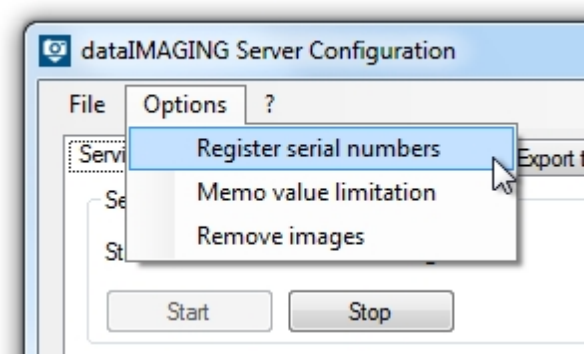


Register serial numbers

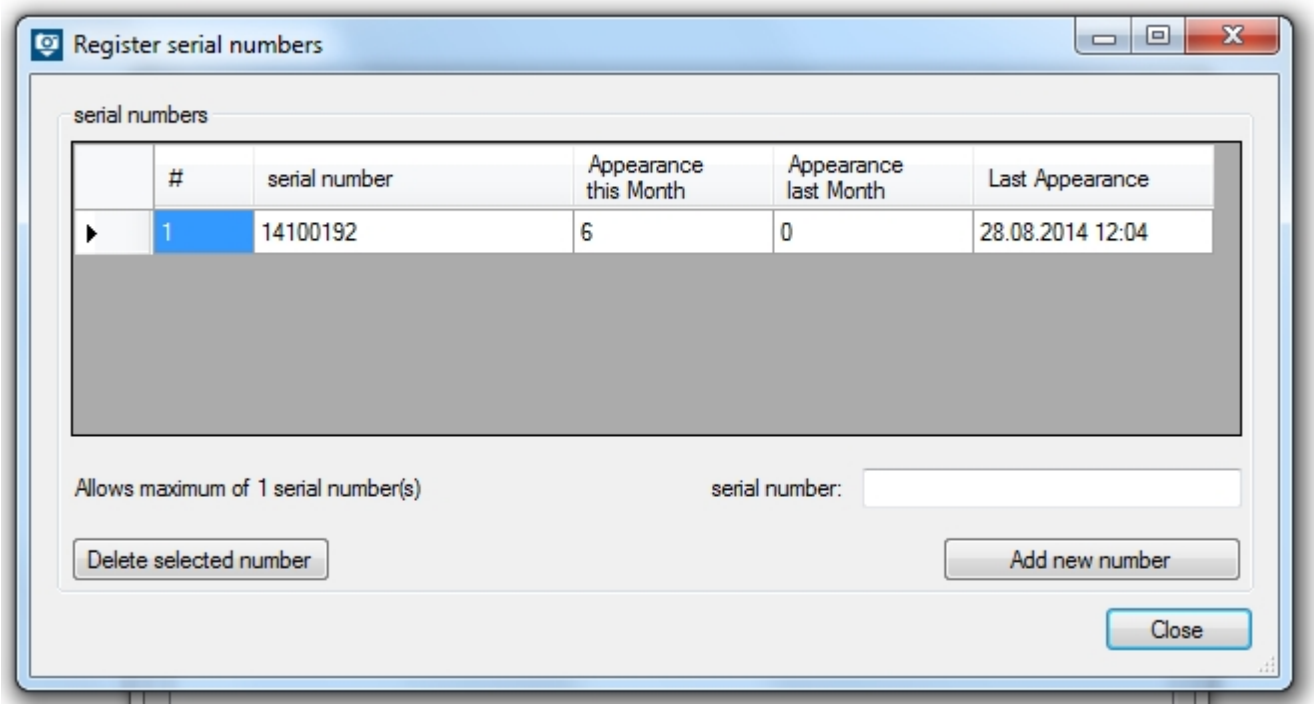
ExifExctractor Server has the feature to register serial numbers. The administrator has the possibility to activate or deactivate cameras. The settings have an impact on the following image processing events.
The maximum number of serials which are allowed to register is depending on the integrated license. ExifExtractor identifies the camera via the serial number saved in the exif-header.

Beside the manual input and administration of the activated serial numbers with the program surface it is possible and recommended to add serial numbers automatically to the serial-database. The camera's number will be added to the list while processing its images.
If the license-controlled limit of registration has been achieved, photos of unregistered cameras won't be processed regularly anymore. Instead, those pictures will be copied into the output directory and watermarked. The renaming will be performed according to the settings which were set before in dataIMAGING Server. Die watermarked copy will be used for the creation of potential pdf-reports. The original file will be moved to the folder *unprocessed_originals* in the output directory.

The manual administration of the serial-database can be selected by using the menu entry *Register serial numbers*.



The windows that opens next shows a list of the activated serial numbers up to now and their activity of usage. Furthermore, the maximum number of serials which are allowed to register can be reviewed here.



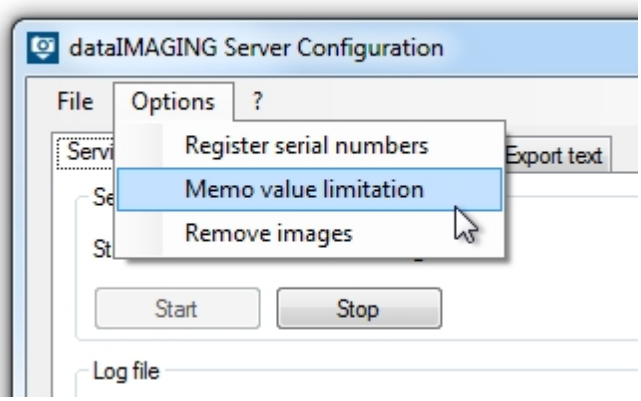
The field *serial number* allows You to add more serials. The activation can be completed by pressing the button *Add new number*.

To deactivate a camera, respectively deleting the serial number, the particular row has to be selected (by clicking previous to the first cell). The button Delete selected number deletes the selected entry from the database. In place of it, another camera can be registered then.

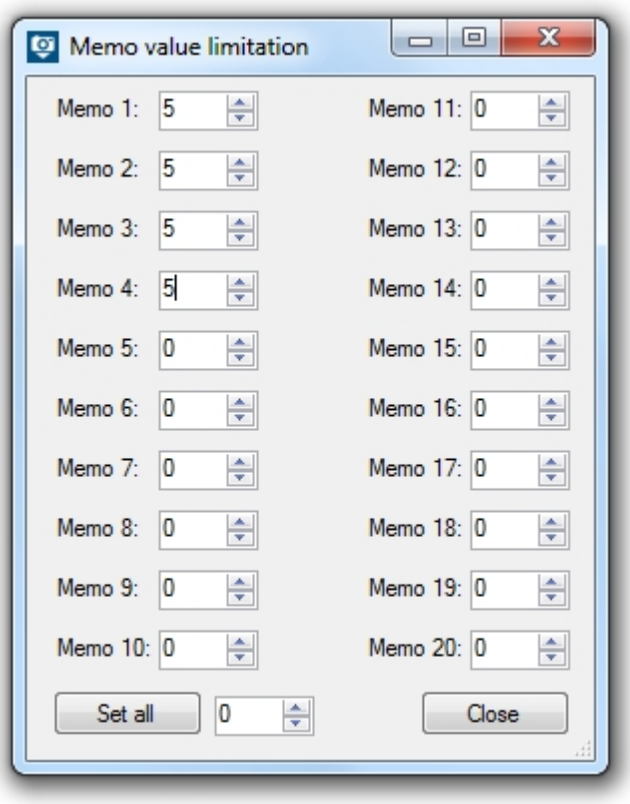
After making the respective settings the window can be closed. The saving and restart of the service applies the configuration.

Memo values limitation

dataIMAGING Server allows You to limit the character length of the memo values. Choose the button *Options* in the menu bar and after that the entry *Memo values limitation*.



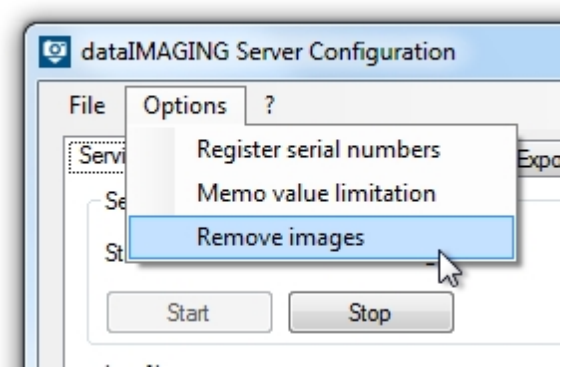
In the window that opens, the number of characters can now be set separately for every memo value. Further processing steps in dataIMAGING Server like reporting and renaming are based on this definition. In addition, the number of digits for all memo values can be defined in one go.
Hence, for example, the entry "5" for memo value 1 means that only the first five digits of the barcode are considered (while using Ricoh G700 SE in barcode mode 1).
By clicking the *Close*-button all settings will be saved and the input dialog closes afterwards.



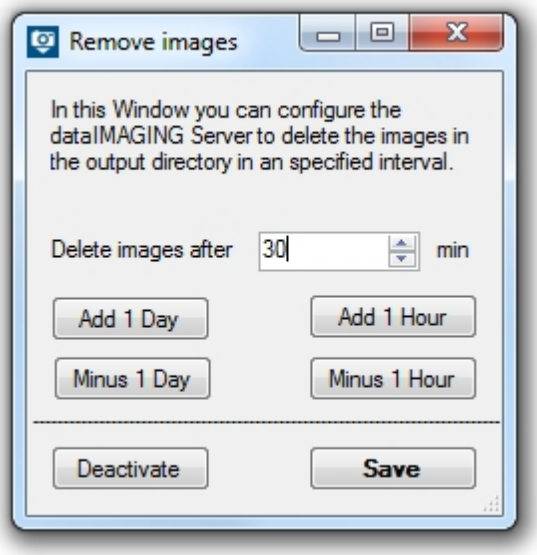
Remove images automatically

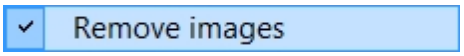
Pictures can be deleted time triggered from the output directory after a certain time interval. The requirement is that pdf-reports for those images have been created previously.

The configuration of the automated deletion can be found beyond the menu item *Remove images*.



The dialog opening next allows you to define the period of time (unit: minutes) with the keyboard or the virtual buttons.

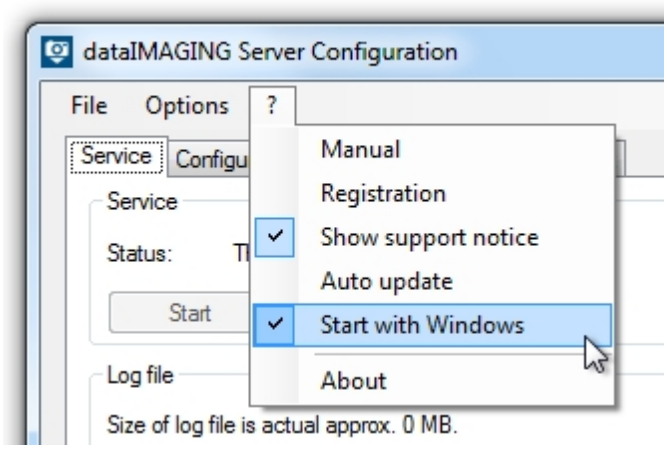


A click on the *Save*-button activates the auto-scheduled task. The activated checkbox in the menu bar confirms Your decision: 

If you want to deactivate the time triggered deletion of pictures the *Remove images*-windows has to be opened again. Then, the button *Deactivate* has to be pressed.

System configuration

If you want dataIMAGING Server to start automatically with Windows, you can use the *Start with Windows* function, which you can find in the help functions by clicking on the *?*.



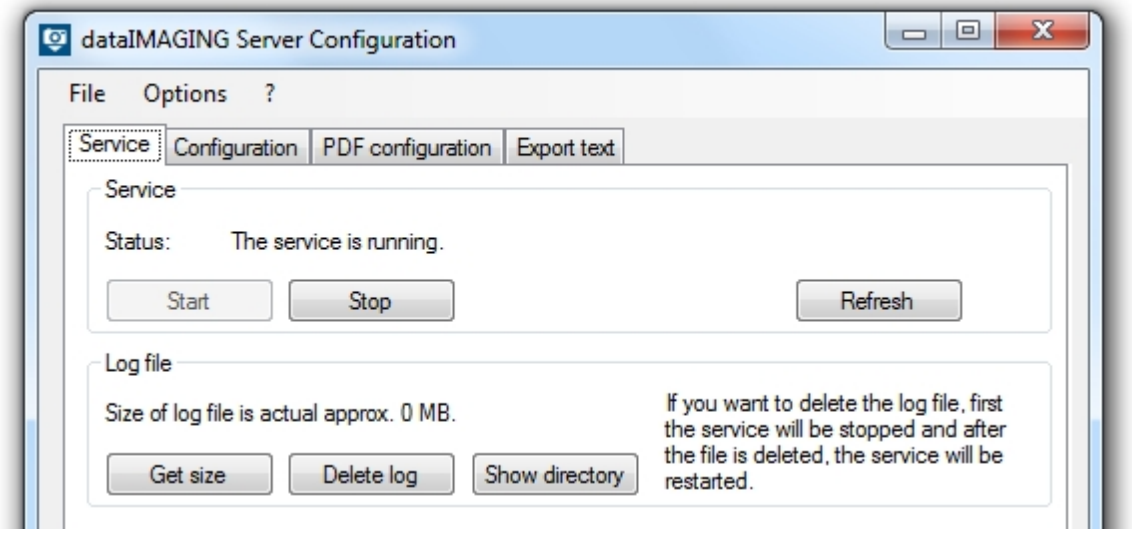
Service

Service

Start dataIMAGING Server services with the application tab *Service*. Even when closing the dataIMAGING Server window, the service will continue running in the background. This way, a continuous control of all configured directories can be assured.

Log files

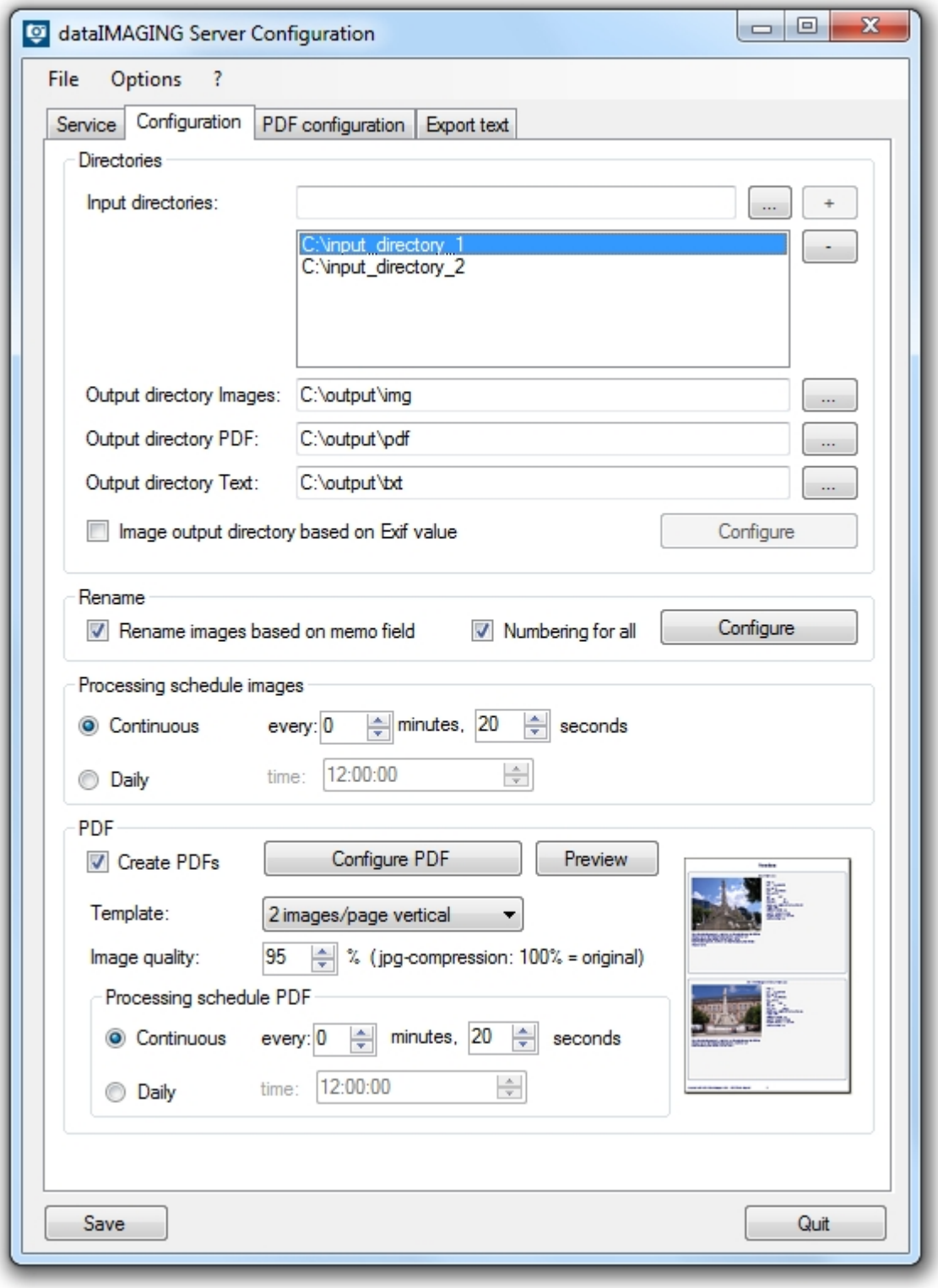
The service tab also allows you to manage your log files. You can refresh the size of the log files, delete them and show the directory, where you can find the log files.



Configuration

This tab *Configuration* gives the opportunity to show all relevant information for directory control:

- In the field *Directories* you can decide which input and output directories to use. It's important that for every input directory you also need output directories for the images and PDF-reports.
- With *Rename* you can define, if the images should be renamed and on which memo field the renaming is based. You can avoid a wrong listing by activating the field *Numbering for all*.
- With *Processing scheduled images* you can configure in which interval the images should be renamed.
- In the area *PDF* you decide if PDF-reports should be created, which quality the images should have and in what interval the pdf-processing should take place


dataIMAGING Server Configuration
File
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Configuration
PDF configuration
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+
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C:\input_directory_2
-
Output directory Images:
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Output directory PDF:
C:\output\pdf
Output directory Text:
C:\output\txt
Image output directory based on Exif value
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Rename
Rename images based on memo field
Numbering for all
Configure
Processing schedule images
Continuous
every:
0
minutes,
20
seconds
Daily
time:
12:00:00
PDF
Create PDFs
Configure PDF
Preview
Template:
2 images/page vertical
Image quality:
95
% (jpg-compression: 100% = original)
Processing schedule PDF
Continuous
every:
0
minutes,
20
seconds
Daily
time:
12:00:00
Save
Quit

Choose input directories

Firstly you define, which directories will be monitored by dataIMAGING Server. Photos, which are located in this directories, will be processed by dataIMAGING Server in a specific period of time, which you can choose in the area *Processing schedule images*.

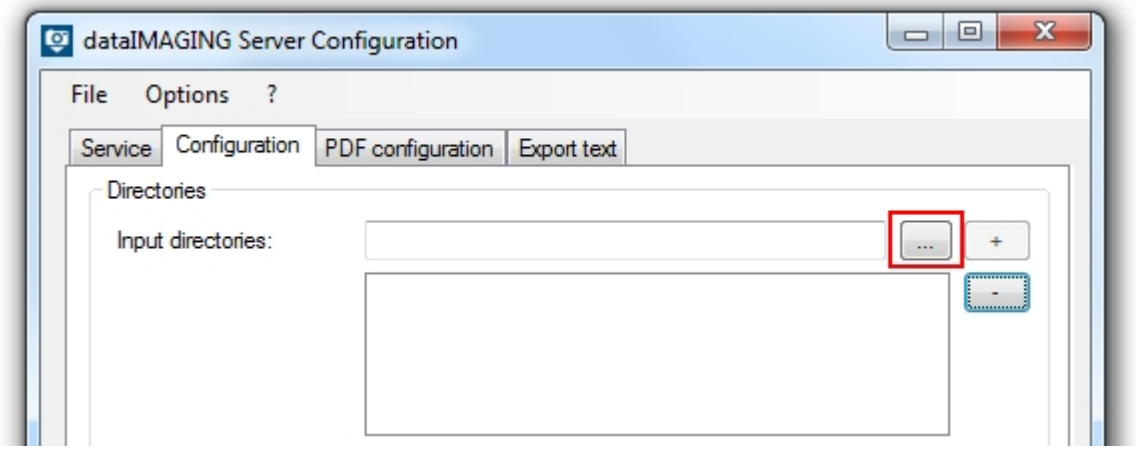
You choose an input directory by pressing the [...]-button. After pressing it, you are able to navigate to your input directory. You can also enter the path to the desired directory and press the [+]-button.
You can delete an input directory by selecting it and pressing the button [-].

Added paths are sorted alphabetically and can be reviewed in case of overlength by using the vertical scrollbar.

Important Notice
UNC paths with hidden shared folders can cause problems, so that no more images are processed.
The UNC path must without giving further credentials (credentials) accessible and be provided with read / write permissions.
There will be no error message because checking of the path is prevented at configuration time. Instead each access will be checked and logged at each access interval.

If photos remain unexpectedly in folders, please check whether you are using UNC paths with hidden shared folders.

If the computer connected to the camera or the computer running "dataIMAGING Server" is registered in a domain the other part must also be registered in the same domain.



Output directories based on memo value

Choose output directories

After defining the input directories, you have to choose an output directory for your photos, pdf reports and text files. You are able to define an individual output directory for every input directory. To configure this individual output directories, select the desired input directory and define the output directories.

Output directory based on Exif value

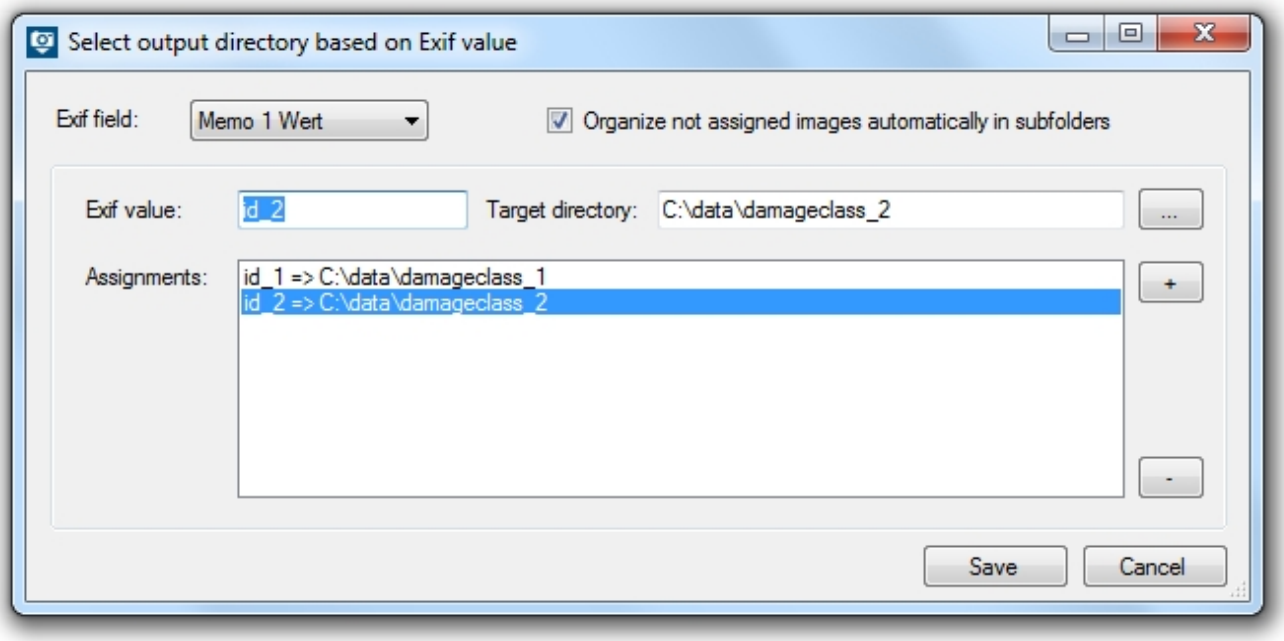
Depending on their text-memos, images can be sent to specific folders. Therefore it is important to know the relevant text-attributes that will be processed and make the desired assignment. Choose for example Memo 1 and add the desired memo value, which was defined as Memo Value 1 before capturing the image. Then choose the *Output directory* and save the configuration. Beside the memo values, the exif-fields *Date, Time, Make, Model, Artist, Copyright, Serial number, Index* and *Original Name* can be chosen to control the image processing. If there exists no specific Memo Value for a picture, this image will be sent to the standard output directory.

In addition, you have the possibility to activate the checkbox *Organize not assigned images automatically in subfolders.* This function organize automatically the directories based on the chosen memo field. This simplifies the assignment of memo value to directory.

Important Notice
UNC paths with hidden shared folders can cause problems, so that no more images are processed.
The UNC path must without giving further credentials (credentials) accessible and be provided with read / write permissions.
There will be no error message because checking of the path is prevented at configuration time. Instead each access will be checked and logged at each access interval.

If photos remain unexpectedly in folders, please check whether you are using UNC paths with hidden shared folders.

If the computer connected to the camera or the computer running "dataIMAGING Server" is registered in a domain the other part must also be registered in the same domain.

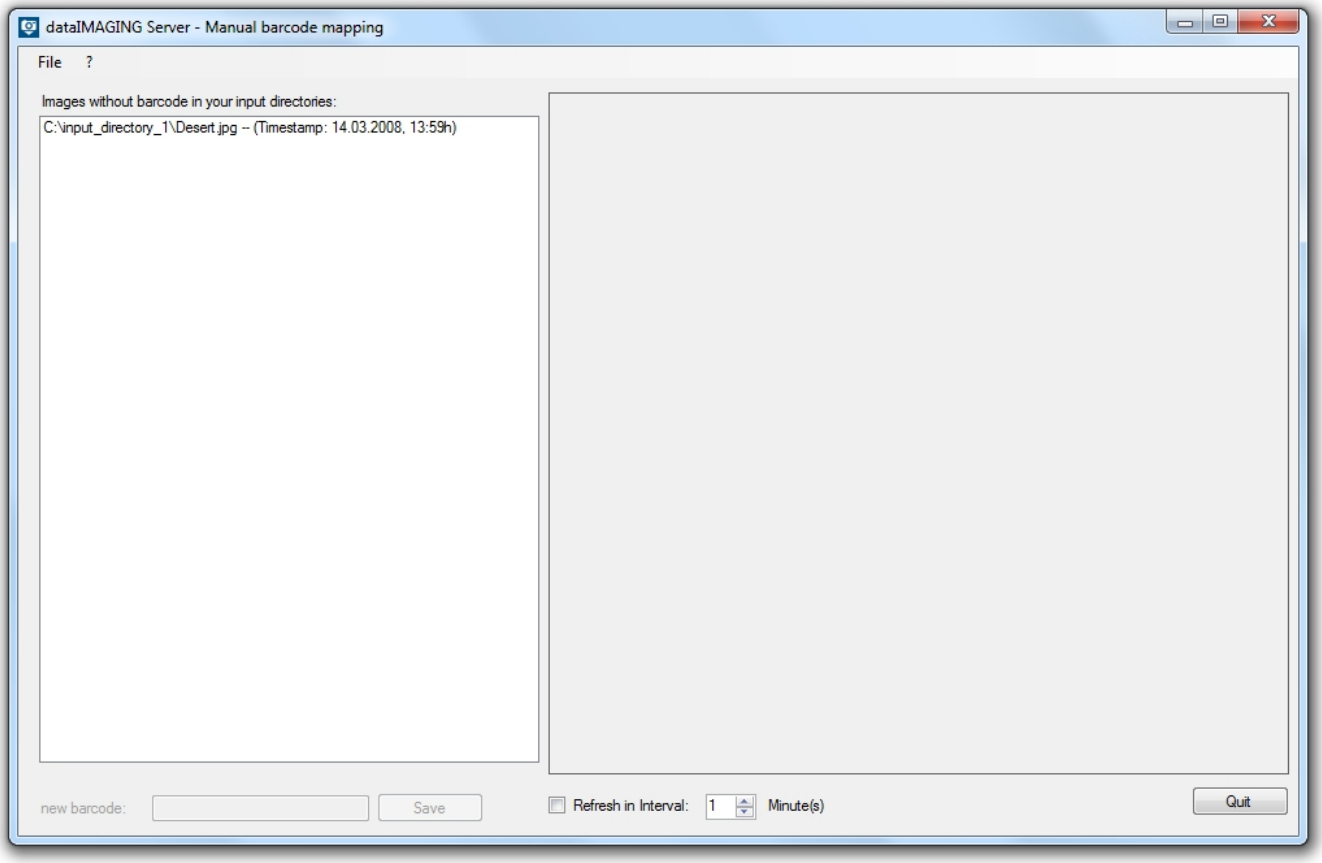


Rename images

The configuration option *Rename configuration* brings the opportunity to individually rename images for their output directory. You can use Exif-information and memo values for the new names of your photos. Memo values are special informations, which can only be recorded with Ricoh cameras (Capilo 500SE and G700SE).

Rename based on Barcode

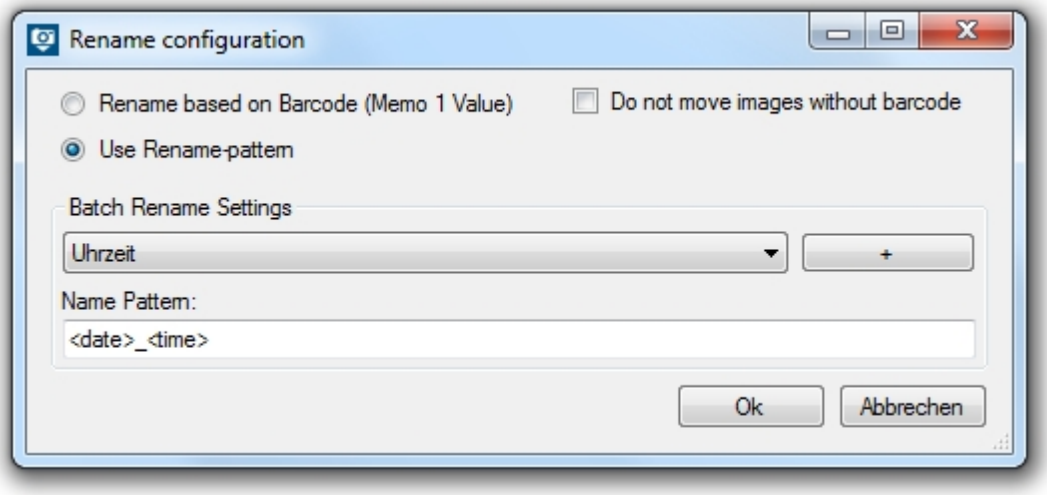
In case a barcode module (e.g. G700SE with barcode) was used when shooting the images, renaming can be done within just one click. In this case <ou have the possibility to activate the function *Do not move images without barcode*. All images without a barcode stay then in the input directory. To give this images a barcode you can use the Manual barcode mapping tool, which you find in the menu *Start -> All programs -> dataIMAGING Server -> Manual barcode mapping*. There you can see all images, which have no barcode (memo value 1), and determine a new barcode for this images. When they have a new barcode they will be processed by the dataIMAGING Server application.



Rename based on Exif-information

If you choose to individually rename the images, based on their Exif-information, select the desired memo value and add these to the *Name Pattern* box. Besides the Exif-Information, static text can be added simultaneously as text information.

If an image has no value at the, in the name pattern used, Exif-Information, “NULL” will be inserted at this place of the filename. In the case the image has no value in every used Exif-Information the old filename is added.



Numbering for all

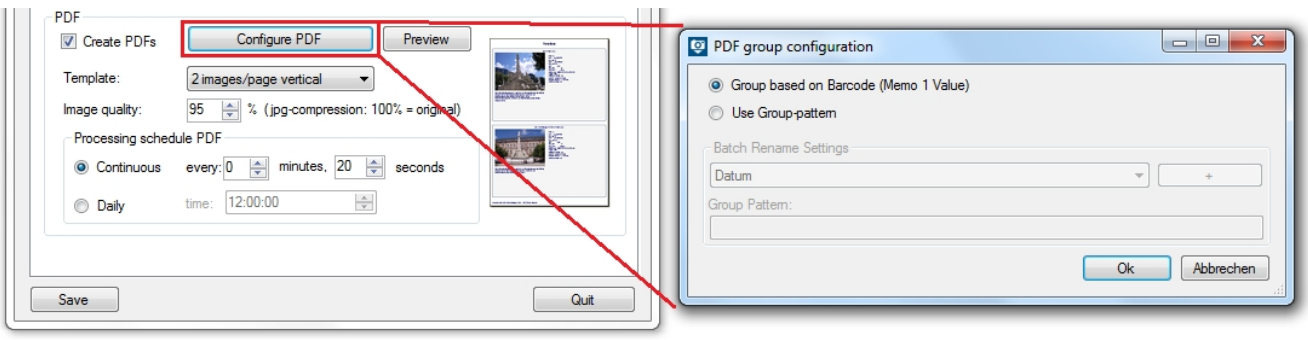
In order to prevent a wrong sorting of your images by the operation system, you can activate the function *numbering for all*. If this setting is activated, every image gets a 4 digit number at the end of its name. If it is not activated the second image with the same name will get a number given by the operation system.

PDF configuration

You can use severel settings for the configuration of your PDF. You can choose a template, the image quality and the processing schedule in the bottom part of the configuration tab.

PDF group configuration

Furthermore the button *Configure* enables you to group images in different pdf's based on Exif-Informations. Similar to the renaming of the images you can use the barcode (memo 1 value) or create your own pattern to group the images in pdf's. For example you get a pdf with all images,which were taken at one day, if you set just the date in the name pattern. A further example, how you can use this function is described in the first application example.



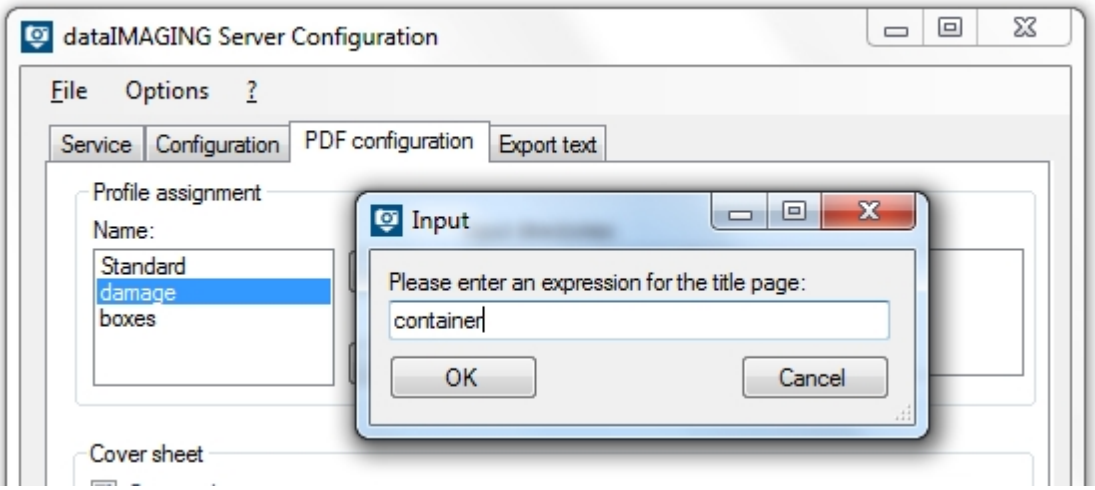
You can test your preferences by using the Preview-function. Just click on the corresponding button. To generate the preview of the PDF-report, you need images in you input directory. Otherwise the tool will ask you to choose the directory, where images are saved to generate the preview PDF-document. To view the preview you just have to save the generated PDF, by choosing a save directory.

PDF configuration

This tab enable you to define the cover sheet of your PDF-reports.

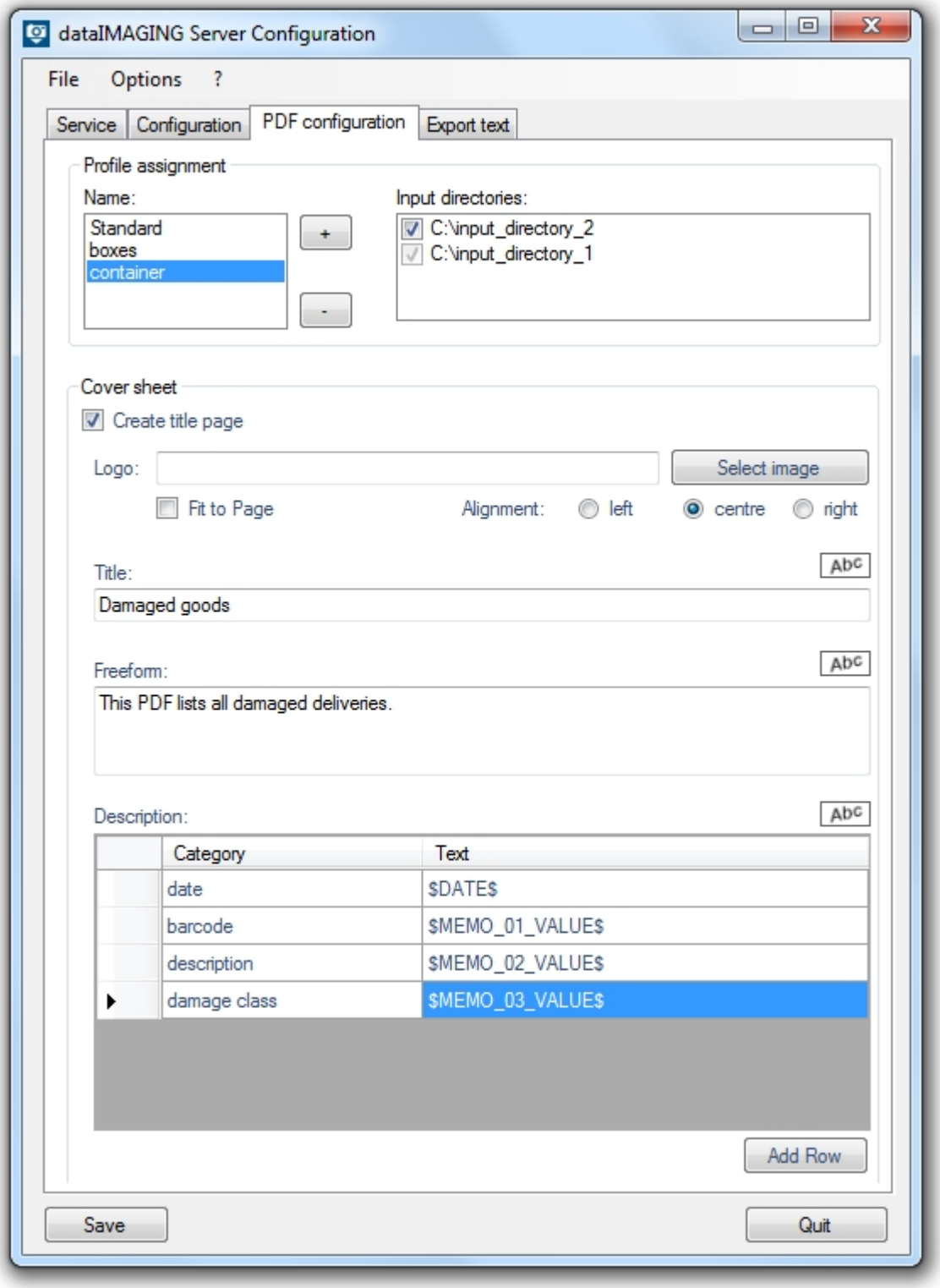
Here you can add logos, a title and text. The description form enables you to insert dynamic content generated by the Exif-Informations of the images. All this text can be formatted by selection the desired option within the “ABC” option box.

Furthermore, PDF-report cover sheets can be created based on their input directories. In a first step you create a new cover sheet. Then you select this cover sheet and choose the right input directories. In a last step you configure the appearance of the cover sheet and save your settings. The coversheet's name can be renamed afterwards by performing a doublecklick on it.



An input directory can only be assigned to a particular cover sheet configuration. The input directories on the right side can accordingly only be selected if they were not already assigned to another cover sheet name. Otherwise, they appear grayed out. Check the rest of the cover sheet configurations and remove any hooks in the input directories to allow the allocation other cover sheet configurations.

You can check the design of the cover sheet by using the preview function (see PDF configuration).


dataIMAGING Server Configuration
File
Options
?
Service
Configuration
PDF configuration
Export text
Profile assignment
Name:
Standard
boxes
container
+
-
Input directories:
C:\input_directory_2
C:\input_directory_1
Cover sheet
Create title page
Logo:
Select image
Fit to Page
Alignment:
left
centre
right
Title:
Damaged goods
Freeform:
This PDF lists all damaged deliveries.
Description:
Category
Text
date
$DATE$
barcode
$MEMO_01_VALUE$
description
$MEMO_02_VALUE$
damage class
$MEMO_03_VALUE$
Add Row
Save
Quit

Export Text

The tab *Export Text* deals with the export of the Exif and memo values to the file formats CSV, JPL, TSV and PAD. This option makes sense when Exif data and the corresponding image data should be integrated in third-party systems such as databases.

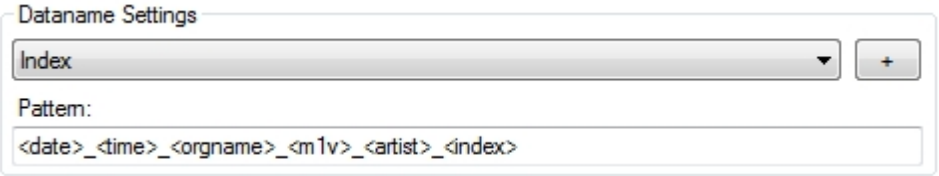
Enable output file formats

The output directory of the CSV, JPL, TSV and/or PAD files can be set in the tab configuration. The output format is determined by the activation of the corresponding check boxes in the area *Exporting file format*.

Depending on the selection the tabs, *CSV*, *JBL*, *TSV* and/or *PAD* will be visible. There, the output fields and the file name can be defined separately for each output format.

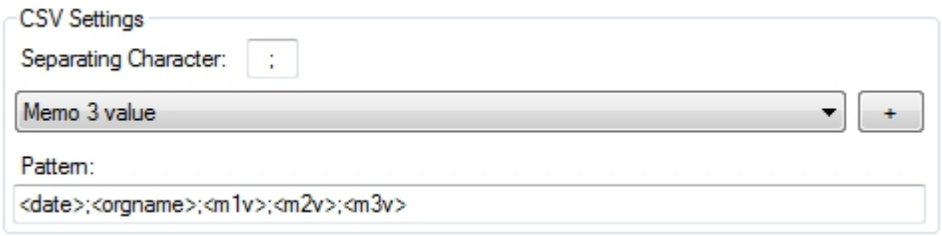
Define name for each file format

For each text format a corresponding file name scheme can be configured. After selecting the desired Exif field, the parameter is added at the end of the pattern by clicking on the +-button.



CSV

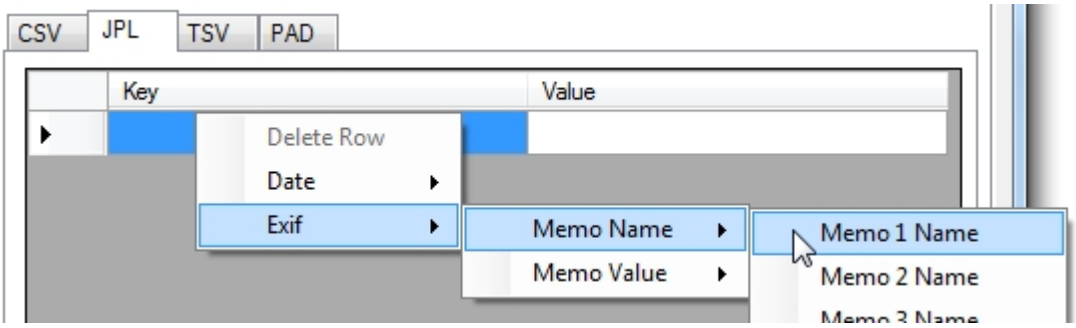
The configuration of the CSV data contains the definition of the separator, the memo columns and the file name. By selecting the appropriate fields in the drop-down menus and by pressing the +-button, the column pattern can be built. During the definition of the columns, it is recommended to specify the original file name (exif value *Originialname*), so that e.g. a third-party system may assign every image file to the appropriate exif value.



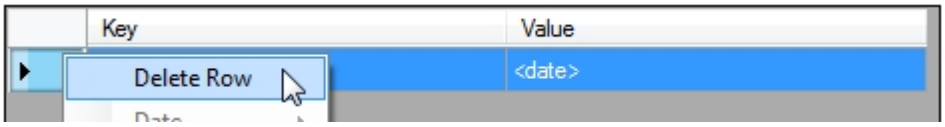
After that, the file name of the CSV file has to be configured. More information can be found in the main chapter Export Text.

JPL

The configuration of the JPL file is handled similarly to the CSV configuration. The content fields are defined by right-clicking on the corresponding cell and selecting an Exif entry.



To delete a single row one first select the appropriate line by clicking on the black arrow, press the right mouse button and then select *Delete Row*.



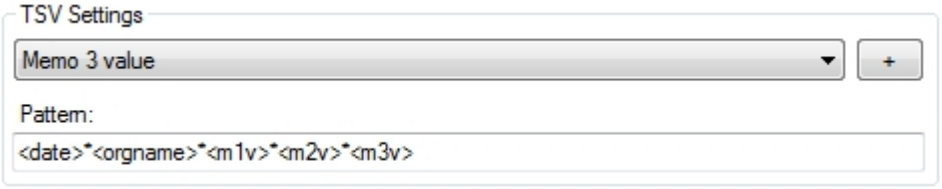
Attention! Please note that every Exif value may be used for the CSV column pattern. In contrast to this, the configuration of the JPL's contents just includes the memo values and the date and/or the time of the picture.

	Key	Value
	Date	<date>
	<m1n>	<m1v>
▶	<m2n>	<m2v>

After that, the file name of the CSV file has to be configured. More information can be found in the main chapter Export Text.

TSV

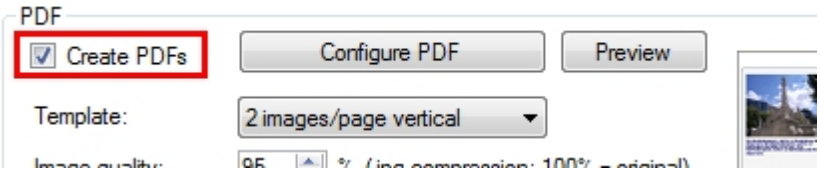
The contents of a TSV file can be defined according to the CSV configuration via the drop-down list or the +-button. There is only the restriction that, beside the tab, which is represented by a * in the pattern, no other separators can be specified. A possible tab-separated scheme would be for example:



After that, the file name of the CSV file has to be configured. More information can be found in the main chapter Export Text.

PAD

A PAD file contains all the information for an automated archiving in the DMS as a text file (ASCII format). The application of PAD files is only possible if the PDF creation has been enabled in the program register *Configuration* before:



From version 4.1f02 the PAD file begins with a header (to 5.1/from 5.2), which can be defined arbitrarily in the input field *Headrow* in ExifExtractor. After this row, each line represents a document which should be archived. Concerning the parameters, a line has the following structure:
FileList#DeletionList#CompressionList#DocumentType#TagName1#TagValue1#TagName2#TagValue2...

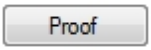
The individual values or lists of values are separated by the pound sign (#).

The parameter for the file list *Dateiliste* contains the path to the to PDF documents which should be archived. They are separated by the character | (pipe).
Attention! In the current version of dataIMAGING Server the list always contains one element.

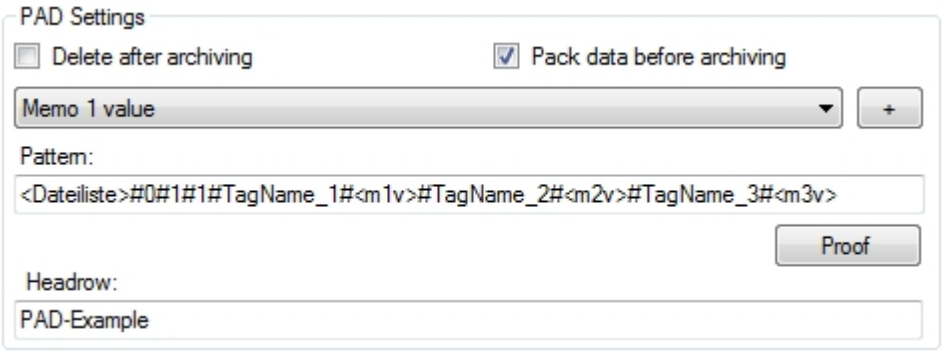
The deletion and compression list specifies whether the files in the file list are deleted after archiving or compressed and archived. For each entry in the file list an corresponding entry in the deletion and compression list has to exist. The individual items are separated by the character |. Possible values for the entries are *0* and *1*. A value of *0* indicates that the respective file is not deleted after archiving or not archived in a compressed form. On the contrary, a value of *1* indicates that the respective file is deleted after archiving successfully or archived in a compressed form.

After that, the list of tags for the document which should be archived is specified. First, the ID of the document type is defined. It may be derived for example from an ERP system. The same applies for the ID of the tag name (e.g. "1000" for "Customer"). The corresponding tag value is a fixed value or an Exif value. An Exif field can be attached at the end of the pattern by selecting the respective entry in the drop-down menu and pressing the +-button. Up to 20 tags (name and value) are possible.

Attention! It is urgent to ensure that every key and mandatory value is specified in the pattern. Otherwise, archiving the files fails! By clicking on the button *Proof* the syntax of the pattern can be checked, but the functionality does not guarantee the correctness of the content.



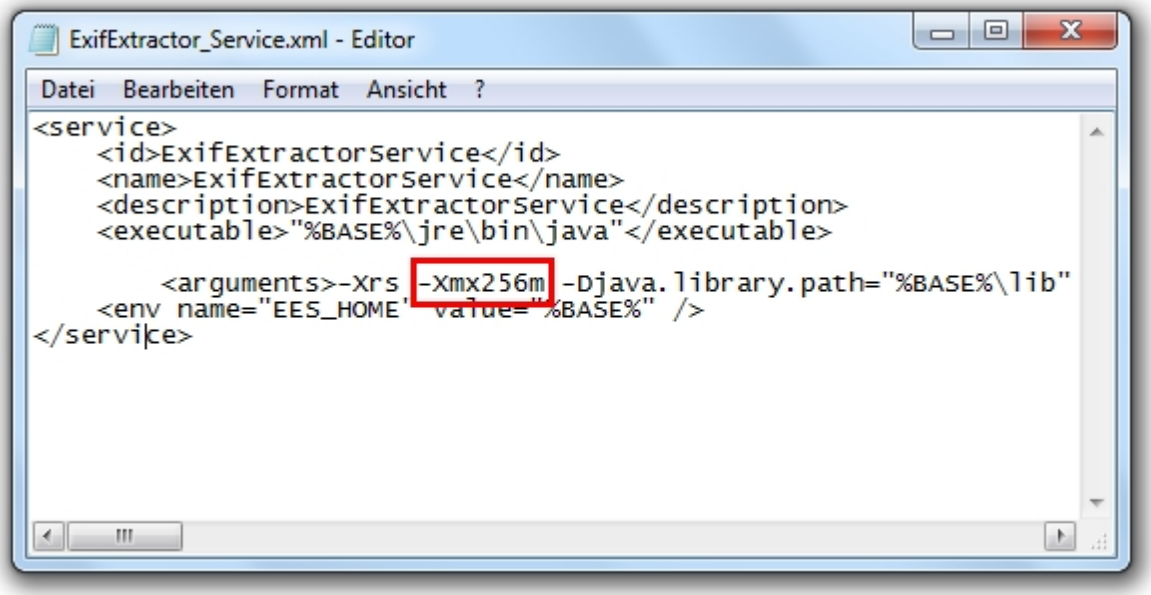
A possible configuration may look like this:



After that, the file name of the CSV file has to be configured. More information can be found in the main chapter Export Text.

Troubleshooting

If the photos can not be processed correctly or if there is a need to process a higher amount of photo data at the same time, the following solution may help. In the installation directory (default: *C:\Program Files (x86)\dataIMAGINGServer*) there exists a file called *ExifExtractor_Service.xml*. After opening the file in the Editor, the heap space can be adjusted with the *Xmx* parameter:



Versions

Subsequently, the new features of dataIMAGING Server are listed since version 2.0.

version 2.0

- Change of the license model to enterprise-wide licensing (camera licenses)
- Alphabetic sorting of input directories
- Delete photos after a defined interval
- "Memo values limitation" option

version 2.1

- Text export (CSV , JPL, TSV, PAD)
- Bugfixes

version 2.1.1

- Processing of photos on the USB port after connection of the camera to the computer
- Change the product name of "ExifExtractor Server" into "dataIMAGING Server"

version 2.5

- Support of Ricoh G800SE photos
- Bugfixes

version 2.6

- Improvements in pdf layout
- Bugfixes and stability improvements