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1 Introduction

What dWScanClient does
- dWScanClient is a tool to review image files during or after scanning. It displays image files and related information, e.g. meta data, page numbers, or other relevant data.
- Do scanning using flatbed scanners, automated or manual book scanners
- Do scanning with a sheet feeder (highly automated)
- Add meta data to already scanned image files or verify already scanned image files

Why is dWScanClient used since there are many other image viewers?

Handling files and directories
dWScanClient is based on CCS docWizz technology. This technology provides a high level of automation in digitization workflows.

What is automated in dWScanClient?
For example, data is copied from a local disk (of the scanning computer) to a file share automatically as background process once the scanning process is completed. The scanner operator does not have to deal with moving image files or creating directory names but can concentrate on handling the bindings or microfilm reels and on checking the quality of the scans in an image preview.

Why is that important?
When dealing with files and directories manually, there is a high risk to make errors, for example when typing a directory name. Also, dealing with errors such as an interrupted copy process is a pain. What files were copied already and where to copy or move the rest of the files? Automated handling reduces these errors and increases productivity.

Validate parameters during scanning
Besides, dWScanClient works with project configurations. This means a definition of parameters are set for a project.

For example, historic Italian books could have the following settings:
- Italian as OCR language (for later processing with OCR)
- Gothic and Antiqua fonts (for later processing with OCR)
- 2ups/double page scans

dWScanClient will verify during scanning if all the parameters (in fact the ones relevant for scanning: 2ups, dpi, color scans) are met. If an image is scanned in 200 dpi accidentally, dWScanClient will send an alert to the scanner operator so that the problem can be fixed immediately.

Benefit from entering into the digitization workflow from the very start
The most efficient scanning process is done for data which is very similar, for example books of the same size. dWScanClient can be used to set placeholders for foldout pages or to complete scanning while covers will be scanned in a second job. This increases performance, especially when you think large scale. When the book is scanned, another scanner operator using a large manual scanner can open the existing document and easily add the extra pages (i.e. foldouts or cover pages) for the previously defined placeholders. Needless to say, page types can be set (blank page, cover page, foldout page) and text comments can be entered as free text or as choice from a set of standard comments.
Storage monitoring

Last but not least, dWScanClient monitors the free disk space situation and alerts the scanner operator and/or the IT staff in case the free disk space on the local disk or file share are below defined limits. This just helps to avoid losing data due to a full disk.

Recommendation

Use of scanner’s own software and dWScanClient together, a 2nd monitor is recommended.
2 Workflow overview

The purpose of the dWScanClient is to verify the quality of images during a scanning process already. Problems in scanning such as damaged images (write failure) or errors in automated page turning (same pages scanned twice or more) will be detected immediately through the dWScanClient interface.

Note: Depending on your configuration, the processing may differ.

The dWScanClient controls a directory containing scanned images, typically during the scanning process. The import will be done in lexicographical order.
There are two versions of the dWScanClient available (iT = ItemTracking solution):

<table>
<thead>
<tr>
<th>Features</th>
<th>Basic without iT</th>
<th>Pro with iT</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Automatic workflow control</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>II. Document Splitting</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>III. Automatic image handling</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IV. QA Possibility on the Fly</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>V. Second scan step (inclusion of foldouts)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>VI. Scanner manufacturer independency</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>VII. Knowledge sharing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>VIII. Support of different work modes</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IX. Local and target storage monitoring and management</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>X. Temporary image parking / continue of scanning later-on</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>XI. Target scan handling</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>XII. Post actions applicable (customized on project configuration)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>XIII. Metadata verification by 239.50</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>XIV. Damage reporting</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>XV. Automatic verification of scanned images (resolution, color type, scanner type)</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>XVI. Immediate MD assignment for completeness check with original</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>XVII. Workflow database</td>
<td>X</td>
<td>✓</td>
</tr>
</tbody>
</table>

**dWScanClient Basic - without ItemTracking solution:**
dWScanClient Basic is defined as solution which is designed open with high flexibility and due to that without a pre-defined workflow from DB. In this scenario the dWScanClient is not getting pre-definitions from a database. The database which is kept with some basic properties are only existing due to technical needs to maintain the dWScanClient status. Due to that DB can be overruled by dWScanClient actions. An ItemTracking interface solution is not available to do any operations.

Due to that dWScanClient must have possibility to overrule status of “Titles”, in case they have already be scanned or anything else happened.

LogUnit entries are not existing in DB and are not verified.

The issue start tags are only supposed to be done on the images for splitting purposes. The buttons are available for all modes and are named “Issue start” / “Supplement start”.

A recording of metadata information is NOT expected / tested for now.

**dWScanClient Pro - with ItemTracking solution:**
dWScanClient Pro is defined as solution which is driven by the pre-defined workflow from DB. In this scenario the dWScanClient is not allowed to overrule existing data or ignore definitions done by DB. Adaptons on the DB have to be performed by ItemTracking solution where based on user management certain person can have the permission to do so.
3 docWizz editions Basic and Pro

Do you have scanning on demand where any book or newspaper should be just scanned and the operator decides the right workflow it has to go on docWizz processing?

Basic Edition will is the right edition for you with the easiest way of handling this use-case.

Do you scan a lot of material in constant manner, like in an industrial workflow?

Pro Edition will ensure for this use-case that no mistakes happen and operators are driven by the predefined options.

The two versions of the dWScanClient in comparison (iT = itemTracking solution):

<table>
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<td>✔️</td>
<td>✔️</td>
</tr>
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<td>IV. QA Possibility on the Fly</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>V. Second scan step (inclusion of foldouts)</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>VI. Scanner manufacturer independency</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>VII. Knowledge sharing</td>
<td>✔️</td>
<td>✔️</td>
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<td>IX. Local and target storage monitoring and management</td>
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<td>✔️</td>
</tr>
<tr>
<td>X. Temporary image parking / continue of scanning later-on</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>XI. Target scan handling</td>
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<td>✔️</td>
</tr>
<tr>
<td>XIV. Damage reporting</td>
<td>❌</td>
<td>✔️</td>
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<tr>
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<td>❌</td>
<td>✔️</td>
</tr>
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<td>❌</td>
<td>✔️</td>
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<td>❌</td>
<td>✔️</td>
</tr>
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dWScanClient Basic - without itemTracking solution

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LogUnit entries are not existing in DB and are not verified.

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dWScanClient Pro - with itemTracking solution

dWScanClient Pro is defined as solution which is driven by the pre-defined workflow from DB. In this scenario the dWScanClient is not allowed to overrule existing data or ignore definitions done by DB. Adaptions on the DB have to be performed by ItemTracking solution where based on user management certain person can have the permission to do so.

Which edition is installed?
See Settings for the configuration details.
3.1 dWScanClient Basic and Pro edition in comparison

**dWScanClient Basic edition**
- A very small database only used for minimal status management
- Database information does not really occur anywhere and can be kept hidden (no UI available / needed)
- Database „dWScanClient” is “driven” by dWScanClient itself
- Scripts to create the database are inside dWScanClient
- Also update logics for automatic adaptations on the database for the version compatibility are hold and performed by dWScanClient on start of the application automatically in the background (same logic as on docWizz generically)

**dWScanClient Pro edition**
- itemTracking provides a big variety of features by the database information
- ScanClient is extended to get use of these benefits and to support the according functionalities
- Without itemTracking UI the features cannot be really used due to missing functionalities to manage the items
- Database „WorkflowDB” is “driven” by itemTracking due to this (core competence)
- ItemTracking has the scripts to create and update the version according to the itemTracking version
- Compatibility with dWScanClient versions are done by DB version check (version compatibility logic inside dWScanClient)
- If not existing / matching, dWScanClient cannot be started

**Background reasons:**
dWScanClient and iT are written in different languages, so SC cannot just use same code from iT to create DB -> doubled work & risk of mismatch.

In case one new dWScanClient would be started, DB could be updated, but iT not work with it any more. Compatibility on that side not applicable, as on iT really all features and database details are used
3.3 Technical setup overview – Windows OS

Best practice experience is to use two screens for the scanner computer.
4 dWScanClient

Note: For configuration administrator login and password is required.

Please note that dWScanClient is able to record more information like page comments and other things. To make docWizz use of them, scripts need to be adjusted.

In general the dWScanClient is configured in two steps:
• the dWScanClient configuration itself
• configuration of one or many scanner types

Further the dWScanClient distinguishes between global settings, user-specific settings and workstation-specific settings.
The latter two will be stored in ***WORK***/ClientConfig

No changes should be done to the default configuration files:

docWizz-dw.ini
docWizz-glbl.ini

Note: If the user has no write permissions in the root of the folder and no write permissions in the Upload folder, the application will not start!

4.1 Instalation

Please complete steps needed to get the dWScanClient running.

This includes prerequisites like PATH settings, default values, allowed values, syntax etc.et al.

Custom-docWizz-glbl.ini

[BOOKDB]
DATABASENAME=testdatabase
SERVERNAME=
DATABASETYPE=SQLSERVER
USERNAME=CCS
PASSWORD=
CONNECTIONSTRING=
PWD=

[PATH]
"WORK" and "REJECT_SCAN"
--> must be configured
Files

..\docWizz\Scanner-Info\COMPUTERNAME-Scanner.xml
--> should be the "default scanner" file
--> should be done by dWScanClient setup

Folders

..\docWizz\Scanner-Info
--> dWScanClient Setup should create that folder by default

Workmode

...\docWizz\work\CLIENTCONFIG\docWizz-DW-Computername.usr
--> to switch the "workmode"

4.2 Files and folders involved

- Scan images using external scan software.
- Open dWScanClient.
(1) While documents are uploaded into the dWScanClient interface *.xml and *.low files will be temporarily created in the source directory.

Example:

<table>
<thead>
<tr>
<th>Name</th>
<th>Größe</th>
<th>Typ</th>
</tr>
</thead>
<tbody>
<tr>
<td>ScanInfo.xml</td>
<td>1 KB</td>
<td>XML-Dokument</td>
</tr>
<tr>
<td>seq 1.p2</td>
<td>7.272 KB</td>
<td>JP2-Datei</td>
</tr>
<tr>
<td>seq 2.p2</td>
<td>7.214 KB</td>
<td>JP2-Datei</td>
</tr>
<tr>
<td>seq 3.p2</td>
<td>7.230 KB</td>
<td>JP2-Datei</td>
</tr>
<tr>
<td>seq 4.p2</td>
<td>7.236 KB</td>
<td>JP2-Datei</td>
</tr>
<tr>
<td>seq 5.p2</td>
<td>7.242 KB</td>
<td>JP2-Datei</td>
</tr>
<tr>
<td>seq-1.xml</td>
<td>1 KB</td>
<td>XML-Dokument</td>
</tr>
<tr>
<td>seq-2.xml</td>
<td>1 KB</td>
<td>XML-Dokument</td>
</tr>
<tr>
<td>seq-3.xml</td>
<td>1 KB</td>
<td>XML-Dokument</td>
</tr>
<tr>
<td>seq-4.xml</td>
<td>1 KB</td>
<td>XML-Dokument</td>
</tr>
<tr>
<td>seq-5.xml</td>
<td>1 KB</td>
<td>XML-Dokument</td>
</tr>
<tr>
<td>seq-1.low</td>
<td>852 KB</td>
<td>LOW-Datei</td>
</tr>
<tr>
<td>seq-2.low</td>
<td>933 KB</td>
<td>LOW-Datei</td>
</tr>
</tbody>
</table>

Parallel and automatic upload into the dWScanClient interface takes place

(2) Enter title:

**RKS Scanning Interface**

**Newspaper**

**Add new scan:**

**New Physical Unit**

- Do you want to add it to the database?
  - Title: SUN200419P12
  - Signature: SVM
  - Status: Scanning
(3) Set import path and general scan settings in the docWizz-dw.ini and <client>-docWizz-dw.ini. See dWScanClient Configuration for details.

```
[DwScan]
IMPORT_SCRIPT=source [expandpath ***DATA***\Script\task\autoimport.tcl]
; ImportFromScan $importpath $readytemplate $projectCfg
PROJECT=CCS Testcenter
ISSUEMETADATA=1
EDITLOGUNITDATA=0
ADDPHYSICALUNITDATA=0
DIRECTFOLDOUTSCAN=1
SEPARATECOVERSCAN=0
MAXSPLITPAGES=50
LOWRES=75
TARGETVALIDHOURS=8
ALLOWTARGETIMAGES=0
```

Tag images as e.g. new/additional issue or document or supplement.
folder named like the title given in the title field in dWScanClient interface.
If the scanned pages are not ta.
Temporal files are: *.jpg, *.xml, *.low, *.rdy (e.g. CCS Testcenter_SUN20041912.rdy) and an UploadDir.txt file)
The UploadDir.txt file contains e.g.: ***IMAGELINK***\CCS Testcenter \SUN20041912
The file DWScanLock.lck prevents that two dWScanClients can upload images the same time.
Note: Local scan path and upload path are configurable. See Scanner Configuration chapter for details.

(4) Finally the files will be processed and stored in the \server\docWizz\IN directory under the project_cfg (e.g. Newspaper) and the project name (e.g. CCS_Testcenter) and the physUnit ID (e.g. NYT16041912).

Added metadata is saved in document's UNITS.xml file that it is sent to docWizz's import path once with the image files.
After Build Pages Hierarchy job ends, docWizz parses the UNITS.xml file from import path and it changes issue's type to supplement where needed and adds title, number, date, edition and volume number to issues.
All scanned page images, the *.xml and *.low files will be stored in a subfolder (e.g. 001) there. After Detect Page Numbers job ends, docWizz parses the page level xml files generated by dWScanClient, retrieves the start issue flags and marks them on document.

The files, a temporary directory will be created automatically in the C:\Scan\Upload\Scan

(4) After scan is completed and the appropriate button is used to upload tagged and are uploaded to tag later, the temporary folder will be e.g. C:\Scan\Upload\Untagged
4.3 Workflow

USEITEMTRACKING = 0 in <custom>-docWizz-GLBL.ini file means:

- there is no workflow database with pre-filled physical/logical units for tracking/splitting
- there is no unique ID to verify unique scanning / it is not part of docWizz (ScanClient) process step to ensure that it is not scanned twice

no tracking of the scanned items, just production numbers by pages imported to docWizz (-> pages scanned)

- simple solution to allow quick start while no detailed workflow configuration needed
4.4 Settings

Administrator login and password is required to change settings and add configurations.

Use the tool to open the settings interface.

Profile

Scanner configuration

Use Edit to change these entries. See Scanner configuration chapter.

Scanner Type

Dropdown list with entries: Zeutschel, Kirtas, Default Scanner. It is a read-only field with value from corresponding value:

- DWScannerCfg0 = Default Scanner (Scannertype=2)
- DWScannerCfg1 = KIRTAS Scanner (Scannertype=0)

Note: If scanner "KIRTAS" is selected, JPG files will be renamed to CR2 in Scan\scanner folder.

- DWScannerCfg2 = ZEUTSCHEL Scanner (Scannertype=1)

Default Scanner is default selection. You may change to Zeutschel or Kirtas if required.

Local scan path & upload path

Two path entries for the local scanner and uploading folder. Change default values for all three scanner configurations to same folder:

- C:\Scan\Scanner
- C:\Scan\Upload

You can edit paths if necessary. Each dWScanClient needs a local Scan folder. It is not recommended to configure in such way, that two or more dWScanClients access only one Scan folder.

Upload pending

Shows if, and how much files will be uploaded.
Default Image Resolution
Scan-Info dialog has a combo box to enter default resolution of images. This is used, if no or a low resolution is available (or 72 dpi like with Kirtas). Only 200, 300, 400 and 600 dpi are permitted. No different value can be entered manually or pasted.

Information
Shows scan folder location, space and content.

Settings

Scanner-Info-File
Path to the ..\Scanner-Info\[Station]-Scanner.xml file. Required to upload images. If this file does not exist, no images can be uploaded. You can copy from an existing xml file.

Scanner model / Scanning software
Enter scanner name, number, serial no, and scanning software details.

Information
Shows content of the Scanner.xml file.

4.4.1 Scanner configuration
It is possible to store configuration parameters for multiple scanners.

The SCANNERCONFIG parameter in DwScan then decides which scanner to use for this session. docWizz-dw.ini has default settings for 3 scanners which can be overwritten in the [client]-docWizz-dw.ini.

Extra scanners can be added by creating a [DwScannerCfgX] section where X is the number of the scanner.
### [DwScannerConfigX] Possible Settings:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCAN_IMAGE_FOLDER=C:\Scan\Scanner</td>
<td>The absolute path, where the ScanClient will look for new images. Upload and Scan folder have to be on the same drive.</td>
</tr>
<tr>
<td>UPLOAD_IMAGE_FOLDER=C:\Scan\Upload</td>
<td>The absolute path, where images will be moved locally first. This should be on the same drive with the Scan folder.</td>
</tr>
<tr>
<td>IMPORT_CREATESUBPATH=</td>
<td>Values possible:</td>
</tr>
<tr>
<td></td>
<td>&quot;ScanDate&quot; - the current date will be added to the import path like this:</td>
</tr>
<tr>
<td></td>
<td>&quot;<strong>IMAGELINK1&quot;</strong>&lt;project&gt;\2018-11-14\Test121</td>
</tr>
<tr>
<td></td>
<td>&quot;<strong>IMAGELINK1&quot;</strong>&lt;project&gt;\2018-11-14\Test125</td>
</tr>
<tr>
<td></td>
<td>&quot;ScanWeek&quot; - the current week will be added to the import path like this:</td>
</tr>
<tr>
<td></td>
<td>&quot;<strong>IMAGELINK1&quot;</strong>&lt;project&gt;\2018-45\Test121</td>
</tr>
<tr>
<td></td>
<td>&quot;<strong>IMAGELINK1&quot;</strong>&lt;project&gt;\2018-45\Test125</td>
</tr>
<tr>
<td></td>
<td>In case a path is already defined prior, this will be kept (as before).</td>
</tr>
<tr>
<td></td>
<td>=&gt; in conclusion this means, that an item going to paused, it will keep the scandate of the path, when send to paused (discussion, ...).</td>
</tr>
<tr>
<td>SECONDCANSTEP - 0</td>
<td>0 = without second scan step, only page scan enabled</td>
</tr>
<tr>
<td></td>
<td>1 = only second scan step enabled</td>
</tr>
<tr>
<td></td>
<td>2 = both allowed</td>
</tr>
<tr>
<td>DIRECTFOLDOUTSCAN</td>
<td>Individual scanner settings.</td>
</tr>
<tr>
<td></td>
<td>Note: Will be effective, only if in [client]-docWizz-dw.ini the value for DIRECTFOLDOUTSCAN in [DwScan] is set to 2. 0 = no direct foldout scan.</td>
</tr>
<tr>
<td></td>
<td>Placeholder is set for foldoutscan which will be provided in secondcanstep 1 = direct foldout scan possible; Do direct foldout scan on the same machine. Button &quot;is foldout&quot; enabled in ScanClient, no foldout placeholder possible. 2 = user's choice.</td>
</tr>
<tr>
<td></td>
<td>Both options available.</td>
</tr>
<tr>
<td>THUMBNAIL</td>
<td>Set this to the thumbnail file extension, if ScanClient should keep thumbnails generated by the scanner. See Thumbnails extension subchapter.</td>
</tr>
</tbody>
</table>
| SCANNERTYPE - 0 | 0 = Kirtas  
| | 1 = Zeutschel  
| | 2 = Default  
| | Kirtas needs special image handling. Kirtas has a fixed rotation for images. 90 deg. for "Left hand side" images and 270 deg. for "Right hand side" images. If scanner "KIRTAS" is selected, JPG files will be renamed to CR2 in Scan\scanner folder.  
| | Zeutschel = needs scan folder handling for Omniscan application. For scan continuation (Reject, Discussion documents) while using Zeutschel Scanner with Omniscan the user is prompted to do steps in Omniscan before downloading the document.  
| | Default = does no special image handling.  |
| NUMCAMERA=1 | Set this to 1 or 2 or V-Shape. Default is 1. 
| | V-Shape (Kirtas), this option is only available if the 2 camera system is selected. See V-Shape Parameter subchapter.  |
| DEFAULTRESOLUTION=300 | This resolution is written to the image  |
| NORMALIZEFILENAME=1 | If set to 1 no original file name of the scanner will be overwritten while upload (e.g. moved pages with file names containing ~ will be renamed)  |
| ATTACHSCANNERINFO=1 | Information is written into the XML file  |
| ROTATE1=1 | 90 degree left, 0 is no rotation, for left camera  |
| ROTATE2=2 | 90 degree right, 0 is no rotation, for right camera  |
| DEFAULTDOUBLEPAGE=0/1 | In the user interface there is the Default double page tool that tells how to treat new pages. When this icon pressed, new image to scan folder will be double page flagged. When icon is NOT pressed, NEW image to scan folder will be single page flagged.  
| | Takes effect for new images only (after switching workmode you need to delete ScanInfo.xml before starting ScanClient again).  |
| DEFAULTDOUBLEPAGE_CHANGEABLE=0/1 |  |
| SCANNINGMODES= | Determines which scanning modes (Regular, Metadata tagging, Microfilm) this scanner is allowed to. If more than 1, separate modes with comma.  |
| KEEPSCANNERTHUMBNAIL | Keep the images generated by the scanner for the scanner application. Ussd mainly for Bookeye/ Qidenius scanner.  
| | =1 The scanner generated thumbnails are ignored and the low images are generated  
| | =0 The scanner thumbnail images are renamed and used by ScanClient  |

23
| SEARCH_JOB_SUBFOLDER                      | Subfolder handling. Mainly used for Zeutschel scanner.
|                                         | =0 disable subfolder handling
|                                         | =1 enable subfolder handling

| LOADIMAGESASYNCHRONOUS                  | Loading and displaying images in ScanClient.
|                                         | 0= images are loaded one by one.
|                                         | 1= the separate thread asynchronous load of images is used. Images can be loaded in a separate thread, faster and keeping the GUI accessible.

| LOWRES                                  | =0 No lowres images are generated.
|                                         | =75 The dpi e.g. 75 value the low resolution image will have when created by the ScanClient.
|                                         | In order to have thumbnail generation (low images) configurable by machine, the LOWRES cfg group is also available here. If a scanner configuration has the LOWRES configured, it will generate thumbnails according to the value here, ignoring the global configuration of [DwScan] group.

4.4.2 V-Shape parameter

Selecting V-Shape only adds some sort of flag to the document which is used to change the frame recognition. It is used for books that are scanned with 2 cameras if the book is not flat on a surface during the scanning process. If this option is not selected in this case the frame detection is likely to get confused with the part of the opposite page on the image which is in a contorted geometry.

In docWizz-DW.ini:

[DwScannerCfg1]
SECONDSCANSTEP=0
DIRECTFOLDOUTSCAN=2
NUMCAMERA=2
VSHAPE=1
...

Settings

Enabled = 0 or 1 (off / on)

Depending on left or right camera, it shifts the frame to the outer and tries to "ignore" the part, where the other page shows the image.

(purple line: part to be ignored; red frame= like in VPF)
4.5 dWScanClient config

For each client there will be two custom .ini files in the ***CONFIG*** directory:

```plaintext
[client]-docWizz-dw.ini
[client]-docWizz-glbl.ini
```

If any setting in this client configuration is not set, ScanClient will take the default setting.
### [client]-docWizz-glbl.ini

#### [PATH]

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMAGELINK1</td>
<td>first IN-Share</td>
<td>required</td>
</tr>
<tr>
<td>IMAGELINK2</td>
<td>second IN-Share</td>
<td>optional</td>
</tr>
<tr>
<td>REJECT_SCAN</td>
<td>Share where reject/discussion documents will be uploaded</td>
<td>required</td>
</tr>
<tr>
<td>WORK</td>
<td>Work directory, used for client configuration and maintenance status</td>
<td>required</td>
</tr>
<tr>
<td>DATA</td>
<td>docWizz Main directory</td>
<td>required</td>
</tr>
<tr>
<td>SCANNER_CALIBRATION</td>
<td>Target scan will put images here</td>
<td>required, if targets are enabled</td>
</tr>
</tbody>
</table>

#### [BOOKDB]

Workflow database information

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATABASENAME</td>
<td>optional</td>
</tr>
<tr>
<td>SERVERNAME</td>
<td>required</td>
</tr>
<tr>
<td>DATABASETYPE</td>
<td>required. Only SQLSERVER is supported</td>
</tr>
<tr>
<td>USERNAME</td>
<td>optional</td>
</tr>
<tr>
<td>PASSWORD</td>
<td>optional</td>
</tr>
<tr>
<td>CONNECTIONSTRING</td>
<td>optional</td>
</tr>
<tr>
<td>USEITEMTRACKING</td>
<td>optional. TCL scripts, which use/access ItemTracking, have a function to check the availability of the item tracking (itemtrackingavailable). This function shall read the value of this USEITEMTRACKING and use the return value for the script. Parameters for USEITEMTRACKING are 0 and 1. Each other entry will be read as 0.</td>
</tr>
</tbody>
</table>

### [client]-docWizz-dw.ini

#### [DwScan]

The following settings are global settings that every user/machine shares:

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPORT_SCRIPT</td>
<td>The name of the script/function (including parameters) that is called when scan client imports a document into docWizz. TCL syntax is used here.</td>
</tr>
<tr>
<td>PROJECT</td>
<td>The project name. Will be used for low-disk.xml settings.</td>
</tr>
<tr>
<td>ISSUEMETADATA</td>
<td>0= Causes ScanClient to work without metadata, needs workflow database if set to 1.</td>
</tr>
<tr>
<td>DIRECTFOLDOUTSCAN</td>
<td>0= no direct foldout scan, 1= with direct foldout scan. Settings will be overwritten by individual scanner settings.</td>
</tr>
<tr>
<td>DIRECTFOLDOUTSCAN</td>
<td>1= direct foldout scan</td>
</tr>
<tr>
<td>DIRECTFOLDOUTSCAN</td>
<td>2= scanner setting for direct foldout scan is used</td>
</tr>
<tr>
<td>Setting</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SEPERATECOVERSCAN</td>
<td>0 = cover scan done in second scan step</td>
</tr>
<tr>
<td>MAXSPLITPAGES</td>
<td>e.g. 50. If the page number during upload surpasses the number in this setting, the next issue will be started in a new folder/docWizz document. If set to 0, all pages will be put in one docWizz ID.</td>
</tr>
<tr>
<td>EDITLOGUNITDATA</td>
<td>0/1. If set to 1 this enables users to add or edit logical units. A tool bar icon or a menu entry allows to append, context menu in metadata view allows all actions (insert, edit, append, delete). At least one logUnit must remain. A new type for log units has been introduced. Now, Issue, Supplement and Document are available.</td>
</tr>
<tr>
<td>ALLOWTARGETIMAGES</td>
<td>0/1. If this is set to 1, physical units can be created in ScanClient. New menu items are available for this. As well, when entering a physical ID which is not in database, you will be asked if you want to create a new one.</td>
</tr>
<tr>
<td>LOWRES</td>
<td>=0 No lowres images are generated. =75 The dpi e.g. 75 value the low resolution image will have when created by the ScanClient. In order to have thumbnail generation (low images) configurable by machine, the LOWRES cfg group is also available in the [DwScannerCfgX] groups. If a scanner configuration has the LOWRES configured, it will generate thumbnails according to the value here, ignoring the global configuration of [DwScan] group.</td>
</tr>
<tr>
<td>TARGETVALIDHOURS</td>
<td>The time, in hours, a scanned target calibration file will be valid until the operator is asked to do new calibration 0 = the target validation is disabled. Value defines time difference between last target scan and new target scan needed in hours.</td>
</tr>
<tr>
<td>ALLOWTARGETIMAGES</td>
<td>1/0. Not related to validation target, but means Microfilm source targets.</td>
</tr>
<tr>
<td>ALWAYSALLOWTARGETTAGGING</td>
<td>1/0</td>
</tr>
<tr>
<td>SPLITALLOWED</td>
<td>1 = Split documents allowed.</td>
</tr>
<tr>
<td>LOADIMAGESASYNCHRONOUS</td>
<td>Loading and displaying images in ScanClient. 0= images are loaded one by one. 1= the separate thread asynchronous load of images is used. Images can be loaded in a separate thread, faster and keeping the GUI accessible.</td>
</tr>
</tbody>
</table>

**[TARGETS]**

These settings are used when scanning and checking for calibration images. See configurable path SCANNER_CALIBRATION in the [client]-docWizz-姬bl.ini.

The amount of target settings multiplied by the number of cameras determine the number of targets the scan client expects during target scan. In general, these settings should only be modified for testing purpose.

| Tonal       | Type0 |
4.6 Other configuration

Two lists need to be created / delivered with docWizz:

| ***DATA***\LISTS\pageComment.lst | lists the values the page comment combo box should contain |
| ***DATA***\LISTS\damageTypes.lst | lists the values the damage type combo box in damage report dialog should contain |

Also an information xml-File about the current scanner has to be stored at a specific location.

| ***DATA***\Scanner-Info\WORKSTATIONNAME-Scanner.xml | This file contains scanner manufacturer, model, serial number, software version etc and will be appended in the Scanner.xml when a document is uploaded. |

The following settings are user-specific and will be saved in ***WORK***\ClientConfig\[client]-docWizz-dw-USER.usr

Note: It is not recommended to change them manually as they will be overwritten everytime ScanClient closes.

| PAGEWINMODE | Saves the last page window mode (single page, double page, all pages etc) Default is 10 pages/row in microfilm mode, and 4 pages in other modes. |
| PNATBOTTOM | 1= Thumbnail within page view is placed at bottom of page, 0= placed at top of page. Default is 0. |
| SHOWPN | 1= Thumbnail rectangle view within page view is activated. Default is 1. |
| SHOWPNVIEW | 1= Last ten, and every tenth thumbnail view left to page frame is activated. Default is 1. |
| SHOWPNBOTTOMVIEW | 1= Thumbnail view below page window frame is activated. Default is 0. |
| PNZOOMFACTOR | Determines zoom factor of thumbnail view below page frame, possible values 1,2,4,8,16,32. Default is 4. |
The following settings are workstation-specific and will be saved in ***WORK***\ClientConfig\[client]-docWizz-dw-STATION.usr:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHOWMETADATA</td>
<td>Metadata list view is activated. Default is 1.</td>
</tr>
<tr>
<td>WINPLACEMENT</td>
<td>Stores the window placement when ScanClient is closed. Should not be changed.</td>
</tr>
<tr>
<td>SCANNERCONFIG</td>
<td>This number determines which scanner setting will be used for this machine. If set to 1, Scanner settings in [DwScannerCfg1] will be used. Default is 0.</td>
</tr>
<tr>
<td>UPLOADINTERUPT</td>
<td>If ScanClient was closed while an upload was still running, the upload path will be stored here and resumed with priority when scanclient is restarted.</td>
</tr>
<tr>
<td>UPLOAD</td>
<td>1= Upload is enabled. Default is 1.</td>
</tr>
<tr>
<td>REFRESH</td>
<td>1= Refreshing of scan folder is enabled. Default is 1.</td>
</tr>
<tr>
<td>WORKMODE=0</td>
<td>Regular. Default work mode = 0</td>
</tr>
<tr>
<td>WORKMODE - 1</td>
<td>Metadata</td>
</tr>
<tr>
<td>WORKMODE - 2</td>
<td>Microfilm</td>
</tr>
<tr>
<td>WORKMODE - 3</td>
<td>docWizz internal (this is set automatically, ONLY SET THIS MANUALLY FOR TESTING PURPOSE).</td>
</tr>
</tbody>
</table>

4.7 Clarification of scanning type / image verification

Each physical unit can optionally have:

- ScanningType as a string (like "Manual" or "Automatic")
- Resolution as Integer
- ColorMode as Integer where:
  0 = ignored, 1 = black & white, 2 = 8bit grey, 3 = 24bit highcolor

In the scanner configuration the allowed scanning modes for the specific scanner can be set in [client]-docWizz-dw.ini:

```
[DwScannerCfgXX]
SCANNINGMODES=ScanmodeA,ScanmodeB,ScanmodeC
```

Resolution and color mode of images will be checked as they are displayed for the first time. In microfilm work mode only the first image will be checked before uploading.

When an explicit SCANNINGMODE=A for all other physical units there is NULL in the database and they are rejected. Documents are assigned to a scanner, not the other way around. So in case nothing is specified for the document, it can be scanned anywhere.
4.8 Metadata configuration

To enable to split documents directly from dWScanClient (running dWScanClient without Remote Item tracking) make the following settings in the docWizz-DW.ini file.

[DwScan] section

   ISSUEMETADATA=1
This enables the issue metadata view by enabling the metadata button.

   EDITLOGUNITDATA=1
This enables the user the option to edit logical unit data to add metadata, by enabling the insert logical unit buttons, that will open the insert logical unit dialog.

Thus when using dWScanClient without metadata, both options need to be disabled, and setting MAXSPLITPAGES=1. Then the buttons are disabled.

This will ensure that the tagged issue sequence is done by using the Tag Issue Sequence right click menu entry. Or user can set issues using the (Ctrl + I) shortcut at any place in the page bar.

4.9 Target scan configuration

Allow to tag pages as target

Different target definition per scanner configuration is possible. If section [DWSWCNFig#.Target] is defined, it will overwrite [Target] section on workstations where this scanner is selected.

ScanClient [dwscan] ALLOWTARGETIMAGES=0/1, sets, if in regular scan tagging of images as target pages is allowed. In Microfilm mode it is always allowed. Set to 0 to prevent from operator mistakes (target images will not appear in documents, if split option is set).

Accept invalid targets

[client]-docWizz-DW.ini:

   ..
   (DwScan)
   USRMMAYACCEPTINVALIDTARGET=1
   ..
   (DWSWCNFig4.Targets)
   MF-Default=MFType1

Storage of approved target images: ..\CALIBRATION folder

For Microfilm scanning each film has an integrated reduction factor (10x, 11x, 20x, etc.). The scanner camera needs to adjust with the same factor. For that, there are so called "Target" images. These technical images can be used to calibrate and validate the camera, as to avoid non-valid images for processing. No microfilm and physical unit ID will be able to be processed without a valid target scan.

When the camera is calibrated to one specific reduction factor and a new film with a different reduction factor comes, dWScanClient needs to check for a new target scan.
4.10 Target validation

Introduction
The main purpose is to facilitate access to large volumes of historical newspapers. For the production of images a distinction is made between master images and derivatives. The master images are high resolution reproductions of the original source materials. The master images constitute the starting point for all derivatives.

The format of the master images will be JPEG 2000. If scanned from the paper original, the required resolution for a master is 300 true ppi. In case of microfilm the minimal required resolution is 250 ppi. In principle the pages need to be scanned in 24 bits color from the original. In case of microfilm the pages must be scanned in 8 bits grayscale. In case of newspapers with a very small typeset, an alternate, higher resolution may be needed. This is likely to appear in exceptional cases and will be indicated in the material analysis database beforehand.

For some master files some basic image manipulation techniques (de-skewing, cropping, rotation) may be applied.

Apart from one master -for online delivery- two derivatives are required: a searchable PDF file (low-resolution image with OCR-text) per newspaper issue and a JPEG 2000 file per page.

Deliverables and specifications
Per page

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>One master image file</td>
<td>See below</td>
</tr>
<tr>
<td>One derivative image file</td>
<td>See below</td>
</tr>
</tbody>
</table>

Per issue

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>One PDF derivative</td>
<td>See below</td>
</tr>
</tbody>
</table>

Master files
For all master files the image should be:
- cropped to the print space of the page
- de-skewed, if images have more than 3 degrees of skew
- rotated if more than 50% of the text on the page is aligned vertically
- no other image manipulation techniques are allowed.

Master file from original (color)

<table>
<thead>
<tr>
<th>Format and compression</th>
<th>JPEG 2000 part 1, lossless compression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution and detail reproduction</td>
<td></td>
</tr>
<tr>
<td>Minimum detail reproduction of 4.5 lp/mm (minimum required resolution is 229 ppi, recommended resolution is 300 ppi).</td>
<td></td>
</tr>
<tr>
<td>Lp/mm are measured by MTF, using the QA-62 target.</td>
<td></td>
</tr>
<tr>
<td>Internal sharpening is allowed upon to 1.2 MTF value.</td>
<td></td>
</tr>
<tr>
<td>Modus</td>
<td>Color</td>
</tr>
<tr>
<td><strong>Bit depth</strong></td>
<td>24 bits</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Color space</strong></td>
<td>Adobe RGB 1998 (gamma monitor 2.2) or ECI RGB (L*)</td>
</tr>
<tr>
<td><strong>Tonal range</strong></td>
<td>Measured on the basis of the Kodak Gray Scale (Q13 or Q14) all patches of the Kodak Gray Scale should be distinguishable from each other. The pixel value of patch A has to be between 250-230. The pixel value of patch 19 must be above 10. No clipping allowed. The pixel value should be measured in Adobe Photoshop CS (or equivalent) with a Pipet tool (5 x 5 pixels).</td>
</tr>
<tr>
<td><strong>Noise</strong></td>
<td>Within the pixel values of the Kodak Gray Scale (or equivalent) a maximum standard deviation of 10 is allowed.</td>
</tr>
<tr>
<td><strong>Colour cast</strong></td>
<td>The color cast is determined by measuring the grayscale patches of the GretagMacbeth Color Checker with the Pipet tool (5x5 sample, info panel) in Adobe Photoshop CS. The patches must be neutral. The maximum deviation allowed is -4 or +4 pixel points difference between the RGB channels for every patch, when taking the middle RGB-value as a starting point.</td>
</tr>
<tr>
<td><strong>Illumination</strong></td>
<td>The illumination should be uniform. Use a piece of paper with an optical density of 0.05 – 0.15. For the exposure in the middle and corners the pixel value must be equal with a tolerance of 12 pixel values within every RGB channel.</td>
</tr>
<tr>
<td><strong>Artifacts</strong></td>
<td>Perform visual inspection (viewed at 100%) of the image. No streaking, unusual noise or haloing allowed. No deforming (of the image as a whole or at pixel level) allowed.</td>
</tr>
<tr>
<td><strong>Gutter shadow</strong></td>
<td>Gutter shadow should be prevented as much as possible.</td>
</tr>
</tbody>
</table>
At the start of every production day one set of targets for every active scanner is required:

First exposure: tonal capture and illumination. Kodak Gray Scale Q13/14 and white piece of paper with an optical density of 0.05 – 0.15. The gray scale is placed at the bottom center of the sheet.

Second exposure: color cast and color. GretagMacbeth Color Checker and white piece of paper with an optical density of 0.05 – 0.15. The Macbeth is placed in the middle of the sheet. A Kodak Gray Scale Q13/14 is placed at the bottom center of the sheet.

Third exposure: resolution. 5 Slanted Edge Targets, the QA-62 target and a white piece of paper with an optical density of 0.05 – 0.15. One target in every corner and in the middle of the frame. A Kodak Gray Scale Q13/14 is placed at the bottom center of the sheet. Targets have to be placed in a straight line.

Fourth exposure: geometric distortion. As a basic rule, the allowed deviation is a change in length or height of 1% at the most. Research is done on the right target for measurement. For now, to measure length and height in Photoshop CS, the Image Evaluation Test Target (QA-2) must be used. The size of this target is A3. To measure larger sizes, a larger test target must be used.
4.11 Work mode

The dWScanClient distinguishes between work modes. Depending on which work mode is set in the configuration, different functionalities will be available.

..\docWizz\WORK\ClientConfig\Client-docWizz-DW-Computername.usr
(...)
[DwScan.COMPUTERNAME]
SCANNERCONFIG=0
UPLOADINTERUPT=
UPLOAD=1
REFRESH=1
WORKMODE=1

You can choose between the following work modes:

- Regular
  Regular is the normal work mode which is similar to the way dWScanClient was operating in former versions. (WORKMODE=0)

- Metadata tagging
  Metadata tagging mode allows to open an already uploaded scanned document from file server for tagging and/or assigning metadata. Move to final destination. (WORKMODE=1)

Microfilm

In the Microfilm work mode image preview and page number view are disabled by default to avoid loading time. However, they can be shown on demand. Further, tagging issues and supplements don’t need to be done while scanning but must be done in the "Metadata tagging" work mode after the document is uploaded. (WORKMODE=2)

Default page view of microfilm work mode is set to “ten pages per row” as default.

4.12 Logical units

If in configuration <customer>-docWizz-dw.ini you can switch logical unit menu entries on (1) or off (0).

(DwScan)
...
EDITLOGUNITDATA=1

This enables users to add or edit logical units.

If edit logical unit is allowed (EDITLOGUNITDATA is set to 1) the icons for adding an issue/supplement not found in database are disabled and the icons for inserting logical unit before/after current item are enabled.

StatusFlag of Logical Unit will be set to "MDManual“ on newly added items. It is set to “MDEdited“ on modified items that have not been added manually before.

The drop down list of predefined comments is stored in folder lists/logunitcomment.lst.
4.13 Rotation
The rotation per page is stored in image.xml file. For Kirtas Scanner it is automatically set.

Two values are available per scanner configuration:

\[
\text{ROTATE1= and ROTATE2=}
\]

Values mean:
0 means no rotate,
1 means rotate by 90 degree,
2 means rotate by 270 degree.

In Import script those values are read from the*.xml file and images are rotated accordingly.

4.14 Double pages
ScanClient supports double-pages. This is mainly used for microfilm scanning.

On one hand, the pages can be tagged as double or single page, on the other hand, double-pages are copied on borders of split-document (first page of next document is added as well as last page of previous one).

Double page can be set via context menu of page bar.

Default setting in regular workmode (WORKMODE=0) is "Single Page"
Default setting in metadata workmode (WORKMODE=2) is "Double Page"

Usage:
- Can be set via page bar context menu.
- Can be set for multiple selected pages.

Double or single page type is stored in the <Page>.xml where:

DBLPAGE="0" is single page
DBLPAGE="1" is double page

Example:

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<SCANNEDPAGE REVIEW="0" PAGETYPE="0" PHYSICALTYPE="0" FOLDOUT="0"
MISSINGPAGE="0" USER="User" DBLPAGE="0" ROTATE="0" RES="300" COLOR="2" /> 
```

In the user interface there is the Default double page tool that tells how to treat new pages.
When icon pressed, new image to scan folder will be double page flagged. When icon is NOT pressed, NEW image to scan folder will be single page flagged.

To configure a changeable entry and the icon will be active for operator go to <client>-docWizzardW.ini and [DwScannerCfg] section:
DEFAULTDOUBLEPAGE=0/1
DEFAULTDOUBLEPAGE_CHANGEABLE=0/1
Takes effect for new images only (after switching workmode you need to delete ScanInfo.xml before starting dWScanClient again).

4.15 Lists
Relevant lists for dWScanClient are stored under  \\
\server\docWizz\DW_65\lists

rejectscanreason.lst
List is used when a physical unit is send rejected or to discussion (use button).
  Example entries:
  Pages not cut
  Volume binding damaged
  Volume cannot be opened wide enough
  Volume too small
  Volume too large
  Text too close to the edge

uploaddoc.lst
List is used when a document is uploaded but unfinished.
  Example entries:
  too many metadata errors
  microfilm scanning

rescanreason.lst
  Example entries:
  0 - ok
  1 - bad OCR quality
  1 - insufficient spell check
  1 - bad resolution
  1 - bad quality
  1 - clamps over text
  1 - incomplete image
  1 - wrong page
  1 - want color
  1 - wrong page size
  1 - page skewed
  1 - page cut
  2 - target
  3 - retained
  4 - missing
5 - missing in original
6 - as in original
6 - text cut off in original
6 - page skewed in original
6 - too close to binding in original
7 - not cut properly
8 - double frame on image
5 Tips & tricks

5.1 Manual change of image file counter

Manually change image file counter of Zeutschel Omniscan in order to ensure correct page sequence in ScanClient

(this is a work around in case PhysUnits in discussion status are continued and scanning operators need to change image counter)

- create new scanJob (new empty folder)
- close OmniScan scanJob
- start downloading the binding in discussion (to be completed)
- look for highest file name (while is downloading reversed, will be first image appearing)
- open OJP file in current job folder with Notepad
- search for "RenameStart"
- Replace value in "RenameStart" and "RenameCurrent" to the next decade of file naming you have to continue. (so if current file name is "3279", change to "3501")
- always set to ODD number!
- save file
- open this edited scanJob in Omniscan

5.2 Scanner-provided thumbnails

To work with Scanner-provided thumbnails use setting:

[DWScannerConfigXX] THUMBNAIL=JPG (or other file format) in <client>-docWizz-DW.ini

- IGNORE_THUMB_TEMPLATE=
- THUMB_TEMPLATE=
- THUMB_MATCH_SCRIPT=
- IGNORE_IMAGE_TEMPLATE=
- IMAGE_TEMPLATE=

5.3 Thumbnails extension

When working with thumbnails created from a scanner (by setting the THUMBNAIL in docWizz-dw.ini), it is required that the Thumbnail has the exact same filename as the master image.

Example:
Master image: Image000123.tif
Thumbnail: Image000123.jpg

Note: Thumbnails that differ in filename, or have the same extension as the original image, will not be supported.
5.4 Check on startup
When ScanClient was closed while downloading, it continues when starting again.
On startup, status is checked and user is asked to continue.
As well other physical unit statuses are checked (might be scanned in the meantime on other scanner) on startup.

5.5 uploaddoc.lst
This list is needed for uploading documents in production.
Upload could not be performed while no reason is selected in an empty dropdown box for the reason.
The dropdown is filled by ***DATA***\Lists\uploaddoc.lst.

Example list entries:
metadata errors above limit
NIOD scanning
microfilm scanning

5.6 Invalid properties / images
Verification of image resolution and color mode are fully implemented. Scanning cannot be completed when one or more images have invalid properties. The number of invalid images is shown in the status bar.
Invalid images will have a red "!” in the upper left corner of the page bar icon and the tool tip will show what is wrong.

Example:

![Image of invalid image]

5.7 Error and warning messages
In dWScanClient, messages are divided into two categories: Warning and Error. In case of warning, you may continue, in case of error, you need to correct.
The error log dialog is available in Help Menu.

Several protections are implemented:
- dWScanClient cannot be started twice on same computer.
- A document with same ID cannot be opened twice parallel on two different dWScanClients
- Parallel process of same physical unit ID on two different computers is protected.
- Metadata tagging from two different machines on the same document is protected.
- Download from discussion from two different machines is protected.

This feature makes sure that the dWScanClient can only be opened once per computer. This way it is guaranteed that neither images or metadata is loaded twice. Often changes of person accessing the environment / tasks can now be protected by the system. A protection against wrong configuration where two computers work on same folder will not be covered by this.

A lock file is created if a document is in use in another instance of dWScanClient, a warning message appears.

If dWScanClient is already open on the computer you will get an error message:

It is prevented that two users work on the same document or the same folder. E.g. someone started one document in "AssignMetadata" to modify and parallel another person can not do the same on another machine:

5.8 Crash of dWScanClient during generation of dW documents

If dWScanClient crashes and after dWScanClient is restarted, it immediately creates new documents. But the aborted ones remain in former docWizz versions in Prepare Import / WORK.

When uploading a document with multiple issues from dWScanClient in docWizz, it creates a folder in the IN path with a subfolder for every issue.
For every subfolder from the IN path, a document is created in docWizz in PrepareImport on CriticalError status. After creating all the documents, they are moved in Import on Work status.

If when the documents are created in docWizz, dWScanClient crashes / is killed, the documents that were created before the crash / kill remain in PrepareImport or Import on CriticalError status. When restarting dWScanClient, the process of creating documents is started from scratch. So when one of the issues is created as a document in docWizz, a script searches for a document with the following parameters:

- Job: PrepareImport or Import
- Status: CriticalError
- Title: same as the newly created document
- Import Path: same as the newly created document
- Project: same as the newly created document.

If there is a document already in docWizz with these features, that document will be deleted.

5.9 TWAIN interface

Requirements:

- The dWScanClient TWAIN is part of the docWizz binaries. No separate package required.
- The correct installation of the TWAIN driver for the scanner is required. It can be verified by any 3rd party application like "MS Word" or "IrfanView".
- Please note that CCS does not support the installation of TWAIN.
- The dWScanClient TWAIN is protected by separate license. Please ask CCS for this license key.

How to use dWScanClient with a TWAIN driver/scanner

Steps to prepare:

- Install scanner TWAIN driver from scanner manufacturer on the machine you want to run SC_Twain (in screen dumps we use Fujitsu fi 67708)
- Copy or install dWScanClient TWAIN version. The binaries of a working version are located at FTP …/_Users/CZ/SC_Twain/scan.zip
- Enter a CD Key which includes the TWAIN option to the ini files
- You need to start 2 applications (TWAIN dialog will be always on top)
  - scan/dWScanTwain.exe
  - docWizz/dwscan.exe
- Choose “Settings” from the TWAIN application (with the big green Scan button) and select the options you would like to use (image naming, scanner driver, etc.). Confirm your changes.
- The controls in settings to be explained in detail. Relationship for Threshold (only for B/W Images) to be mentioned (so only active if B/W is selected). The controls provide all options which are provided from TWAIN driver of the manufacturer – it varies from scanner model and driver version.
After a click on Scan, the scanner will start and the dialog will change a bit and a new dialog will appear:

Scanned page will be visible in the dWScanClient now.
6 How to configure scanners

6.1 4DigitalBooks

http://www.4digitalbooks.com/
6.2 Bookeye

For compatibility with the Bookeye scanner there are special fields for the DWSscanner configuration categories in the docWizz-dw.INI file.

This is valid until a general solution will be build in docWizz.

- **IMAGE_TEMPLATE**: wildcards separated by space for images considered master images
- **IGNORE_IMAGE_TEMPLATE**: wildcards for separated by space for images that cannot be master images
- **THUMB_TEMPLATE**: wildcards separated by space for images considered thumbnail images
- **IGNORE_THUMB_TEMPLATE**: wildcards for separated by space for images that cannot be thumbnail images
THUMB_MATCH_SCRIPT script computes the new name of the detected thumbnail image so it will match the master image.

Old configuration
THUMBNAIL - contains the extension of the images that are renamed to low.
THUMBNAIL = jpg means that any jpg file will be renamed to have low extension thumb01.jpg -> thumb01.low

The new script has the following variables set:
thFile - current file full name
extTmpl - wildcard expression used for detecting the th file.

If the THUMB_MATCH_SCRIPT is empty then the thumbnail images will not be renamed.
If the THUMB_TEMPLATE and THUMB_MATCH_SCRIPT are defined the THUMBNAIL value is ignored.

For the Booeye scanner the configuration for the DWScan should look like:

[DwScannerCfg0]
...
IMAGE_TEMPLATE=*.tif
IGNORE_IMAGE_TEMPLATE=*_th.tif
THUMB_TEMPLATE=*_th.tif
IGNORE_THUMB_TEMPLATE=
THUMB_MATCH_SCRIPT=source {***PROJECT_CFG***\PROJ\ThumbRename.tcl}

The ThumbRename.tcl contains:

proc GetThumbName { thFile extTmpl } {
    # remove the leading * character
    set extTmpl [string range $extTmpl 1 end]
    # replace the "_th.tif" with ".low"
    regsub -all $extTmpl $thFile {.low} thFile
    return $thFile
}
return [GetThumbName $thFile $extTmpl]

Keep the images generated by the scanner, for the scanner application:
KEEPSCANNERTHUMBNAIL=1
The scanner generated thumbnails are ignored and the low images are generated.
KEEPSCANNERTHUMBNAIL=0
The scanner thumbnail images are renamed and used by ScanClient.

Note: CR2 images already contain thumbnail images. There is no need to generate additional ones.
6.3 Kirtas

http://www.kirtas.com

Robotic book scanner:
Below is the PhaseONE IQ140 scanner. Some clients may have two cameras.
Scanner Connection to Computer

Typically, the cameras of the scanners are connected to the computer by Firewire.

Camera connection:
Connection to laptop (Firewire connection with black cable):
Connection to computer (Firewire connection with black cable):

**Scanning Software**
For most DT scanners, the software to be installed on both Windows and Mac is Capture 1 DB 6.33. A version for both 32 and 64 bits exist.
6.5 Treventus

http://www.treventus.com/
6.6 Zeutschel

http://www.zeutschel.de/

Color scanner:

In ScanClient a folder is configured where the images can be loaded to show them. The command path is set at the Scanner-PC on a separate path, partition or disk.

The defined paths should/could look like this:

\d:\Scan\Scanner
\d:\Scan\Upload

The software from the scanner manufacture have to point also to this location.

For Zeutschel scanners this can be configured in Omniscan the in the menu bar under "View\Omniscan Settings". A new window will appear and there you can configure the path where the images will be stored under "Default job directory". Here we recommend to enter the following path "D:\Scan\Scanner" and under " Default job name" we recommend to enter the prefix "Job_" or " Scanjob_".

This is tested with the Omniscan versions 11.8 and 12.4.