



# User Manual

## **DpuScan Expert**

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## **Actuality**

It may happen that a more recent version of this manual for DpuScan is available for download from the Internet. Therefore, it is recommended that you should compare the version by means of the date printed on this page with the version on the Internet. You should use the most up-to-date version of the manual.

The actual version of the DpuScan Manual is found on the Web at the following address:

[http://www.dpuscan.com/pdf/DpuScan-User-Manual\\_Expert\\_602.pdf](http://www.dpuscan.com/pdf/DpuScan-User-Manual_Expert_602.pdf)

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## 1 Overview

DpuScan is the major tool for scanning (digitizing) documents.

DpuScan drives many different scanner type and this way offers the common and universal tool for digitizing documents.

DpuScan drives

- the small desktop or departmental scanner
- the high speed production scanner
- the large format scanner for digitizing large maps
- the book scanner

DpuScan may even drive two different scanners quasi simultaneously: on one hand the production scanner with automatic document feeder, on the other hand the large format scanner. Easy switching between both allows scanning different paper formats with different paper handling within the same batch.

DpuScan uses the special features of any scanner and extents their functionality where the scanner reaches its own limits:

- a color scanner turns into a multi stream scanner
- background color dropout
- intelligent thresholding to make bitonal images
- Image processing: color correction, stains removal, punch hole removal
- Barcode, Patchcode recognition, Text recognition (OCR)

During scanning Barcodes or Patchcodes can be used to separate a batch into documents. OCR can extract Meta information or can offer further information for document separation.

Image storage can be configured widely in creating and naming folders and files. Metadata can be used and formed to accompany the images files. Metadata is stored: as simple text file, as XML, by accessing a data base.

DpuScan is a good tool for image post processing. Not only can it take images from a scanner, it can also pick up images files, and do some processing on it, such as creating searchable PDFs, refining and displaying for indexing, or conversion of image file format.

## 2 Features of DpuScan

### **Batch oriented processes:**

DpuScan has a powerful batch manager and is easily adjustable. For standard cases, there is a Wizard that executes – via simple questions and replies – all necessary settings in order to provide an easily understandable graphical user interface to ensure that all batches of a document type are scanned or processed in the same manner.

### **Powerful Scanning of Documents:**

Document capture is more than just scanning paper; efficient scanning is the starting point for every capture system. DpuScan supports simplex or duplex scanning in **Color** or black/white with models from **Canon, Contex, Fujitsu, InoTec, Kodak, XINO, Panasonic, Zeutschel** and others. Automatic document separation by Barcodes or Patchcodes speeds the processing of scanned documents.

### **Multiple Possibilities for Displaying Images on the Screen:**

There are different possibilities for displaying your scanned images on the screen – from full-page representation of a single image to many small thumbnails: Furthermore you can decide whether you want to additionally display tree views, indexing dialogs, or different information that was gained from the images.

### **Advanced Color Document Processing (ACDP):**

**Advanced Color Document Processing** denotes the technology, to use intelligent filtering to suppress unwanted background colors from significant foreground colors. Suppressing irrelevant image parts increases drastically the results of OCR (character recognition). This technology is available in DpuScan Gold and DpuScan QSI. It can be used but not configured in DpuScan GL.



From sample images those areas are declared that hold unwanted background colors. Then other areas are defined that hold wanted foreground colors. From the multitude of background and foreground areas a complex algorithm calculates a resulting color filter.

### **Creating Bitonal Images from Grayscale Images:**

Creating bitonal images from a grayscale image is done by a process called thresholding. This process uses the special technique of dynamic threshold adaption to optimize results. In combination with color filtering a blue ball pen imprint on a background of slightly different type of blue can be extracted: pen imprint turns to black, blue background turns to white.

## **Enhanced Image Processing on Bitonal Images:**

DpuScan offers a lot of post processing functions for enhancing the image quality, recognizing Barcodes and automatic text recognition (optical character recognition: OCR). Image enhancement offers functions like despeckle, deskew, deshade, line removal, edge enhancement, and more. Post processing jobs can be arranged in a network environment on unmanned stations, which automatically post process every scanned batch

## **Image Enhancement by ReScan on Demand (RSoD):**

A scanning profile can be set in a special way to take a special high quality full colored image from the scanner, where only a bitonal images is needed. Either the scanner offers an additional bitonal image, or DpuScan creates the additional bitonal image. Although having an optimal configured threshold for creating those bitonal images, there might be some images that will not threshold well, such way giving a non-optimal bitonal image. If QA detects such suboptimal bitonal image, another threshold result can be created from the backup high quality full colored backup image. Different thresholds are available on key click, giving the opportunity to quickly try several ways to optimize.

## **Universal User Dialogs for Data Entry**

Besides capturing the document itself, additional data must often be entered for the scan job or for the individual images. Universal user-dialogs for data entry can easily be defined and called individually.

## **User Privilege Administration via Operating System**

The integrated user administration facility allows an administrator to assign rights to different users for every single function in DpuScan. All users or user groups who are registered in the operating system are the base.

## **Powerful Event Control**

New directories can be generated automatically depending on the value of a Barcode, OCR results, counter readings, the value of certain variables, a file size and more. The value of certain variables can be assigned, images can be marked or flagged for deletion, new multi-page image files can be created and other actions performed.

## **Universal Upload Functions and Accounting Data for Scan Services**

DpuScan offers very flexible ways to connect the output of the scanning process to the following archive or workflow. Metadata from the scanning process can be formatted by simple configuration work and this way will fit most importers. Where necessary, functions can be added to FTP, HTTP or SOAP data to the target.

DpuScan logs all work of the scanning process and gives another channel of output for accounting purposed. This extra data can be used to calculate costs.

**Functional Expansion by Optional Plugins**

In addition to the many standard features of DpuScan, its functionality can be expanded by Plugins. At the time of writing, the following Plugins are available:

- Indexing (already included with **DpuScan QSI**)
- ODBC-database connectivity (already included with **DpuScan QSI**)
- Color Noise Reduction
- Optical Mark Recognition (OMR)
- Recognition of Handwriting (ICR) and second OCR-Engine
- Gamma correction on color and grayscale images (included with **DpuScan QSI** und **Gold**)
- Edge Enhancement on color and grayscale images (included with **DpuScan QSI** und **Gold**)
- 2D-Barcode Recognition (Datamatrix, PDF417, QR-Code, included)
- FaceSnap (face recognition and automatic scaling on color images, optional)
- Signature recognition, separation and scaling (optional)
- VBScript engine (included)
- Cut partial images from scanned images
- Automatic color detection – store and compress images on its preferred color type
- Automatic document rotation depending on text (optional)
- Threshold – optional additional grayscale to bitonal thresholder

For the given plugins there is a separated documentation available

For special purpose a custom plugin may be created. A toolkit is available.

For cases where no image processing is needed, a plugin may be easily written in VBScript.



## 3 DpuScan Variants

DpuScan is available in different variants.

### 3.1 Variants without Speed Limitations

There is no speed limit and there is no limited volume per month. The differences will be found in functionality only:

- **DpuScan Standard**
- **DpuScan Professional**
- **DpuScan Gold**

### 3.2 Variants with Speed Limitation

The speed limitation is best fit to the class of scanner that should be driven: pay a fair price to DpuScan as you pay a fair price to the scanner of your required performance class.

There is no volume limitation:

- **DpuScan Gold Limited Edition (DpuScan GL)**
- **DpuScan QSI**

**DpuScan GL** offers all the functionality of **DpuScan Gold** except it does not offer the tool for creating complex ACDP color filters. However, ACDP color filters can be used with **DpuScan GL**.

Beside scanning other functions are limited in speed the with **DpuScan**.



With the Limited Edition of DpuScan, all operations in the Task process and during interactive processing are restricted to the speed of the GL-Version. When several operations are executed in sequence, each and every operation is restricted so that the nominal speed cannot be reached!



**DpuScan QSI** (Quality Assurance, SQL-Database Connection und Indexing) offers all the functionality of **DpuScan Gold** except it is limited in speed to 32 images per minute. **DpuScan QSI** cannot be used in **DirectMode**. Opposite to **DpuScan GL** only scanning is limited in speed, all other functions run at full speed.

Depending on the variant of DpuScan there might be limitations in functionality. The next table gives an overview on what function is available in what variant of DpuScan. Please mind: some functions can be configured and used in **DpuScan Professional**, but can be used but **not** configured in **DpuScan Standard**.

Funktion block im Profil	Define	execute	Temporarily define and exec
Screen layout	Standard	Standard	Standard
Info window	Standard	Standard	Standard
Measuring units	Standard	Standard	---
Scanner settings	Standard	Standard	Standard
Printer settings	Standard	Standard	Standard
Path for storing	Standard	Standard	---
Filename	Standard	Standard	---
Barcodes	Standard	Standard	Standard
Scan color images	Standard	Standard	Standard
Deskew and cropping	Standard	Standard	Standard
Batch file	Standard	Standard	---
Image counter	Standard	Standard	---
Job data	Standard	Standard	---
Patchcodes	Standard	Standard	Standard
PlugIns	Standard (opt.)	Standard (opt.)	---
Polling	Professional	Standard	---
Event rules	Professional	Standard	---
User dialog	Professional	Standard	---
Broker	Professional	Professional	---
Statistics data	Professional	Professional	---
Enhanced image processing	Professional	Professional	Standard
Bates stamping	Professional	Professional	---
OCR	Professional	Professional	Standard
Color filter	Gold	Gold / GL	Gold

Furthermore:	Define	execute	
User rights	Standard	Standard	---
Application layout	Standard	Standard	---
Capture Workflow	Standard	Standard	---
Profile database	Standard	Standard	---
Open Jobs	Standard	Standard	---

To be able to describe all functions, this manual assumes to be information for **DpuScan Gold**. Please refer to the table to get the exact info, if the function is available in your particular DpuScan.

## 4 About this Manual

This User Manual describes the most common functions for the user who daily has to handle this software. It cannot replace training and practice in the usage of the programs, but is more a reference for later extension of the skills acquired during training.

It describes the software with its default factory settings. System administrators may assign the buttons and functions described here with other functions, or buttons may have been forbidden for individual users or user groups. A system administrator might also generate additional buttons or shortcuts that are not described here.

For setup, i.e. for system administrators, a detailed Reference Manual is available which can be found on the CD-ROM.

The Reference Manual only exists in German and English Language. You will find it on the product-CD in the folder called

**\DOCUMENTATION\**

### 4.1 Terms

DpuScan is a very complex program that however is easy to operate. In order to better understand the individual functions, you should first of all get familiar with some frequently used terms:

<b>Batch</b>	Before scanning this is the paper batch filled into the scanner. After scanning it is the whole amount of images files and meta data.
<b>Job</b>	Job sums all the operations performed on a batch. Operations can be done at the scan station, or, after scanning on an index station.
<b>Profile</b>	Holds all the configurations necessary to scan and to process a batch.
<b>Base profile</b>	Bases profile hold all the base parameters of the profile. It does not include processing steps.
<b>Task, process control</b>	Task is the sequence of all processing steps, applied to the batch in a <b>single profile</b> . Task checks dependencies and performs conditionally special actions. Status codes, image parameters or recognition results control, what actions will be processed.
<b>Document</b>	Document is a set of images that are bound to one entity by given rules. A document might be a single image, all images stored into one file, all images stored into one folder, or those images flagged by meta data.
<b>OpenJob</b>	Scanned image data is first put into a temporary storage location, holding all the meta data and core image information. Batches stored this way may be scanned at one station, index at another station, then finalized at a third station. It is possible to manually move images, insert images from scanner or file, re-threshold images etc. The last step applied to such batch is always: Finalization. This will put all image files and accompanying text files to its final location.

**DirectMode**

Scanned image data is directly stored at its final location. Meta data is created instantly and output directly. Little deletion, no insertion is possible.

**ReScan on Demand  
(*RSoD*)**

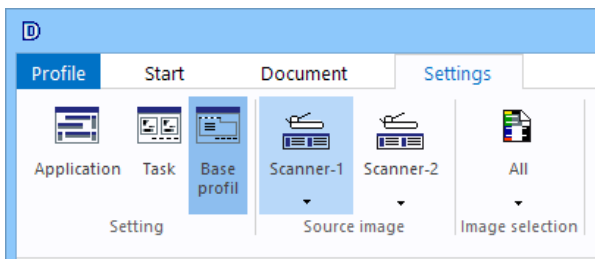
On scanning DpuScan holds a pair of images until finalization: the raw, high quality color or grayscale image, and the thresholded, bitonal image. If on certain images default thresholding is not good enough, on QA manually applied filter generate another bitonal image with increased image quality. Filters available on toolbar button perform such actions. Requires **OpenJob**-and the temporarily stored raw image from scanner.

## 5 Creating Scanning Profiles

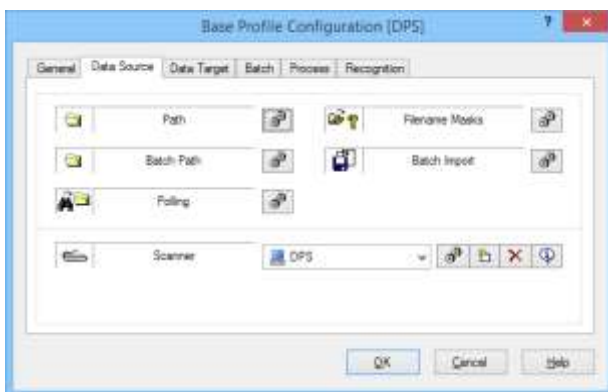
Starting from a template configuration, the major step for preparing scanning is to select the scanner.

### 5.1 Configuring the Scanner

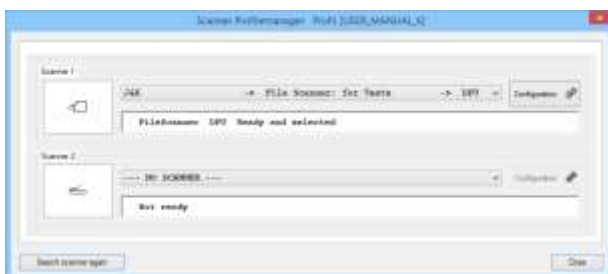
Scanner settings are available from **Settings | Base profile | Data Source | Scanner** or directly by **Scanner 1** from the menu



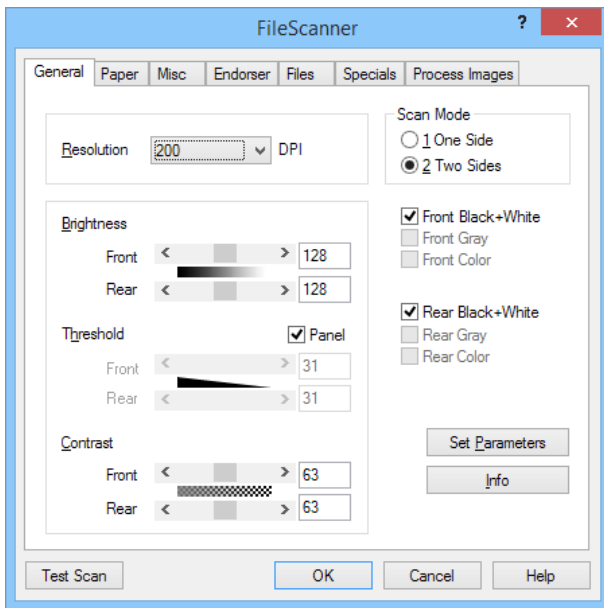
Select **Settings | Base profile | Data Source**. There is the option to create a new subprofile with a different name.



Select **Scanner**. If no scanner is selected this will lead to the scanner selection dialog. If a scanner is detected as connected to the computer, it will appear at the top of the list of available scanners.



If there is no scanner detected as being connected it is still possible to select a scanner. Some scanners do not expose their connection state.



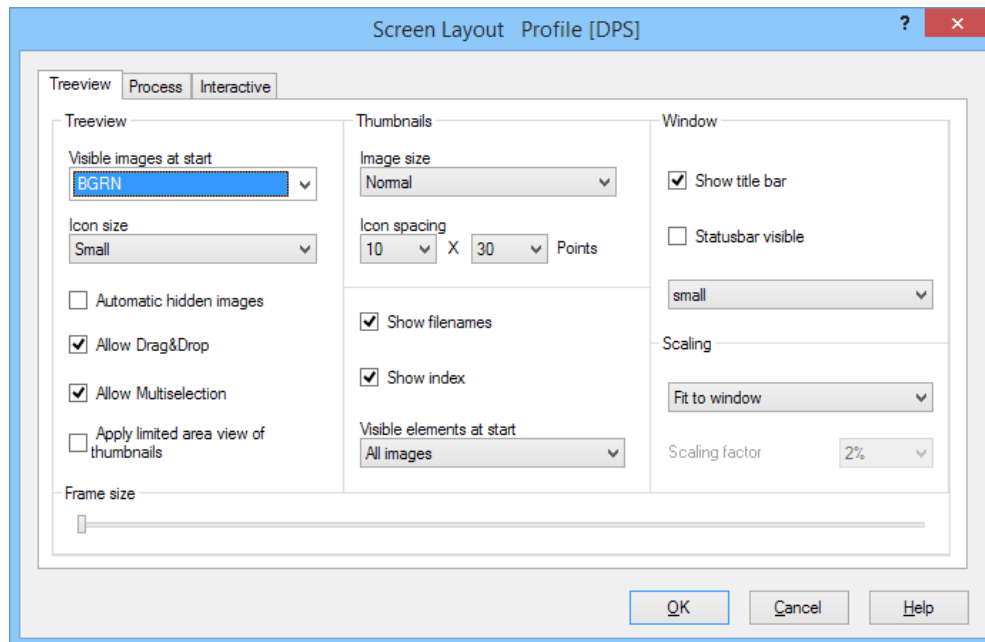
After having selected the scanner, scanner parameters may be configured. Depending on the type of driver, different configuration pages will appear. If using a TWAIN driver, more settings are available on page TWAIN and there with 'Show GUI'.

Closing with **OK** will store all settings and make them part of the scanning profile.

Once a named scanner sub profile is created, scanner settings can be changed on the alternative ways: **Settings | Scanner-1 | Config** or **Settings | Scanner**.

## 6 Screen Layout

It is very easy to individually set up the appearance of image windows, info windows and document structure view in DpuScan. Settings are made by **Settings | Base profile | General | Screen Layout**. There are three tabs to set details:



Some major settings are available on page 'Treeview'. These settings control the appearance of partial windows that are defined on pages Process/Interactive.

Scanned images may be hidden from view if some special mark is assigned to them.

The size of thumbnail images may be defined.

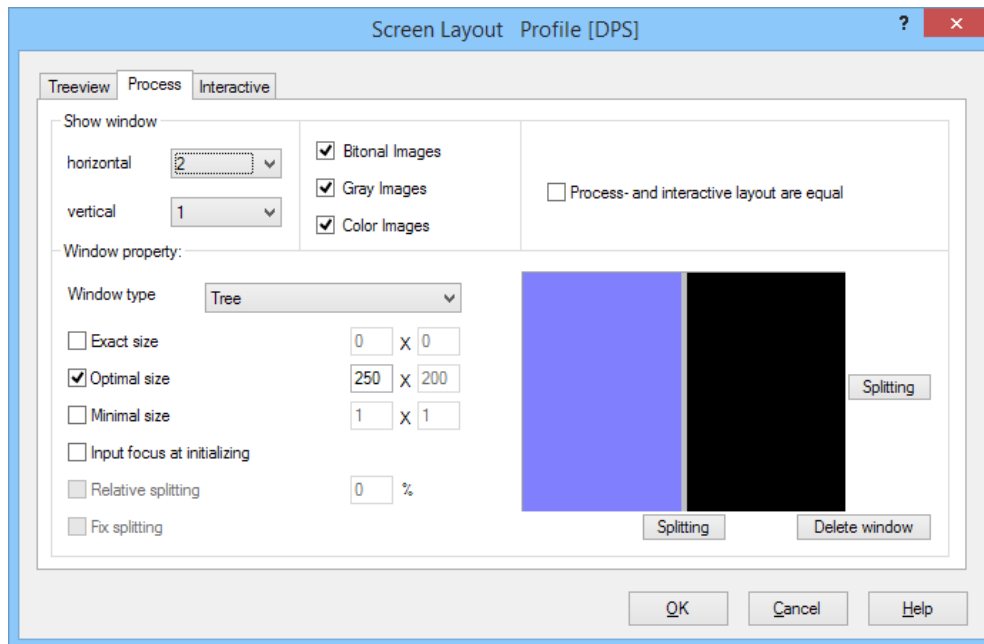
The filename may be displayed in the caption bar of an image window.

etc.

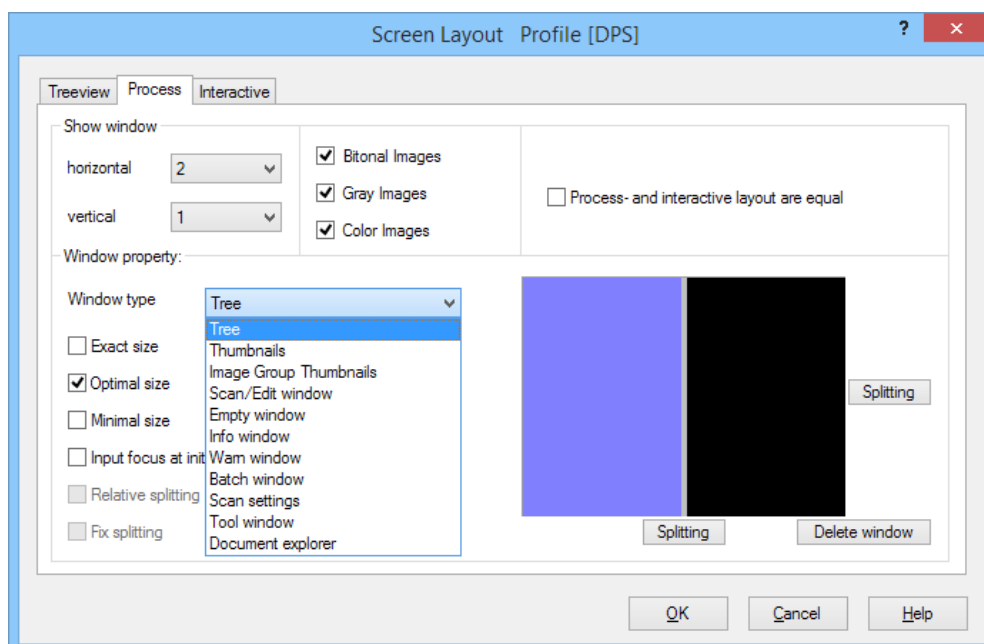
What partial windows should be displayed may be specified in two sets of Layouts: **Process** and **Interactive**. The one set is used during scanning process, the other set is used while pausing from scanning, or while indexing. We describe the settings for **Process** only, for **Interactive** it is the same.

On Tab **Process** the frame in the lower right corner represents the work area of DpuScan's main window. This frame may be divided into partial areas, each part representing the area, where one of DpuScan's sub windows is placed: Thumbnail view, Tree view, Scan Window, Info Window, Index Window, etc. The way to embed a sub window into the frame is: divide a partial area into two parts, then select the proper window type into the new empty part. Partial windows may be deleted if no

longer used.



It is possible to give exact measuring to partial windows. However, sometimes it is better to give a guideline of size here, but adapt the exact size on runtime, i.e. during Process or Interactive





## Window types:

Tree	Shows the structure of the batch with all its folders, files and images in a hierarchical view.
Thumbnails	Shows a list of miniature previews of the scanned images.
Image group Thumbnails	
Scan-/Edit window	Shows the scanned images in full size. Several Scan windows can be placed into the partial window.
Empty window	Fill up unused area.
Info window	Show configurable meta data during scanning.
Warn window	Shows any warning the might be generated during scanning, plugin or broker operation.
Batch window	Shows the content of the batch file that might be configured. Display of batch file content might slow down the scanning process.
Scan settings	Some very special scanner settings might be changed during scanning or in a scan pause.
Tool window	Is used by special plugins that offer special interactive tools.
Document explorer	Special thumbnail view that reflects the document structure.

More window types will be offered if any plugin offers such window. The indexing plugin offers embedded UDD entry masks for indexing.

With Ok settings are stored. The size of partial windows may be adjusted during scanning or indexing. The dynamic sizing will be stored automatically on closing DpuScan.

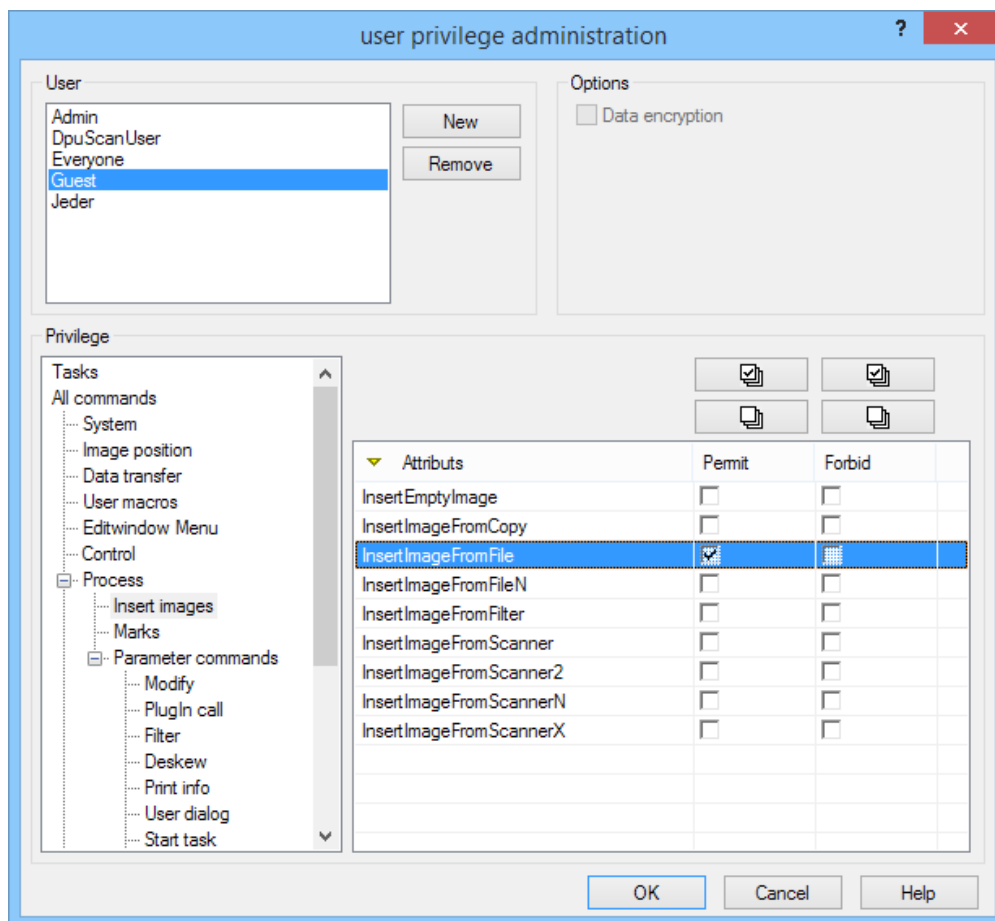
## 7 Rights Management

There is a scan environment where an administrator sets up a scanning profile and where the scan operator uses such profile. However, the scan operator should not change certain settings. Allowing certain operations depending on the Windows user account can deal with such wanted limitations. User Rights Management gives the administrator the tool to fine adjust user rights on DpuScan. Right Managements restricts access to certain DpuScan functions, but also restricts access to certain scanning profiles.

The configuration of rights starts at **Profile | Rights Management**. There is also a toolbar button that gives way to Rights Management:



The configuration dialog comes as:



On default there is one user group and that is 'Everyone' on English language Windows. Any function is allowed for 'Everyone' in the beginning. On other language Windows the name of the group is named differently.



**If Everyone should be removed, it is good praxis to first add the new group, give all rights to that group, and then remove Everyone. This way avoids locking oneself out before configuration work is done..**

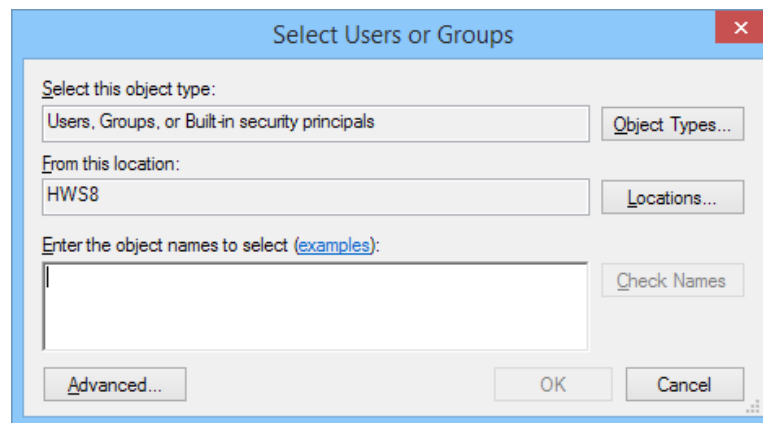


It is possible to add nearly any user or user group to the list of DpuScan users. It is preferred to use groups over individual users.

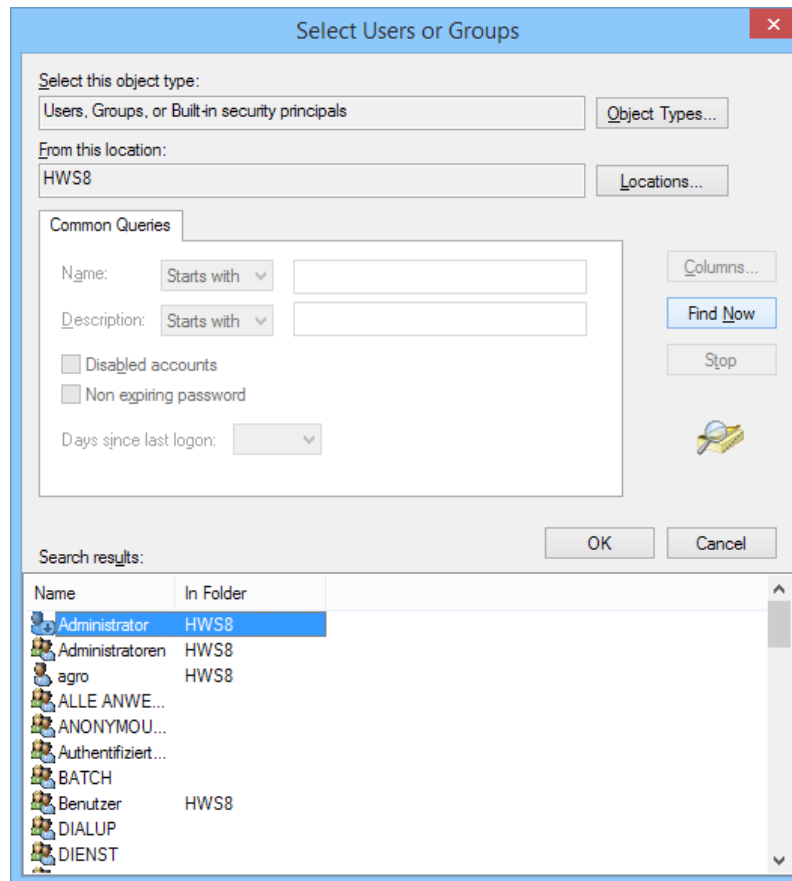
The example shows a user group Guest that receives one of nine rights for controlling DpuScan.

Be extremely careful if forbidding for user group Everyone. Taking away one right from Everyone is useful, but forbidding for Everyone will allow no one to access that function.

By a click on **New** might add **Users or Groups** to the list of manages groups.



If the exact spelling of the name is unknown, a click on **Advanced** opens a search list:

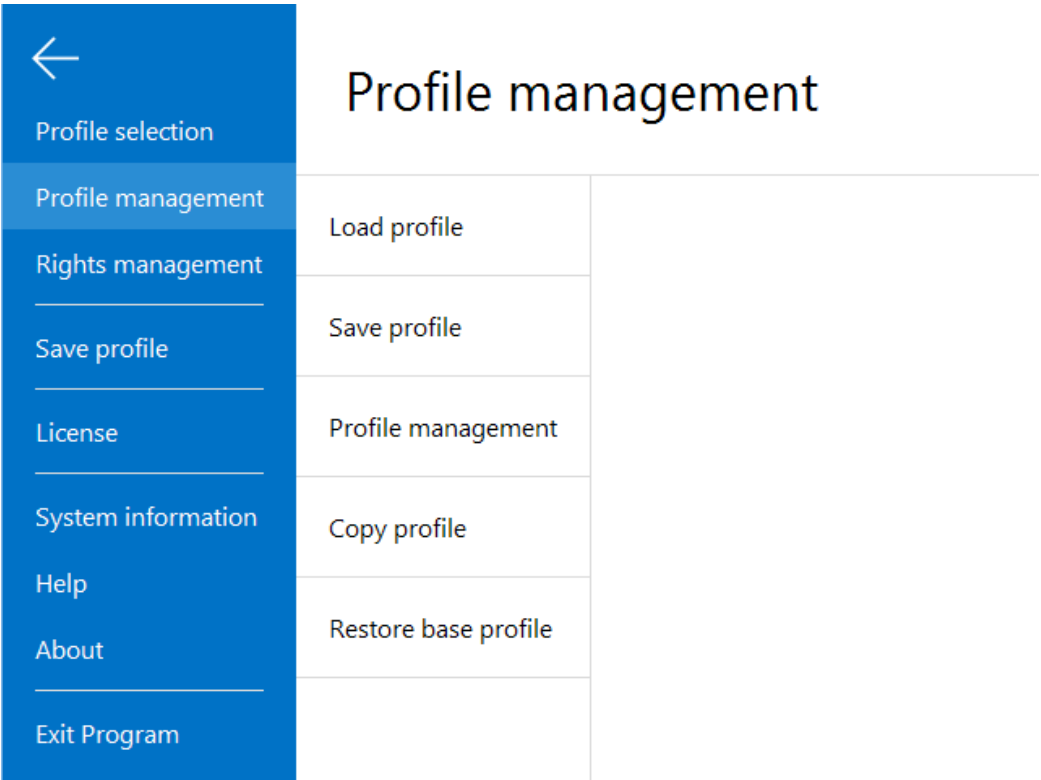


Select from the list of users / groups and add that group to DpuScan.

## 8 Menu Ribbons

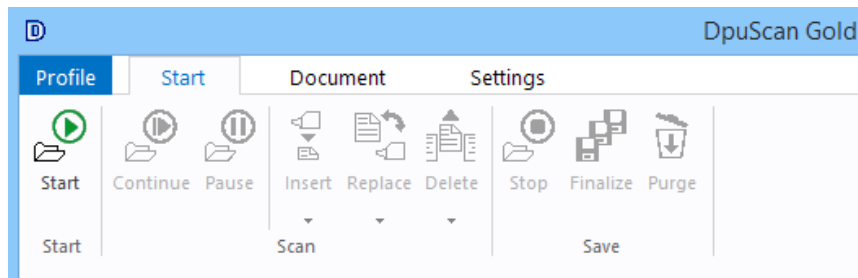
All essential settings options and control elements for the scan process are directly accessible via the menu ribbons Start, Document and Settings.

### 8.1 Menu ‘Profile’



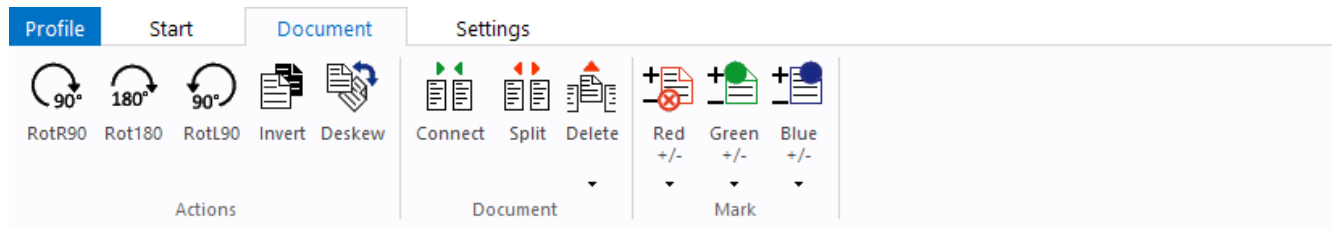
<b>Profile selection</b>	Select a profile either from the list of most recently used profiles, or from the list of all profiles.
<b>Profile management</b>	Load a profile from an external file, store a profile to file for export. Delete or copy a profile.
<b>Rights management</b>	What user is allowed to use what part of the system?
<b>License</b>	Where the license does not come from a dongle or DpuServer enter ProductKey and ActivationKey.
<b>System information</b>	Display the system status. Change system variables that do fine-tuning of some special features. Display status and manage batches worked on by DpuScan, DpuProcess, DpuFinalize.
<b>Help</b>	Main entry into DpuScan’s help system.
<b>About</b>	Show the version of DpuScan and modules and Copyright information.
<b>Exit Program</b>	The work is done.

## 8.2 Menu 'Start'



<b>Start</b>	Starts the scanning process, creates a new batch. Paper should be in scanner's feeder.
<b>Continue</b>	After scanning had paused, continue with further scans.
<b>Pause</b>	Pause the scanning temporarily, inspect the batch, and then continue scanning.
<b>Insert</b>	During a pause, an image may be inserted at any position of the batch, loading it from either scanner or file.
<b>Replace</b>	The same as inserting an image can one image be replaced by a new one from scanner or disk file..
<b>Delete</b>	Delete one or more images from the batch.
<b>Stop</b>	Suspend scanning, store the batch.
<b>Finalize</b>	If all work is done with one batch, the batch is finalized. This creates all image files in the target folder, creates text files and triggers and after all, deletes all temporary files.
<b>Purge</b>	Delete the whole batch, delete all temporary files, do not create any text file or trigger.

### 8.3 Menu 'Document'



**RotR90** Rotate the image right by 90°.

**Rot180** Rotate the image by 180°

**RotL90** Rotate the image left by 90°.

**Invert** Reverse colors. Black turns into white, white into black, color to its complementary color.

**Deskew** Deskew the image.

**Connect** Where there is a document break, i.e. where a new files starts or a new folder, combine all images from both adjacent containers into one container.

**Split** If there are breaking rules that create a new container (file or folder) on certain events, then at this point do such breaking and create such new container.

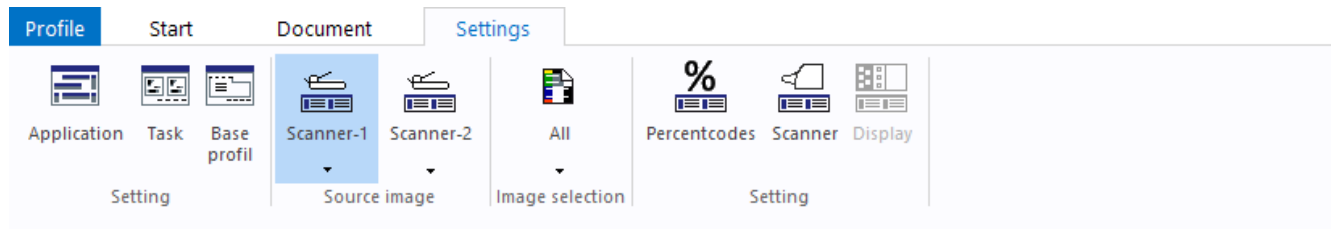
**Delete** Delete on or more images from the batch.

**Red +/-** Set/unset a red mark to selected images. A red mark marks images for being deleted.

**Green +/-** Set/unset a green mark to selected images.

**Blue +/-** Set/unset a blue mark to selected images. Any blue mark set prevents from finalization.

## 8.4 Menu 'Settings'



<b>Application</b>	Configure toolbars and buttons.
<b>Task</b>	Configure the task as the kernel element of a scanning profile.
<b>Base profile</b>	Configure basic scanning parameters.
<b>Scanner-1</b>	Select and configure the first scanner in the profile.
<b>Scanner-2</b>	Optionally configure a second scanner in the scanning profile.
<b>Image selection</b>	From a multi-stream configuration select the color format that actually needs storing.
<b>Percent Codes</b>	Gives an overview on all variables (%-codes) used in the profile.
<b>Scanner</b>	Directly go to the scanner settings of the active scanner.
<b>Display</b>	Configure the screen layout.



## 9 Toolbars and Buttons

In addition to the menus some toolbars may be configured. These toolbars give a short and direct way to certain function, either to control scanning, image editing or batch handling. A keyboard shortcut may be assigned to each of the commands.

### 9.1 Buttons of Group "Settings"



Opens the dialog for configuring the **Screen layout**.



Opens the dialog for configuring the **Application layout**



Opens the dialog for configuring the **Base profile**.



Opens the dialogs for configuring the **Task steps**.

### 9.2 Buttons of Group "Control"



Import a batch that has been created on some other scan station, or one that has been stored for further processing on the same scan station.



Start scanning and create a new batch. In **DirectMode** this will always create a new empty batch. In **OpenJob** this can either be the creation of a new batch, or it may be picking up an already existing batch, depending on the task configuration.



Pause scanning. Gives the opportunity to edit images.



Continue scanning in the current batch.



Re-apply event rules on the whole batch. Can be done in pause mode. Should be done if any images where inserted or deleted.



Renumber image files and folders. Can be done in pause mode. Should be done if any images where inserted or deleted. Is useful where there are simple numbers as part of file and folder names. (### numbers)



In **DirectMode** the batch will be closed marked finalized.



In **OpenJob** suspends the batch, stores all files in a temporary storage.



Finalize a batch. The whole batch will stored at its final location. All temporary files will be deleted. Triggers are set.



Close the current batch and move it to some other location.



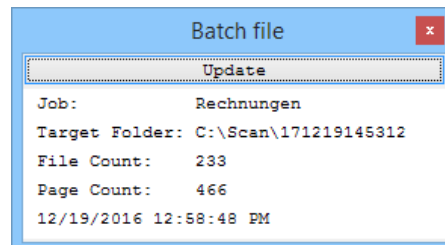
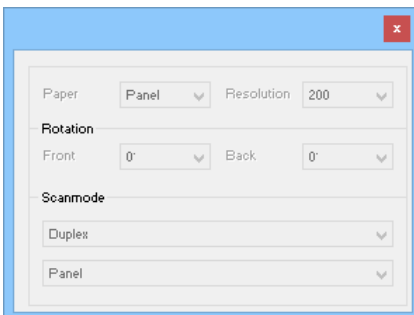
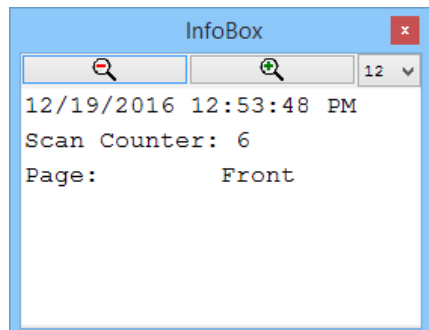
Display the Info window. The Info window shows arbitrary information. The Information displayed can be configured somewhere in the base profile.



Display the scanner toolbox. Some very special scanner settings may be set by the scanner toolbox.



Display the Batch window. The Batch window shows information that is stored into the batch file.











Display the Warning window. If lit up yellow, then there is a message in the Warning window. If gray, there is no message.



Run a user defined macro.







### 9.3 Buttons of Group "Actions"

In **OpenJob** insert images from scanner or file, break document structure or remove such break.

-  Insert a single image from scanner. On double side scanning the rear side will follow with the next insertion operation.
-  Delete selected images from the batch.
-  Combine two adjacent documents into one.
-  Insert a document break at the given location.
-  From a single scan insert front and rear side images into the batch.
-  Scan multiple images from the scanner. Enter the number of images to be scanned.
-  Insert a single image from disk file.
-  Insert multiple images from files. The file selection dialog allows multi selection.

### 9.4 Buttons of Group "User Actions"

Manual post processing of images.

-  Rotate right by 90°
-  Rotate left by 90°
-  Rotate by 180°
-  Deskew the selected images. Only works on black background images.
-  Reverse image colors.
-  Expand / collapse part of the tree view which represents document structure.

## 9.5 Buttons of Group "Marks"

There are red, green, blue and white marks that can be attached to an image. Every color has got its special meaning and function. There are buttons to set, unset or toggle marks.



Change the status of the red mark for the selected images. Set it, or unset it. A red marked image is selected for being deleted on finalization.



Change the status of the blue mark for the selected images. Set it, or unset it. Any blue marked image will prevent from finalization.



Change the status of the green mark for the selected images. Set it, or unset it. A green mark does not impose any special function.



Display or not display red marked images.



Display or not display blue marked images.



Display or not display green marked images.



Display or not display images without any mark.

## 9.6 Buttons of Group "Image Process"

Other manual post processing of images.



No image change, but accept most recently made changes to the image, clear the undo buffer.



Deskew the selected images.



Apply color filtering to the selected color images. There may be several such buttons each applying a different filter. Filtering works for a pair of color and (color or grayscale or bitonal image).



Apply enhanced image processing to the selected bitonal images. There may be several such buttons each applying a different set of image processing functions.



Undo the last operation applied to the selected image.

## 9.7 Buttons of Group "Position"

There are certain commands that help to page through the batch.



Position to the first image in batch, page one screen up, on image up.



Position to the previous red/blue/green marked image.



Position to the next red/blue/green marked image.



Position one image down, one screen down, to last image in batch.

## 9.8 Buttons of Group "Position Document"

There are more commands that help to page through the batch.



Select all images of the batch.



Select the first image of the previous image folder.



Select the all images of the current image folder.



Position to previous image of file.



Select all images of the current file.



Position to next image or file.



Position to first image of next folder.

## 9.9 Special commands

There are some very special commands not bound to some special command group.



There are 16 commands that each may invoke a special user defined dialog for data entry.



There are 16 commands that each may print out a special information sheet.



There are 16 commands that each may start a special scanning profile.

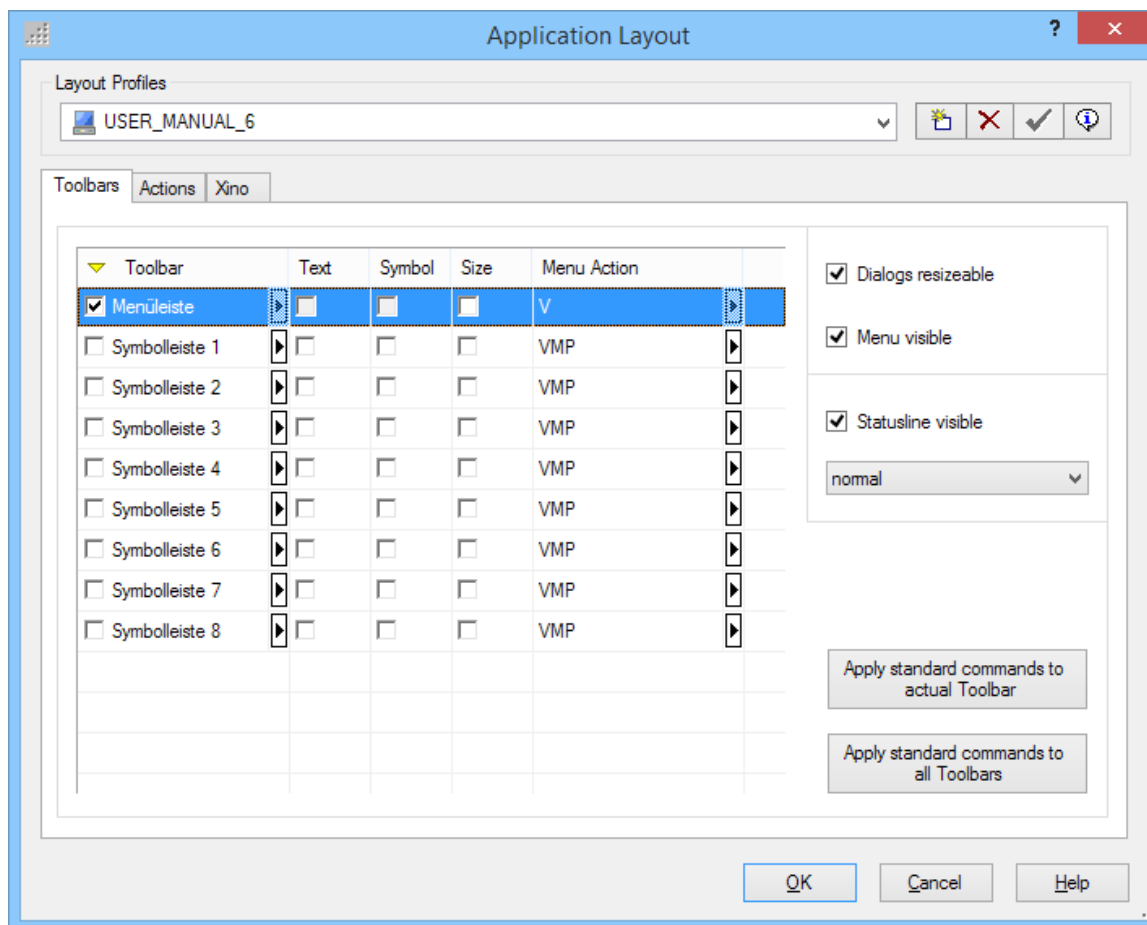
## 9.10 Adjust Application Layout

The given commands may be placed into customized toolbars. Such configuration work is available from [Settings | Application Layout](#).

### 9.10.1 Subprofil Application Layout

The whole user GUI comprises of menu ribbons, toolbars and button, a status-bar. All these configurations are stored on the Application Layout subprofile. The subprofile binds to the profile by a step in the task list, where it is loaded.

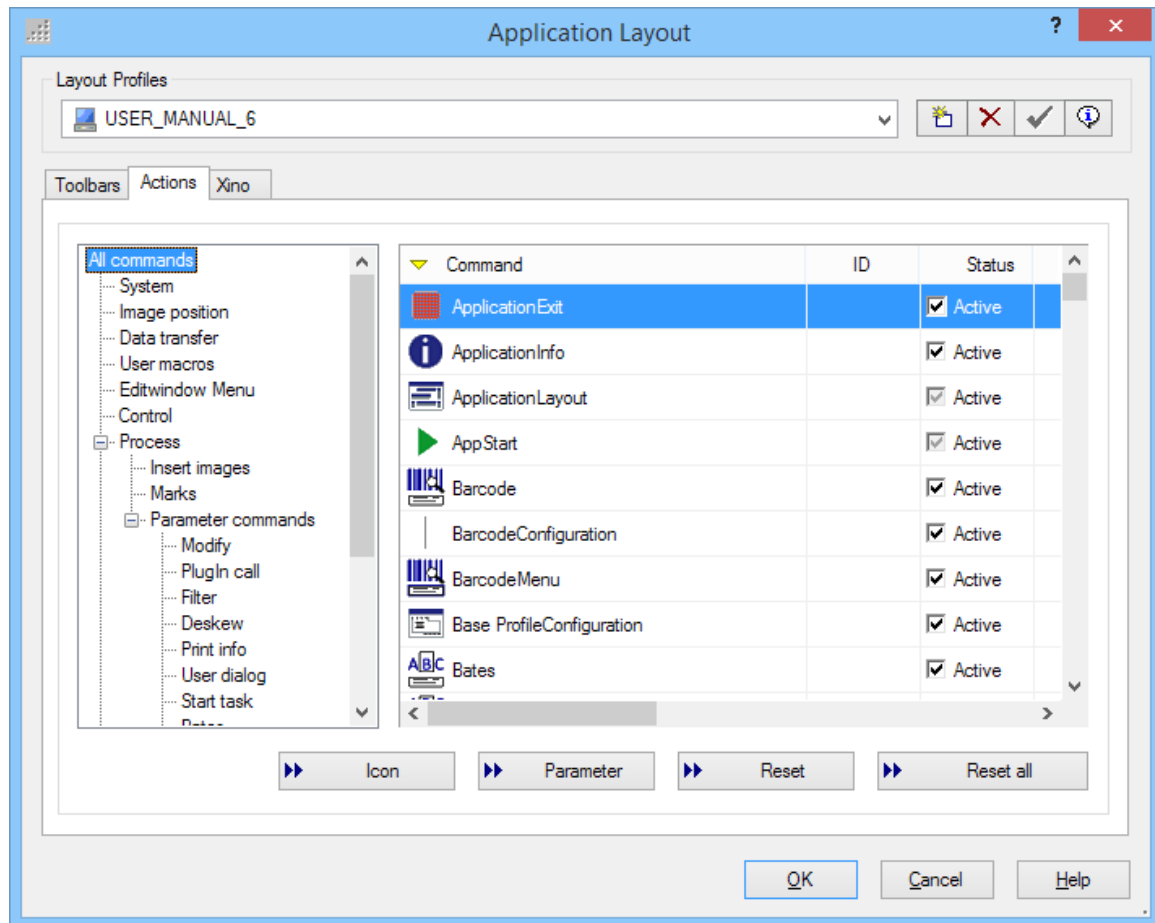
### 9.10.2 Tab Toolbars



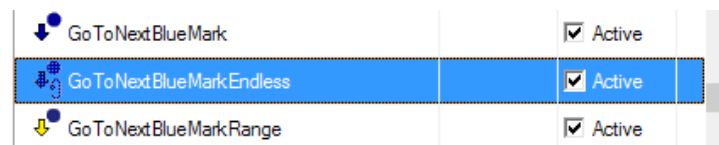
Toolbars comprise standard functions, represented in the toolbar as buttons. There are predefined toolbars filled with commands grouped by their common topic.

### 9.10.3 Tab Actions

There are many special purpose commands available, either directly usable or useful to group into a macro.

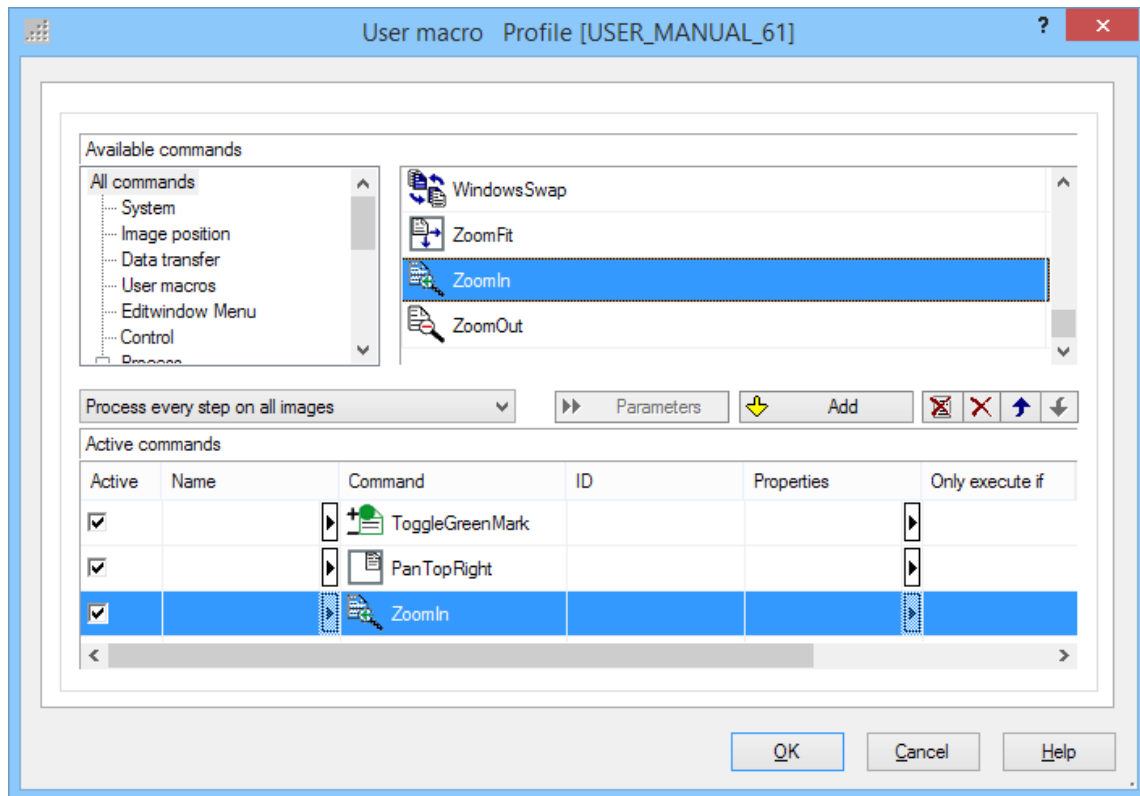


By drag and drop a command can be moved into a toolbar:



Having available a toolbar with most often used commands makes scanning easy.

Where commands must be executed in sequence, a macro may be set up and made available with a single button in a toolbar. A **Macro** offers special configurations. The major configuration part of the macro is the list of commands:

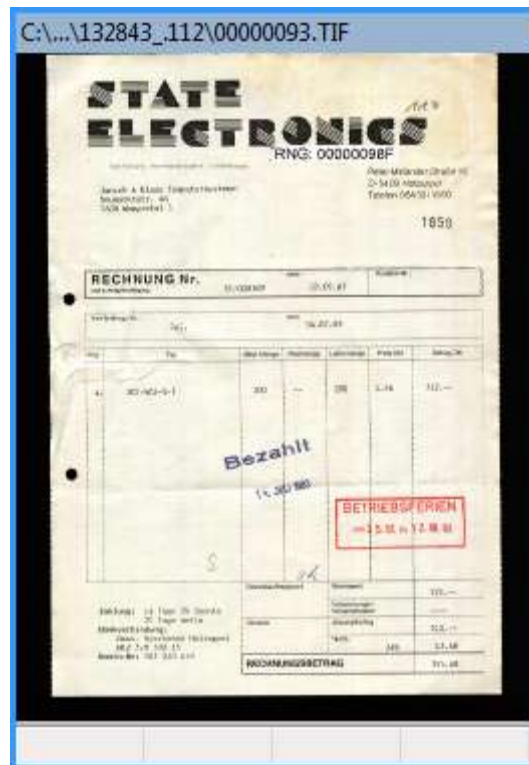


All the commands of a macro will be executed in sequence as given by the list of commands.



## 10 Scanning Window

The scanning window gives a large view of the currently scanned or selected image. If the screen size allows, several of these scanning windows can be displayed. This is useful for doubled side scanning, where front and rear side image should be display side-by-side. For configuration, see [Base Profile | Screen Layout](#).



### 10.1 Helpers in Scanning Window

Scroll and zoom functions are available in the scanning window:

- Scroll wheel: zoom-in, zoom-out
- Left mouse button pushed: move image in window (panning)
- Right mouse button clicked: context menu with more functions

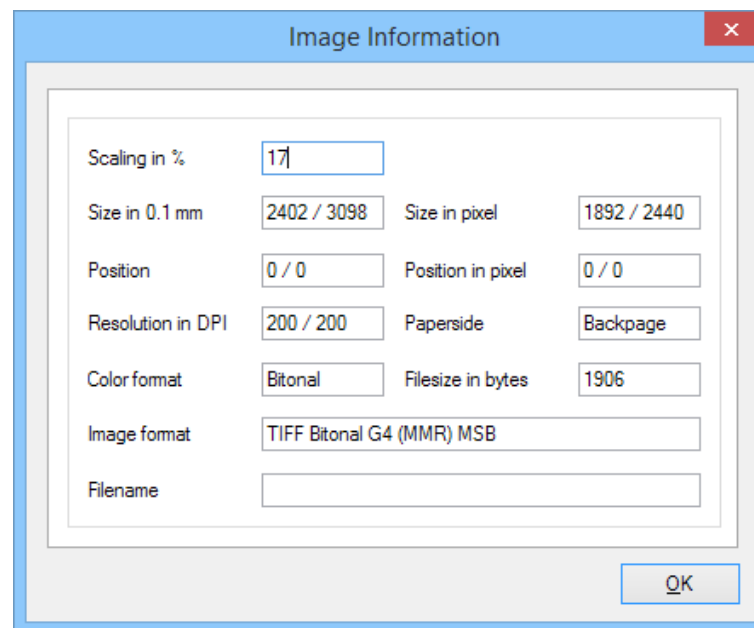
## 10.2 Edit-Toolbar



There are scanning profiles, where an Edit Toolbar is available:



**Image Info** shows information on the currently selected image

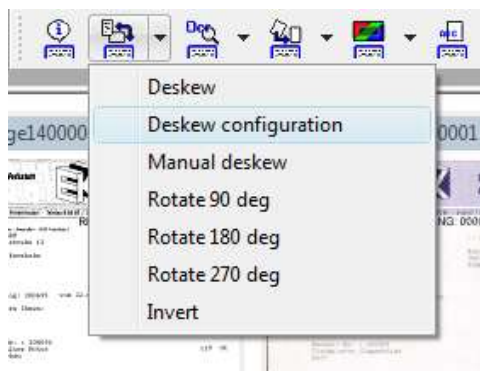


- **Scaling** shows the percentage of the size compared to full size
- **Resolution** of image given in dots per inch
- **Size** of image given in 0.1 mm and Pixel
- **Position** of the origin of the image, if image is moved in windows
- **Filesize** in Bytes
- **Image file format**
- **Paperside** (Front / Rear)



Undo changes made to the image.

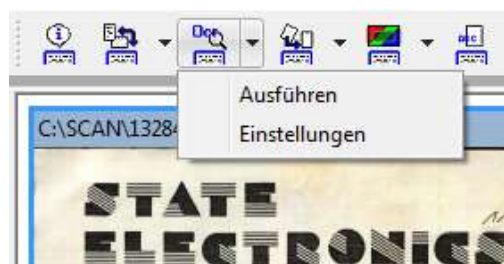
Functions to deskew and rotate the image.



If the image does not give enough information required for automatic deskew, a manual deskew can be applied.



Automatically performs the text recognition, or, if no OCR configuration is setup yet, opens the configuration dialog.



The **Modify** function allows to make multiple settings for image post processing (deskew, removal of lines, noise and shadings; etc), and to Process them.



Click the Filter functions button to change configurations for image filtering, and execute them. Eventually, a new image will be inserted. If the RsoD logo is displayed for the image, re-filtering for loss-free image enhancement is possible.



Bates stamping is used to include virtual stamps in the image; click this button to configure Bates stamping.



Click the Scanner setup button to change the configurations for scanner control (paper formats, scan values, duplex scanning, etc.) and to start scanning for one image. This scanned image will then replace the displayed image.

These Scanner settings are temporary and active only until the Task is altered or the program is closed. The temporary alterations will then be lost.



The **Print** function will print the image displayed in the scan window



Click the **Load** button to load and **Save** the actual image.

When an image is loaded and re-saved the original image will be deleted.



Click the Barcodes button to display barcodes. Click Configuration to set barcode parameters. The image is searched for Barcodes which will, if they exist, be displayed. Types, parameters and options for the barcodes can be set via Configuration.

Result shows the text of the latest found barcode.



The image is searched for Patchcodes which will, if they exist, be displayed. Some options for the Patchcode search can be selected via the Configuration for Patchcodes.

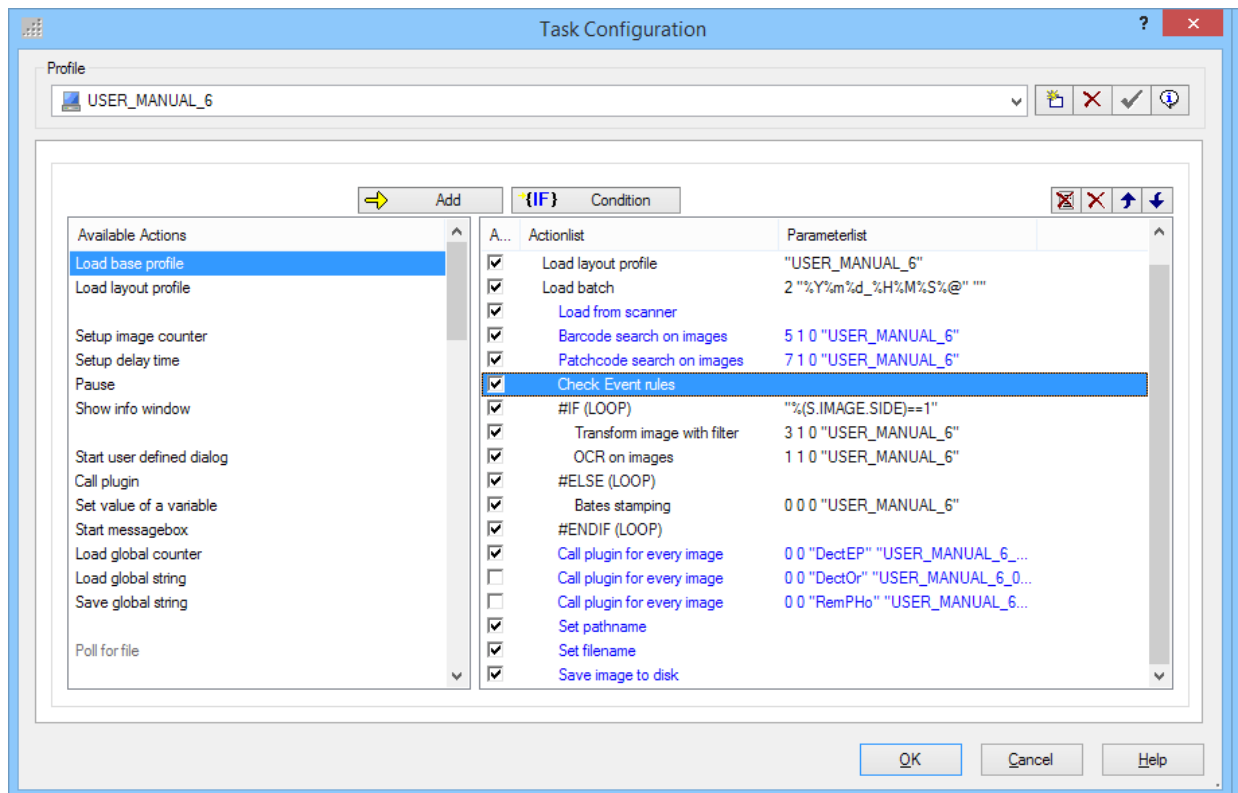
Images that were modified in the scan window are not saved automatically! A warning message is displayed to prompt you to save your changes before going to another scan window:



## 11 Sequential Control (Task)

The task list is the core element of the scanning profile. With the steps of the task list basic parameters of the profile and specific parameters (subprofiles) for tasksteps are loaded. For more complex processes, more detailed Tasks are required which consist of a longer sequence of individual actions.

For opening the task configuration select **Settings | Task**



The drop down list **Profile** gives the selection of already existing tasks. Buttons to the right enable to



Create a new profile.



Delete a profile.



Accept changes made to the profile.



Showing info of used sub profiles.







Below there on the left side there is the list of **Available Action**, and on the right side **Actionlist** showing those steps already selected into the actual task.



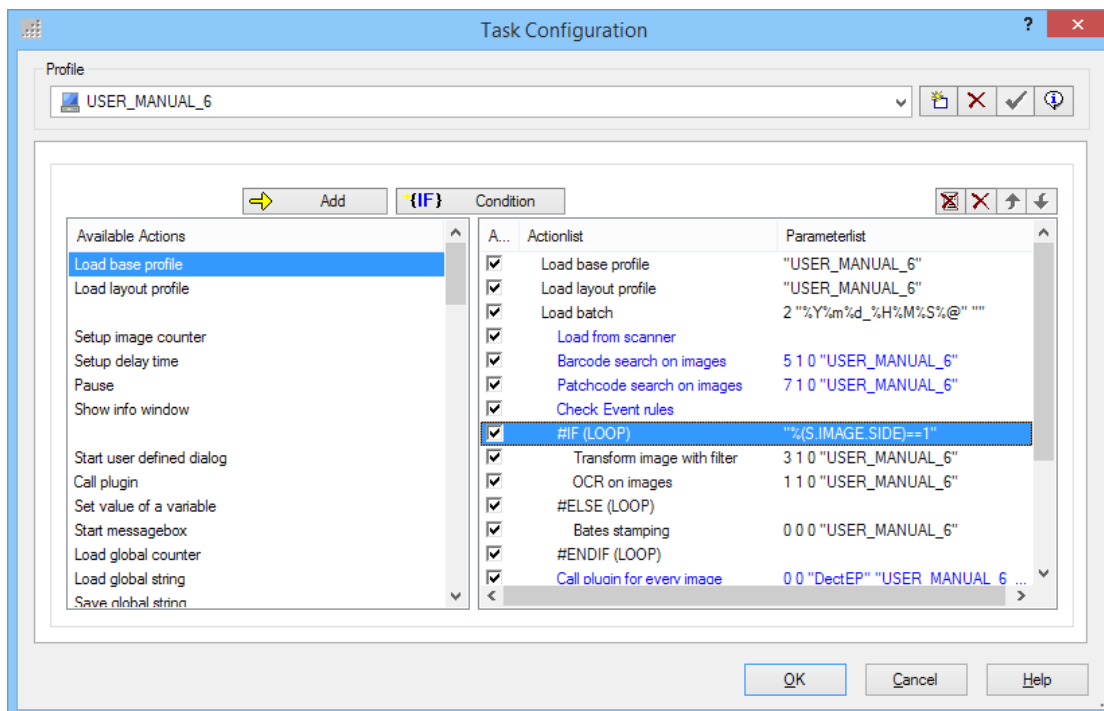
If Load Batch is used in the ActionList then DpuScan will work in **OpenJob** mode, otherwise it will run in **DirectMode** mode.



## Possible Edit operations

	Hinzufügen	Insert an Action
	{IF} Bedingung	Insert a conditional statement
		Delete an Action
		Delete all Actions
		Move upwards one Action
		Move downwards one Action

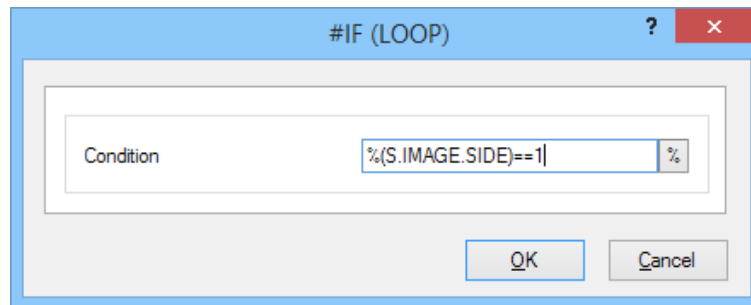
Actions appear in different indentation. The indentions change color alternatingly. There are two reasons for indentation: the one is to mark that part of the task that is executed repeatedly, we call it the scanning loop. The other reason is to mark parts of the task that are executed alternatively, depending on an If-condition.



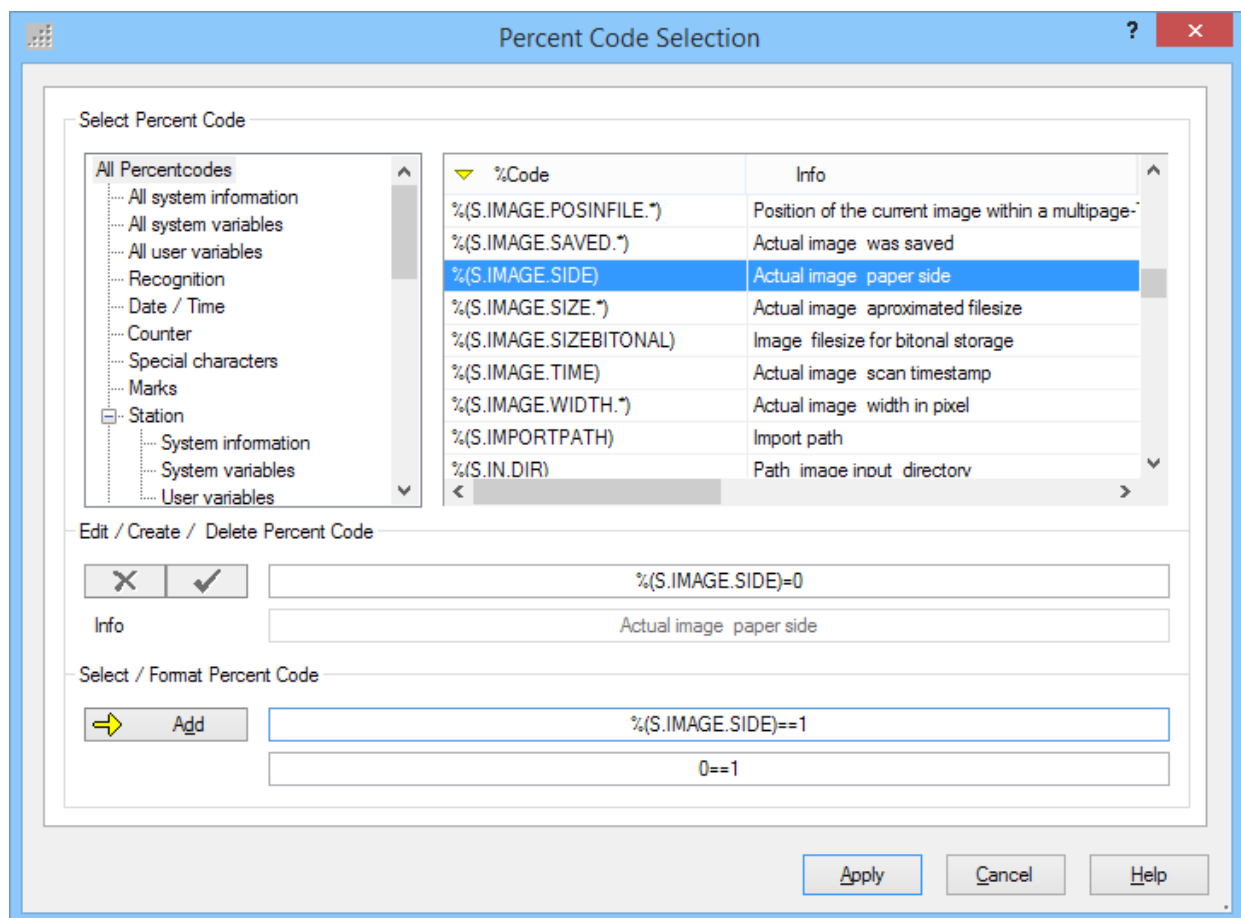
**Load from scanner** is the lead in for the scanning loop. All Actions after it are executed repeatedly.

**#IF %(S.Image.Side)==1** checks for front side images. Only on front side images, a filter is applied and OCR is done. Rear side images receive a stamp only.

On inserting an #IF condition a dialog opens up to query the condition. Enter text as appropriate.

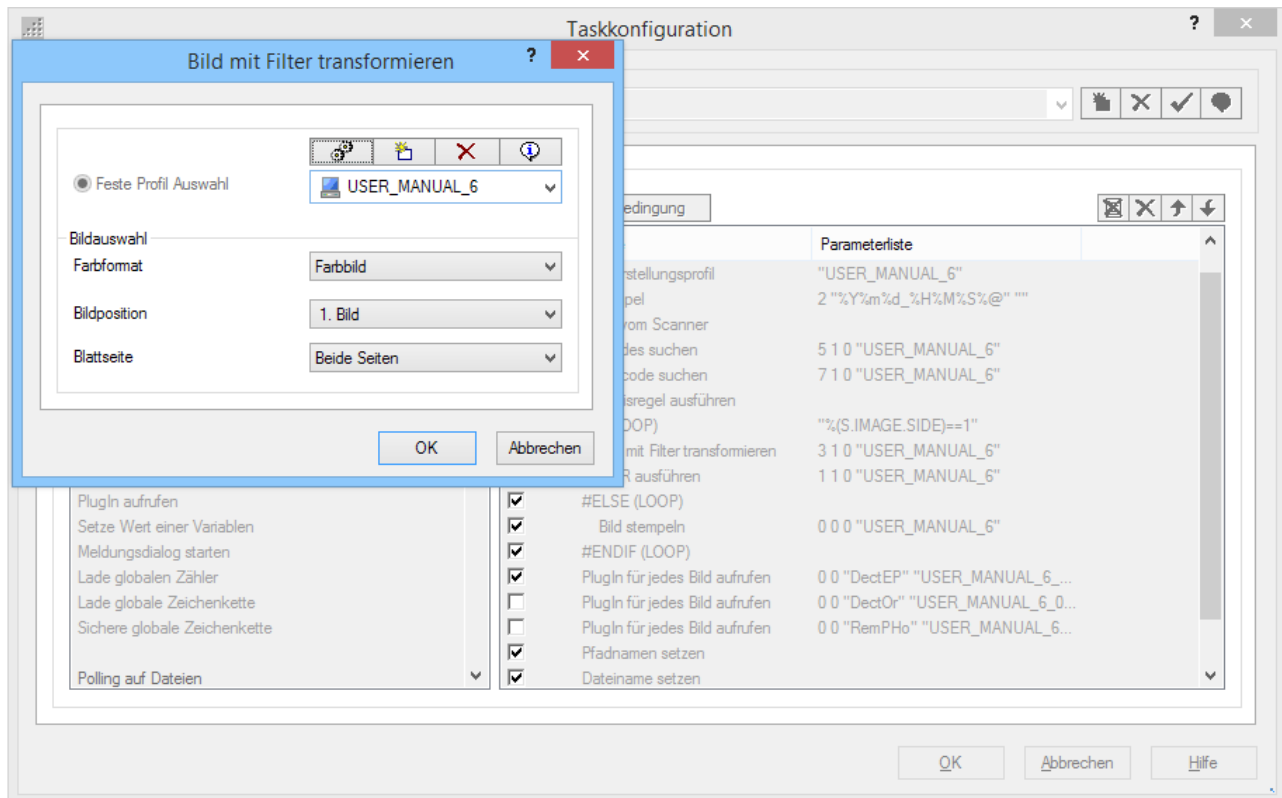


The **% button** offers available %-codes for selection:



%-codes give information on the image, on the task, the environment, time and date, etc. At this point we pick %(S.IMAGE.SIDE) to get images side information. Front page will give a 1 and rear page will give a 2.

On inserting other Actions, there might also open up a configuration dialog to either select from a list of subprofiles, or to query additional parameters such as type of image or side of image:



There is the choice of either selecting an already existing configuration (profile) or creating a new one with a new name. Clicking on **Configuration** allows making changes to the profile.



**The changes apply to all scanning profiles where this sub profile is used.**

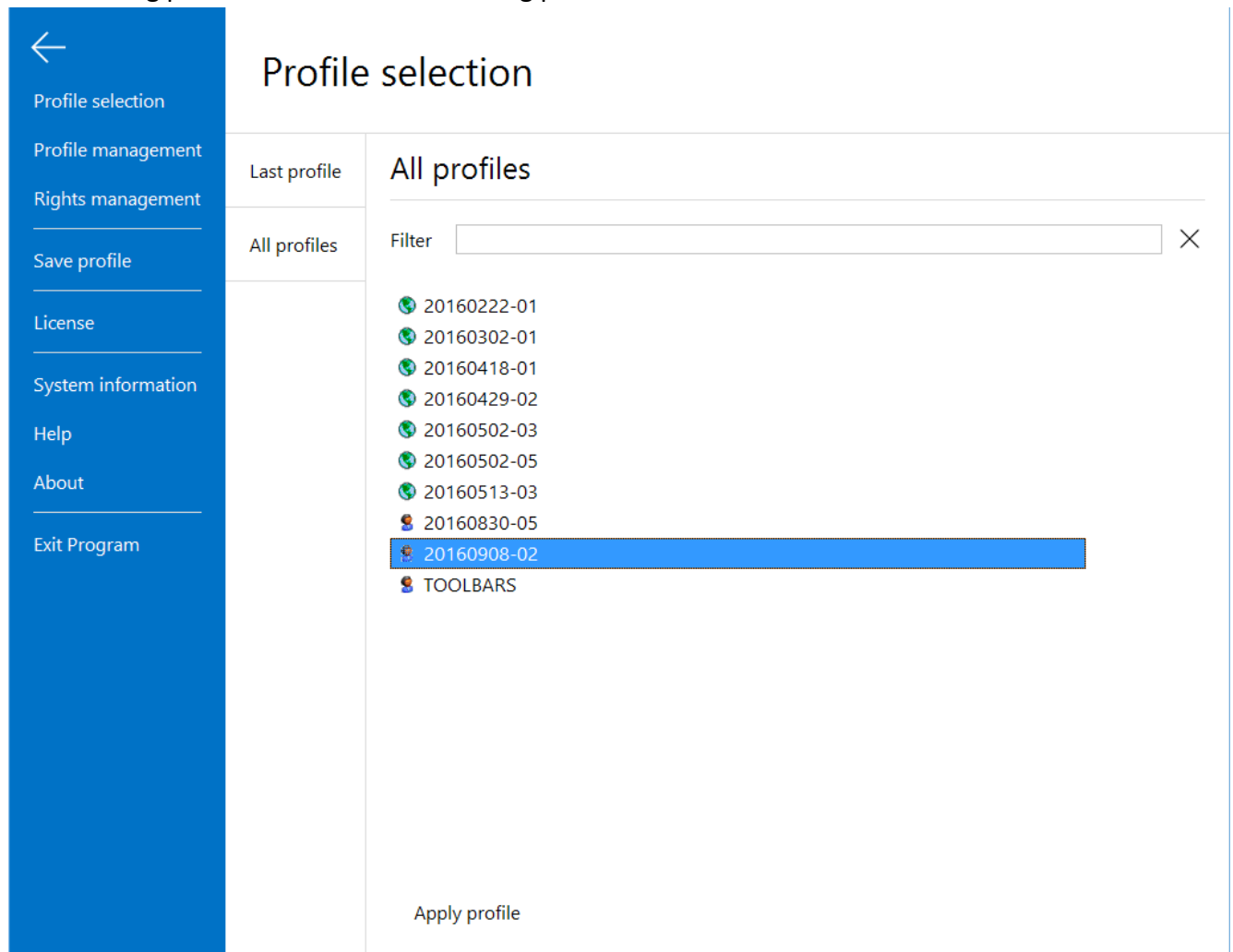




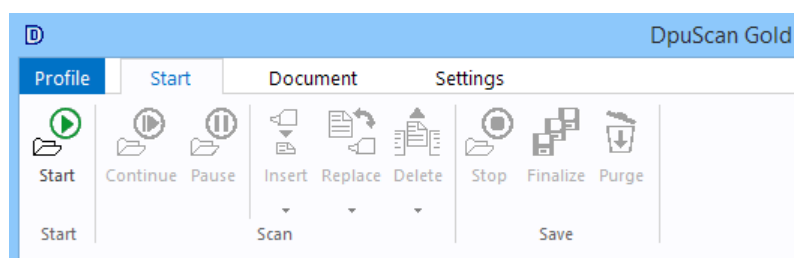
## 12 Scanning with DpuScan

For DpuScan there are two different modes of operation: **DirectMode** and **OpenJob Mode**. In **DirectMode** images instantly are stored into the final location. In **OpenJob Mode** images are temporarily stored at some place and they will be stored at their final destination on performing the finalization. Temporarily stored batches may be moved to some other location for further processing.

For scanning please first select the scanning profile to be used:



The Start menu shows all the operations necessary for scanning:

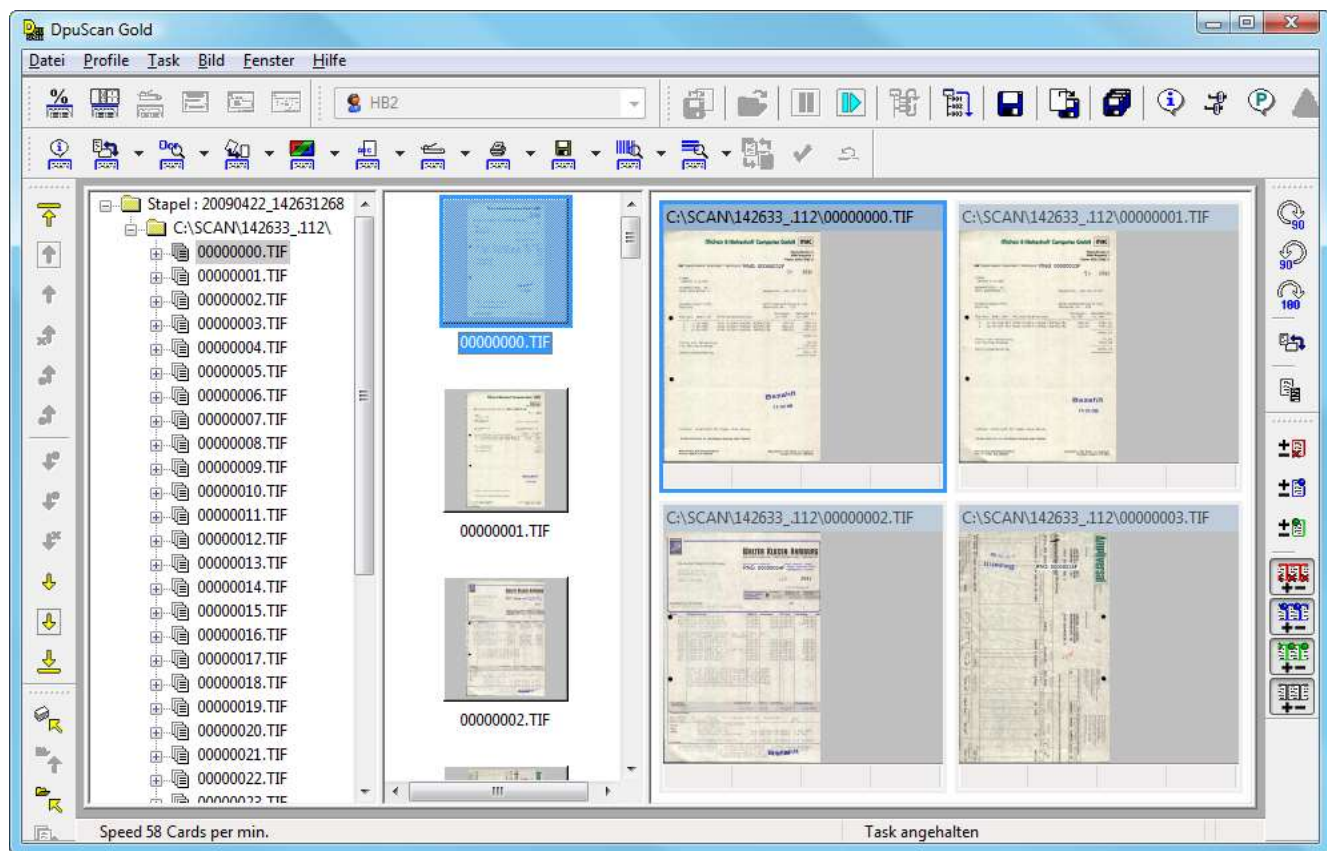


Operations are: Start batch, pause batch, continue scanning, insert scan somewhere into the batch, replace scan some image, delete some image, suspend (Stop) scanning, finalize the batch and purge the complete batch.

**Start** begins scanning of a new batch, or, depending on the profile's configuration, pick up a new batch. All images that are processed will be shown on screen.

**Pause** will temporarily pause to inspect the product of scanning. The way images and the batch's structure is shown depends on the settings made in the profile (see [Settings | Base | General | Screen Layout](#)) ab.

Menu **Document** offers operations to be applied to the image, like rotation and deskew.



**Continue** will start scanning again.

**Stop** suspend scanning by closing the batch and storing into a temporary batch storage.

**Finalize** will close the whole batch by moving it to its final storage location.

An image window shows a large view of the selected image. The view may be zoomed-in to get an enlarged view of particular image areas.

## 12.1 Scanning in DirectMode



DpuScan QSI does not support this mode of operation.



**DirectMode** directly transfers any scanned image directly into the output chain. For raw batch scanning without the need to modify any image or image order, this is the fastest and preferred way of operation. It is possible to pause scanning, but there is no way to suspend a batch to be processed the other day.

However, **DirectMode** displays every scanned image on screen, it shows the created document structure and it is possible to page through the whole batch for inspection. It is possible to delete image, but from the end of the batch only.

## 12.2 Scanning in OpenJob Mode

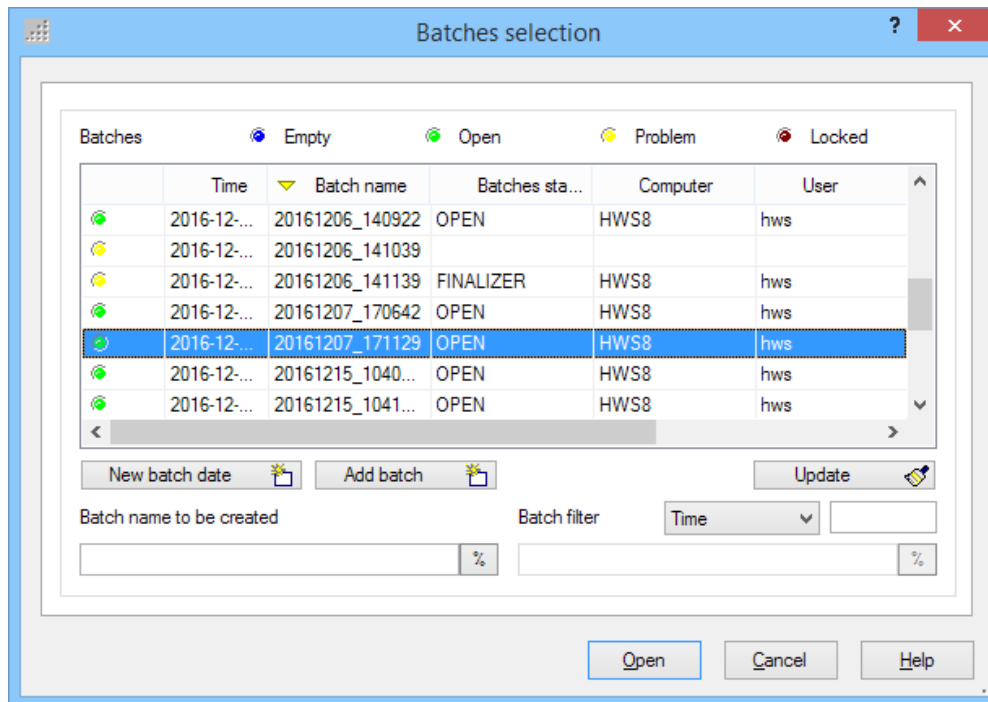


For **DpuScan QSI** this is the only mode of operation. There is no DirectMode .for QSI

The operation mode **OpenJob** gives the opportunity to suspend scanning and continue operation some time later. **OpenJob** allows to divide imaging operation into a scanning part and an indexing part performed on two different workstations.

It is possible to change the structure of the batch, delete image, add images into the chain, and modify images. Several batches can be scanned, stored, being ready for further processing by some other DpuScan tool.

A scan profile can be configured to either automatically create a new batch, or to pick up a temporarily stored batch for processing. If configured for picking up a stored batch, the batch selection dialog appears on start



Once loaded or scanned images are shown on screen, in full size, in their thumbnail view or/and in a treeview that reflects the document structure of the batch. What and how it is shown may be configured somewhere in **Screen Layout**.

Scanning or post processing of images can be suspended with a click on **Pause**, and a click on **Continue** will resume operation. Selected images may be processed manually by operation from the Document menu or by operations from the toolbars. The most common way of processing however will be: do the scanning on the scan station, save the batch, continue manual operation on another station using DpuScan QSI. This ensures a high degree of capacity utilization of the scanning station.

Scanning stops with a click on **Stop** for temporarily storing the batch for either further scanning some later time, or for storing the batch to pass it to a QA and Indexing station. Scanning may also stop with **Finalize** if all work is done and the batch should be released for finalization.

To work in **OpenJob** mode it requires a special step in the task list of the scanning profile **Load Batch**. There are three ways of **Load Batch** to work:

- Work with a fixed batch name.
- Automatically create a new batch on each start.
- Show the batch selection dialog to either create a new batch or to pick up an existing one.

## 13 Indexing with DpuScan

Image files often must be supplemented by text data that is either taken from the image itself or from information typed in by the indexing operator. Passing those Metadata into the imaging workflow can be done by the batch file and by broker operations.

### 13.1 Automatic Indexing

Particular information for indexing may be taken from the scanning process itself, such as decoded Barcode information, OCR'd text from the image, detected mark information (OMR) or image size and color information. Information will be stored into variables and those variables can be used to be exported with the images.

### 13.2 Indexing with Batch Information

For a new batch, batch specific information may be queried once before the scanning starts. The dialog for entering the data must be invoked by a task step at some point before the scanning loop. On processing a new batch the dialog will pop up, giving the opportunity to give special box or batch data and on Ok this dialog will disappear and scanning starts.



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This User Manual is intended to give an overview of the many functions of the program.  
For system administrators who will do the setup of the software, a detailed Reference Manual is available that one can print from the CD-ROM.  
The Reference Manual is published in English and German language.  
You can find it on the product CD in the folder called  
**\DOCUMENTATION\**



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