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# BarcodeOCR Dokumentation 20.4.x

BarcodeOCR is a tool for automatic file processing and barcode recognition.

With this software, scanned documents can be monitored for a barcode and then renamed as appropriate, separated for further processing and saved in another application.

BarcodeOCR monitors folders on the local PC or in the network. If new files go into these input folders they are automatically processed. How documents are to be processed is defined only once in one or more configurations. Processing includes differentiating them by barcode type and content, input folder and output folder, separating document stacks and naming output files.

Once the configuration has been created, the software runs automatically in the background as a Windows service, without any further interaction.

# Einführung

BarcodeOCR is a tool for automatic file processing and barcode recognition.

With this software, scanned documents can be monitored for a barcode and then renamed as appropriate, separated for further processing and saved in another application.

BarcodeOCR monitors folders on the local PC or in the network. If new files go into these input folders they are automatically processed. How documents are to be processed is defined only once in one or more configurations. Processing includes differentiating them by barcode type and content, input folder and output folder, separating document stacks and naming output files.

Once the configuration has been created, the software runs automatically in the background as a Windows service, without any further intervention.

## Supported Barcodes

### 1D-Barcodes

- Code 11
- Code 39
- Code 93
- Code 128
- Inter 2 of 5
- Codabar
- Patchcode
- Code 39 Extended
- EAN 8
- EAN 13
- UPC-A
- UPC-E
- Add 2
- Add 5
- Pharmacode

### Postal Barcodes

- PostNet
- RM4SCC
- Planet
- Australia Post
- Intelligent Mail

### 2D-Barcodes

- PDF 417
- Data Matrix
- QR Code
- Micro QR

## Supported operating systems

BarcodeOCR runs on all Windows versions from Windows 7 upwards or respectively Windows Server 2008, in each case on 32 Bit and 64 Bit systems.

## Supported file formats

PDF (automatic page separation possible), BMP, TIF, JPG und PNG  
Multi-page TIF-Images can be split in separated files

# Installation und Einrichtung

The current version of BarcodeOCR is available at the [download area](#). Here you will find older versions as well as the current version.

# Installation

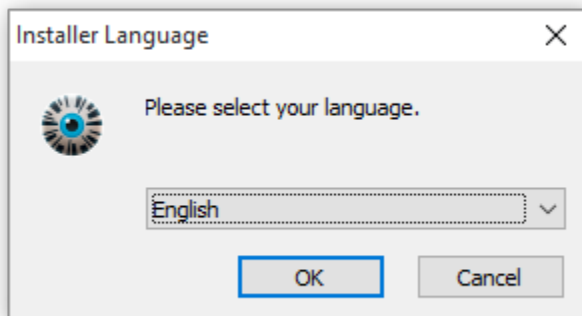
The current version of BarcodeOCR is available at the [download area](#). Here you will find older versions as well as the current version.

Insert your serial number into the field on the download area, to download the latest version available for your license.

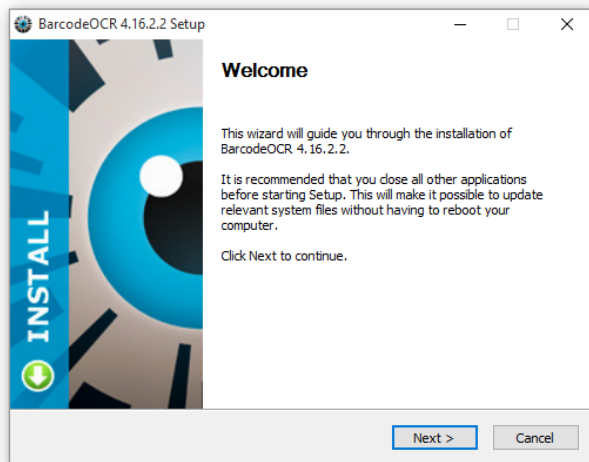
## Installation

The installation requires elevated rights to create a windows service.

- Start the installation by double-clicking the setup
- Select the desired language



- Follow the instructions provided by the setup wizard to complete the installation.



# BarcodeOCR testen

You can operate BarcodeOCR for a 30 day trial period for free. During this period the registration wizard will appear each time the application is launched.

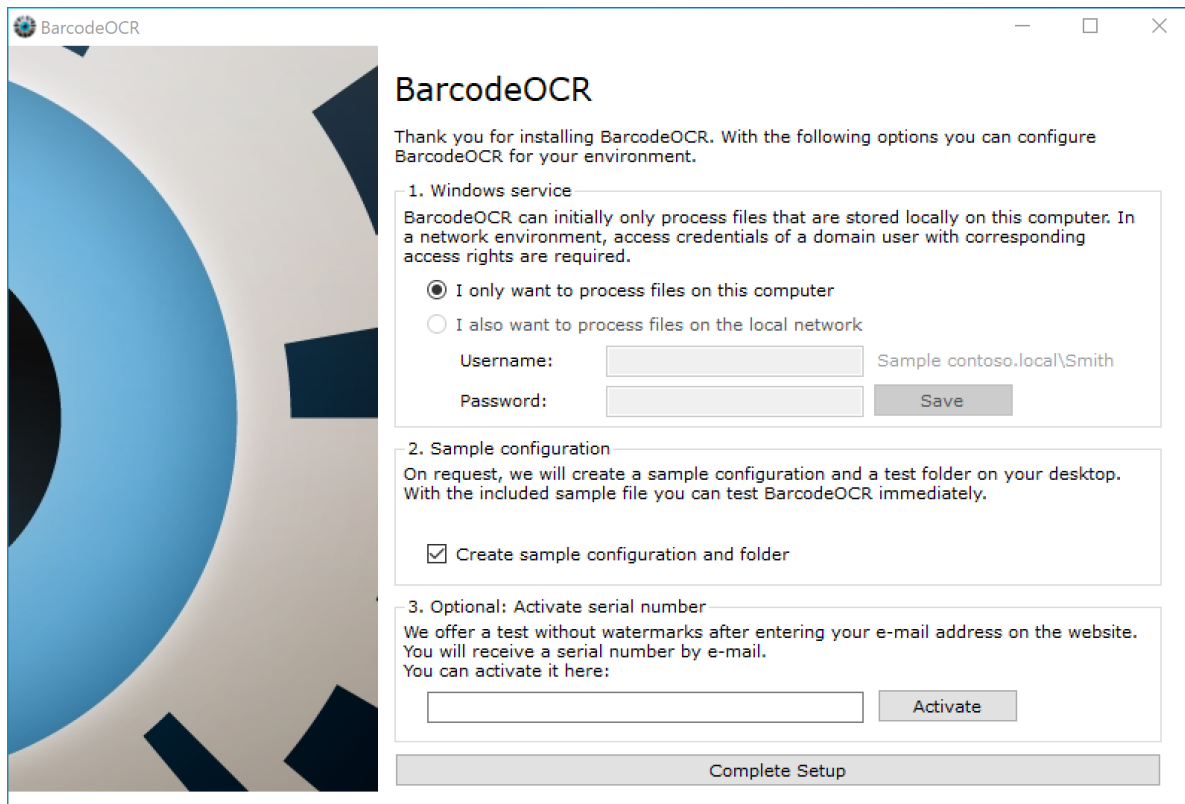
The entire range of functions of BarcodeOCR is available in this period. Once the test period has expired the application can no longer be started. It can then only be activated by entering a valid serial number.

The remaining days of your test period can be seen within the application in the bottom-left corner.

## First start of BarcodeOCR

The first time you start BarcodeOCR, you can configure the service for network processing, create a demo configuration and optionally activate a test serial number.

For the test configuration a new folder "BarcodeOCR" will be created on your desktop. Included are function folders and a PDF file for testing. It describes various functions and the file offers a good start and a demo of the functions. It is helpful to read this file once and process it afterwards.



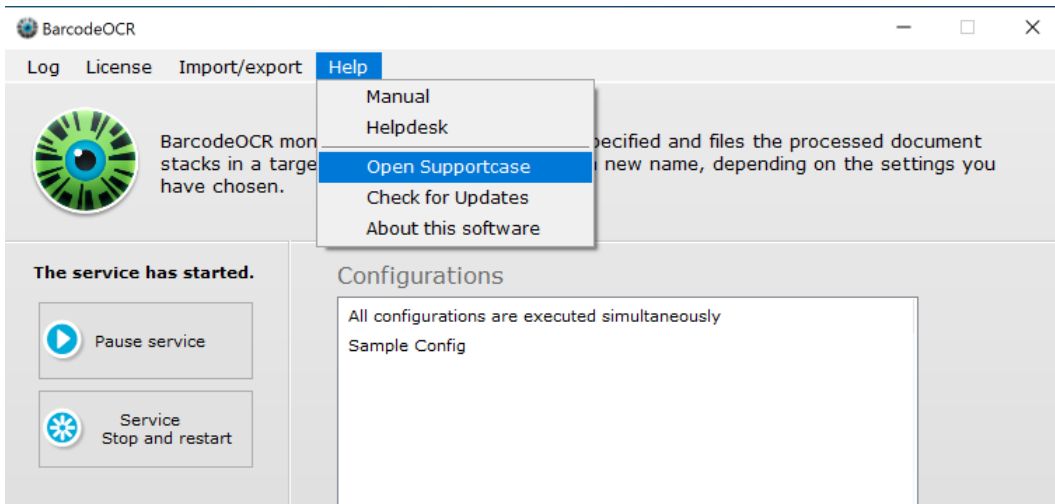
The screenshot shows the BarcodeOCR configuration window. The title bar reads "BarcodeOCR". The main content area is titled "BarcodeOCR" and contains the following sections:

- Thank you for installing BarcodeOCR. With the following options you can configure BarcodeOCR for your environment.**
- 1. Windows service**  
BarcodeOCR can initially only process files that are stored locally on this computer. In a network environment, access credentials of a domain user with corresponding access rights are required.  
 I only want to process files on this computer  
 I also want to process files on the local network  
Username:  Password:
- 2. Sample configuration**  
On request, we will create a sample configuration and a test folder on your desktop. With the included sample file you can test BarcodeOCR immediately.  
 Create sample configuration and folder
- 3. Optional: Activate serial number**  
We offer a test without watermarks after entering your e-mail address on the website. You will receive a serial number by e-mail. You can activate it here:

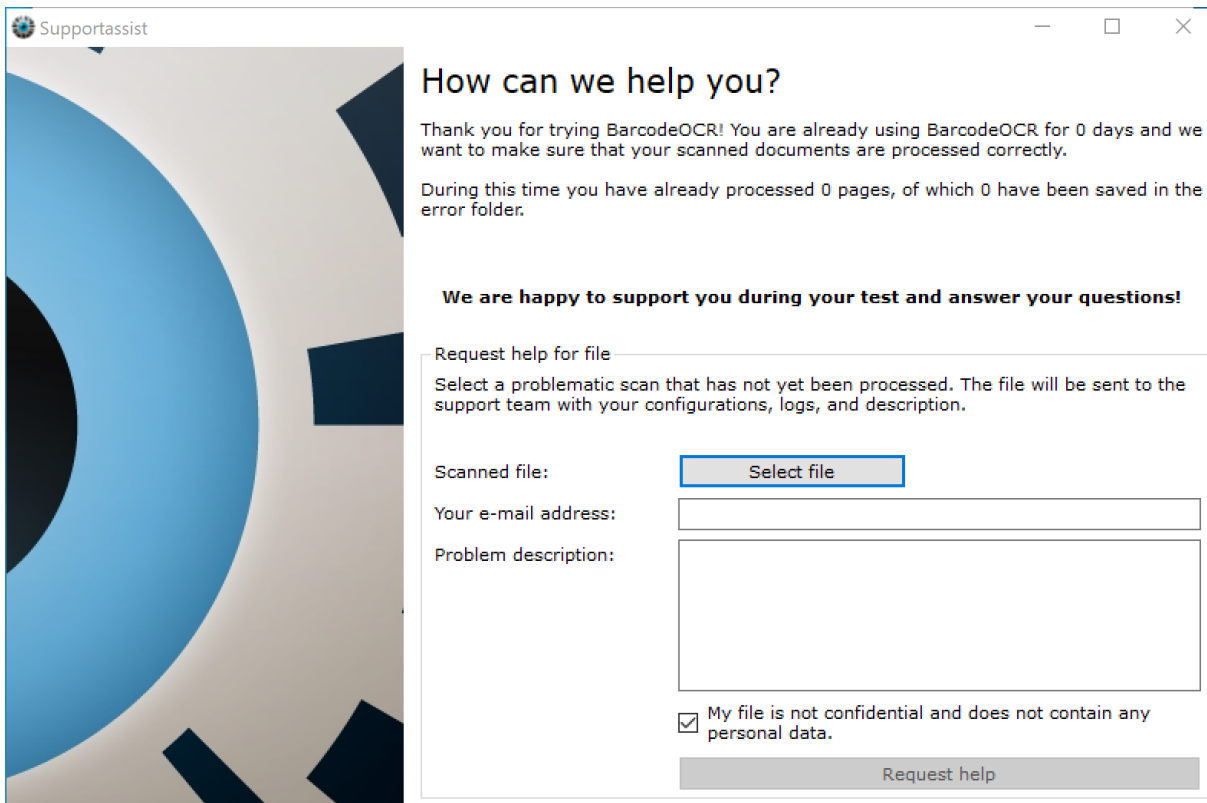
At the bottom of the window is a large  button.

## Do you need help?

You can easily open a support request using the corresponding option:



This opens the form to submit a new help request. This window might display up to two times, if BarcodeOCR detects that you process an unusual amount of error pages.



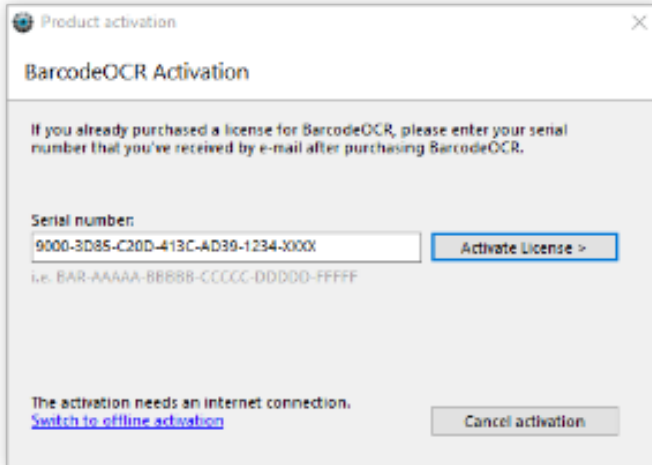
To request for help, select an **unprocessed** scanned pdf file that is not processed successfully, enter your email and a short information regarding the problem and click on "Request help" to submit the request.

# Aktivierung der Lizenz

## Registration and activation with an internet connection

Registration with an internet connection is the quickest and easiest way to get your copy of BarcodeOCR up and running.

- Start the application, click the menu entry "License" and choose "Activate license on this PC"
- In the next window, enter your serial number:



- Click on "Activate License"
- The following page will display your license information and unlocked edition of BarcodeOCR. In the case of problems, while activating your license, more information will be displayed. After successful activation, you can use the software with the range of functions that you have purchased.

### Note

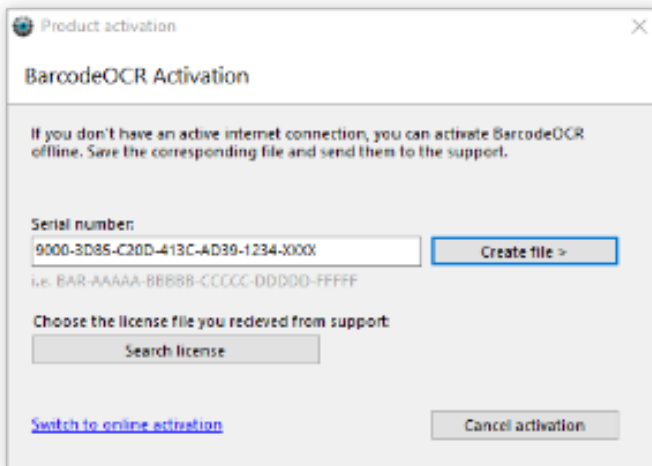
During activation, a connection to the license server is established, so the serial number can be validated. For activation, the data entered in the registration wizard and a unique key calculated from the PC's hardware are transmitted. Apart from this, no data or other information is collected or transferred from your PC.

Make sure that the PC is connected to the internet and the connection of BarcodeOCR isn't being blocked by a firewall or proxy server.

## Registration and activation without an internet connection

If the PC that you want to run BarcodeOCR on does not have an internet connection, you must activate the software manually. This activation method is not completed within seconds due to the fact that the support needs to generate a special license for your PC. This might take up to 48h.

- Start the application, click the menu entry "License" and choose "Activate license on this PC"
- Click the option "Switch to office activation"
- In the next window, enter your serial number:





- Click "Create file"
- E-Mail the saved file to the support ([How to contact](#))
- After manual generation, you will receive a special license file from the support
- To install the license, open the Activation window again, switch to office activation and click on "Search license" and choose the file from the E-Mail

After successful activation, you can use the software with the range of functions that you have purchased.

# Einrichtung im Netzwerk

To access and process files on network folders, it is necessary to grant the BarcodeOCR service the necessary rights for the affected folder. Read and write access is required.

The service requires the credentials of an account with read and write access to the network folder listed within the configuration.

To grant access to the service.:

1. Open the *Control Panel*
2. Press *Administrative Tools*
3. Press *Services*
4. Look for the BarcodeOCR service
5. Right-Click the entry and open *go to details*
6. Open the *Log On* tab
7. Set the option *This Account* and click *Browse*
8. Enter the account credentials of a user with sufficient rights and confirm the password by reentering it
9. Press *OK*
10. Confirm the hint by pressing *OK* and restart the BarcodeOCR service

# Updates

If you have an active maintenance subscription, you are warranted for the latest updates and can download the latest updates from the BarcodeOCR website.

## Preparation

- Check the [release notes](#) of the new version for any instructions during the update
- Backup your current configuration by exporting them (see [Configurations](#) for more information)
- If you are using an offline license: Check if the maintenance date in the "About" dialog is updated. You can check this against the [License Portal](#).
- Download the latest release of BarcodeOCR for your license

## Updating

1. Stop the BarcodeOCR service and close the BarcodeOCR Application
2. Start the Installer and follow the steps
3. Start BarcodeOCR
4. Check your configuration if all options and settings are migrated successfully. If there are new options, adjust accordingly to your needs.
5. Start the BarcodeOCR service, if not already started (the BarcodeOCR logo will color to green)
6. Check the error log for any entries
  - a. If you receive an error regarding missing permissions, please configure BarcodeOCR for network usage: [Configuration within a network](#)

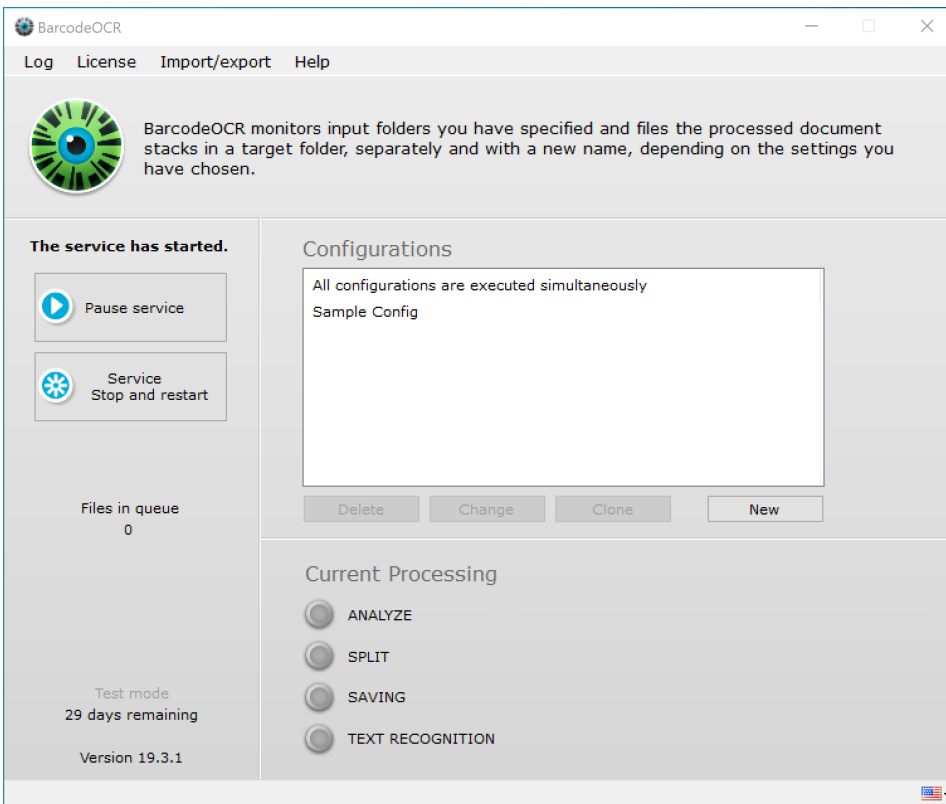
If an error occurs or if the documents won't be processed the usual way, please check if there is already a solution for your problem.  
If not, please contact the support.

# Konfiguration einer Arbeitsanweisung

BarcodeOCR is a Windows service which works in the background and constantly monitors predefined folders. For configuration purposes the application needs to be launched from the Desktop or through the shortcut from within the start menu. The user interface displays the current state of the service - through the text on the left as well as through the colour of the Logo:

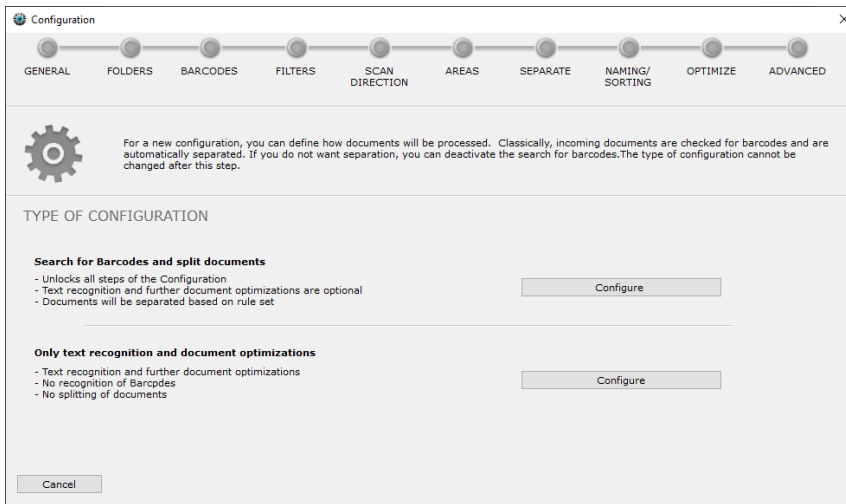
Colour	Description
red	The service stopped. Files are not being processed
yellow	The service is launching or stoping
green	The service is running and responds to new files, that are being put into the input folder

Inside the right side of the user interface, the configurations are listed with which the BarcodeOCR service monitors folders and processes files. Create your first configuration by pressing "New". If a file is being processed, you will see the current progress in the program window.



# Art der Arbeitsanweisung

For new configurations you can define the type of the configuration once.



## Search for barcodes and separate documents

This option unlocks all configuration options and is intended for incoming documents have barcodes, after which the output documents are to be renamed or separated.

## Text recognition and optimization only

If the incoming documents do not contain barcodes, and are only optimized or made searchable, use this method.

# Allgemein

In the first step of the wizard you define general settings for your new configuration.

Configuration

GENERAL FOLDERS BARCODES FILTERS SCAN DIRECTION AREAS SEPARATE NAMING/SORTING OPTIMIZE ADVANCED

Enter a name for the configuration.  
The name will be shown in the overview and in the log files.  
Each name can only be assigned once.

GENERAL SETTINGS

Name:

Priority:

State:  Configuration is disabled - no files are processed

Cancel < Back Continue >

## Name

The name helps you to distinguish the work instructions from each other. In the list of configurations on the main page the configurations are displayed sorted by name (A-Z).

## Priority

If you have several configurations, you can assign a priority to the configurations. If several files are added in different configurations at the same time and added to the internal processing queue by BarcodeOCR, files from configurations with a high priority (1 = highest, 5 = lowest) are processed first.

## Example of a use case

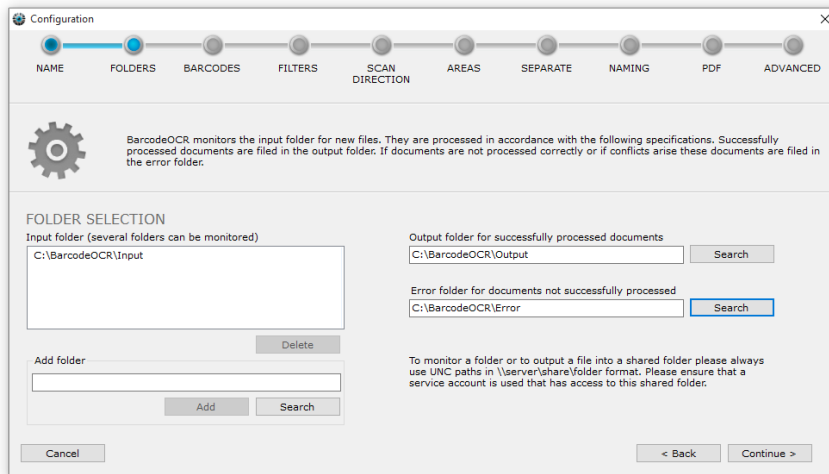
Scanned documents of employees are to be preferred to "archive processing". The configuration "Scanned documents" then receives priority 1, "Archive processing" priority 5.

## Status

If files from this configuration are not to be processed, check the box. The configuration is then deactivated and no documents are processed.

# Ordner

BarcodeOCR monitors a single or multiple folders per configuration for incoming files. Those folders are so called "input folders". It is usually the output folder of a scanner or other folders, where documents are being regularly stored at.




Specify an input folder and then click on "Add", or click on "Search" and navigate to a local folder. Selected input folders will be added to the list and can be removed again by pressing "Delete".

If you have multiple configurations: An input folder can only be defined in a single configuration.

Similarly to the input folder, enter an output folder for successfully processed files and an error folder for unsuccessfully processed files.

## Networkfolder

 Please remember that shared folders must be specified via a UNC path. System inherent, mapped drives are not available to windows services. Generally before using network folders, the default service account used for the BarcodeOCR service has to be changed, since the local system account has insufficient rights to access network folders. For support on changing the user, please refer to our support page [Configuration within a network](#).

Successfully processed files are deposited in the output folder. This folder is usually the input folder of a company system that uses the files processed by BarcodeOCR, for example an inventory control system, ERP system, document management or archiving software.

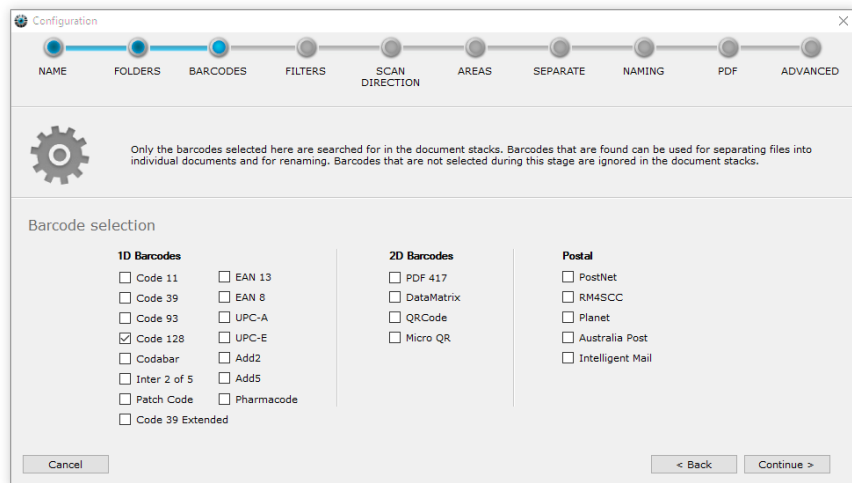
Files that could not be processed by BarcodeOCR are stored in the error folder. This happens, in particular, if a barcode was not recognised or successful processing would create a name conflict.

## Sorting out ZUGFeRD invoices

Invoices with digital invoice information in ZUGFeRD format, can be automatically sorted out into a specific directory before processing. These files are not processed by BarcodeOCR (otherwise information would be lost) but are simply moved to the specified folder. A random character string is appended to the file name so that files with the same file name are not overwritten.

# Auswählen des Barcodes

BarcodeOCR recognizes a variety of different barcode types. In this step, you specify the type of barcodes you wish BarcodeOCR to search for in a processed document.

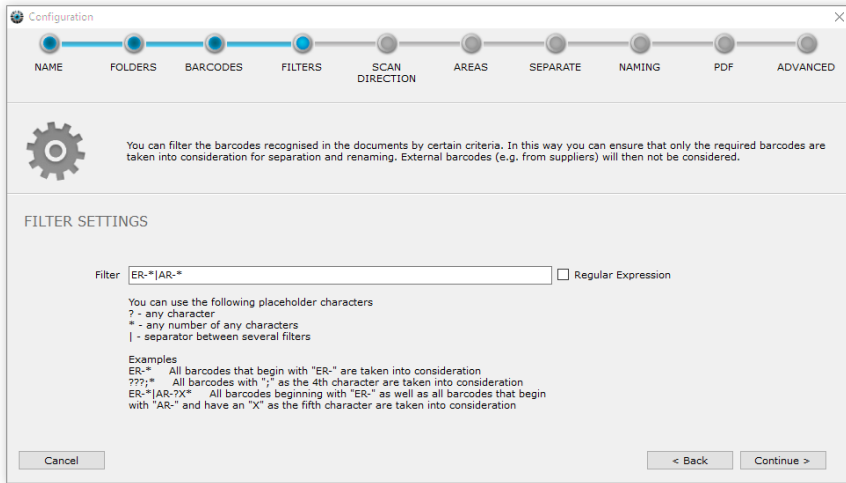


Each selected barcode type requires additional time during processing. Hence only select barcode types, that are actually expected within a processed document.



# Optional: Filter

You can filter barcodes recognized in the document by certain criteria. This way you can ensure that only required barcodes are taken into consideration for separation and renaming. External barcodes (e.g. from suppliers) will then not be considered.



You can use the following placeholders to generate the filter screen:

Placeholder	Description
?	Any single character
*	Any number of characters
	Separator, for specifying several filters one after the other

## Examples for simple filter

Filter	Description
ER-*	Takes into account all barcodes containing information beginning with "ER-".
???,*	Takes into account all barcodes containing information with a "," as the fourth character.
????????	Takes into account all barcodes containing information with a length of eight characters.
AR-* *2011	Takes into account all barcodes that begin with "AR-" <b>as well as</b> all barcodes that end with "2011".

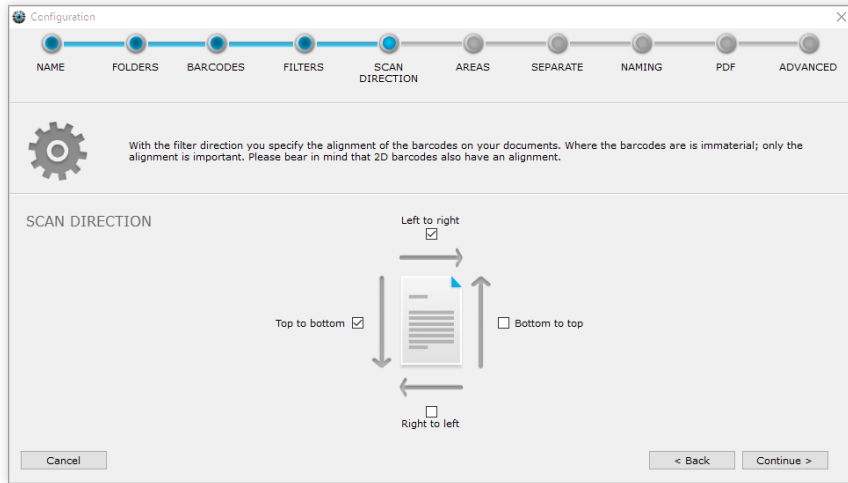
It is possible to extend the functionality and use regular expressions to match barcode values. To activate Regular Expressions, tick the corresponding box. The characters used for simple filtering will be ignored. You have to either use a simple filter or a Regular Expression. Combining the two methods is not possible.

## Example for filter as regular expressions

Filter	Description
\p{L}{6}\d{8}	Takes into account all barcodes containing information starting with six characters followed by eight numerals.
\d{8}	Takes into account all barcodes containing information with a length of eight characters.
\AER-\d{8}	Takes into account all barcodes containing information starting with "ER-" followed by eight numerals.

# Auswählen der Scanrichtung

Select the direction in which BarcodeOCR is to look for barcodes in the document. The scan direction corresponds to the alignment of the barcode. Selecting the way the barcodes are arranged, speeds up the processing time as well as decreasing the fault rate.



In this example, barcodes that are printed from "left to right" (normal horizontal reading direction) are taken into account, and so are barcodes printed from "top to bottom".

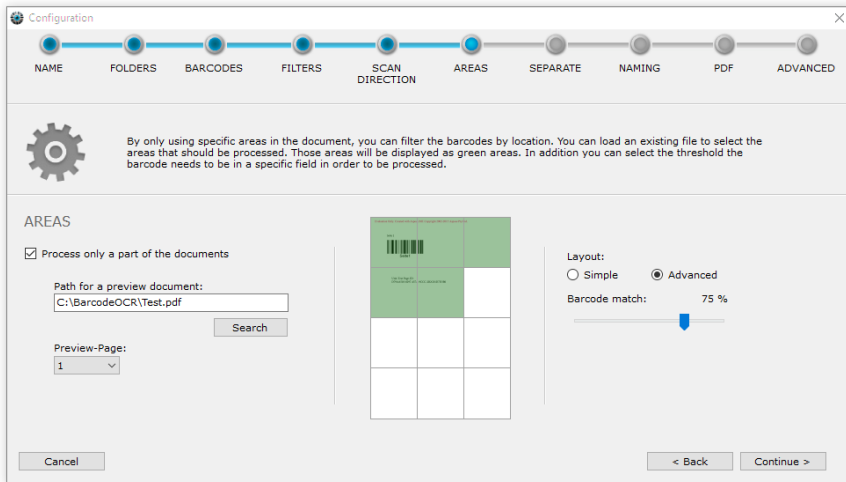
Consider that even some 2D barcodes has a set orientation!

When no orientation is known, temporarily activate all directions to make sure your configuration is working as expected and step by step remove directions to discover the needed orientation of the used barcode type.

# Optional: Festlegen von Bereichen

The whole page is always checked for barcodes. Filtering for ranges is a time-consuming filter option and should only be used if the barcodes cannot be filtered with the other options.

Additional filtering apart from barcode type, contents and orientation can be implemented by including or excluding predefined scan areas on the documents.



This function can be enabled by ticking the "Process only a part of the document" box. To simplify the definition of the area, you are able to select a representative preview document.

1. Press Search
2. Select a file from your scan folder, which will be processed via BarcodeOCR later on
3. Select a specific page from the document
4. Mark one or more scan areas which contain the barcodes you'd like to recognize

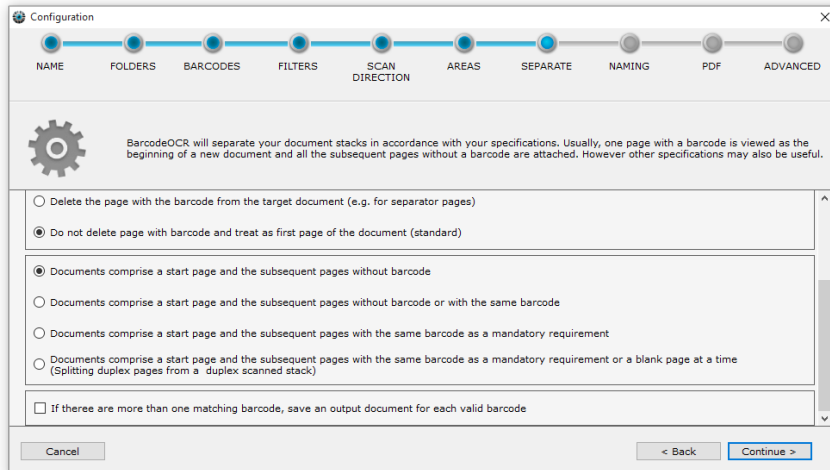
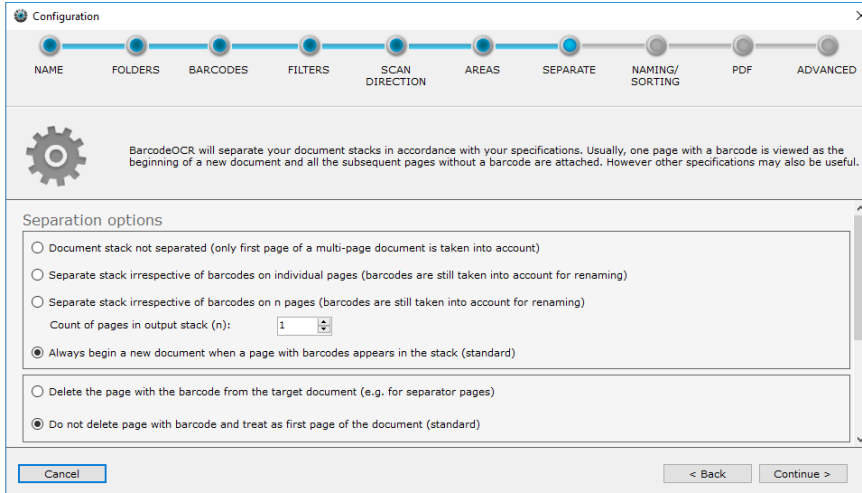
Only barcodes within the green area will be processed. Barcodes inside the white areas will be ignored. The slider on the right enables you to set a recognition percentage ratio. Meaning, if the barcode happens to be between a green and a white area, this ratio will determine, if the barcode will be processed.

- If you set a 50% ratio, at least half of the barcode must be within a green area.
- If you set a 100% ratio, the whole barcode must be contained within a green area to be processed further.

You can choose between a simple layout pattern (2x2 blocks) or an advanced layout pattern (3x4 blocks, respectively 3x3 blocks) for a more refined area selection.

# Trennoptionen

A essential function of BarcodeOCR apart from recognizing barcodes, is the ability to split huge document stacks and create separate smaller documents. Recognized barcodes are used as marks to split the document stack. This step will determine how BarcodeOCR is to split the document stack and save the separated documents.



The split options are grouped into different levels, to customize the splitting process according to your needs.

## Selection of the splitting behavior

Split option	Description	Typical example
Do not separate document stack	<ul style="list-style-type: none"> <li>Only the first page of a multi-page document is taken into account</li> <li>The document is not divided up into individual pages</li> </ul>	Renaming single paged receipts
Separate stack irrespective of barcodes on individual pages	<ul style="list-style-type: none"> <li>A multi-page document is divided up into individual documents of one page each, irrespective of barcodes</li> <li>The individual documents are renamed on the basis of the barcode later on, however</li> </ul>	Multiple single paged receipts are scanned as stack (regardless if it contains a barcode)

Separate stack irrespective of barcodes on n pages	<ul style="list-style-type: none"> <li>• A multi-page document is separated into partial stacks of n pages independently of barcodes.</li> <li>• However, the partial stacks are later renamed according to the barcodes.</li> </ul>	Processing of double-sided forms. If the barcode is not recognized, the document is still separated.
Always begin a new document when a page with barcodes appears in the stack	<ul style="list-style-type: none"> <li>• Each page in a multi-page document that has a barcode is viewed as the beginning of a new document (exceptions are defined afterwards)</li> </ul>	Processing of a document stack with varying output page counts

## Selection of the splitting process

Selecting one of the following options is only possible, if the previous option *Always begin a new document when a page with barcodes appears in the stack* was selected.

Option	Description	Typical example
Delete the page with the barcode from the target document	<ul style="list-style-type: none"> <li>• If your documents do not have any barcodes, you can place separator pages with a barcode between the documents before scanning them</li> <li>• If you select this option, the page with the barcode is viewed as a separator page and is not included in the target document</li> </ul>	Preprinted separator sheets are put between documents inside the stack
Do not delete page with barcode and treat as first page of the document	<ul style="list-style-type: none"> <li>• If you select this option, the page with the barcode is viewed as a separator page and is not included in the target document</li> </ul>	The barcode is contained on the first page of every new output file. (i.e. Invoices)

## Selection of the stack type

Selecting one of the following options is only possible, if the previous option *Always begin a new document when a page with barcodes appears in the stack* was selected.

Option	Description	Typical example
Documents comprise a start page with barcode and the subsequent pages without barcode	<ul style="list-style-type: none"> <li>• A page with a barcode in the document stack marks the beginning of a new document</li> <li>• All subsequent pages on which no barcodes are found are attached to this page</li> <li>• The first subsequent page with a different barcode marks the beginning of the next document</li> </ul>	A multi paged invoice has a single unique barcode on the first page
Documents comprise a start page with barcode and the subsequent pages without barcode or with the same barcode	<ul style="list-style-type: none"> <li>• A page with a barcode in the document stack marks the beginning of a new document</li> <li>• All subsequent pages on which no barcodes are found or that have the same barcode as the start page are attached to this page</li> <li>• The first subsequent page with a different barcode marks the beginning of the next document</li> </ul>	A multi paged invoice has a single unique barcode on the first page, but could have the same barcode on the following pages.

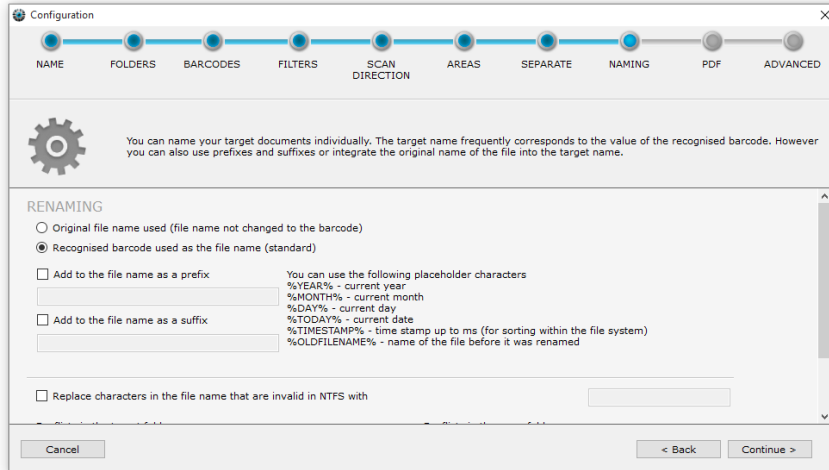
<p>Documents comprise a start page with barcode and the subsequent pages with the same barcode as a mandatory requirement</p>	<ul style="list-style-type: none"> <li>• A page with a barcode in the document stack marks the beginning of a new document</li> <li>• All immediate subsequent pages bearing the same barcode as the start page are attached to the start page</li> <li>• The first subsequent page with a different barcode marks the beginning of a new document</li> <li>• Subsequent pages without a barcode are sent to the error folder</li> </ul>	<p>A multi paged invoice requires a identical barcode for each associated page. Pages without barcodes are moved into the error folder.</p>
<p>Documents comprise a start page with barcode and the subsequent pages with the same barcode as a mandatory requirement or each with a empty page  (Splitting duplex pages from a duplex stack)</p>	<ul style="list-style-type: none"> <li>• Two subsequent empty pages are sent to the error folder</li> <li>• At least one matching barcode must be contained in the two subsequent empty pages</li> </ul>	<p>A document is scanned on both sides an the front and back of the document is saved.</p>

## Behavior

Option	Description	Typical example
<p>Documents with multiple matching barcodes will be saved as seperat file for each matching barcode</p>	<ul style="list-style-type: none"> <li>• For each barcode located on a page and matched filter, a new file is created.</li> </ul>	<p>You stick two different barcodes on a receipt and a output file for each barcode should be created.</p>

# Benennen/Sortieren

Specify the convention for naming documents.



## Selection of the filename

Renaming options	Description	Typical example
Use original file name	<ul style="list-style-type: none"> <li>The document is only divided up and not renamed on the basis of the barcode</li> <li>Output files use the source document name</li> </ul>	A preprocess already renames the files. The original filename is kept.
Use recognized barcode as the file name	<ul style="list-style-type: none"> <li>The document is renamed based on the recognized barcode</li> </ul>	The processed documents should be searchable by barcode value

## Additional renaming options

Renaming options	Description	Typical example
Add to the file name as a prefix	<ul style="list-style-type: none"> <li>Puts the characters entered at the beginning of the file name</li> <li>The placeholders specified on the right can be used</li> </ul>	Every file should have a text or timestamp prepended, to enable chronologically sorted files by name inside of a file browser
Add to the file name as a suffix	<ul style="list-style-type: none"> <li>Puts the characters entered at the end of the file name</li> <li>The placeholders specified on the right can be used</li> </ul>	To relate the processed file to the original document, the original filename should be attached
Replace characters in the file name that are invalid in NTFS with	<ul style="list-style-type: none"> <li>The following characters are invalid in the file name in the NTFS file system: / ? &lt; &gt; \ : *   " ' &amp; # \$ % &amp; # \$ % &amp; # \$ %</li> <li>If the barcodes contain characters such as this you can specify a replacement character that appears in place of the invalid character when the file is saved</li> <li>If no replacement character is specified, the invalid characters are removed</li> </ul>	The barcode value contains invalid characters, that are later used as a filename. Since a file with invalid characters can't be created on an NTFS file system, the file will be moved inside the error folder and named "Naming Error"

## Replace text in the output filename

Additionally, you can replace specific characters or strings in your barcode. Just enter the text that BarcodeOCR should file (i.e. INV-) and define, which text should be replaced. (i.e. INVOICE-).

You can choose placeholder or variables listed below if you need further customization. After entering the text to find and the text that should be replaced, choose "Add to list" to add the replacement to the list.

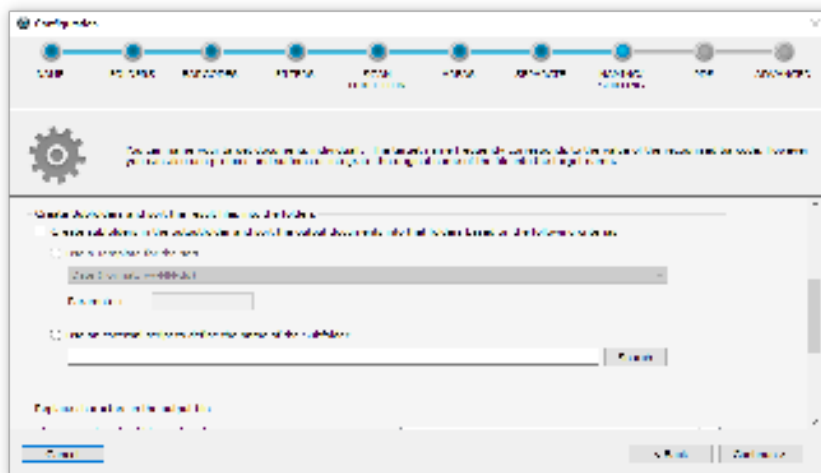
You can save different replacements to the list. They will be processed in the order of display. If you like to delete a replacement, click the entry and choose "Remove from list".

Samples:

Find	Replace with	Barcode text	After replacement
INV-	INVOUCE-	INV-12345	INVOICE-12345
DATE	%TODAY%	SCAN-DATE	SCAN-01.01.16
Invoice	(leer)	Invoice5678	5678

## Placeholder

Placeholder	Sample value	Description
%YEAR%	2016	The current year
%MONTH%	01	The current month
%DAY%	01	The current day
%TODAY%	01.01.16	The current date
%TIMESTAMP%	09-12-06-032	The current timestamp with milliseconds (hh-mm-ss-fff) (recommended for sorting within the filesystem)
%OLDFILENAME%	Scanner-01929284	Filename of the input file
%MD5%	3c4cbcc7b0b7422b2c0e99ecfeb dab14	MD5-Hash of the output file
%PGCNT%	2	A number of pages within the saved document
%LOCALCOUNTER%	15	consecutive number for per configuration which will be increased for each saved document by 1
%GLOBALCOUNTER%	628	consecutive number for per BarcodeOCR installation which will be increased for each saved document by 1



## Create Subfolders and sort the result files into the folders

BarcodeOCR can create a defined subfolder structure in the selected output folder, where the output documents can automatically be sorted in. Nonexisting subfolders will be created while processing the documents and before saving the result file with the desired file name into the folder.



## Use a template for the sort

Most requirements can already be accomplished using a preconfigured template for creating a subfolder structure. Some of the templates can be used using a parameter to adjust the template to your needs:

Name of template	Parameter is used for	Sample (bold = subfolder structure)
Date (Format: yy-MM-dd)	no parameter needed	Sample Barcode: INVOICE-1234 Path: Outputfolder\2017-07-12\INVOICE-1234.pdf
Date (Format: MM-dd)	no parameter needed	Sample Barcode: INVOICE-1234 Path: Outputfolder\07-12\INVOICE-1234.pdf
Date (Format: MM-dd-HH)	no parameter needed	Sample Barcode: INVOICE-1234 Path: Outputfolder\07\INVOICE-1234.pdf
Day (dd)	no parameter needed	Sample Barcode: INVOICE-1234 Path: Outputfolder\2017-07-12\INVOICE-1234.pdf
Hour (HH)	no parameter needed	Sample Barcode: INVOICE-1234 Path: Outputfolder\2017-07-12\INVOICE-1234.pdf
Subfolder based on delimiter	delimiter	Sample Barcode: INVOICES@2017@004 Parameter: @ Path: Outputfolder\INVOICES\2017\004\INVOICES@2017@004.pdf
Custom Date Format	date format)	Sample Barcode: INVOICE-1234 Parameter: yyyyMMddHHmss Path: Outputfolder\20170712191045\INVOICE-1234.pdf
Use the first X characters from barcode as subfolder	count of characters	Sample Barcode: INVOICE-1234 Parameter: 7 Path: Outputfolder\INVOICE\INVOICE-1234.pdf
Use the last X characters from barcode as subfolder	count of characters	Sample Barcode: INVOICE-1234 Parameter: 4 Path: Outputfolder\1234\INVOICE-1234.pdf

## Use an external script to define the name of the subfolder

There are sample files in the folder "Script Samples" in the BarcodeOCR installation folder showing how to customize BarcodeOCR to your needs

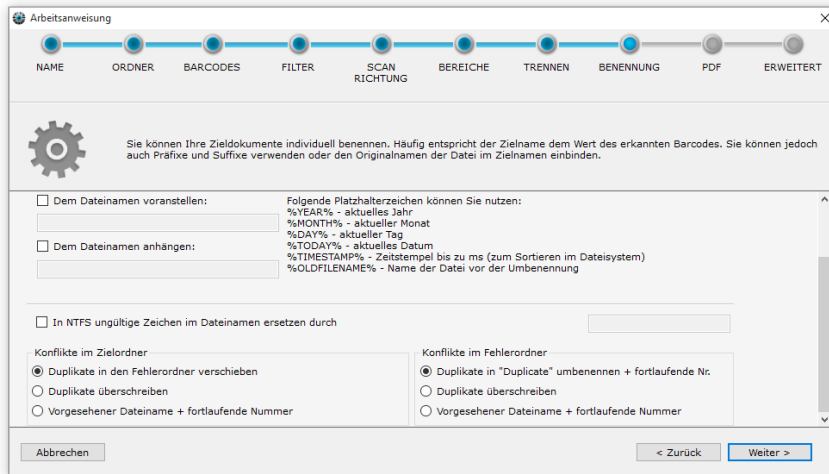
If you need to create complex folder structures, the template might not provide all flexibility. In these cases, you can use a PowerShell script to determine the subfolder (or nested subfolders) as well as set the output filename. This script will be launched while processing the file before saving the document into the output folder. All information regarding the document and the source stack will be passed as a parameter to the script to ensure that you have all information in order to create your folder structure.

You can access all collected information regarding the recognized text (if the document was OCRed) as well as all information regarding barcodes and use the information without restricted to determine the filename and the folder structure.

Using this option you can achieve:

- Sort the documents into subfolders - based on keywords within the recognized text (A sample is included as script in the folder "Script Samples" in the Installation directory)
- Sort Invoices into an "Invoice folder", Offers into a separate "Offers folder" as well as all other documents into another folder - based on keywords within the barcode
- Determine the subfolder path using your own algorithm (you can use all script options from PowerShell to do so)
- Set a completely new file name that is not associated with the recognized barcode
- Create a nested folder structure
- Use recognized but ignored barcodes (using filters) as subfolder name
- All kind of other scriptable options

Please note, that PowerShell-Scripts needs to be signed before using them, or the ExecutionPolicy needs to be adjusted to your needs. If the PowerShell script can't be executed, BarcodeOCR won't be able to use the script to determine the folder structure. In this particular case, a new entry in the error log will be created and the filename won't be saved on your custom path. If you need more information regarding the ExecutionPolicy, please see the sample scripts.



## Conflict resolution

### Conflicts in the target folder

If conflicts arise on saving (e.g. because a barcode appeared twice in a stack) you have the following options:

Solution options	Description	Typical example
Move duplicates to error folder	<ul style="list-style-type: none"> <li>The document is filed in the error folder</li> </ul>	The document was preprocessed and the filename already exists
Overwrite duplicates	<ul style="list-style-type: none"> <li>The newer document overwrites the existing document</li> </ul>	The document was preprocessed and the filename already exists
Intended file name + consecutive number	<ul style="list-style-type: none"> <li>The document is filed under the intended name but a consecutive number is attached to ensure that the file name is unique</li> </ul>	Doubly scanned documents should not be overwritten or sorted out, but instead saved inside the output folder
Attach to existing files	The pages from the target document are attached to a PDF document already existing in the output location. If no target document exists, it will be created.	Several pages from different scans are to be combined into one target file, which is then manually removed from the output folder once the process is complete

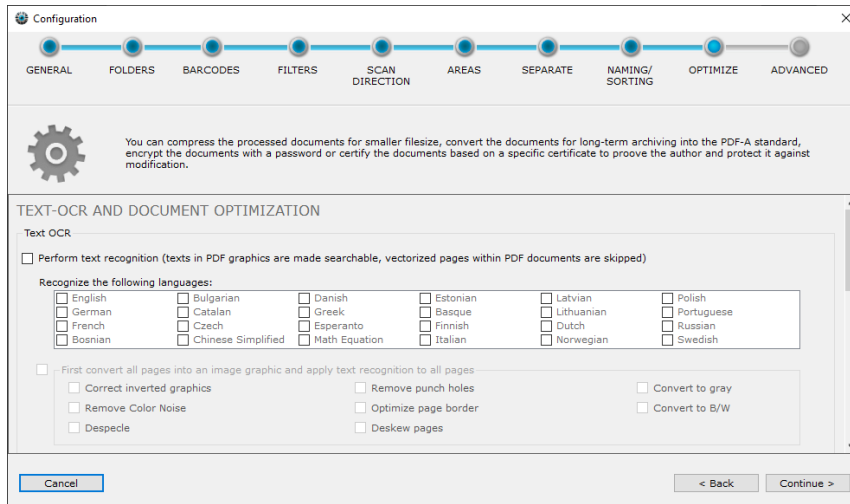
### Conflicts in the error folder

If conflicts arise in the error folder when saving, you have the following options:

Solution options	Description	Typical example
Rename duplicates to "Duplicate" + consecutive number	<ul style="list-style-type: none"> <li>The document is renamed "Duplicate" and is given a consecutive number, to ensure that the file name is unique</li> </ul>	The document was preprocessed and the filename already exists
Overwrite duplicates	<ul style="list-style-type: none"> <li>The newer document overwrites the existing one</li> </ul>	The document was preprocessed and the filename already exists
Intended file name + consecutive number	<ul style="list-style-type: none"> <li>The document is filed under the intended name but a consecutive number is attached to ensure that the file name is unique</li> </ul>	Doubly scanned documents should not be overwritten or sorted out, but instead saved inside the output folder

# Optional: Text-OCR / Optimieren

In this step you can have your PDF documents improved by text recognition or other options.



## Perform text recognition

If this option is enabled, scanned image pages are searched for text and the text is placed invisibly over the image - the page is thus searchable.

The text can then be searched for in the documents and the user can jump to the respective hits. If an indexing system (document management system, Windows Explorer, or similar) is used, the contents of several files can be searched simultaneously.

All incoming PDF documents are analyzed and made searchable. This also applies to pages that are subsequently stored in the error folder. Text recognition is only applied to "image-only" pages - vectorized pages are skipped. Since the individual pages of the document must be modified during this process, any signatures or PDF/A certifications are automatically removed from the document before the process.

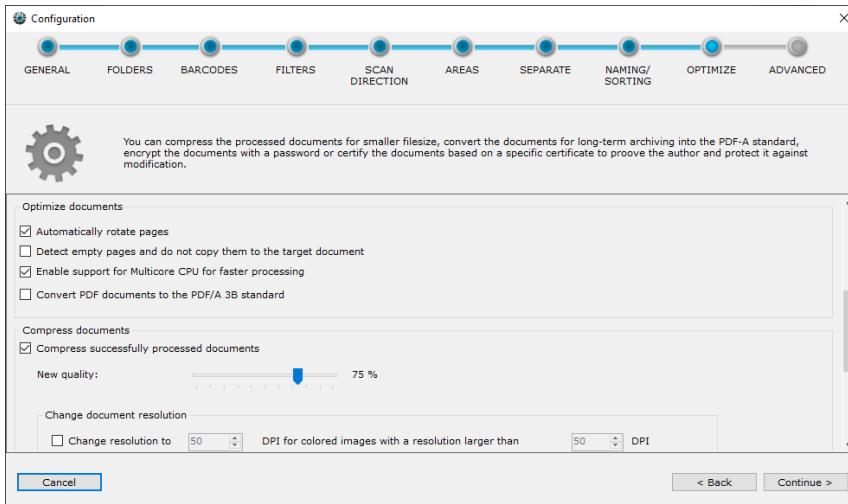
Multiple languages are supported, select the languages you want to recognize. Depending on the number of languages, this will affect the processing speed.

## First convert all pages into an image graphic and apply text recognition to all pages

If vectorized pages are also to be searched for text, you can activate this option. This converts the incoming document into an image and the text recognition is then performed on all pages.

If you activate this function, you can also apply various optimizations (these change the source image)

Correct inverted graphics	Corrects inverted colors (background black, text white)
Remove Color Noise	Removes image information and reduces the number of colors and grayscales used to achieve better compression
Despeckle	Removes image noise
Remove punch holes	Removes "black" holes at the edges
Optimize page border	Optimizes frayed image margins, or scan errors with wavy paper
Deskew pages	Tries to correct if scanned documents are fed 'slightly skewed' from the scanner and straightens them
Convert to gray	Converts the document to grayscale
Convert to B/W	Converts the document to black and white



## Rotate pages automatically according to the font direction

If activated, individual pages of the document are rotated by 90°, 180° or 270°. Thus, it is not necessary to manually rotate individual pages in the document stack in order to read them.

This option is applied after barcode recognition. Note that the scanning direction of the barcodes (step 5) is performed before the automatic rotation.

## Remove blank pages from scanned documents

Pages with little image information can be automatically removed when processing the documents. For each image, a factor is determined how much image information is present and what the ratio is. If too little image information is available, the page is not transferred to the target document and is deleted

## Support for multiple processor cores for faster processing of documents

This results in a more optimal utilization of several processor cores. If this option is activated, up to 16 processor cores are automatically loaded.

## PDF/A

If you want to save your PDF documents for long-term archiving, activate this option. The documents in the error and output folder will then be saved as PDF/A-3B Standard.

Please note that the file size of PDF/A files is usually larger. This is due to the fact that fonts and other metadata are stored in the document.

## Compress PDF documents

In this case, graphics within the documents are reduced in quality to reduce the file size. Based on the current graphics quality, you can reduce the graphics by a certain percentage. Depending on the graphic format, a quality of 75-90% is a good compromise between graphic quality and file size. The compression level of the documents depends on the graphics embedded within the PDF file. Compression is lossy, which means that image information is removed from the graphics.

Your scanner scans the documents in a certain resolution (e.g. 200 or 300 DPI). The higher the resolution of the documents, the better barcodes can be recognized and the larger the documents are in file size. If a high resolution is necessary for reliable barcode recognition, but the documents are not archived in the resolution, the resolution can be reduced.

This has a significant effect on the size of the incoming files. You can define this separately by type (color, grayscale or b/w) and also define the resolution from which the reduction should take place first.

Configuration

GENERAL FOLDERS BARCODES FILTERS SCAN DIRECTION AREAS SEPARATE NAMING/ SORTING OPTIMIZE ADVANCED

You can compress the processed documents for smaller filesize, convert the documents for long-term archiving into the PDF-A standard, encrypt the documents with a password or certify the documents based on a specific certificate to prove the author and protect it against modification.

Change document resolution

Change resolution to 50 DPI for colored images with a resolution larger than 50 DPI

Change resolution to 50 DPI for B/W images with a resolution larger than 50 DPI

Change resolution to 50 DPI for grey scaled images with a resolution larger than 50 DPI

Digitally certify PDF documents

Certify successfully processed documents

Digitally sign PDF documents

Certificate:  Search

Password:  Generate Testcertificate

Encrypt documents

Encrypt successfully processed documents

Password for view:

Password for alter:

Cancel < Back Continue >

## Digitally sign & certify PDF documents

With the help of a digital certificate, PDF documents receive an invisible digital signature when saved in the output folder. The document can then be annotated or edited. However, the signature is then no longer valid because the document was subsequently modified. With the signature it is possible to display the original version of the document again.

An X.509 certificate and the corresponding private key in a PKCS#12 file is required. (for example .p12 or .pfx file). These certificates can also be created by the user or purchased from a CA.

If you want to use an existing certificate, click on "Search" and select the certificate. Then enter the password to open the certificate file. This is mandatory and will be checked when clicking on "Next >". If you have entered an incorrect password or the certificate for the digital signature is not compatible, you will receive a message.

For testing purposes, it is possible to generate a compatible test certificate. To do this, click on "Generate test certificate".

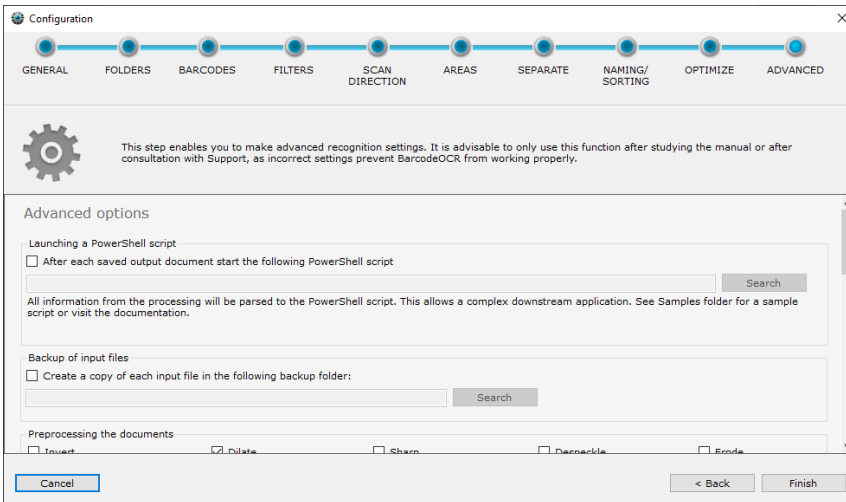
## Encryption

You can encrypt documents with secure symmetric AES encryption. To do so, define a password for opening the document (read mode) and a password for write mode (including removing the encryption). Documents in the error and output folder are then stored encrypted during processing by BarcodeOCR.

When opening the file in your PDF viewer you will be asked for the password. The content of the document can only be displayed after the password has been entered.

BarcodeOCR cannot process encrypted documents. If you store an encrypted file in the input folder of a work instruction, the file will be moved to the error folder and not processed.

# Optional: Erweitert



## Starting a PowerShell script

There are sample files in the folder "Script Samples" in the BarcodeOCR installation folder showing how to customize BarcodeOCR to your needs

After each processed file, a PowerShell script is started, which receives an extensive data structure with information about the recognition process.

An example script is automatically installed and can be found in the installation folder under "Script Samples" "External Application - Powershell write all parameters to file. ps1".

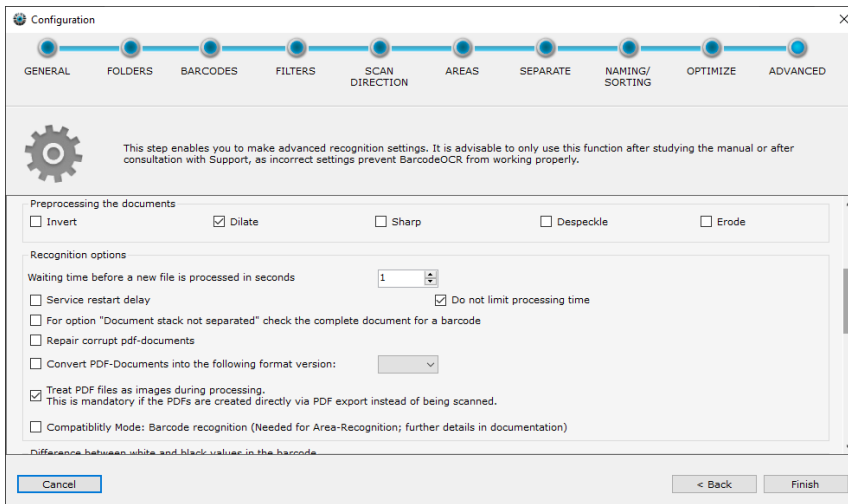
The example script writes all transferred information to a text file and shows all possible data fields, e. g. the following example:

- the configuration used (name and unique ID)
- the file was processed successfully, if no error reason
- the barcode used
- the processing time
- Storage location of any backups created
- Target path and any created subfolders
- Number of pages and page numbers from the original document
- and for each individual page:
  - page number
  - recognized text (if corresponding option is set)
  - detected barcodes (text, type and position)

## Backing up input files

Ensure that your input files are backed up, before testing new processing options or prerelease versions of BarcodeOCR. Make sure your documents are being processed without fault, before disabling the backup of your input files.

The input files will be moved to a backup folder before processing and a random string will be attached to the filename, to always have a backup of the original document at hand after processing. The backup folder won't be cleaned automatically.



## Preprocessing the documents

Various filters can improve barcode recognition before the scanned documents are processed. The filters are only applied during processing and they do not change the document.

Filter	Description	Helpfull with
Invert	<ul style="list-style-type: none"> <li>switches black and white values</li> </ul>	<ul style="list-style-type: none"> <li>Documents with low contrast</li> </ul>
Despeckle	<ul style="list-style-type: none"> <li>removes speckles and white dots from black barcode areas that can be produced on a black and white scan</li> </ul>	<ul style="list-style-type: none"> <li>Black and white documents with a strong compression</li> <li>1D-Barcodes with "dotted lines"</li> </ul>
Dilate	<ul style="list-style-type: none"> <li>dilates the colour values</li> </ul>	<ul style="list-style-type: none"> <li>Deformed or small barcodes</li> </ul>
Erode	<ul style="list-style-type: none"> <li>erodes the colour values</li> </ul>	<ul style="list-style-type: none"> <li>Deformed or large barcodes</li> </ul>
Sharpen	<ul style="list-style-type: none"> <li>sharpens the image</li> </ul>	<ul style="list-style-type: none"> <li>Blurry barcodes</li> </ul>

## Waiting time before a new file is processed in seconds

Some scanners do not only file the documents when all the pages have been scanned but create temporary files during the scanning process which contain the pages already scanned. To prevent BarcodeOCR from starting recognition of not yet fully scanned documents, you can use this box to specify a time limit before processing of a new file commences. The number specified is the time in seconds that has to have elapsed since the time the file was created.

## Cancellation of the processing after an unusually long processing time

BarcodeOCR has a safety mechanism, that sorts out files if they are being processed for an unusually long time. That way an unobstructed processing of the file queue can be ensured. The default processing time is 60 minutes (15 minutes in older versions). If the file was partially processed the resulting error and output files won't be deleted and the source file from the watcher folder will be copied to the error folder and deleted from the watcher folder.

If you happen to process large documents (page size or resolution) or use filter options, the default time of 60 minutes might not suffice. If the option "Service restart delay" is enabled, the process time for each page is set to 90 minutes. If you don't want to limit the process time, enable the "Do not limit processing time" option.

## For option "Document stack not separated" check the complete document for a barcode

The splitting option "Document stack not separated" only searches on the first page for a valid barcode. If no valid barcode is located, the document will be moved to error folder. Enable this option to search the whole document for valid barcodes and rename the output file according to the barcode value.

## Fix damaged PDF files

PDF files created by a scanner might not be compliant to the PDF standard. This option attempts to fix noncompliant PDF files. If the attempt to fix the file fails, the file will be named "corrupted file" and moved to the error folder.

Following steps will be applied amongst others:

- Removal of a PDF-A signature, to exclude faultily saved PDF-A files
- Removal of meta information within the file
- Removal of unnecessary or duplicate information streams within the PDF file
- Attempt to restore the file structure

## Convert PDF-Documents into a specific format version

BarcodeOCR keeps the PDF-Format-Version from the input file and uses the same format as the output file. If you need to change this behaviour, you can set the PDF-Version from the output document to a specific version.

## View PDF file as images during processing

If the documents were not scanned in by scanner, but exported as a file from an application, no barcode will probably be recognized without activating this function. If your scanner already saves the document as a searchable file, the option is also required.

If the documentet has multiple layers, the scanner embed cutting masks in the PDF files or certain optimizations have been applied, enabling this option can also lead to the detection of barcodes.

## Compatibility mode: barcode recognition

This type of detection was used by version 4.x. In this case, a graphic is created from each page which is then analyzed.

The amount of time and memory required is considerably higher, but may be required for vectorized PDF files that use a barcode font and are not recognized by the option "View PDF files as images during processing".

In addition, this mode must be switched on for the area detection so that the areas can be assigned without errors. If range detection is activated, this mode is automatically activated and must be switched off manually.

## Difference between white and black values in the barcode

The screenshot shows the 'Configuration' dialog box for BarcodeOCR, with the 'Barcodes' tab selected. The 'Difference between white and black values in the barcode' section is expanded, showing the following settings:

- Iteratively:  (checked)
- Quiet Zone:
- Level:
- Count:
- Step:

Below this section, there are checkboxes for 'Barcode contains checksums' (unchecked) and 'Create an extended information file for each processed file' (unchecked). The 'Charset' dropdown is set to an empty state. At the bottom of the dialog, there are 'Cancel', '< Back', and 'Finish' buttons.

BarcodeOCR has to stipulate the threshold between white and black values in the document in order to separate the light areas in the barcode from the dark ones. There are two options for this.

- *Automatically*
  - The threshold between white and black characters in the document is detected automatically.
- *Iteratively*
  - The recognition process initially starts at the threshold specified in the "Level" field (valid values 0 to 255), and attempts recognition with this setting.
  - If this proves unsuccessful, the threshold is reduced by the value in the "Step" field and recognition is tried again. Then, the threshold in "Level" is increased by "Step" and recognition is attempted once more.
  - The value in "Step" is doubled for the next run. The "Count" field indicates the number of runs. The iterative method is particularly useful if grey or coloured paper is involved.



# Barcodes

The screenshot shows the 'Configuration' window for BarcodeOCR, specifically the 'BARCODES' tab. At the top, a progress bar indicates the current step. Below it, a gear icon and a warning message state: 'This step enables you to make advanced recognition settings. It is advisable to only use this function after studying the manual or after consultation with Support, as incorrect settings prevent BarcodeOCR from working properly.'

The main configuration area includes:

- 'Difference between white and black values in the barcode':
  - 'Iteratively': dropdown menu
  - 'Level': input field with value '128'
  - 'Count': input field with value '8'
  - 'Step': input field with value '16'
- 'Quiet Zone': dropdown menu with value 'Extra Small'
- 'Barcodes':
  - Checkbox: 'Barcode contains checksums' (unchecked)
  - 'Charset': dropdown menu
- 'Downstream application':
  - Checkbox: 'Create an extended information file for each processed file' (unchecked)

Buttons at the bottom: 'Cancel', '< Back', and 'Finish'.

## Barcode contains checksum

By enabling this option, the contained checksum will be removed

## Character set

Determines the character set of the output

## Downstream application (per output file)

There are sample files in the folder "Script Samples" in the BarcodeOCR installation folder showing how to customize BarcodeOCR to your needs

The screenshot shows the 'Configuration' window for BarcodeOCR, specifically the 'ADVANCED' tab. It features the same gear icon and warning message as the previous tab.

The main configuration area includes:

- 'Charset': dropdown menu
- 'Downstream application':
  - Checkbox: 'Create an extended information file for each processed file' (unchecked)
  - Checkbox: 'Start the following application after each saved output file' (unchecked)
  - Input field for application path and name, with a 'Search' button.
  - Text: 'This application (e.g. a script) is opened after each processed document. For the script parameters please refer to the documentation.'
- 'Downstream application':
  - Checkbox: 'Start the following application after each input file' (unchecked)
  - Input field for application path and name, with a 'Search' button.
  - Text: 'The Application (i.e. script) will be launched after each completely processed input file. For the script parameters please refer to the documentation.'

Buttons at the bottom: 'Cancel', '< Back', and 'Finish'.

BarcodeOCR is able to launch 3rd party software after a file has been processed successfully. That way the file processing capabilities of BarcodeOCR can be extended by 3rd party applications or scripts.

## Create a information file with extended barcode information for each output file

- A XML file will be created for each output file with any kind of information for the processed document (source file and destination file as well as value, position of the barcode, format, barcode type, etc.)
- The file will be saved within the output folder and the same name as the processed file with the extension ".xml" appended

## Downstream application after each recognized barcode

The application will be executed with each successful saving process within the output or error folder. (Meaning that it might be executed multiple times, if the document is multi paged)

Please bear in mind that the application will run within the security context of the Windows service of BarcodeOCR and, in this case as well, access to the network must be specified with UNC paths.

The following parameters are available for importing or moving:

Parameter	Description
-result	Result of scan (either error or success)
-configurationNAME	Name of the configuration that was executed
-source	Path to the source file
-destination	Path to the target file
-pageFrom	Start page of target file
-pageTo	Last page of target file
-errorReason	Reason why the file could not be processed (if result=error, otherwise blank)
-detectedBarcode	The barcode that was detected

## Downstream application (per input file)

The application will be launched before the input file is removed and represents the last processing step. During this last step the processed file is already moved to the error or output folder and the application will be launched for each processed file.

Please bear in mind that the application will run within the security context of the Windows service of BarcodeOCR and, in this case as well, access to the network must be specified with UNC paths.

The following parameters are available for importing or moving:

Parameter	Description
-source	Path to the source file

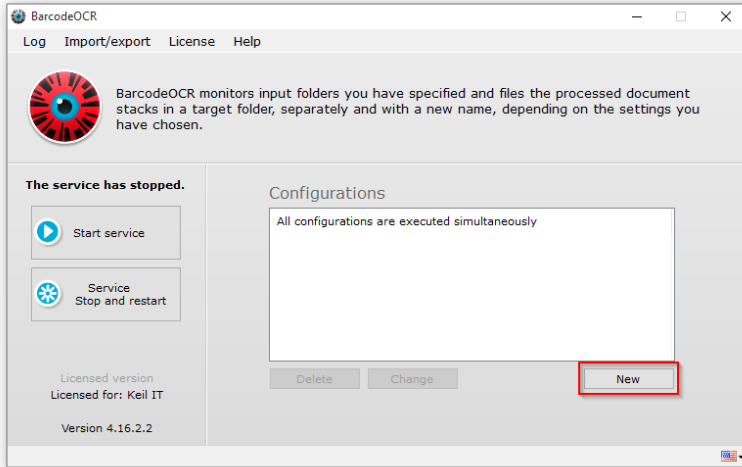
-files	<p>List of saved documents with informations about the filename, barcode value and a value if the file was saved successfully.</p> <p>Single file values are separated with a comma (,) and entire file entries are separated via semicolon (;)</p> <p><u>Signature of a single entry:</u></p> <p>Description: "filename.pdf", "BarcodeValue", "Successfully processed?"</p> <p>Example: "ER-12345.pdf", "ER-12345", "True"</p> <p>Complete example: "ER-12345.pdf", "ER-12345", "True"; "AR-12345.pdf", "AR-12345", "True"; "Duplicate.pdf", "", "False"</p>
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The service will be restarted after the last step of the wizard is completed. The configuration will be active afterward.

# Verwalten von Arbeitsanweisungen

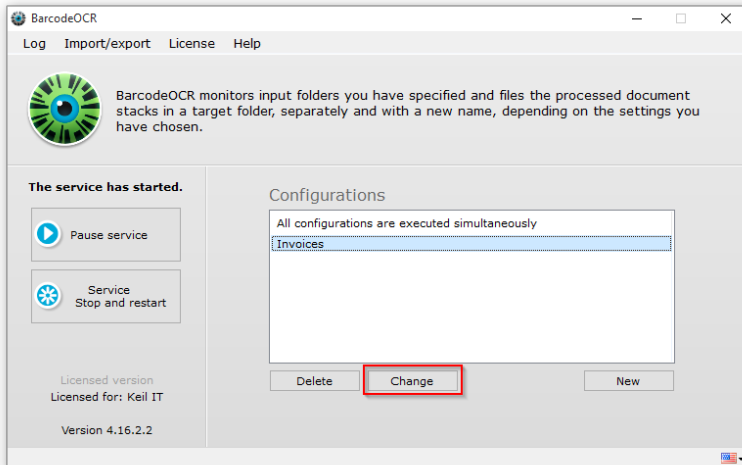
## Create a new configuration

Inside the right side of the user interface, the configurations are listed with which the BarcodeOCR service monitors folders and processes files. Create your first configuration by pressing "New".



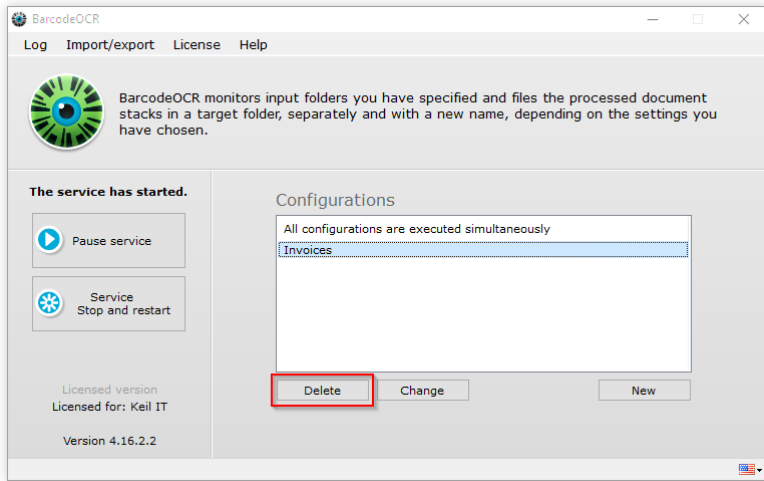
## Change

A configuration can be changed at any time using the "Change" button on the start page. Changing a configuration is done the same way as creating a new one. If you cancel the wizard during the change process, no changes will be saved.



## Delete

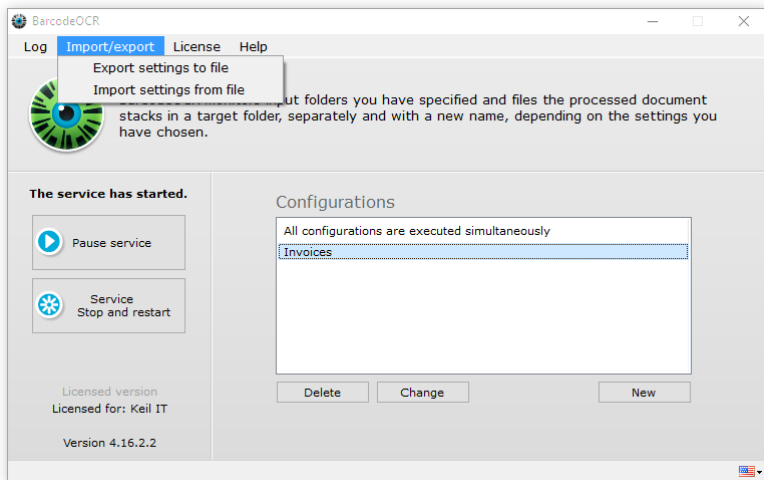
A configuration can be deleted at any time using the "Delete" button on the start page.



## Import/Export a configuration

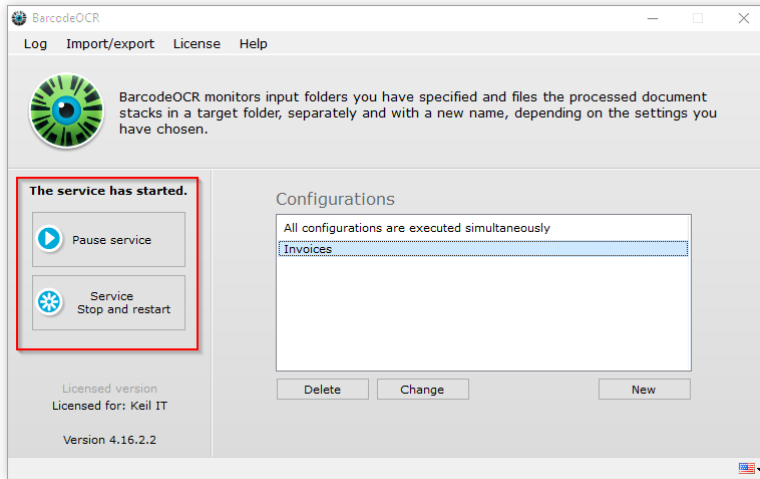
If you want to back up your configurations, e.g. in order to test the settings, to migrate the software to a different PC or make it available to Support, you can use the "Export settings to file" option on the start page. You will be asked to specify a name and a folder for the export. All configurations and the current log files are backed up.

To import settings, select "Import settings from file". Then select the previously exported ZIP file. When you confirm the prompt, the exported configurations are imported. The current configurations are overwritten.



# Dienststeuerung und Logdateien

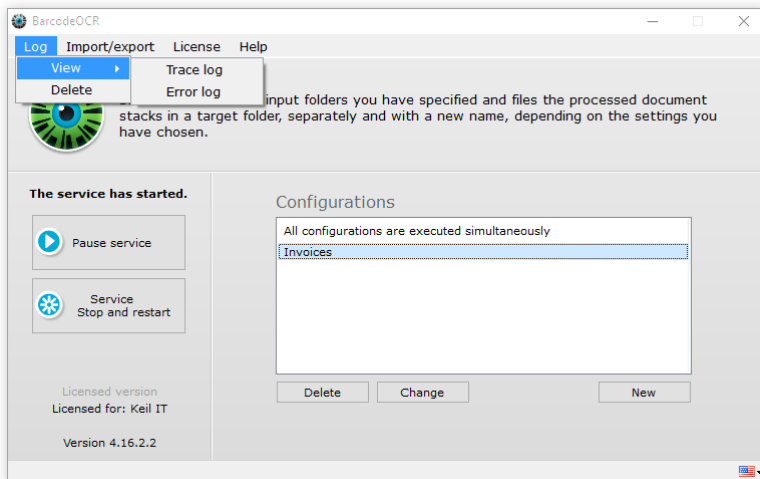
## Service control



When a configuration is saved, the BarcodeOCR service is automatically restarted. If, for example, folders are not available or the service account is incorrect, the service may not be able to start. You will see a red BarcodeOCR logo on the start page and a message stating that the service has not started. You can then restart the service from the start page by clicking on "Start service". Likewise, you can stop the current service by clicking on "Pause service". You can of course also use the Windows Service Controller.

## Logs

BarcodeOCR records successful and unsuccessful actions in log files. You can open these in the start page by clicking on the "Log" menu item. The trace log records all the successful activities of the service. The error log contains all the error messages and name conflicts that have arisen during the recognition processes. You can erase the logs by clicking "Delete".



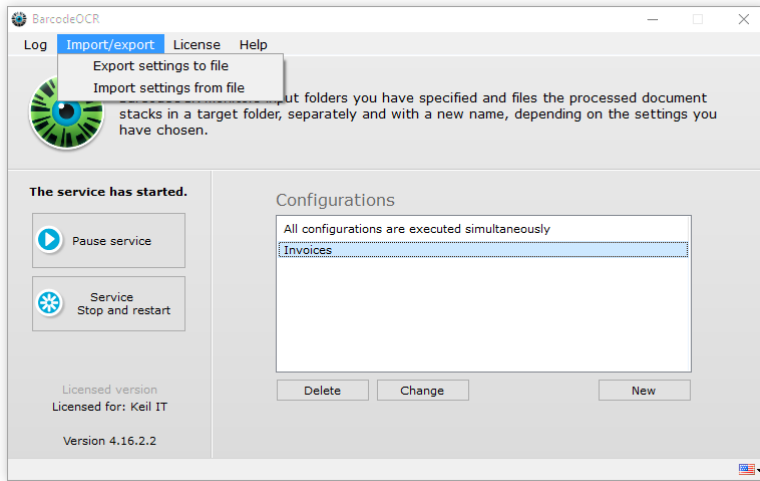
# Migration auf einen anderen Rechner

If you would like to use BarcodeOCR on a different computer, you must first deactivate the license on the old PC.

## Export your settings

It is possible to migrate your configurations and settings to a new system.

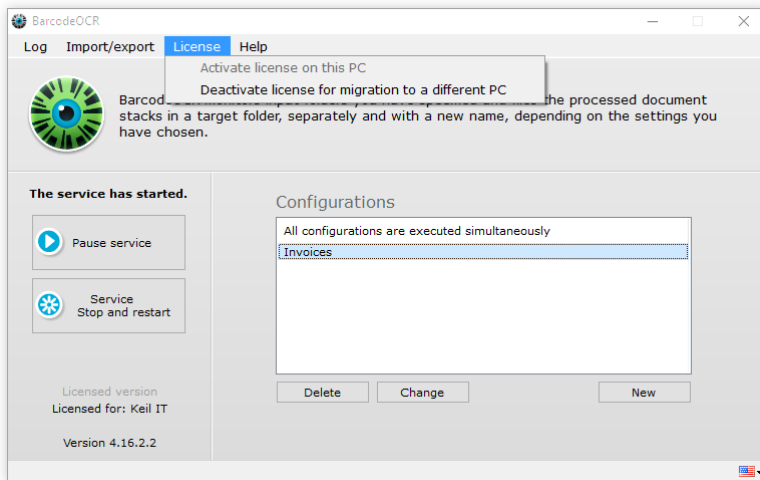
Open the "Import/Export" menu and select the "Export settings to file" option.



You will be asked to specify a filename for the file archive. All configurations and the current log files are backed up.

## Deactivate license on the old system

To do this, select the "Deactivate license for migration to a different PC" menu item from the "license" menu.



Confirm the prompt to deactivate BarcodeOCR.

The deactivation requires an active internet connection. If the PC doesn't have an active internet connection, send the exported settings as well as the serial number to the support.

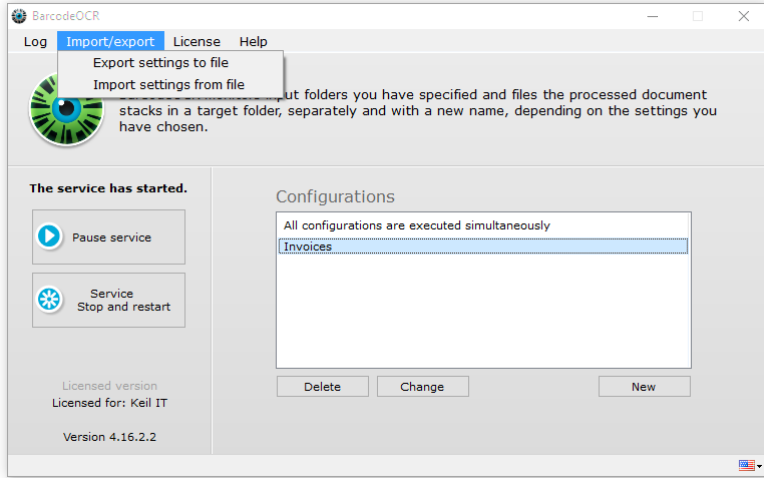
## Activate the license on the new system

Activation the license follows the same steps as the first activation: [Activation of the license](#)

## Import your settings

Copy the exported archive from the first step onto the new system.

Open the "Import/Export" menu and select the "Import settings from file" option.



When you confirm the prompt, the exported configurations are imported. The current configurations are overwritten.

Launch the service afterwards and skim the error log for possible errors. A common error occurs, if the BarcodeOCR service is not set up properly to process [documents in network folders](#).



# Skripte und Schnittstellen

Please note that we cannot provide support in developing your own scripts for your individual requirements. We offer a fee-based individual development of scripts or extensions of BarcodeOCR if there is interest.

BarcodeOCR offers several interfaces to inform or automate downstream processes or to sort your documents individually.

Type	Interface	Gets called	Location in Configuration	typischer Anwendungsfall
Type 1	.bat script/.exe application	after saving an output file	Step ADVANCED	Further processing per output file
Type 2	.bat script/.exe application	after processing an input file	Step ADVANCED	Further processing of multiple output files after an input file has been processed
Type 3	PowerShell-Subfolderscript	during processing	Step RENAME/SORTING	Specifying a subfolder path or overwriting the file name
Type 4	PowerShell-Script	after saving an output file	Step ADVANCED	Further processing per output file - with more options and more information

When BarcodeOCR is installed, several sample scripts are stored in the "Script Samples" folder in the installation folder. These already prepare the passed parameters and are a good starting point for your individual logic.

- [Note on the execution of PowerShell scripts](#)
  - [The steps to adjust the setting](#)
- [Type 1 - bat/exe after saving an output file](#)
  - [General](#)
  - [Parameter](#)
  - [Example of a the parameter call](#)
- [Type 2 - bat/exe after processing an input file](#)
  - [General](#)
  - [Parameter](#)
  - [Example of a the parameter call](#)
- [Type 3 - PowerShell during processing](#)
  - [General](#)
  - [Parameter](#)
    - [General Parameter](#)
    - [Parameter per Page](#)
  - [Return values](#)
- [Type 4 - PowerShell after processing](#)
  - [General](#)
  - [Parameter](#)
    - [General Parameter](#)
    - [Parameter per Page](#)

## Note on the execution of PowerShell scripts

For productive use of the finished script, it should be signed with a trusted code signing certificate and the ExecutionPolicy level should be reset.

PowerShell scripts have a special feature compared to .bat scripts: Depending on the configuration and operating system, the execution of the scripts is not allowed by default. In this case, BarcodeOCR cannot execute the script and will also log a message in the error log. Before using a PowerShell interface, please make sure that you allow the execution of scripts on your system. ([Help page from Microsoft](#))

The installed sample scripts are *not* digitally signed. In order to try them out in a test environment, an ExecutionLevel of "**Unrestricted**" is necessary. BarcodeOCR executes the scripts - depending on the system and installation - in the x86 or x64 PowerShell console. Please make sure that both environments are configured accordingly.

With this setting you allow the execution of all PowerShell scripts. If you are unsure, please contact your IT support or IT administrator before configuring this setting.

## The steps to adjust the setting

1. Start the Windows PowerShell console (x86 and x64) as Administrator
2. Execute the command **Get-ExecutionPolicy** and note down the current value (in the screenshot "Restricted") - This way you can reset the value later on
3. Execute the command **Set-ExecutionPolicy Unrestricted** and confirm the entry at the query with **y**

```

Administrator: Windows PowerShell
PS C:\Windows\system32> Get-ExecutionPolicy
Restricted
PS C:\Windows\system32> Set-ExecutionPolicy Unrestricted

Execution Policy Change
The execution policy helps protect you from scripts that you do not trust. Changing the execution policy might expose you to the security risks described in the about_Execution_Policies help topic at
https://go.microsoft.com/fwlink/?LinkID=135170. Do you want to change the execution policy?
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): y
PS C:\Windows\system32> Get-ExecutionPolicy
Unrestricted
PS C:\Windows\system32>

```

## Type 1 - bat/exe after saving an output file

### General

- The interface is called **after each saving of an output file** (error & success folder).
- The parameters are passed in a fixed order - it is not possible to adjust the order of the parameters or the name of the parameters.
- .bat scripts or .exe applications can be started
- BarcodeOCR waits until the script is finished. Then the next file is prepared for saving
- There is no timeout while waiting for the process to finish

### Parameter

Parameter	Description	Sample value
-result	Result of the processing	success / error
-configurationName	Name of the Configuration	"Test"
-source	Full path to the input file	"C:\Config\dec24748\Test\Testfile.pdf"
-destination	Full path to the output file	"C:\Config\dec24748\Test\Success\INV_12345.pdf"
-pageFrom	Page number of the first page in the source file	1
-pageTo	Page number of the last page in the source file	1
-errorReason	Reason why the document became an error file	None / NoBarcode / Duplicate / Error
-detectedBarcode	Recognized Barcode	INV_12345

### Example of a the parameter call

Note: This form of transfer cannot be changed

```

-result=success -configurationName="Test" -source="C:\Config\dec24748\Test\Testfile.pdf" -destination="C:\Config\dec24748\Test\Success\INV_12345.pdf" -pageFrom=1 -pageTo=1 -errorReason=None -detectedBarcode=INV12345

```

## Type 2 - bat/exe after processing an input file

### General

- The interface is called **before the input file is deleted** - i.e. output files were created beforehand.
- The parameters are passed in a fixed order - it is not possible to change the order of the parameters or the name.
- .bat scripts or .exe applications can be started.
- BarcodeOCR waits until the script is finished. Then the next file is prepared for saving
- There is no timeout while waiting for the process to finish

### Parameter

Parameter	Description	Sample value
-source	Full path to the input file	"C:\Config\dec24748\Test\Testfile.pdf"
-files	List of saved file names, recognised barcode and status	"INV_1.pdf","INV_1","True"

## Example of a the parameter call

Note: This form of transfer cannot be changed

```
-source="C:\Config\dec24748\Tour\test invoices.pdf" -files="S-INV-PT-03757.pdf", "INV-PT-03757", "True"; "S-INV-PT-03757_0.pdf", "INV-PT-03757", "True"; "S-INV-PT-03757_1.pdf", "INV-PT-03757", "True"; "S-INV-PT-03757_2.pdf", "INV-PT-03757", "True"; "S-INV-PT-03757_3.pdf", "INV-PT-03757", "True"; "S-INV-PT-03757_4.pdf", "INV-PT-03757", "True"; "S-INV-PT-03757_5.pdf", "INV-PT-03757", "True"; "S-INV-PT-03757_6.pdf", "INV-PT-03757", "True"; "S-INV-PT-03757_7.pdf", "INV-PT-03757", "True"; "S-INV-PT-03757_8.pdf", "INV-PT-03757", "True"
```

## Type 3 - PowerShell during processing

### General

- The interface is executed during the preparation of the saving of an output file.
- The interface can optionally return two variables that will be used for storage
- The parameters are passed as data objects
- BarcodeOCR waits until the script has finished and interprets the returned values.
- Renaming and duplicate handling defined in the user interface are applied anyway.
- There is no timeout when waiting for the script.

### Parameter

With this interface, a data object is given, which can also contain arrays and comprehensive texts:

#### General Parameter

Parameter	Description	Sample value
ConfigurationName	Name of the configuration	"Test"
ConfigurationGuid	Unique Identifier of the configuration	cbfc4771-7f73-481e-b1ca-e4b95eb3d605
ConfigurationFilePath	File path to the config file	"C:\ProgramData\Keil IT\BarcodeOCR\AnalyserConfig.xml"
UsedBarcode	Recognized barcode used for separation and renaming	Barcode-Content, if error file: empty
Result	Was the file placed in the success folder?	True = File saved in success folder False = File saved in error folder
ErrorReason	Reason why the file was placed in error folder	NoBarcode, CorruptedFile, Unknown
FileProcessStartTime	Start time of the input file	
SourceFilePath	Full path to the source file	C:\Config\dec24748\Tour\Sample.pdf
BackupFilePath	Full path to the backup file (if that option is active)	C:\Config\dec24748\Tour\Backup\Sample_eb3d605.pdf
DestinationFilePath	Full path of the destination file	C:\Config\dec24748\Tour\Error\No_Barcode_1.pdf'
Subfolder	Subfolder path	Subfolder\Sub-Subfolder
NumberOfPages	Number of pages in the output document	4
NumberOfRemovedPages	Number of pages that were removed due to 'remove blank pages' option	0
StartPage	Page number of the first page in the source file	1
EndPage	Page number of the last page in the source file	4

## Parameter per Page

The following information is passed as an array and is passed per page in the output document

Parameter	Description	Sample value
Number	Page Number	4
RecognizedText	Recognized Text (If text recognition is enabled)	"Lorum ipsum ...."
Barcodes	List of recognized Barcodes in the page	<b>Per Barcode:</b> Type, Text, and X/Y-Coordinates

## Return values

- This interface can return two values to BarcodeOCR, which are taken into account in further processing.
- The example script simplifies this step and offers two corresponding variables that only need to be set.
- If empty variables are returned, the values are not overwritten
- BarcodeOCR logs the returned values of the script in the run log.
- If the script throws an error, the output of the script is ignored and the file is processed according to the settings of the configuration.

Parameter	Description	Sample value
SUBFOLDER_NAME	Path of the subfolder structure to be used (folders are created by BarcodeOCR if they do not exist).	Invoices Invoices/CustomerName /BranchB
FILE_NAME	File name to be used as the output file. This can be overwritten by the Script	Invoice_VariableFromSQL_Test. pdf

## Type 4 - PowerShell after processing

### General

- The interface is called **after each saving of an output file** (error & success folder).
- The parameters are passed as data objects
- BarcodeOCR waits until the script has finished and interprets the returned values.
- Renaming and duplicate handling defined in the user interface are applied anyway.
- There is no timeout when waiting for the script.

### Parameter

With this interface, a data object is given, which can also contain arrays and comprehensive texts:

#### General Parameter

Parameter	Description	Sample value
ConfigurationName	Name of the configuration	"Test"
ConfigurationGuid	Unique Identifier of the configuration	cbfc4771-7f73-481e-b1ca-e4b95eb3d605
ConfigurationFilePath	File path to the config file	"C:\ProgramData\Keil IT\BarcodeOCR\AnalyserConfig.xml"
UsedBarcode	Recognized barcode used for separation and renaming	Barcode-Content, if error file: empty
Result	Was the file placed in the success folder?	True = File saved in success folder False = File saved in error folder
ErrorReason	Reason why the file was placed in error folder	NoBarcode, CorruptedFile, Unknown
FileProcessStartTime	Start time of the input file	
SourceFilePath	Full path to the source file	C:\Config\dec24748\Tour\Sample.pdf
BackupFilePath	Full path to the backup file (if that option is active)	C:\Config\dec24748\Tour\Backup\Sample_eb3d605.pdf

DestinationFilePath	Full path of the destination file	C:\Config\dec24748\Tour\Error\No_Barcode_1.pdf
Subfolder	Subfolder path	Subfolder\Sub-Subfolder
NumberOfPages	Number of pages in the output document	4
NumberOfRemovedPages	Number of pages that were removed due to 'remove blank pages' option	0
StartPage	Page number of the first page in the source file	1
EndPage	Page number of the last page in the source file	4

### Parameter per Page

The following information is passed as an array and is passed per page in the output document

Parameter	Description	Sample value
Number	Page Number	4
RecognizedText	Recognized Text (If text recognition is enabled)	"Lorum ipsum ...."
Barcodes	<b>List</b> of recognized Barcodes in the page	<b>Per Barcode:</b> Type, Text, and X/Y-Coordinates

# FAQ

The following pages will give you answers for frequently asked questions

- [General Questions](#)
- [KWP Installation](#)
- [License](#)
- [Problems](#)

# Allgemeine Fragen

- [What is a barcode?](#)
- [What is OCR?](#)
- [What are the system requirements?](#)
- [Which scanners are recommended for achieving the best possible results with BarcodeOCR?](#)
- [How do I receive the latest Updates?](#)
- [How do I install the latest Updates?](#)
- [How do I process files inside a network folder?](#)

## What is a barcode?

A barcode is an image containing information that is encrypted by means of a special algorithm. This information may be a character string or specially formatted information (address card, internet address, ...).

Different barcodes exist: 1 dimensional and 2 dimensional. They primarily distinguish themselves in size and number of characters they can encode inside a barcode. The below examples contain the same text.

## What is OCR?

The term OCR stands for "Optical Character Recognition".

## What are the system requirements?

BarcodeOCR has been successfully tested on:

- Windows 7 (32-Bit and 64-Bit)
- Windows 8 (32-Bit and 64-Bit)
- Windows 8.1 (32-Bit and 64-Bit)
- Windows 10 (32-Bit and 64-Bit)
- Windows Server 2008 (64-Bit)
- Windows Server 2008 R2 (64-Bit)
- Windows Server 2012 (64-Bit)
- Windows Server 2012 R2 (64-Bit)
- Windows Server 2016
- Windows Server 2019

Additionally to this, you will need the .NET Framework 4.0 installed on your computer. The setup will check if you already installed the Framework and will install it, if necessary.

The performance of BarcodeOCR is up to the configuration and your documents. We recommend to test BarcodeOCR on the specific system to get a real benchmark.

## Which scanners are recommended for achieving the best possible results with BarcodeOCR?

Generally all scanners are supported. To use all the features of BarcodeOCR, however, we recommend working with a high-quality scanner that can process several documents in the network quickly and automatically. The scanner should deposit the scanned documents on the server in one piece as a PDF.

## How do I receive the latest Updates?

If you have a valid maintenance contract you are eligible to receive the latest updates.

You can download the latest version for your license, by entering your serial number in the corresponding dialog on the download page.

## How do I install the latest Updates?

A guide on installing updates can be found in the documentation: [Updates](#)

## How do i process files inside a network folder?

A guide on setting up BarcodeOCR within a network can be found in the documentation: [Setting up for networks](#)



# KWP Installation

Keine Übersetzung für Englisch vorhanden.

# Lizenz

- [I have purchased BarcodeOCR. How do I activate it?](#)
- [How can I transfer BarcodeOCR to a new computer?](#)
- [Can I upgrade to the latest version?](#)
- [I purchased my license from a reseller. Who should I contact if I have any questions?](#)
- [Upgrade your license \(Change editions / Extend your license\)](#)

## I have purchased BarcodeOCR. How do I activate it?

When you purchase BarcodeOCR, you also receive a license key. You can activate this in the software on your PC. The license menu also allows you to reactivate the software, so you can use it on a different PC.

## How can I transfer BarcodeOCR to a new computer?

Download the BarcodeOCR software from our download page and install it on your new computer. Deactivate the license on your old PC and activate it on the new one. Further information is provided in the corresponding article: [Migration to a different computer](#).

## Can I upgrade to the latest version?

Customers with a maintenance contract benefit from access to the latest BarcodeOCR releases. The latest release for your license can be downloaded from the Download website.

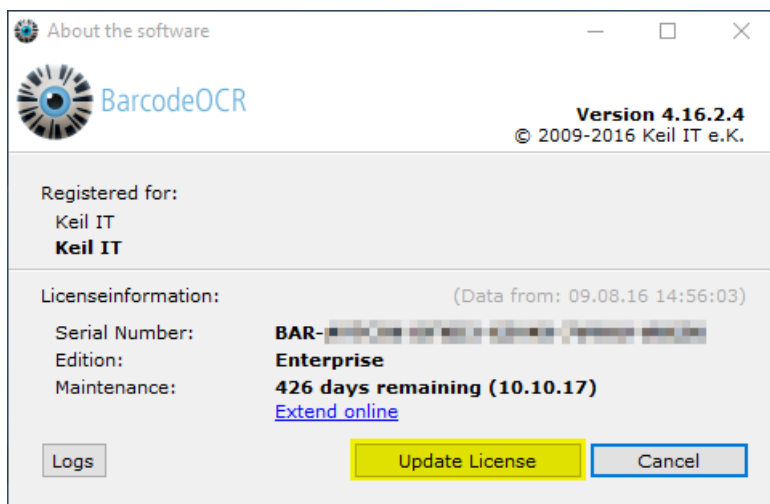
## I purchased my license from a reseller. Who should I contact if I have any questions?

If you have ordered BarcodeOCR from one of our partners, please address any questions concerning your order or any technical issues to them.

## Upgrade your license (Change editions / Extend your license)

An internet connection is required for updating your license.

1. Launch BarcodeOCR
2. Open the "Help" menu and select the "About" option.
3. If your Licensing information hasn't updated already, press "Update".





# Probleme

- After updating from 4.x to 17.x a license error is shown on the first start of BarcodeOCR, even if no serial number was entered
- After updating to 17.x some barcodes won't be recognized as well as there are problems recognizing barcodes in specific areas
- No valid license could be found
- Error message: "Token was not expected"
- When using a PowerShell script, a DLL could not be loaded
- What does BarcodeOCR do with PDFs that are created not scanned?
- The log will contain the error message: Cannot handle iref streams.
- Why is the recognized file name " FNC1 4100002561.pdf", for example?
- Code 39 barcodes are recognized faultily
- Pharmacode barcodes are recognized faultily
- The underlying connection was closed: Could not establish trust relationship for the SSL/TLS secure channel
- I am forced to enter the proxy information
- How do I create a debug log?

## After updating from 4.x to 17.x a license error is shown on the first start of BarcodeOCR, even if no serial number was entered

### Error description and environment

- This error is generated after updating an existing 4.x installation to version 17.x
- The error message indicates that no trial or full license could be found
- BarcodeOCR 17.x was installed and an existing installation was not uninstalled / the install dir was not removed

OR

- A special license for that Computer is used

### Solution

The problem is caused by a file which wasn't removed on the installation. The file is called "runtime.lic" and can be located in the installation folder.

Delete the file manually and restart BarcodeOCR. After the restart, BarcodeOCR will show the main window and indicates that the Demo was loaded. You can now proceed to activate the software using your serial number as described in the documentation.

## After updating to 17.x some barcodes won't be recognized as well as there are problems recognizing barcodes in specific areas

### Error description and environment

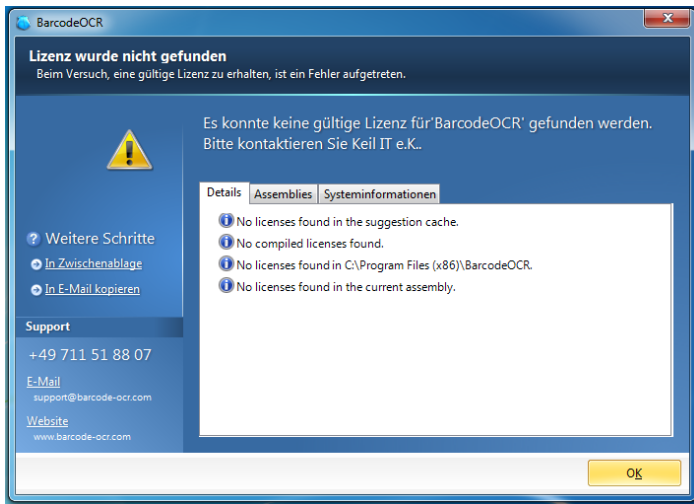
Version 17.x uses a new and optimized recognition routine which is able to read and recognize barcodes much faster with lower impact on the system resources. In some minor cases where barcode fonts are used or special recognition filters are used, there might be a decreased recognition rate or some problems recognizing barcodes in special areas.

### Solution

Edit the configuration where you explore the problems and activate the option "Use alternative barcode recognition".

## No valid license could be found

The following dialog appears, if BarcodeOCR is launched after deactivation:



#### **Solution until version 4.13.4.4**

Use the BarcodeOCR\_Setup.exe and reinstall BarcodeOCR. The current version does not have to be uninstalled, to solve the problem.

Your settings will prevail. This function is available from version 4.0.0.3 upwards

#### **Solution from version 4.13.4.4 upwards**

It is not necessary to reinstall BarcodeOCR. Only special issued licenses (through the BarcodeOCR support) need to be reinstalled.

If that is the case, the BarcodeOCR support should be contacted.

## Error message: "Token was not expected"

### **Error description**

This problem may occur if you export a pdf file with the software "Nuance Paperport" which will be processed by BarcodeOCR. BarcodeOCR may recognize the Barcodes, but won't generate a file in the output folder. The error message "Token was not expected" will be displayed within the error log.

This problem can occur within BarcodeOCR 4.12.4.7 and earlier. Please upgrade to Version 4.13.2.1 to process these documents without any problems.

## When using a PowerShell script, a DLL could not be loaded

Error message:

```
Add-Type : Could not load file or assembly "file:///C:\Program Files (x86)\BarcodeOCR\BarcodeOCR.PowerShellModels.dll"  
This assembly is built by a runtime newer than the currently loaded runtime and cannot be loaded.
```

Please make sure that the .NET Framework v4.0.30319 was loaded into PowerShell:

```
Windows PowerShell
Copyright (C) 2014 Microsoft Corporation. Alle Rechte vorbehalten.

PS C:\Windows\System32\WindowsPowerShell\v1.0> $psversiontable

Name                           Value
----                           -
PSVersion                      4.0
BuildNumber                    9600.17035
CLRVersion                     4.0.30319.42000
BuildVersion                   9600.17035
WSManStackVersion              3.0
ConfigurationName              Microsoft.Windows.Common-UI
PSCompatibleVersions           (1.0, 2.0, 3.0, 4.0)
BuildOperatingProtocolVersion  2.2

PS C:\Windows\System32\WindowsPowerShell\v1.0> _
```

### What does BarcodeOCR do with PDFs that are created not scanned?

If you work with PDFs that have been created not scanned, the barcodes are not present as images but as vector objects. In "Advanced", check the option "View PDF files as images during processing", then the document will be converted to an image beforehand.

To enable the processing of the document, activate the "View PDF files as images during processing" option inside the "ADVANCED" step of the configuration wizard. This way, the document is converted into a image before the recognition process.

### The log will contain the error message: Cannot handle iref streams.

If you create a document directly with Adobe Acrobat, please save it in Version 1.5 (compatible with Acrobat 5 or later, preferably PDF/A. Otherwise, splitting is not possible. No scanner that we know of saves in a format later than 1.5.

We are able to process the files on the latest BarcodeOCR 4 version

### Why is the recognized file name " FNC1 4100002561.pdf", for example?

Your software is generating an incorrect barcode type. You have probably selected recognition of Code 128, but your software is generating EAN 128.

### Code 39 barcodes are recognized faultily

Reading a 1D-barcode (Typ: Code 39 Extended / Full ASCII) with following settings:

- Barcode type: Code 39
- Scan direction: Any

#### Error description

Instead of lowercase letters, uppercase letters with a preceding '+'-character abgelegt. Additionally special characters are wrongly displayed as %-characters.

#### Solution

Select the option "Code39 Extended" at step 3 (BARCODES) of the configuration wizard, to enable the processing of those documents. This option is only available from BarcodeOCR versions 4.12.4.1 and upwards.

### Pharmacode barcodes are recognized faultily

Reading a 1D-barcode (Typ: Pharmacode) with following settings:

- Barcode type: Pharmacode
- Scan direction: All or right to left

### Error description

Instead of the encoded characters, others are being recognized.

### Solution

Select the direction "Left To Right" at step 4 (SCANDIRECTION) of the configuration wizard, to enable the processing of those documents. This option is only available from BarcodeOCR versions 4.12.4.1 and upwards.

Pharmacodes can be read from both "Left To Right" and "Right To Left". Depending on scan direction the results may vary. Generally the direction "Right to Left" should be used. Under special circumstances the direction "Left to Right" might be necessary. This is usually the case, if your scanner rotates the scanned document by 180° but the graphic rotated again to display the PDF correctly.

## The underlying connection was closed: Could not establish trust relationship for the SSL/TLS secure channel

### Error description

The online activation shows the following error and stops:

*Could not activate license at server*

- Die zugrunde liegende Verbindung wurde geschlossen: Für den geschützten SSL/TLS-Kanal konnte keine Vertrauensstellung hergestellt werden.
- The underlying connection was closed: Could not establish trust relationship for the SSL/TLS secure channel
- les statut entrant : échec - la connexion sous-jacente a été fermée : Impossible d'établir une relation de confiance pour le canal sécurisé SSL/TLS
- stato posta in arrivo: errore: connessione sottostante chiusa: Impossibile stabilire una relazione di trust per il canale sicuro SSL/TLS

The error message may be displayed in the language of your operating system.

### Problem

The problem is that BarcodeOCR could not establish a secured connection to the BarcodeOCR activation server. This may be the case if the operating system (i.e. Windows XP or Windows Server 2003) hasn't got the latest updates installed or there is no support for the latest encryption methods available. BarcodeOCR uses the latest encryption methods while exchanging sensitive data. In addition the components (setup, application and application files) are digitally signed to verify that the binaries are not changed. These technologies require the latest signature algorithms.

There may be no support for older operating systems. Please note, that Microsoft discontinued the support for older systems. BarcodeOCR is not supported on those machines.

### Solution

#### Step 1)

Please update the root certificates on your operating system. There is an [overview on the Microsoft Download Center](#) which shows all available updates for the operating systems.

#### Step 2)

Please make sure, that your operating system supports the latest X509-Certificates (i.e. SSL-Certificates with SHA256 signature algorithms). Windows XP and Windows Server 2003 require additional Hotfixes that needs to be installed. Please check if they are installed.

The following Hotfixes can be downloaded from Microsoft in order to support the certificates:

- [KB938397](#)
- [KB968730](#)

If you have installed the missing components, restart BarcodeOCR and activate the software using your serial number.

## I am forced to enter the proxy information

If you are using a proxy server, the activation wizard of BarcodeOCR may not reach the activation server. In this case, you will be prompted to enter your proxy information while activating BarcodeOCR to ensure connectivity. If the window doesn't show up or if you are forced to enter the proxy information all the time, you can setup those information manually.

When updating BarcodeOCR, these information may be overwritten. After updating BarcodeOCR, please make sure that your customized settings are still available.

1. Open the program directory (usually C:\Programs\BarcodeOCR)
2. Copy the file "BarcodeOCR.exe.config" to your desktop
3. Open the file with a text editor
4. Change the file as displayed below
5. Save the file
6. Copy the file to the program directory, choose "Yes" when asked if you like to overwrite the file

#### BarcodeOCR.exe.config

```
<!-- If you need to configure a proxy for contacting the activation server, you can define the credentials below -->

<licensing>
  <proxy
    address="<address of the proxy-server:port>"
    username="username"
    password="password"
    domain="domain"
  />
</licensing>
```

## How do I create a debug log?

Under special circumstances it is required to create a debug log in order to track down a specific problem when processing files. This log contains detailed information regarding the processing that might help solving the problem and finding an option to process the document without problems.

### Enable the debug mode

1. Stop the BarcodeOCR service
2. Switch to the installation folder of BarcodeOCR (typically "C:\Programs (x86)\BarcodeOCR\)
3. Create a file named "Debug.txt"
4. Start the BarcodeOCR service
5. Since now the log will be written

### Reproduce the error

Repeat the steps that triggered the problem. (i.e. processing a specific file, changing network configuration, ...) BarcodeOCR will log all information regarding the processing the file and allow the support team to track down the problem.

The amount of log data is limited. BarcodeOCR will discard older logs to make sure, that the extensive information won't fill your hard drive. If you monitor your BarcodeOCR installation make sure to stop the logging after the problem has been reproduced.

Please note down when the problem occurred.

### Deactivate the debug mode

1. Stop the BarcodeOCR service
2. Switch to the installation folder of BarcodeOCR (typically "C:\Programs (x86)\BarcodeOCR\)
3. Delete the "Debug.txt" file
4. Start the BarcodeOCR service
5. Since now the log will be written

### Export the data

1. Start BarcodeOCR
2. Click "Import/Export"
3. Click "Export settings to file"
4. Save the file



Please send the file, a description of the problem and additional information to the BarcodeOCR Supportteam. If you are not using the latest version, please note down the version you use.

# Deinstallation

You must deactivate the license before uninstalling BarcodeOCR. This will enable you to run the software again at a later date. To deactivate the license, please follow the steps in the ["Migrating BarcodeOCR to a different computer"](#) section.

To uninstall BarcodeOCR from a PC, please select "Uninstall" in the start menu entry. You can also find an appropriate entry in the program folder (%ProgramFiles%\BarcodeOCR\). Please follow the instructions provided by the wizard.

Note:

# Release Notes

The release notes list changes, improvements and new features of the respective versions. Please check the changes before updating.

You can download the latest version for your serial number from the download page on the BarcodeOCR website.

## BarcodeOCR 20.4.2 from 05.10.2020

[Download Setup from archive](#)

### Changes

- New: Recognition of ZUGFeRD files and sorting of the files into a separate directory (Standard Edition and higher)
- Improved: Exclusion of additional temporary scan files that interfere with processing
- Improved: Compression of documents now creates even smaller output documents
- Changed: PDF structure tree is recreated for saved files to fix compatibility issues with OmniPage
- Fixed: Fixed an error in the .bat sample script
- Fixed: Display error in the user interface

## BarcodeOCR 20.4.1 from 27.10.2020

[Download Setup from archive](#)

### Changes

- New: Example .bat file for the "per input file" interface
- Improved: When detecting empty pages, the page is now additionally checked for vectorized content
- Fixed: When migrating the settings to the new version, no new languages were set (German and English are recognized in this case)
- Fixed: "per input file" interface did not pass the "source" parameter
- Fixed: "per input file" interface array was not escaped correctly

## BarcodeOCR 20.3.2 from 29.09.2020

In this version of BarcodeOCR we have made major changes in the processing of PDF files and text recognition.

Please check after the installation if your previous settings have been applied correctly.

[Download Setup from archive](#)

### Changes

- Improved: Recognition problems with Interleaved 2of5 barcodes fixed
- Improved: Recognition of DataMatrix barcodes and QR codes
- Improved: Processing of PDF documents
- Improved: Saving and compression of PDF files
- Changed: You can wait longer than 3 minutes for exclusive write access from input file (option is defined in configuration file)
- Changed: BarcodeOCR now requires the .NET Framework 4.7.2
- Fixed: Error in user interface

## BarcodeOCR 20.3.1 from 02.09.2020

In this version of BarcodeOCR we have made major changes in the processing of PDF files and text recognition.

Please check after the installation if your previous settings have been applied correctly.

### Changes

- New: Configurations can be deactivated
- New: "Text recognition only" configurations: No search for barcodes or separating

- BarcodeOCR 20.4.2 from 05.10.2020
- BarcodeOCR 20.4.1 from 27.10.2020
- BarcodeOCR 20.3.2 from 29.09.2020
- BarcodeOCR 20.3.1 from 02.09.2020
- BarcodeOCR 19.4.1 from 13.12.2019
- BarcodeOCR 19.3.6 from 26.08.2019
- BarcodeOCR 19.3.3 from 08.08.2019
- BarcodeOCR 19.3.2 from 07.08.2019
- BarcodeOCR 19.3.1 from 06.08.2019
- BarcodeOCR 18.4.2 from 12.12.2018
- BarcodeOCR 18.3.3 from 26.09.2018
- BarcodeOCR 18.2.3 from 04.05.2018
- BarcodeOCR 18.2.1 from 05.04.2018
- BarcodeOCR 18.1.4 from 22.03.2018
- BarcodeOCR 18.1.3 from 28.02.2018
- BarcodeOCR 18.1.2 from 23.02.2017
- BarcodeOCR 18.1.1 from 18.01.2017
- BarcodeOCR 17.4.1 from 17.11.2017
- BarcodeOCR 17.3.2 from 28.07.2017
- BarcodeOCR 17.3.1 from 12.07.2017
- BarcodeOCR 17.2.7 from 04.07.2017
- BarcodeOCR 17.2.6 from 24.06.2017
- BarcodeOCR 17.2.5 from 18.05.2017
- BarcodeOCR 17.1.1 from 01.02.2017
- BarcodeOCR 4.17.1.1 from 01.02.2017
- BarcodeOCR 4.16.4.5 from 09.12.2016
- BarcodeOCR 4.16.3.1 from 12.08.2016
- BarcodeOCR 4.16.2.4 from 17.06.2016
- BarcodeOCR 4.16.2.2 from 12.04.2016
- BarcodeOCR 4.16.2.1 from 06.04.2016
- BarcodeOCR 4.16.1.2 from 25.01.2016
- BarcodeOCR 4.16.1.1 from 12.01.2016
- BarcodeOCR 4.15.4.5 from 13.11.2015
- BarcodeOCR 4.15.4.4 from 12.11.2015
- BarcodeOCR 4.15.4.3 from 11.11.2015
- BarcodeOCR 4.15.4.2 from 21.10.2015
- BarcodeOCR 4.15.3.3 from 29.07.2015

- New: regular expressions as filter are checked for correct syntax before applying
  - New: Document Conversion to grayscale
  - New: More languages are supported for text recognition
  - New: Support for JPEG+ZIP/JPEG2000/JBIG2 compression - significantly smaller documents
  - New: Adjustment of document resolution with threshold values and target resolution per color space (color, gray, b/w)
  - New: Scanned pages can be optimized: Correct inversions, remove color noise, Despeckle, remove perforations, optimize page margins, straighten pages
  - New: Rotation of pages and removal of empty pages no longer require text recognition
  - New: Pages can be attached to existing PDF documents (Small Business Plus or higher)
  - New: Support of the PDF/A standard "3B"
  - New: More PowerShell sample scripts in the installation folder in the "Script Samples" folder
  - Improved: PDF processing completely optimized for fast processing and better support of various PDF formats
  - Improved: Text recognition converts only image pages (others can be optimized with option)
  - Improved: Recognition of 1D and 2D barcodes
  - Changed: Documents are saved with the PDF version number of the source document
  - Changed: Existing PDF signatures are removed from documents if previous signatures were defined based on byte code
  - Changed: Instead of PDF certifications, PDF signatures are now embedded
  - Changed: Various changes in the user interface
  - Changed: Password protected PDF pages from input directories are moved to the error folder
  - Fixed: Expired Windows password leads to an error message the first time BarcodeOCR is started
  - Fixed: Setup now also closes the desktop application during an update
  - Fixed: Read errors with certain DataMatrix barcodes
- [BarcodeOCR 4.15.3.2 from 16.07.2015](#)
  - [BarcodeOCR 4.15.3.1 from 30.06.2015](#)
  - [BarcodeOCR 4.15.1.2 from 23.03.2015](#)
  - [BarcodeOCR 4.14.2.4 from 23.05.2014](#)
  - [BarcodeOCR 4.14.2.3 from 23.05.2014](#)
  - [BarcodeOCR 4.13.4.4 from 28.11.2013](#)
  - [BarcodeOCR 4.13.2.1 from 25.04.2013](#)
  - [BarcodeOCR 4.12.4.7 from 12.02.2013](#)
  - [BarcodeOCR 4.12.3.2 from 27.09.2012](#)
  - [BarcodeOCR 4.0.0.3 from 30.11.2012](#)
  - [BarcodeOCR 3.4.1 from 25.06.2011](#)

## BarcodeOCR 19.4.1 from 13.12.2019

[Download Setup from archive](#)

### Changes

- New: Support for KWP Standard-Edition
- Fixed: Function "Repair defective input files" creates in rare cases output files with all pages from the original file
- Fixed: Problems reading JIBG2 compressed PDF files
- Fixed: Conversion of PDF version may lead to temporary files in temp folder
- Fixed: Waiting time before processing the file may not be adhered to
- Improved: For certain PDF documents the number of pages is read incorrectly
- Improved: Compatibility with PDF files with erroneous reference table
- Improved: After activating a license, the service is automatically restarted for a transfer of the new license
- Improved: Text filters are now also applied to multiline barcodes

## BarcodeOCR 19.3.6 from 26.08.2019

[Download Setup from archive](#)

### Changes

- Fixed: Certain PDF documents have a lower resolution after text recognition and appear blurred
- Fixed: Problems with the processing of graphics
- Fixed: Problems with the network recovery mode

## BarcodeOCR 19.3.3 from 08.08.2019

[Download Setup from archive](#)

### Changes

- Optimized: Recognition of QR codes
- Support for Windows Server 2019

## BarcodeOCR 19.3.2 from 07.08.2019

[Download Setup from archive](#)

### Changes

- Fixed: Setup problems on Windows Server

## BarcodeOCR 19.3.1 from 06.08.2019

[Download Setup from archive](#)

### Changes

- New: Status of processing is displayed in the user interface
- New: The length of the queue is displayed in the user interface.
- New: A priority can be defined for each configuration (1 High, 5 Low)
- New: Setup wizard and support for service configuration
- New: Support assistant in demo mode
- Improved: Improved conversion of PDF to searchable documents and reduced file size (server operating systems only)
- Improved: Recognition of Code 39 and Code 128 barcodes
- Improved: Recognition of planet barcodes
- Improved: Australia Post barcode detection
- Improved: Recognition of MicroQR barcodes
- Improved: UI: Listening folder path can be enlarged
- Fixed: Error during activation is displayed if an offline license was previously available.
- Fixed: The maintenance message in the window is also displayed after the end of the disc maintenance.
- Fixed: Incorrect service configuration which may cause the service not to be restarted automatically in Network Recovery Mode
- Fixed: Service cannot be started from the user interface if the user does not have rights to the registered folders
- Fixed: Error loading an empty archive log
- Fixed: Service does not restart automatically if network recovery mode could not solve the problem after a previous restart

## BarcodeOCR 18.4.2 from 12.12.2018

[Download Setup from archive](#)

### Changes

- Improved: File size of Tiff files now automatically optimized (server operating systems only)
- Changed: configurations are now displayed sorted alphabetically (A-Z)
- Changed: The service is not restarted after a configuration has been changed if it was stopped before
- Changed: Main window of BarcodeOCR can now be enlarged vertically
- Fixed: On some systems, a problem with the software license can occur after a certain use
- Fixed: Values for "Threshold" under "ADVANCED" are overwritten when a work instruction is edited again.

## BarcodeOCR 18.3.3 from 26.09.2018

[Download Setup from archive](#)

### Changes

- New: Support of Aztec barcodes
- New: Separation option "Separate stacks independently of barcodes into partial stacks with n pages (barcodes will still be considered when renaming)".
- Changed: If processing of a file is aborted due to the processing limit, the file is now stored as "TIMEOUT" instead of "CORRUPT\_FILE"
- Changed Limit of processing: Limit of processing of a file increased from 15 minutes to 60 minutes (with option under ADVANCED for increase 90 minutes or deactivation)
- Modified: Also, breaks within the barcode are replaced by the function "Replace NTFS non-compliant characters".
- Improved: Intelligent Mail Barcode Recognition
- Improved: Recognition of Interleaved 2of5 barcodes
- Fixed an error in the user interface: Error in the user interface when selecting subfolder generation
- Fixed: Tiff file is not saved in error folder
- Fixed: Reading problems with TIFF files where frame pages do not contain metadata
- Fixed: Problems with passing special characters in the name of the work instruction to downstream .bat scripts
- Fixed: Subfolders are not created when processing a one-sided image
- Fixed: JPEG graphics with the file extension .jpeg instead of .jpg are ignored
- Fixed: Error messages for PowerShell scripts in the log: Error messages for PowerShell scripts in log, although no script should be executed according to configuration

- Fixed: Service was not restarted automatically in rare cases despite clicking "Restart"

## BarcodeOCR 18.2.3 from 04.05.2018

[Download Setup from archive](#)

### Changes

- New: Custom OCR settings can now be set via work instructions
- Fixed: Error in the user interface
- Fixed: Cleaning of the temporary folder caused an error on some systems and the input file was not deleted
- Fixed: Page number in PowerShell script or the info xml does not match recognized text if the input document has more than 50 pages

## BarcodeOCR 18.2.1 from 05.04.2018

[Download Setup from archive](#)

### Changes

- Fixed: Subfolder is not created if the complete content of the barcode is to be used as subfolder
- Fixed: When using the PowerShell script, when using a counter variable, it is incorrectly incremented
- Fixed: Downstream application may not start if special characters are contained in the barcode name

## BarcodeOCR 18.1.4 from 22.03.2018

[Download Setup from archive](#)

### Changes

- New: Powershell: NumberOfRemovedPages parameter, which passes the number of pages removed by blank page detection
- Fixed: Powershell: NumberOfPages parameter has the wrong number of pages if blank page detection already removed pages
- Fixed: End date of maintenance is displayed incorrectly formatted for some licenses

## BarcodeOCR 18.1.3 from 28.02.2018

### Changes

- New: Support of the "Essentials"subscription
- Fixed: Blank page detection does not remove documents with a factor of 0.
- Fixed: If the first page of a batch is recognized as a blank page, an error may occur when saving if the target document has only one page.

## BarcodeOCR 18.1.2 from 23.02.2017

### Changes

- New: Support for subscriptions
- Fixed: In individual cases, in case of a defective PDF file, the input file is deleted during the saving process instead of being moved to the error folder as a "Corrupt\_File".
- Fixed: Problems with fonts of processed files saved as PDF files by Microsoft Word
- Changed: Demo version without watermark can now process 5000 pages per month

## BarcodeOCR 18.1.1 from 18.01.2017

### Changes

- Fixed: Problems with trial version with special license key of support
- Fixed: PowerShell for determining the file name is ignored without subfolder variable
- Fixed: Error in the user interface
- Improved: Internal optimizations for upcoming updates
- Improved: Recognition of QR codes with a logo (design QR codes)

- Improved: Incompatible files remain in the input folder and are not moved to the error folder as incompatible files.

## BarcodeOCR 17.4.1 from 17.11.2017

### Changes

- New: Support for calling PowerShell scripts as a downstream application with advanced information (Enterprise only)
- Improved: Optimal utilization of existing CPU cores for text recognition (new option under "Advanced")
- Improved: Handling meta data in PDF files
- Improved: Error messages regarding subfolders are now displayed in the error log
- Improved: English translation
- Improved: Tab characters are also recognized as "illegal" characters and removed/replaced
- Fixed: Problems with recognition of barcodes within single-sided .tiff documents
- Fixed: Problems with selection and transfer to the downstream application "per input file".

## BarcodeOCR 17.3.2 from 28.07.2017

### Changes

- Enhanced: Faster processing of files, if the target resolution should be changed
- Fixed: Problems while resizing the UI in step "RENAMING"
- Fixed: Problems while recognizing text on files with hundreds of pages
- Fixed: The character " " will now be replacing when using the "replace illegal NTFS characters" feature
- Fixed: When using the area filtering, valid barcodes could be excluded

## BarcodeOCR 17.3.1 from 12.07.2017

### Changes

- New: Creating sub folder and sort files into these folders dynamically (based on script, only Enterprise)
- New: Set a custom file when sorting files into sub folders (using a script, only Enterprise)
- New: Creating sub folder and sort files into these folders dynamically (based on predefined templates, Standard edition and above)
- Enhanced: "Replace characters in barcodes" is able to replace spaces
- Enhanced: Default installation now includes sample scripts

## BarcodeOCR 17.2.7 from 04.07.2017

### Changes

- New: Alternative Barcode-Recognition for better recognition results using Barcode-Fonts
- Enhanced: Recognition Code 128
- Enhanced: Recognition Code 39 and Code 39 Extended
- Enhanced: Recognition QR-Barcodes
- Enhanced: Recognition DataMatrix-Barcodes
- Enhanced: Performance optimizations while recognizing Barcodes
- Fixed: Problems in the UI (Regarding OCR section)
- Fixed: Renaming signed or certified PDF-documents might break the existing digital signature
- Fixed: Problems using the trial on specific operating systems

## BarcodeOCR 17.2.6 from 24.06.2017

### Changes

- New: New parameter for renaming: file counter per configuration (%LOCALCOUNTER%)
- New: New parameter for renaming: file counter per BarcodeOCR installation (%GLOBALCOUNTER%)
- New: New parameter for renaming: page count of the output file (%PGCNT%)
- New: Replace Text within the barcodes
- New: Notification while starting the application when a new update is available
- New: 'Check for Updates'-Button
- Enhanced: Converting of PDF files into PDF/A Standard
- Enhanced: License won't be reset when restoring a backed up configuration

- Enhanced: If the file could not be converted into PDF/A standard, a log entry within the error log will be written
- Enhanced: Info if the maintenance expires within the next 45 days
- Fixed: Problems with the license after installing Version 17.x

## BarcodeOCR 17.2.5 from 18.05.2017

### Changes

- Fixed: UI problems

## BarcodeOCR 17.1.1 from 01.02.2017

### Changes

- New: Empty pages can now be removed from the destination document (BETA)
- New: Support for splitting tiff pages with multiple pages
- New: pdf file format can now be defined for output documents
- New: Info.xml file now contains the recognized text from OCR
- Enhanced: Performance optimizations
- Enhanced: Activation
- Fixed: Wrong splitting within the error folder using the split option "Documents comprise a start page and the subsequent pages with the same barcode as a mandatory requirement"
- Fixed: UI problems

## BarcodeOCR 4.17.1.1 from 01.02.2017

### Changes

- Enhanced: Text recognition for special characters
- Fixed: Error while saving the settings for the "downstream application"
- Fixed: Translation errors

## BarcodeOCR 4.16.4.5 from 09.12.2016

### Changes

- New: Text recognition and creation of searchable documents (OCR)
- New: Automatic alignment of the input pages based on reading direction
- New: Converting input documents to specific resolutions (DPI)
- New: Converting input documents to B/W documents and compressing using CCITT Group 4 algorithm
- New: Existing configurations can now be cloned
- Enhanced: Recognition of DataMatrix barcodes
- Enhanced: Recognition of QR-Code barcodes
- Enhanced: Performance optimizations
- Enhanced: Processing of network files
- Enhanced: Info-Xml-File now contains the path to the backed up input file
- Fixed: Certified documents may not be saved with a digital signature
- Fixed: Problems when processing DIN-A0 images

## BarcodeOCR 4.16.3.1 from 12.08.2016

### Changes

- New: Text within Barcodes can now be replaced
- Fixed: An error while importing settings to BarcodeOCR

## BarcodeOCR 4.16.2.4 from 17.06.2016

### Changes

- Fixed: Problems processing some PDF-A compatible files
- Enhanced: File size of processed pdf files
- New Options: Launch a downstream application once for each input file



## BarcodeOCR 4.16.2.2 from 12.04.2016

### Changes

- Enhanced: Repair of incompatible files
- Fixed: Pages may not be deleted from signed documents
- Fixed: General UI errors

## BarcodeOCR 4.16.2.1 from 06.04.2016

### Changes

- New: Documents can be digitally signed
- New: Option: Repair PDF documents
- Enhanced: Recognition of Barcodes within documents
- Enhanced: Faster processing using multiple processing cores
- Enhanced: using timestamp renaming option, milliseconds will be formatted to three digits
- Fixed: Problems using digital certificates generated by Adobe Acrobat
- Fixed: General UI errors
- Fixed: Problems replacing illegal characters within file name
- Fixed: Problems processing large files

## BarcodeOCR 4.16.1.2 from 25.01.2016

### Changes

- Added and Fixed: Support for creating multiple documents for one page, if the page contains more than one valid document

## BarcodeOCR 4.16.1.1 from 12.01.2016

### Changes

- New: If there is more than one valid barcode, the document can be saved for each valid barcode
- New: The limit on recognition time per File can be disabled
- Enhanced: DataMatrix recognition is more accurate
- Fixed: General UI errors

## BarcodeOCR 4.15.4.5 from 13.11.2015

### Changes

- Fixed: documents without barcodes may be saved twice within the output folder

## BarcodeOCR 4.15.4.4 from 12.11.2015

### Changes

- New: The output and error folder may be a subfolder of an incoming folder
- Fixed: Input files may not be deleted if processed by the duplex split option
- Fixed: documents without barcodes may be saved twice within the output folder

## BarcodeOCR 4.15.4.3 from 11.11.2015

### Changes

- New: Better recognition of Code 39 barcodes
- Fixed: Error in UI, that prevented changes within the split options under specific circumstances.

## BarcodeOCR 4.15.4.2 from 21.10.2015

### Changes

- New: Documents within the error folder will also be digitally signed, compressed and encrypted
- New: Better recognition of Code 128 barcodes
- New: Increased performance while recognizing barcodes and processing pdf documents
- Fixed: Documents may be saved with multiple file extensions
- Fixed: Invalid metadata within the documents may produce an error
- Fixed: Problem saving a document within the pdf-a standard
- Fixed: Problems launching external applications
- Fixed: Reading DataMatrix and Code 128 Barcodes

## BarcodeOCR 4.15.3.3 from 29.07.2015

### Changes

- Fixed: Problems with the activation when updating from a previous version
- Fixed: Documents in the error folder may be duplicated under specific circumstances

## BarcodeOCR 4.15.3.2 from 16.07.2015

### Changes

- Fixed: To large output files
- Fixed: No launch of downstream application of the input file was a .jpg-file
- Fixed: The path of other graphic files was not passed to the downstream application
- Fixed: Files are saved twice when using "Split to single pages"

## BarcodeOCR 4.15.3.1 from 30.06.2015

### Changes

- new function: certify documents with a compatible pfx certificate
- new function: convert documents to a pdf-a compatible format for long-term archiving
- new function: support for multiple multicore processors for faster processing of documents
- new function: encryption of output documents
- new function: compression of documents for smaller output size
- new function: create a copy of each input file in a separate folder
- new function: support for different text encodings
- new function: filter barcodes based on location
- new function: split documents based on two same barcodes on consecutive pages (duplex)
- added support for checksums in barcodes
- added support for checksums in barcodes
- optimized speed and recognition quote of the following barcode types: PDF417, Code 93, Code 39, Code 128, Inter 2of5
- fixed some error in the UI
- solved some problems monitoring directories with specific scanners
- faster recognition and processing of barcodes and documents
- optimization in service and protocol

## BarcodeOCR 4.15.1.2 from 23.03.2015

### Changes

- Better recognition of Code 128, Code 39, QR-Code or Inter2of5-Barcodes
- Optimized repairing and converting of incompatible files
- Optimized the performance of recognizing barcodes
- Fixed some possible problems concerning the recognition of documents on network shares.
- Support for more pdf file formats
- Fixed some display problems within the error log
- Incompatible or corrupted documents that couldn't be repaired automatically will be moved to error folder
- Some minor UI improvements

## BarcodeOCR 4.14.2.4 from 23.05.2014

### Changes

- Fixed problem in reading PDF files with large size embedded images
- Bug fix in QR code decoding
- Recognition improvements of Interleaved 2of5 barcodes with checksum

- Regular Expressions now may contain pipe characters
- Minor UI Changes

## BarcodeOCR 4.14.2.3 from 23.05.2014

### Changes

- Improved logging of events
- Archiving of old log files
- DataMatrix barcodes recognition accuracy improvements
- Recognition accuracy adjustments for Code 39 barcodes
- Problem with reading PDF document in A0 format is fixed
- Bug is fixed in QR codes decoding
- The Data Matrix barcodes recognition speed is increased up to 30%.
- Support for regular expressions within filters
- Improved detection of temporary scanner files
- Blacklisting of files if they are not processed and the service needs to restart
- Performance improvements
- Fixed some minor UI problems

## BarcodeOCR 4.13.4.4 from 28.11.2013

### Changes

- Support of newer PDF-File formats (version 1.5 and newer)
- Automatic repair of incorrect documents before processing
- New Option: Set a Quiet-Zone for the recognition
- Minor changes to the UI

## BarcodeOCR 4.13.2.1 from 25.04.2013

### Changes

- Using the option "Document stack not separated" you can specify to analyze the whole document
- Minor changes to the UI

## BarcodeOCR 4.12.4.7 from 12.02.2013

### Changes

- Recognition Code39 Extended, Pharmacode and MicroQR-Code
- Minor bugfixes

## BarcodeOCR 4.12.3.2 from 27.09.2012

### Changes

- Recognition of cyrillic barcodes
- Changes for the external application to support new parameters
- Changes to the UI

## BarcodeOCR 4.0.0.3 from 30.11.2012

### Changes

- New and simpler UI
- Import and export for configurations (not compatible with 3.x configurations)
- Easier Licensing
- New Setup

## BarcodeOCR 3.4.1 from 25.06.2011

### Änderungen

- Last Release

# Vorherige Versionen

If you are not using the latest version of BarcodeOCR, you can download the corresponding manual right here:

Version	German	English
4.16.3.x	<a href="#">Download</a>	<a href="#">Download</a>
4.17.1.x	<a href="#">Download</a>	<a href="#">Download</a>
17.3.x	<a href="#">Download</a>	<a href="#">Download</a>
17.4.x	<a href="#">Download</a>	<a href="#">Download</a>
18.1.x	<a href="#">Download</a>	<a href="#">Download</a>
18.3.x	<a href="#">Download</a>	<a href="#">Download</a>