KGS SCAN

KGS SCAN

Version 2.3.07

Installation and Configuration Manual

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1. Introduction

The product **KGS Scan** requires the corresponding SAP Connectors for .NET to communicate with SAP. This is the SAP Connector for Microsoft .NET 3.0.0.42 for Windows 32bit (x86) or higher. The **KGS Scan** explicitly uses the components "sapnco.dll", "sapnco_utils.dll" and "rscp4n.dll" contained therein.

These components are to be licensed by the customer in the context of the use of this software correctly

2. Description und System Requirements

The robust KGS SCAN client is directly accessible from the SAP system. It supports the 'early archiving' and 'late archiving' SAP scenarios. In addition, KGS SCAN seamlessly integrates with the KGS ZADOC and KGS SCANSERVER products from KGS.

KGS SCAN is an x86/64-bit application for Microsoft® Windows™ designed for Windows 7 or higher. Microsoft .NET 4.5 Client is the required system environment. The setup executable includes this component and will automatically install it if necessary. Compatible TWAIN drivers are needed to enable communication with scanners. The minimum memory is 2 GB RAM, but KGS recommends 4 GB RAM.

Use the 'setup.exe' file to install KGS SCAN. You can freely choose the installation directory. The Microsoft default directory for applications is 'C:\Program Files (x86)\KGS\KGS SCAN'. ***We strongly recommend you perform the installation via the computer administrator account***. The 'KGS Scan Transfer' service is installed together with the actual program. It handles communication between the KGS SCAN client and any partner programs that exist in the system environment (for instance a KGS SCANSERVER).

If multiple users are designated for accessing KGS SCAN on the same workstation, you need to ensure that each user has been assigned read and write access to the chosen installation path and the working directory set up in 'C:\ProgramData\KGS Scan'.

3. Licensing

After successfully installing KGS SCAN, you can immediately launch and use the software. Starting 30 days after initial installation, you will require a license key. If no valid key is obtained at this point, functions including, in particular, TWAIN connectivity and image processing (such as barcode recognition) will be restricted.

You can request a permanent key via the KGS website at http://www.kgs-software.com/license-key.html (Services/License Key) or by sending an e-mail to support@kgs-software.com. Please keep your **site code** ready when contacting us. It is shown in the 'About …' website section. This is also where you can enter the new license key.

If you are operating a scan server with active license management, you do not need to locally enable the product.

4. Technical Specifications

4.1 Supported Barcodes

- Industrial 2 of 5
- Matrix 2 of 5
- Interleaved 2 of 5
- Iata 2 of 5
- Datalogic 2 of 5
- Codabar
- BCD Matrix
- Code 39
- Code 128
- Code 93
- EAN 8
- EAN 13
- UPCE
- UPCA
- UPCA Extended
- Data Matrix 2D
- QR Code 2D
- PDF 417

4.2 Supported File Formats

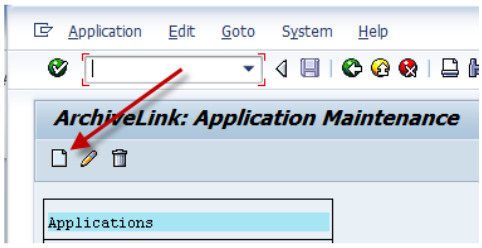
- TIF
- TIFF
- PDF/A1 - A3
- PDF/X 1 - 5
- DocX (Microsoft Office Document)

4.3 Communication Interfaces and Protocols

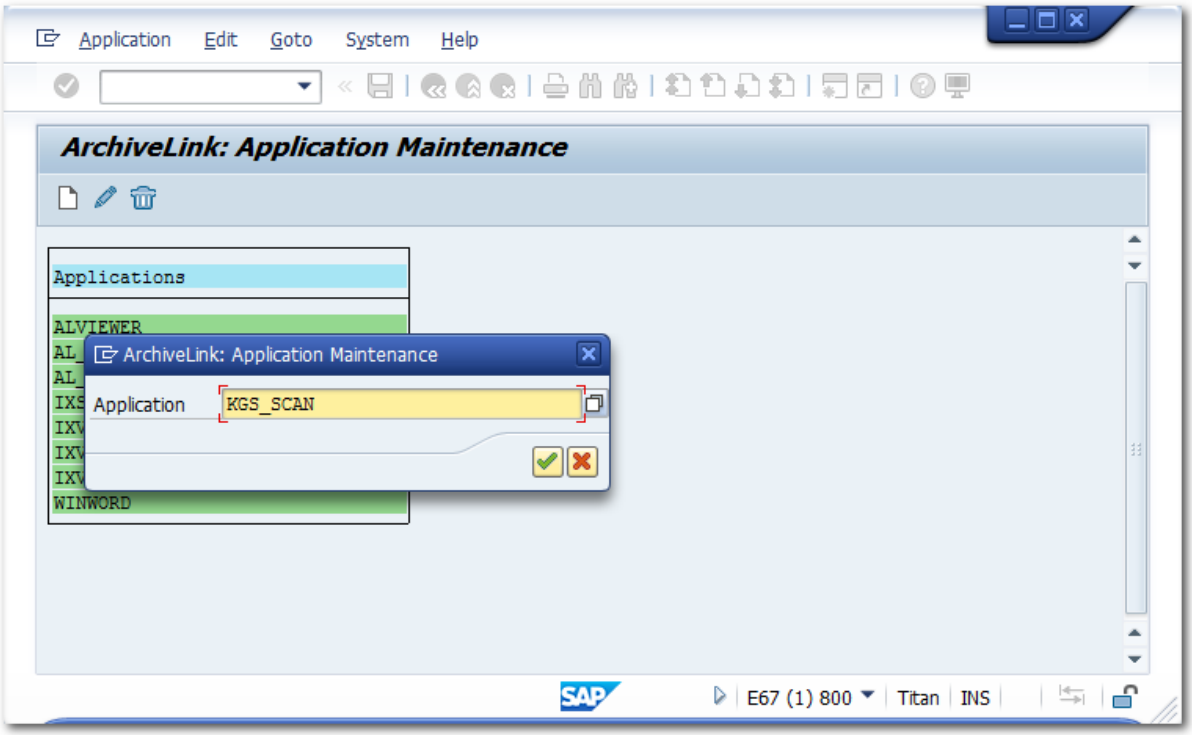
- SAP OLE (Object Linking and Embedding)
- HTTP (Hypertext Transfer Protocol)
- HTTPS (Hypertext Transfer Protocol Secure)
- TWAIN (Transmit Windows Advanced Interface)

5. Configuring SAP

Establish a connection using the OAA4 transaction.

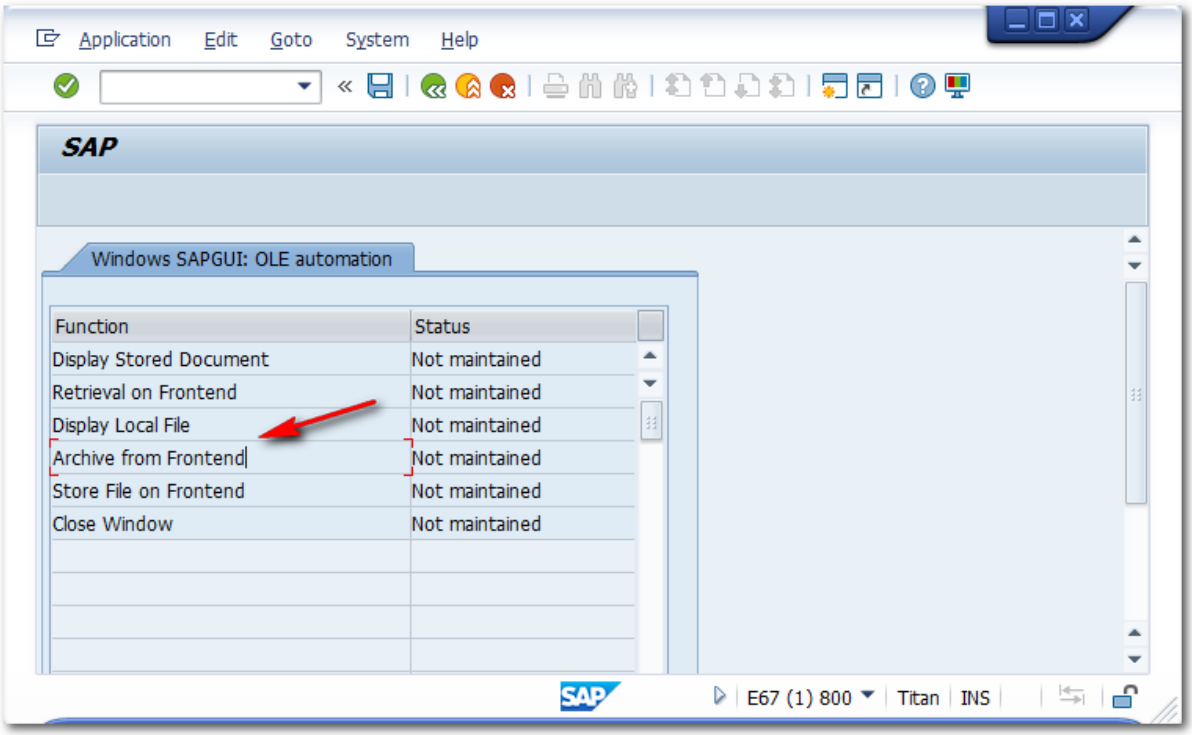


Press the ‘new’ button...

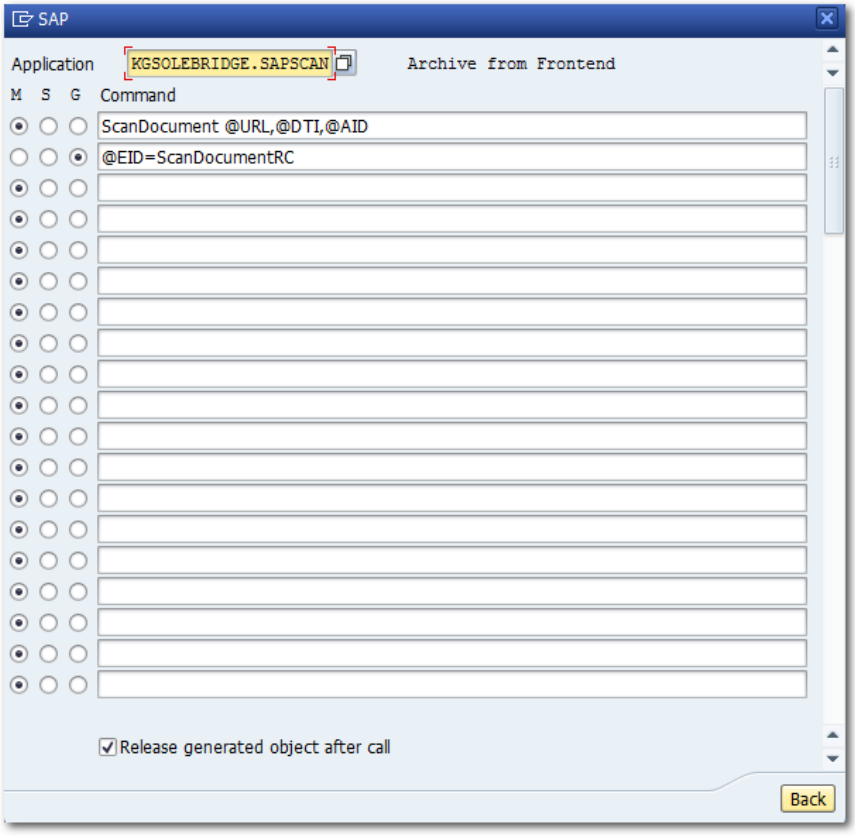


...and then enter the value *KGS_SCAN*. Confirm the entry to close the dialog.

Double-click the new line.



Now double-click ‘Archive from Frontend’:



The entry in the ‘Application’ field must be **KGSOLEBRIDGE.SAPSCAN**. Enter the commands as shown in the screenshot.

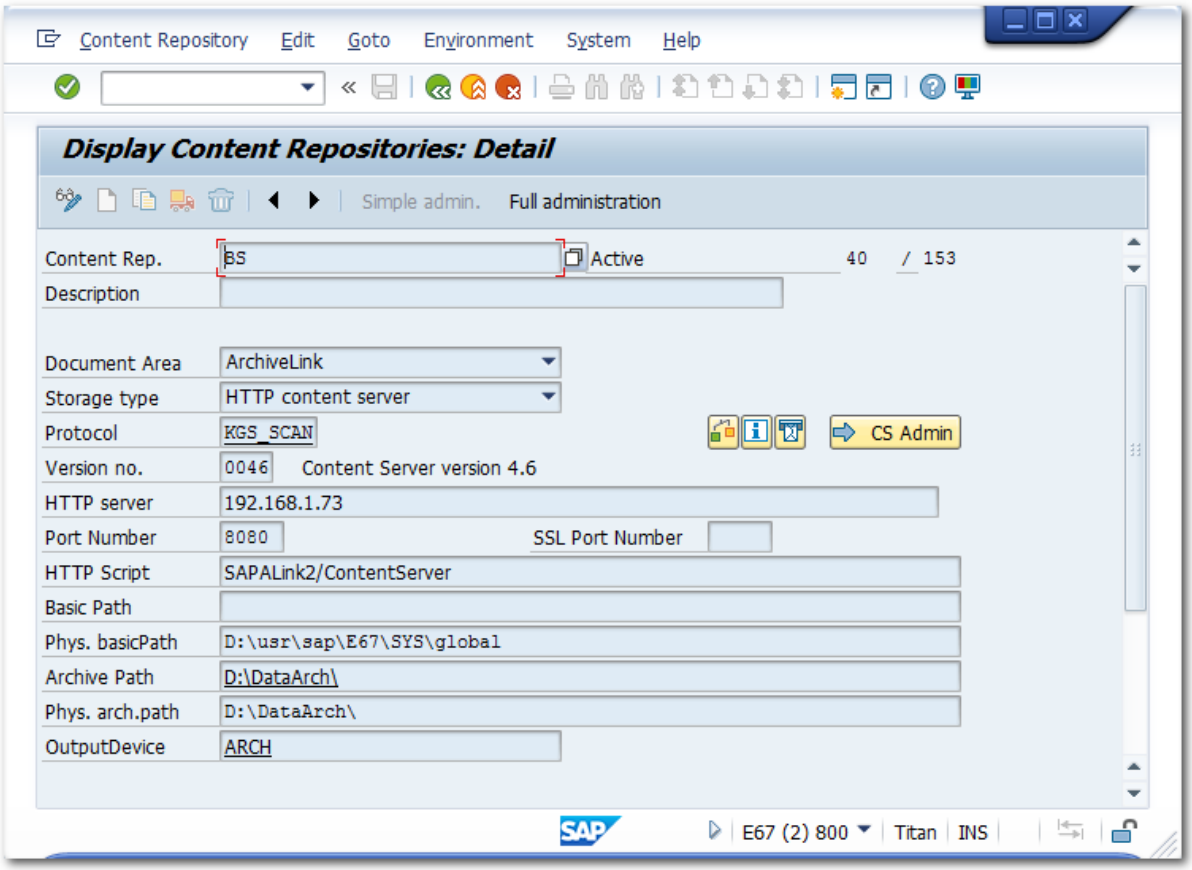
You can use the following strings to copy and paste the information:

ScanDocument @URL,@DTI,@AID

@EID=ScanDocumentRC

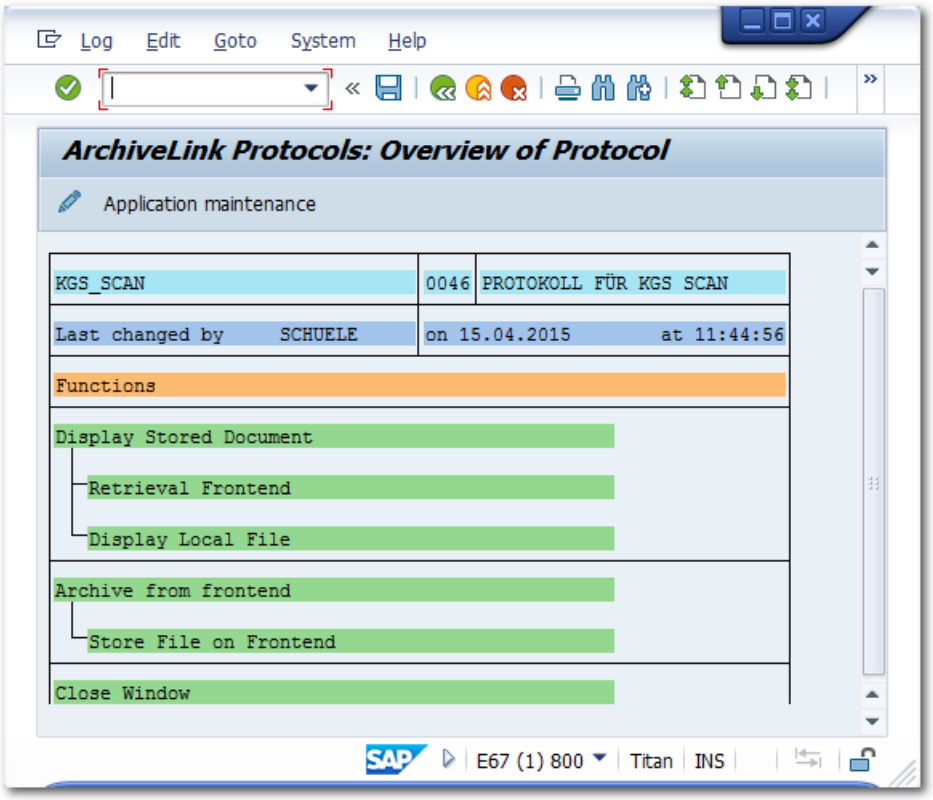
Next, quit the window by pressing the back button, and then store the changes by clicking the disk button. You have completed the basic settings.

If you now want to connect your scan client to a repository, please use the OAC0 transaction and double-click the desired repository.

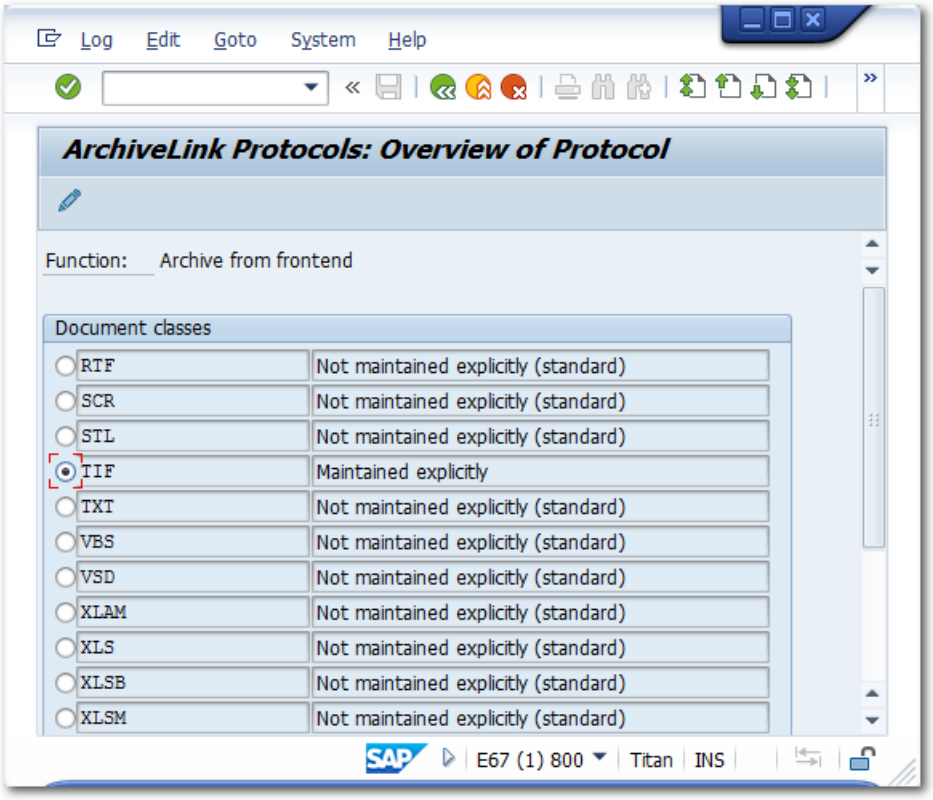


This screenshot shows the details of a content repository (in this example: BS). The protocol employed is *KGS_SCAN*.

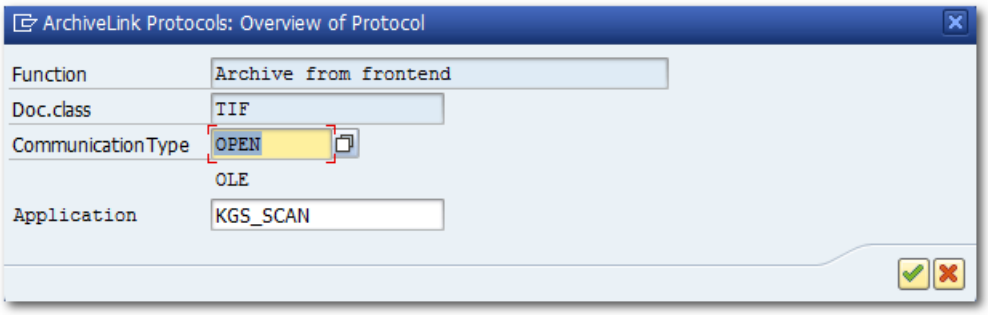
In the OAA3 transaction, double-click the protocol (in this example: KGS_SCAN). Next, double-click ‘Archive from Frontend’ to open the following dialog box:



Double-click the document class you want to connect (typically TIF or PDF)



and link it to the *KGS_SCAN* application.



Now use the OAC2 transaction to create the document type the scanned documents will be allocated to. Add a description that will be shown in the selection window of the SAP archive access dialogs. This is important since no selection will be displayed unless a description has been defined!

In the next step, use the OAC3 transaction to link the previously defined document type to the desired SAP business object type and a content repository.

After performing these steps, KGS SCAN is prepared for operation with the chosen content repository.

Hint: In order to utilize this scenario, first open KGS SCAN, select a corresponding profile, and then execute the OAWD SAP transaction.

6. (Profile) Settings in the KGS Scan Client

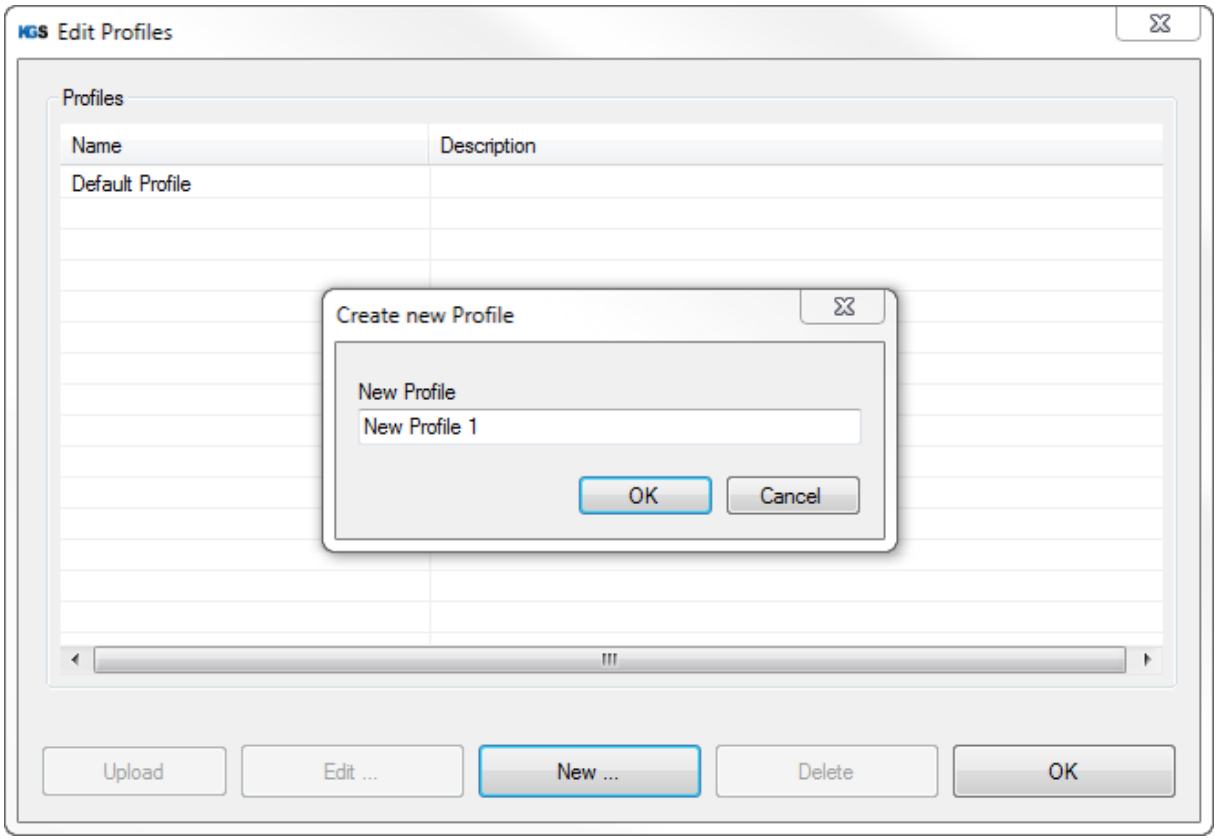
KGS SCAN includes a profile manager that allows you to configure a scanner and change scanner settings.

Please note: You require (local) administrator privileges in order to create or edit profiles.

When SAP transfers a scan request, it uses the content repository and document class provided with this request. If the system finds a profile named <content repository>_<document class> (for example, FI_FAX), it will automatically use this profile for scanning. This allows you to define specific parameters for different scenarios (for example, simplex or duplex, color or B/W, etc.). If no profile matching the transferred name is found, the application will use the standard profile.

To open the profile manager, select ‘Edit’ → ‘Profiles …’.This will call up a selection window where you can select an existing profile for editing or create a new profile.

To create a new profile, click the ‘New…’ button. The following dialog will open:



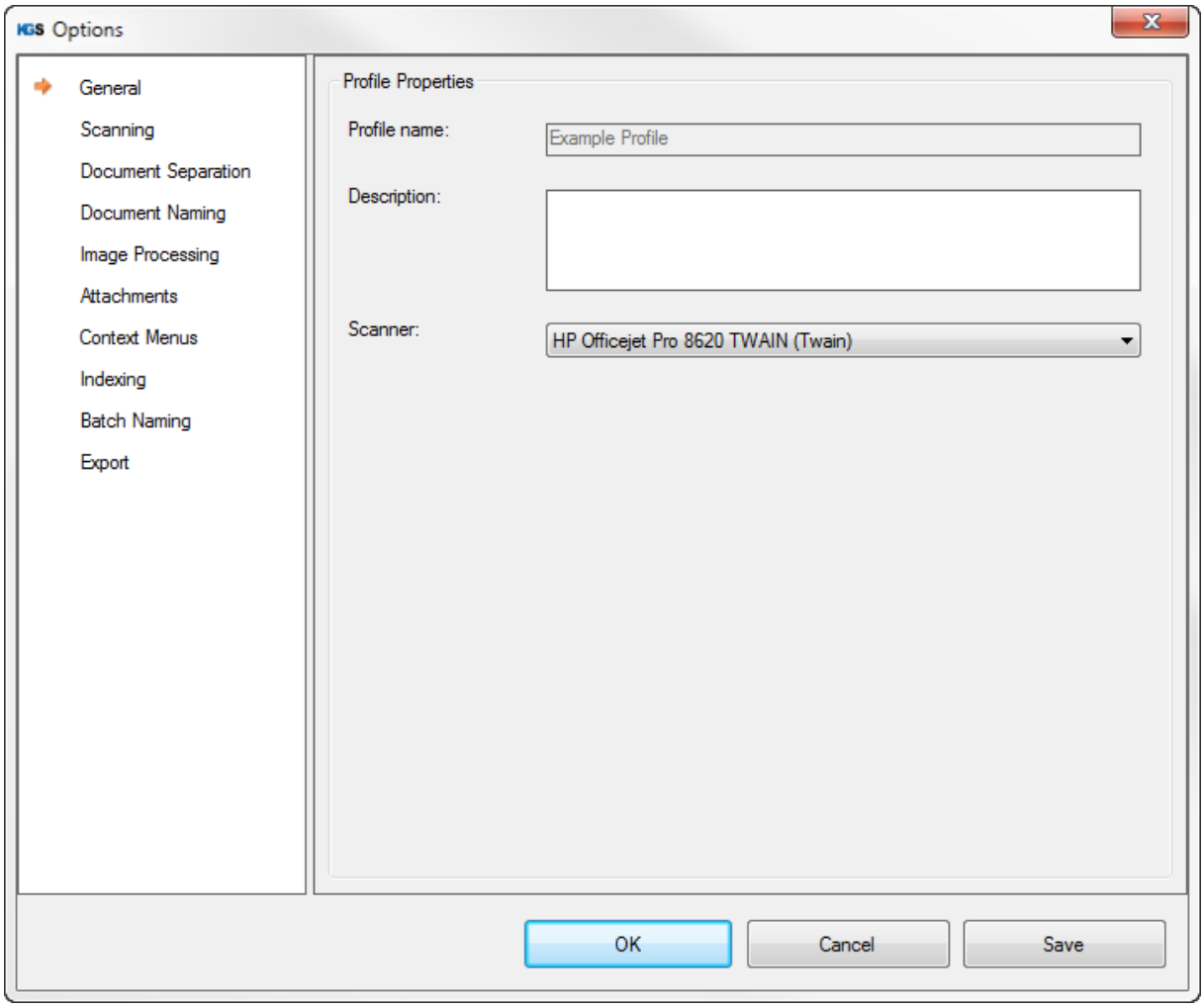
Choose any name (or, as explained above, use a name with a fixed name convention for SAP scenarios), and confirm by pressing OK.

7. General

The first tab lists general properties such as profile name, description and a list of all TWAIN scanners detected.

Note: KGS SCAN stores previously detected scanners in its local settings. Even if this scanner is disconnected at a later point, the scanner will still be shown in the drop-down list (allowing you to edit profiles even when the associated scanners are temporarily inaccessible).

There is also a so-called 'FileImporter (System)' option, which you can use to load documents directly from the hard drive.

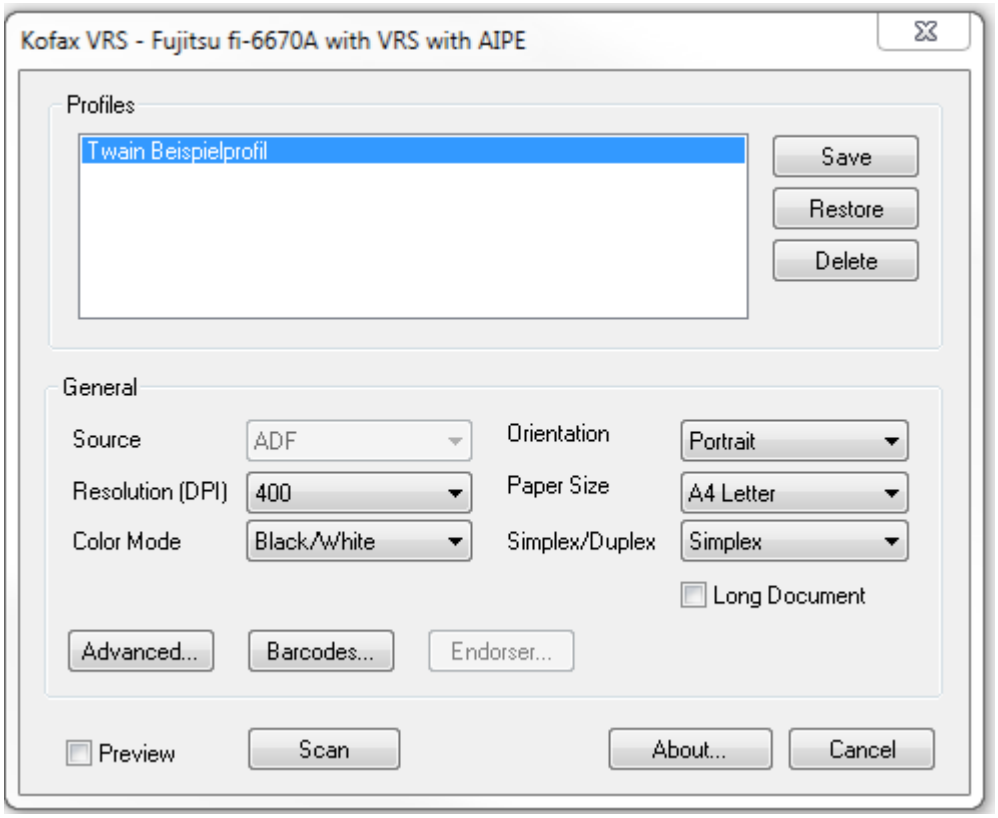


Save your selection and open the next tab, → Scanning.

Note: If you are not using Kofax VRS® or if you do not need to import TWAIN profiles, please skip the next item (6.1).

7.1 Importing TWAIN Profiles

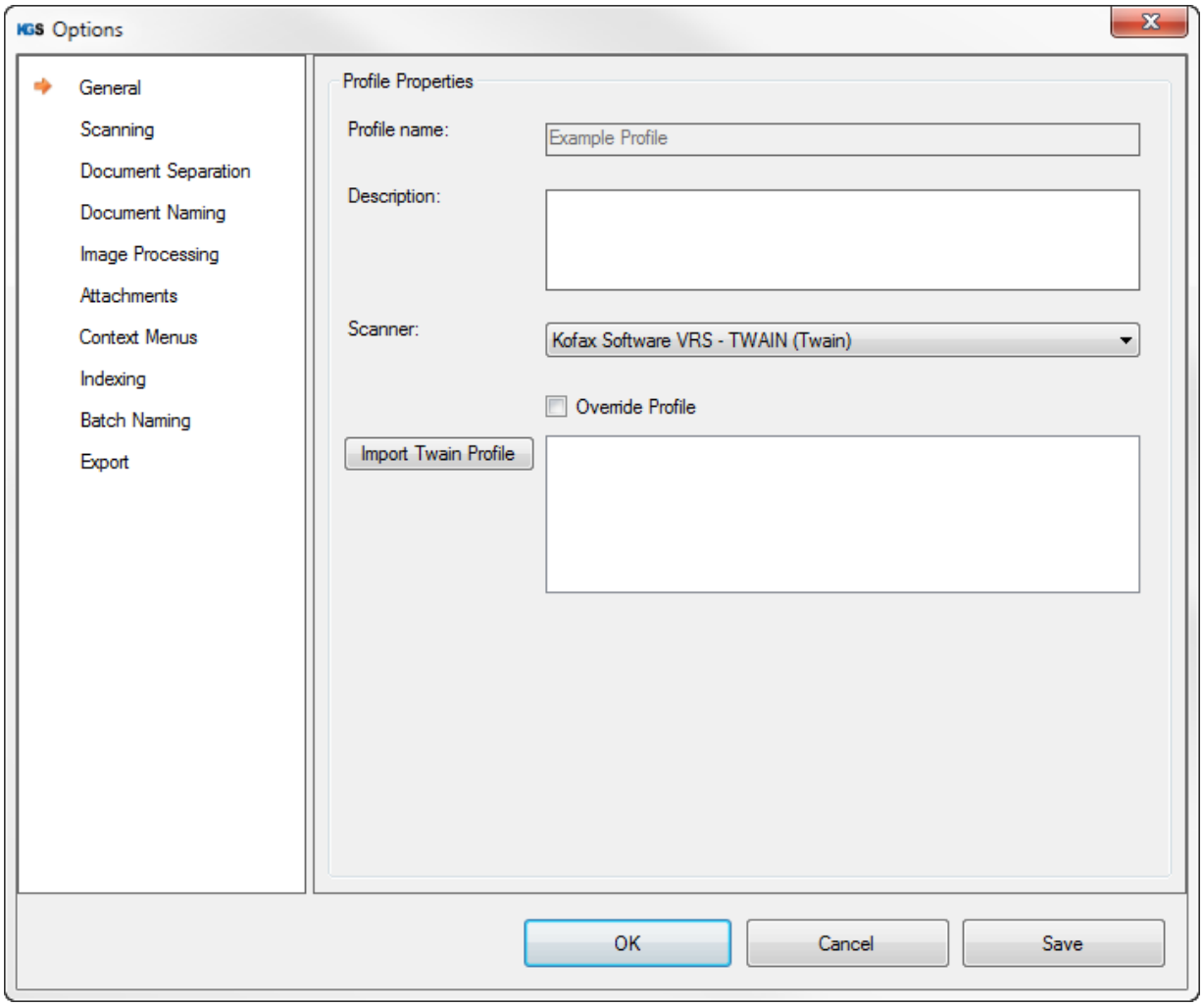
KGS SCAN allows you to import TWAIN profiles for VRS profiles. When doing so, all TWAIN settings made during VRS configuration are transferred to the KGS SCAN configuration.



Example: The previous screenshot shows the TWAIN UI of scanner manufacturer Fujitsu. As each scanner manufacturer implements their own TWAIN UI dialogs, the dialogs will differ depending on the brand.

If you make changes to settings here and then scan a page, the changes (external to KGS SCAN) are transferred to the scanner and applied. At the same time, the file saved at **C:\ProgramData\Kofax\Vrs\KofaxReg.xml** will be changed. This file contains all scanner-related settings.

Now KofaxReg.xml can be uploaded to KGS SCAN. Make sure to configure the 'Kofax Software VRS …' scanner in the profile. Once you have done so, several new GUI elements will be shown:



Please enable the ‘Override Profile’ checkbox. Now you are ready to load the XML file using the ‘Import Twain Profile’ function. After you have entered a name of your choice, it is shown in the list. You can also load multiple profiles.

For now, please select an item from the list (a single selection suffices). Use the save button to store the settings. After you have completed this process, KGS SCAN will take all valid parameters from the XML file and change the KGS profile accordingly. KGS SCAN will ignore any unknown parameters (e.g. AZTEC barcode).

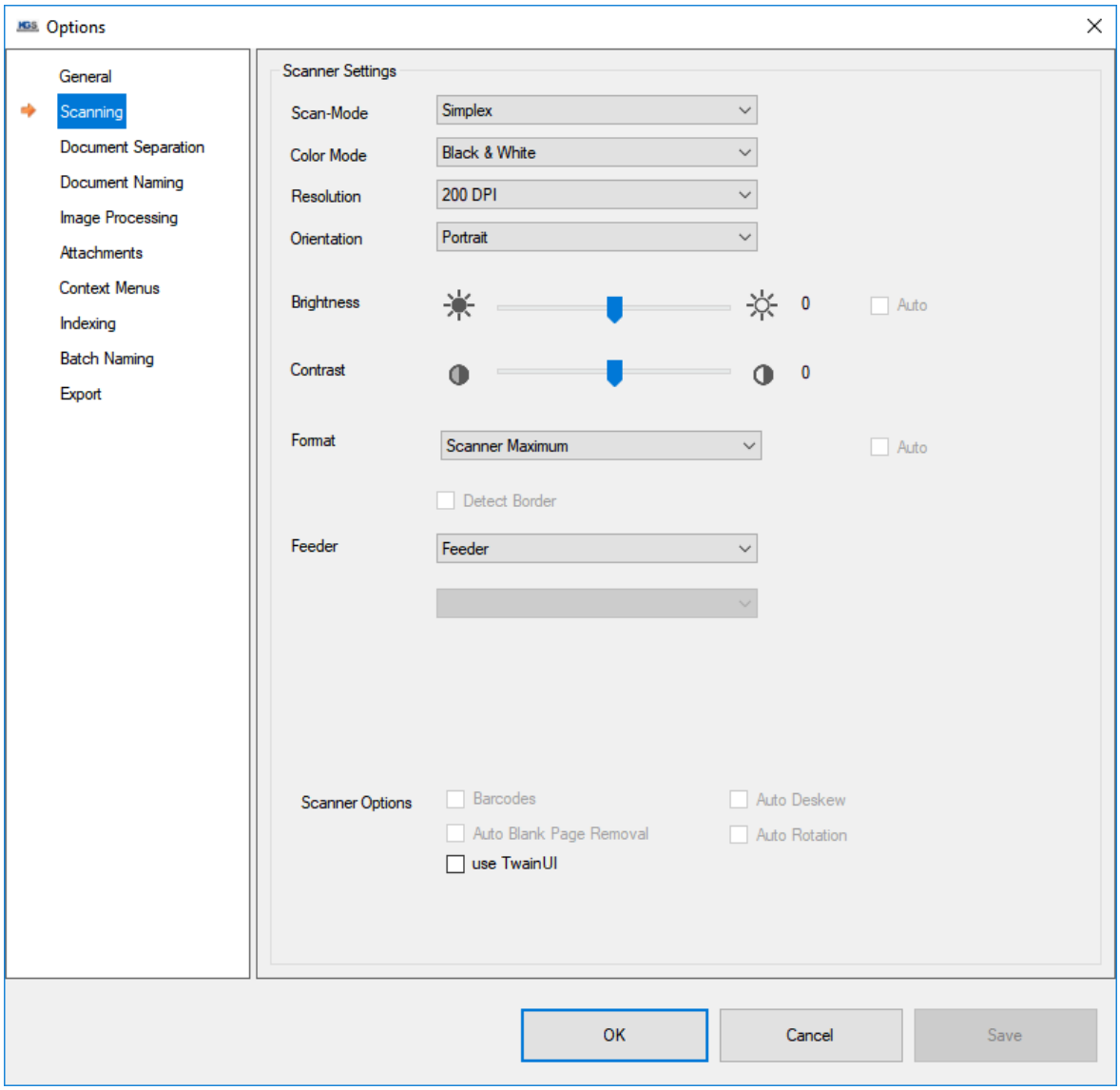
If the KGS SCAN profile already contains settings (such as defined barcodes), the new values identified in the XML file will automatically be added to the configuration.

7.2 ‘Scanning’ Submenu

The second overview tab (‘Scanning’) provides the options returned by the scanner. The software determines the respective scanner properties and lists the options available.

7.2.1 Scanning via Twain

After selecting a connected hardware scanner in the ‘General’ tab, KGS SCAN will determine the scanner properties by means of the TWAIN interface.



Use the Scanning tab to make the required settings.

In addition to common settings including resolution, scan mode or color and contrast, some scanner device manufacturers support further scanner features:

- Hardware barcode detection
- Auto deskew
- Auto rotation

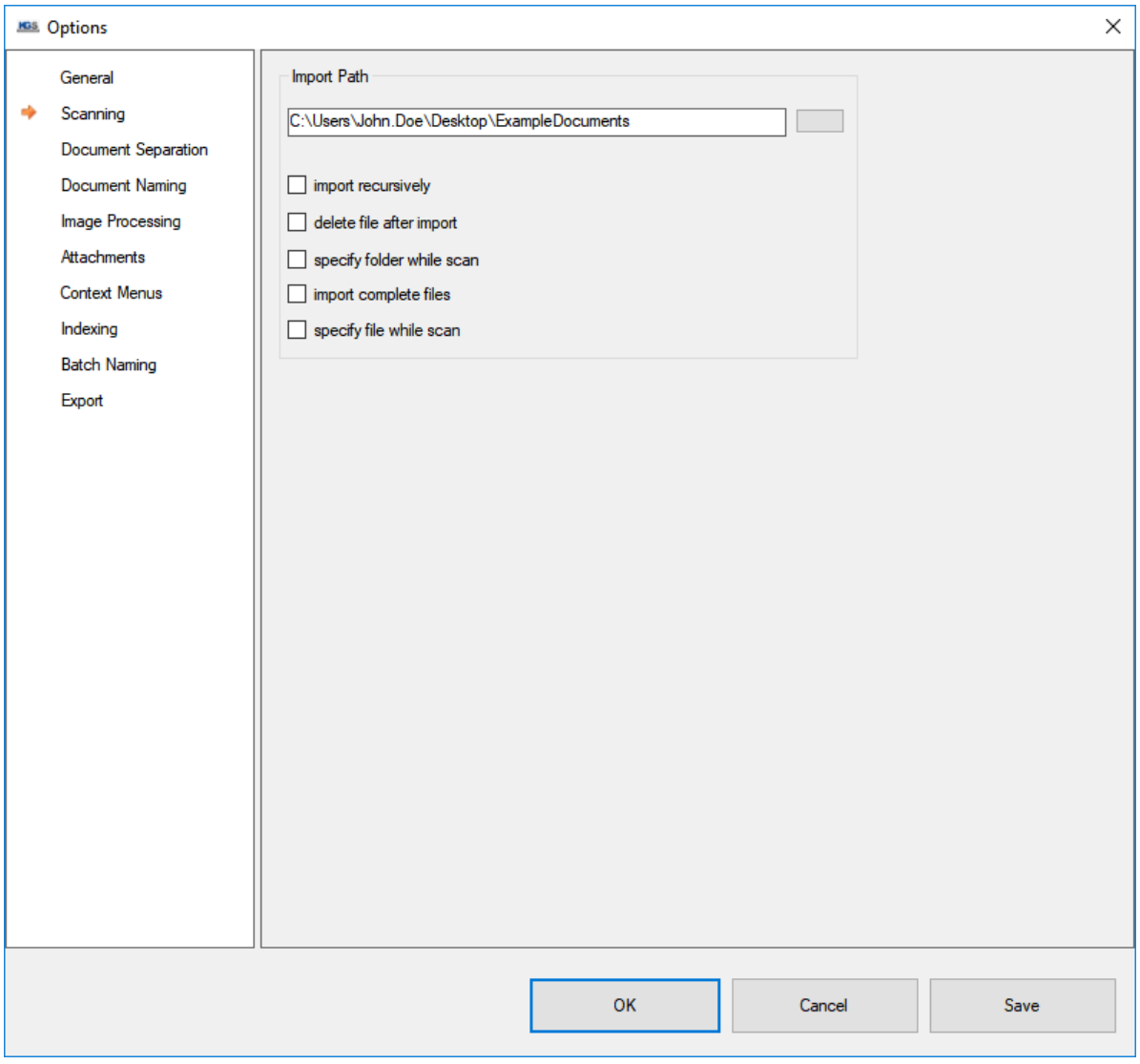
The checkboxes are located near the bottom of the tab and will be available/not available depending on whether the corresponding function is supported.

The three settings described above relate to hardware-based scanner features. If, for example, hardware barcodes are available and the checkbox has been enabled, the scanner will communicate detected barcodes to KGS SCAN. If the option is not available, you can configure the KGS SCAN software to perform the necessary recognition tasks on the ‘Image Processing’ tab.

The ‘use TwainUI’ item is disabled by default. When enabled, the TwainUI dialog will launch for each scan process, and KGS SCAN will apply the results of this user interaction. This provides you with the option of modifying local scanner parameters each time before scanning starts. However, we recommend disabling this option as it will allow users to bypass many profile settings and manually change parameters.

7.2.2 Loading Local Documents

If the selected scanner is ‘FileImporter (System)’, the ‘Scanning’ tab appears as shown below:



In this scenario, TIFF, TIF,PDF or DOCX files are loaded directly from disk. In preparation, you need to specify the root directory.

Further options:

7.2.2.1 Import recursively

Each subfolder is recursively searched for the corresponding files.

7.2.2.2 Delete file after import

Successfully imported documents are deleted. **Important note**: The source documents will be deleted fully and irrevocably, even if no export has yet taken place!

7.2.2.3 Specify folder while scan

If you enable this option, a dialog listing all subfolders contained in the root directory will be shown during scanning. This allows you to manually select specific subfolders. Note that the checkmark at 'Import recursively' still applies.

7.2.2.4 Import complete files

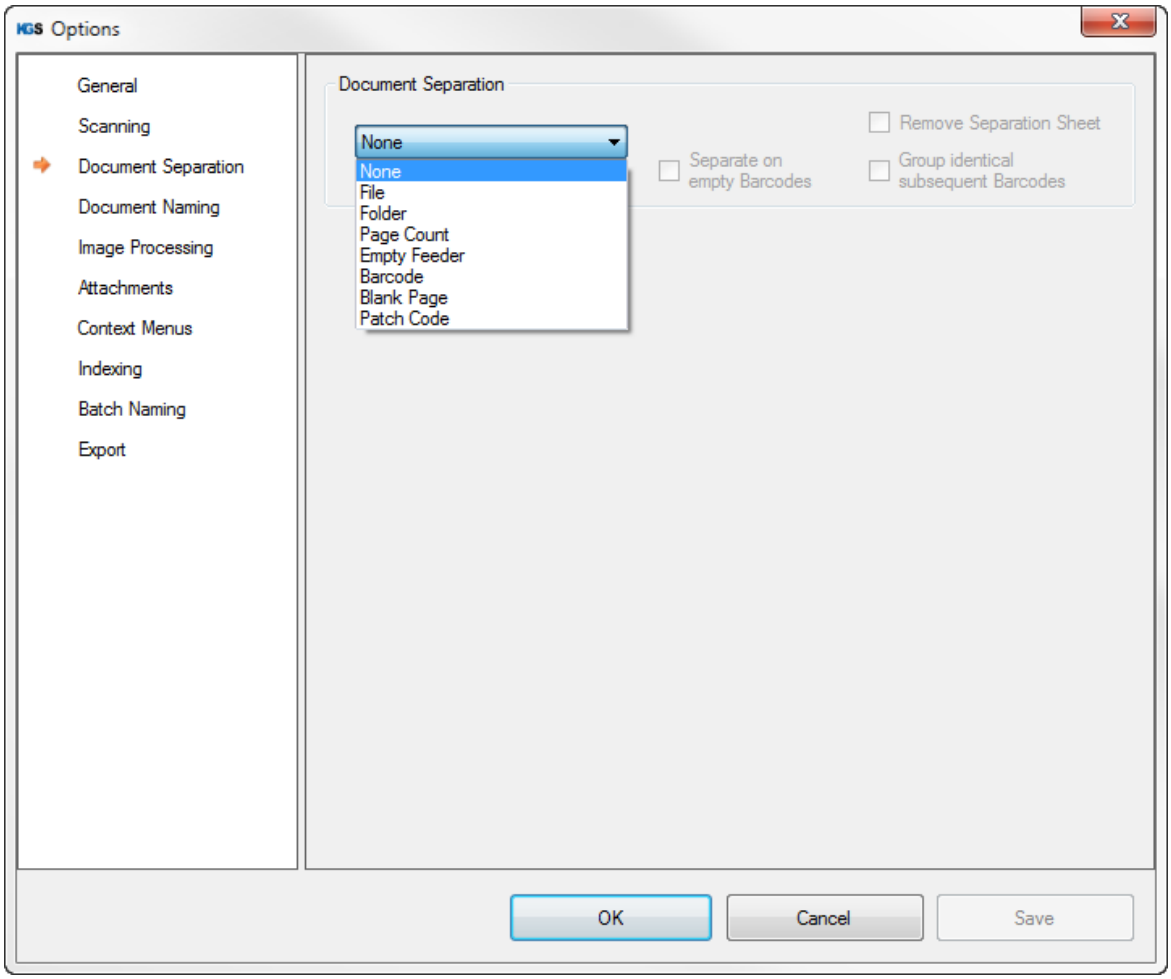
If you enable this option, only complete files will be imported. The scan buttons in the main view change and the 'rescan' button becomes hidden. This scenario addresses profiles for importing complete files rather than individual pages.

7.2.2.5 Specify file while scan

If you enable this checkbox, a file selection dialog is shown for each scanning process. The defined import directory is used as the root directory. You can select multiple files. This option, too, is used to import complete files.

8. Document Separation

The third tab provides options for defining how to separate documents during scanning.



KGS SCAN offers the following separation options:

8.1 None

No separation is performed. Each page is attached to the first (and only) document.

8.2 File

Note: This option only makes sense in combination with the FileImporter.

This separation option maps the imported files using the exact same folder structure as used on disk.

8.3 Folder

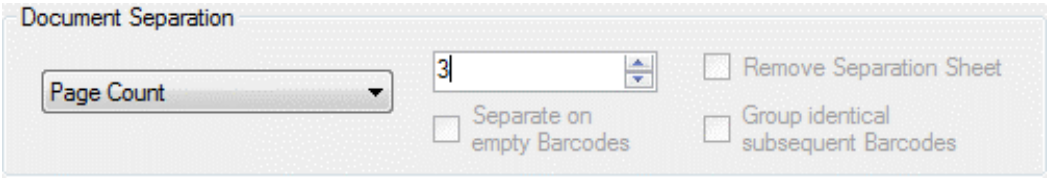
Note: This option only makes sense in combination with the FileImporter and recursive importing.

This option performs separation based on directories; i.e. all pages originating from the same directory are combined into a single document (regardless of how many documents the pages came from), and a new document is created only when the directory is changed recursively.

8.4 Page Count

After a predetermined number of pages, KGS SCAN will continuously generate a new document (in this example every three pages).

Note: Backsides of documents (in Duplex scenarios) are treated as a page.



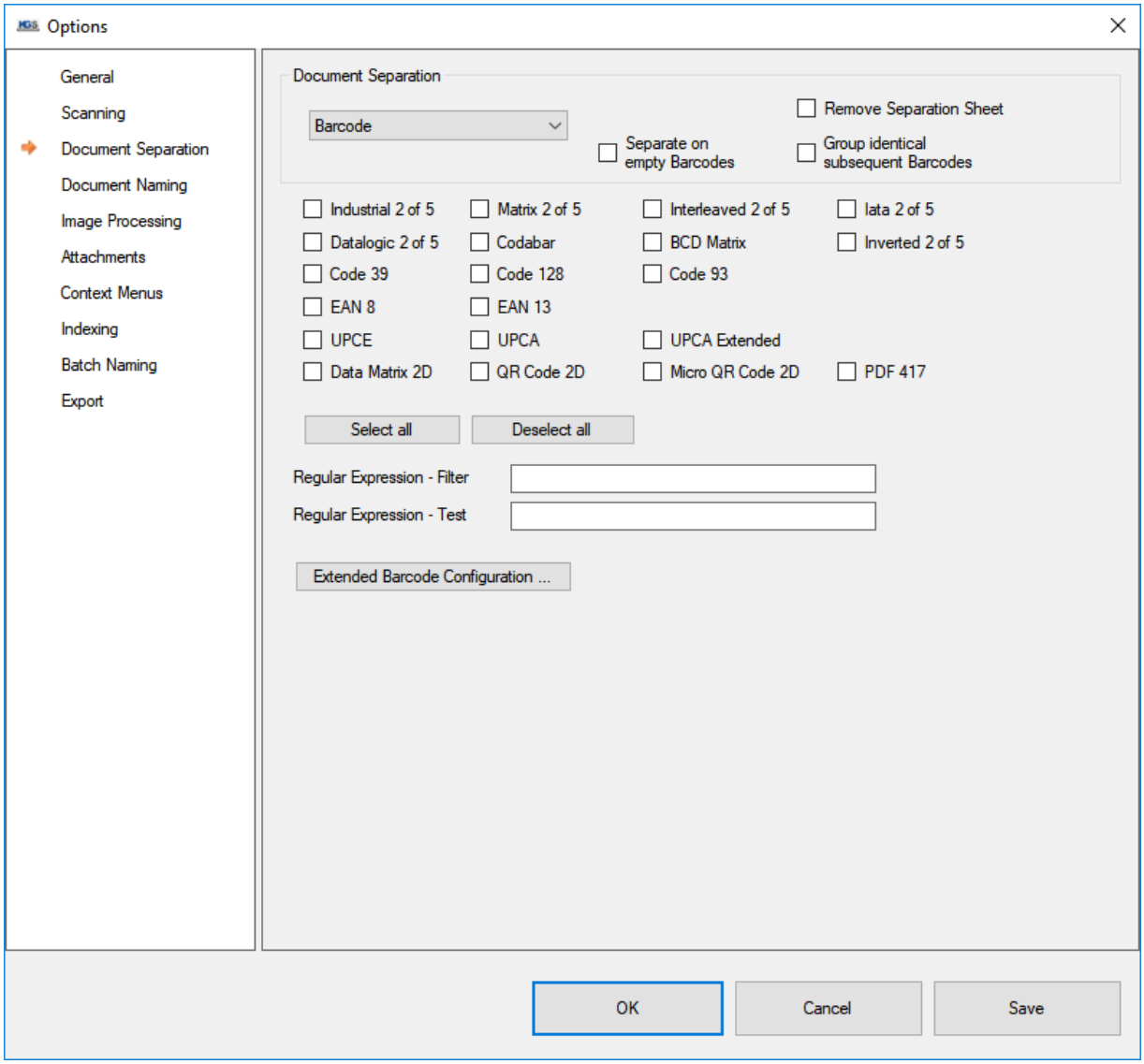
8.5 Empty Feeder

Note: This option only makes sense in combination with a hardware scanner.

If the feeder is empty, KGS SCAN will automatically perform a separation. This applies to scenarios where scanning is performed continuously and the scanner recognizes an empty feeder. In this case, KGS SCAN will perform a separation and wait for the scanner to start scanning again.

8.6 Barcode

Note: In Image Processing, the Barcode Detection option must be enabled.



When barcodes are detected on a scanned page, these can be used as document separators. You need to specify which types of barcode should act as separators. It is possible to mark multiple barcode types, which makes sense if the scanned documents contain a broad range of barcodes.

The following sections describe the barcode separation options offered.

8.6.1 Separate on Empty BarCodes

This option will cause a separation when no barcode is detected on a page.

8.6.2 Remove Separation Sheet

Use this option to remove the detected separator sheet. When combined with 'Separate on empty Barcodes', this would mean, for example, that for each page that does not contain a barcode, a separation will be performed in addition to removing the page.

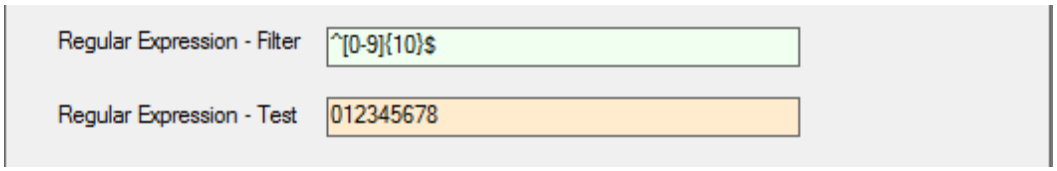
8.6.3 Group identical subsequent barcodes

In some scanning scenarios multiple identical barcodes may occur consecutively (associated batches). If you enable this option, the next non-identical barcode will be interpreted as a document separator.

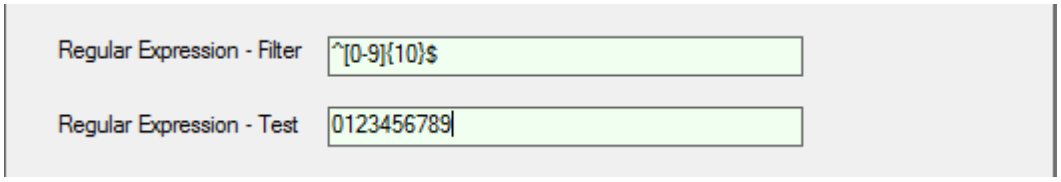
8.6.4 Filter Options

Moreover, you can use regular expressions to check and filter certain barcode values. This provides a means of fine-tuning the processing behavior.

Let us assume there are two barcodes of type Code 128, with the first one comprising 10 digits and the other one 3 letters and 7 digits, but you only want to detect the barcode that only contains digits. Here is how you can implement this scenario:

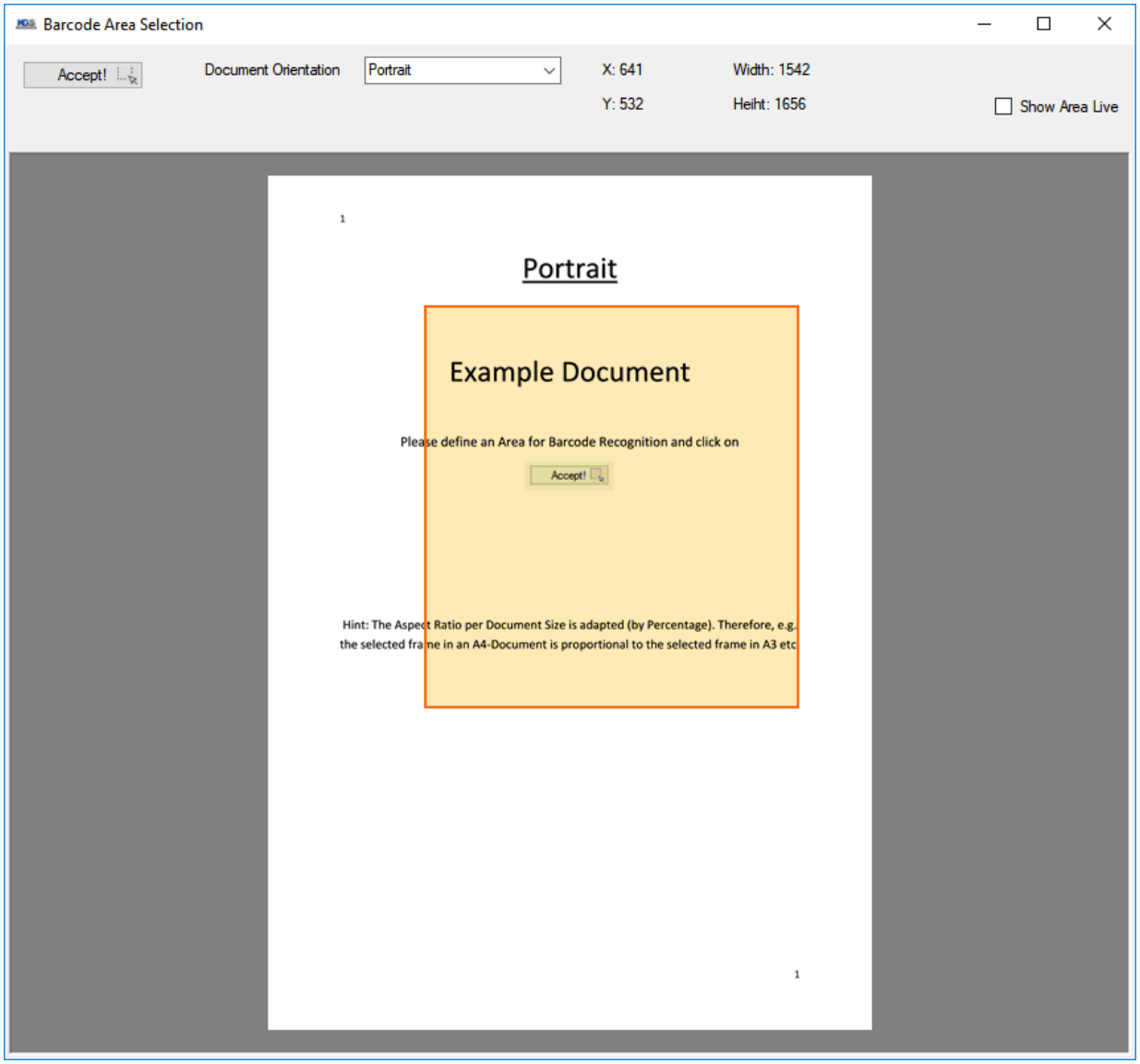


E.g. this expression checks for 10 digits in a row. The lower field allows you to test the regular expression. When an 'incorrect' value is read (in this case only nine digits), the Regular Expression - Test' field is highlighted in orange. If, instead, the 'right' number of digits is read (here: 10), the background changes to green.



8.6.5 Extended Barcode Configuration

You can further define an ROI (rectangle of interest) area for barcode recognition. This option is available after you press 'Extended Barcode Configuration'



'Extended Barcode Configuration'- Barcode area definition

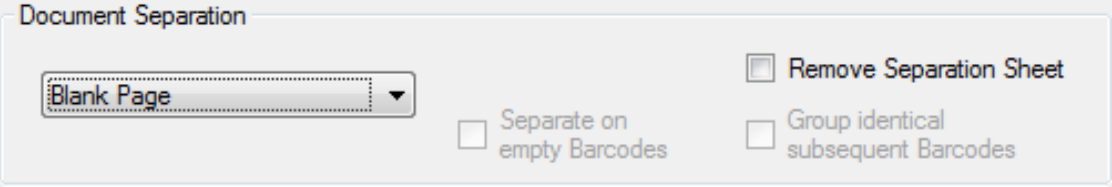
This menu (see image) provides you with the option of drawing a colored frame with the mouse. The rectangular shape you draw defines the area where the program will attempt to find barcodes. Press the 'Accept!' button to confirm the selection. If the 'Show Area Live' checkbox is enabled, the selected area will also be shown on each scanned page. This option mainly serves testing purposes.

Note: KGS Scan calculates the selected area as a percentage of the page. This method ensures that the selected rectangle is placed at the 'correct position' regardless of the resolution or paper size (aspect ratio is maintained). This option is available for both separator barcodes as well as for image processing.

8.7 Blank Page

Note: On the Image Processing tab, make sure to select 'Blank Page Detection'!

This separation option performs a separation whenever an empty page is identified.



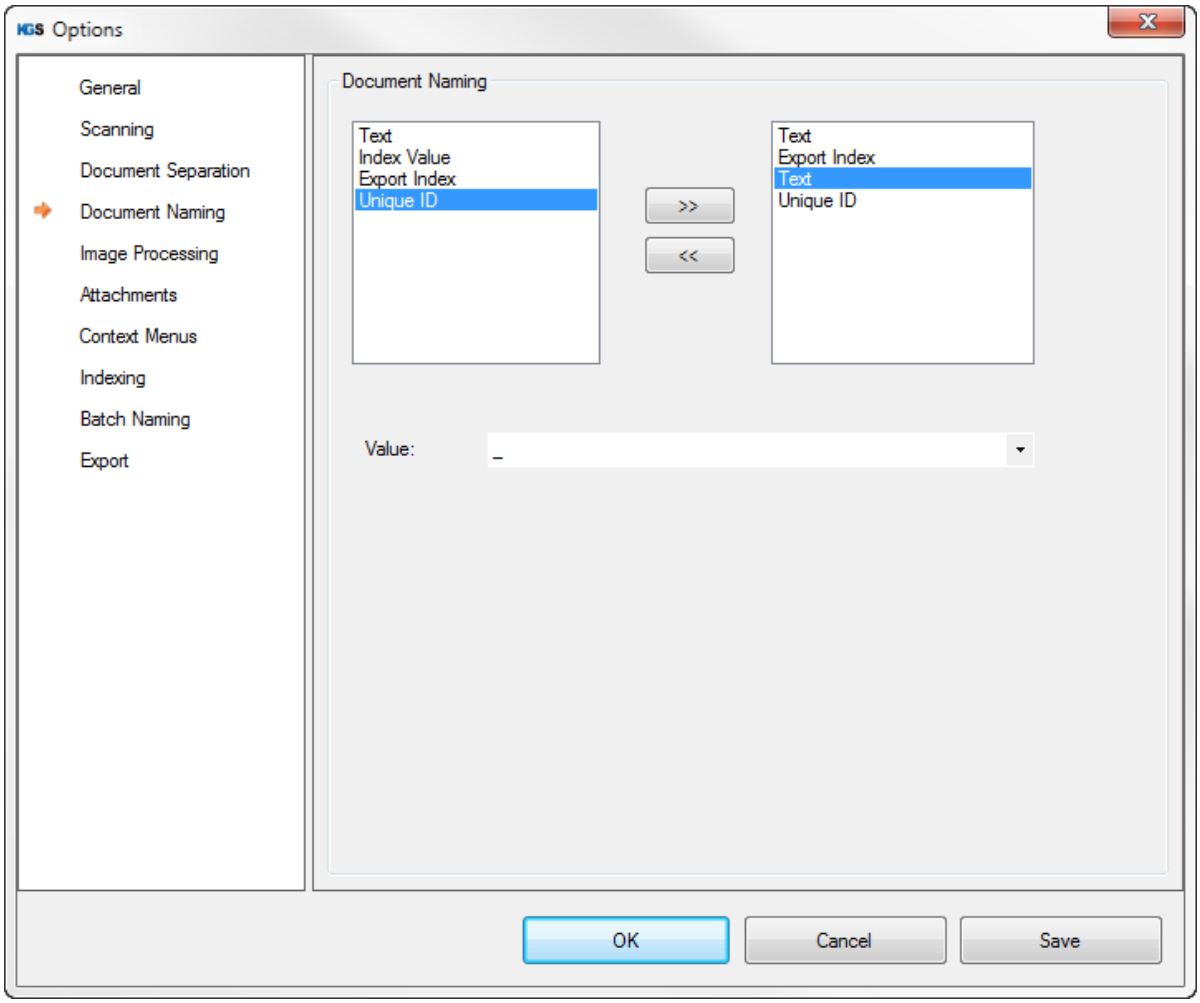
You can additionally enable 'Remove Separation Sheet', which will cause each empty page to be removed.

8.8 Patch Code

If you select this separation option, KGS SCAN will perform separation based on detected patch code sheets. These patch sheets must comply with the general standards. Section 16.2 Patch Code Sheets provides several examples.

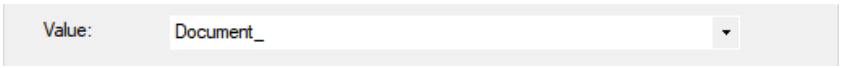
9. Document Naming

This tab provides options for adjusting the document names to the given scanning scenario.



For example, combining...

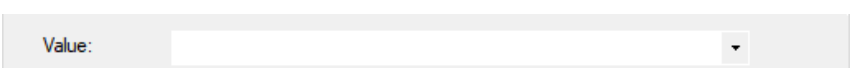
Text



Export Index

Text:

Unique ID

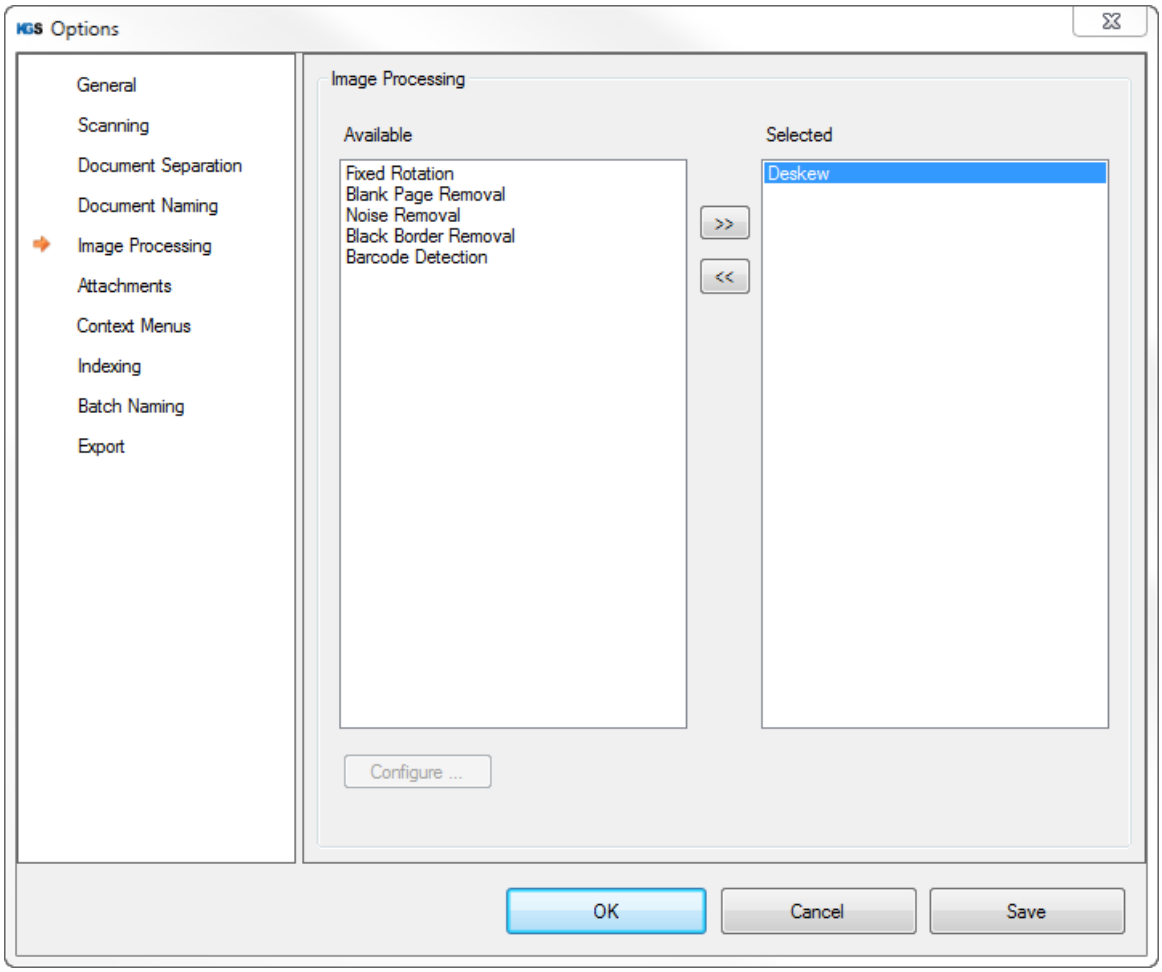


...results in the following document name:

In this example, value 0001 (export index) is incremented for each document, and the unique ID is thus newly generated each time. The name generated in this manner will be accounted for during export.

10. Image Processing

The Image Processing tab provides general image processing options.



The KGS application performs all of these functions. Some options might overlap with (hardware-based) scanner settings. As a general rule, information delivered directly from the scanner to KGS SCAN via the TWAIN interface (e.g., hardware deskew, see the 'Scanning' tab) will be processed first. KGS SCAN then processes the result.

Note: Some settings are only available if the corresponding image processing features have been activated in the profile. For instance, any barcode detection scenario (e.g., barcode- or attachment-based separation as well as index fields containing barcode specifications) will only work in combination with barcode recognition.

The following options are available:

10.1 Deskew

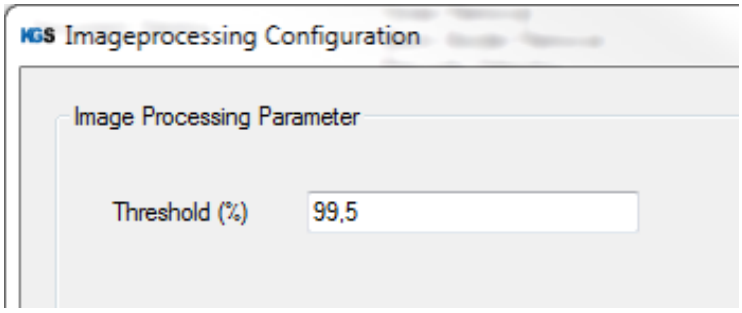
Software is used to ‘straighten out’ images, for example, if documents were not properly aligned during feeding/scanning.

10.2 Blank Page Removal

The software identifies empty pages and marks them internally.

Other options (such as the ones illustrated in the Document Separation section) require this feature to perform as needed.

If you press the ‘Configure …’ button, you can further define a threshold in %. In most cases, the value should be between 99.5 and 99.8%.



10.3 Noise Removal

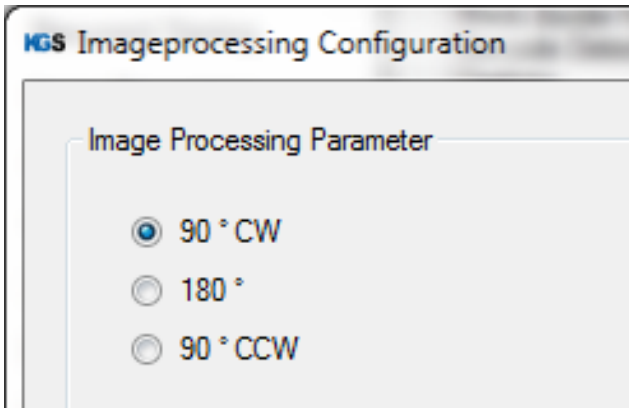
KGS SCAN will attempt to reduce optical noise by means of software algorithms. This process mainly focuses on removing single unwanted black pixels from the document.

10.4 Black Border Removal

KGS SCAN will autonomously remove black borders, which can occur, e.g., as a result of misaligned scanning or if the defined scanning area was too large. Here, too, you can use ‘Configure …’ to set a threshold (see ‘Blank Page Removal’).

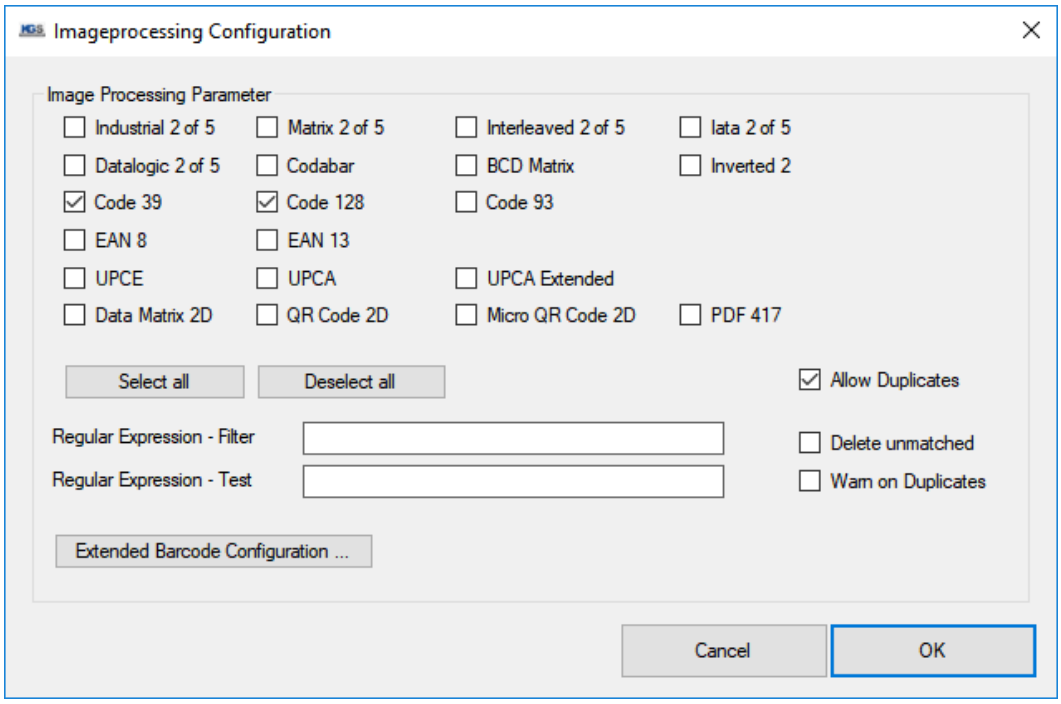
10.5 Fixed Rotation

Use this image processing option to rotate the image after scanning. ‘Configurate …’ offers the following options:



10.6 Barcode Detection

This image processing option is a prerequisite for several other application features. When enabled, the software will search for barcodes after scanning. You can define specific barcodes under Configure…'.



You can even add regular expressions to further refine barcode recognition or to exclude certain barcodes. These expressions have already been discussed in the '7.6.4 Filter Option' section.

Note: We highly recommend to not define all Barcode at once due to the performance. For every selected Barcode the application will raster and scan the page for exactly this barcode. For example, if all barcode types are selected, each page will get rastered and scanned 20 times.

10.6.1 Allow Duplicates

If a page contains multiple identical barcodes, all of them will be recognized. This option is mainly used in combination with the ‘Barcode Table’ index field.

10.6.2 Delete Unmatched

If the software detects invalid barcodes (declared as invalid using a regular expression), they will be deleted.

10.6.3 Warn on Duplicates

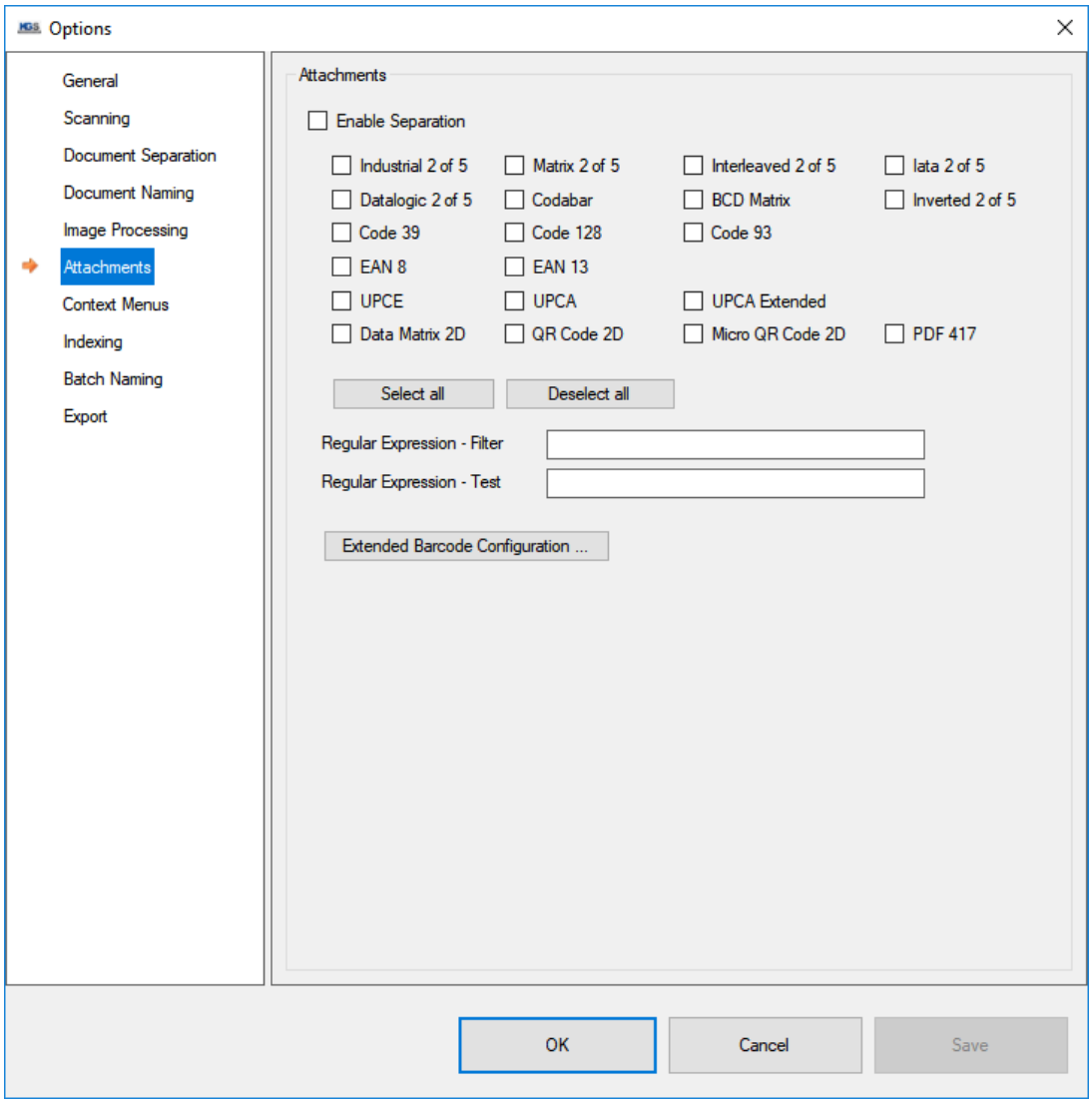
Using this option, after each scan any recognized barcode is written to an overview page, and duplicates are color coded. This option applies to the entire batch, i.e., to all scanned pages.

Important note: As each new barcode needs to be compared with every previously scanned barcode, the processing load grows exponentially with the number of barcodes detected. This will slow down the scanning process.

11. Attachments

This item allows you to separate attachments defined via a barcode. When exporting, an ‘Attachments’ folder will be created, which holds all pages for which at least one (attachment) barcode was detected. These pages are still shown in the overview.

To enable this type of separation, specify the desired barcode and enable the ‘Enable Separation’ checkbox.

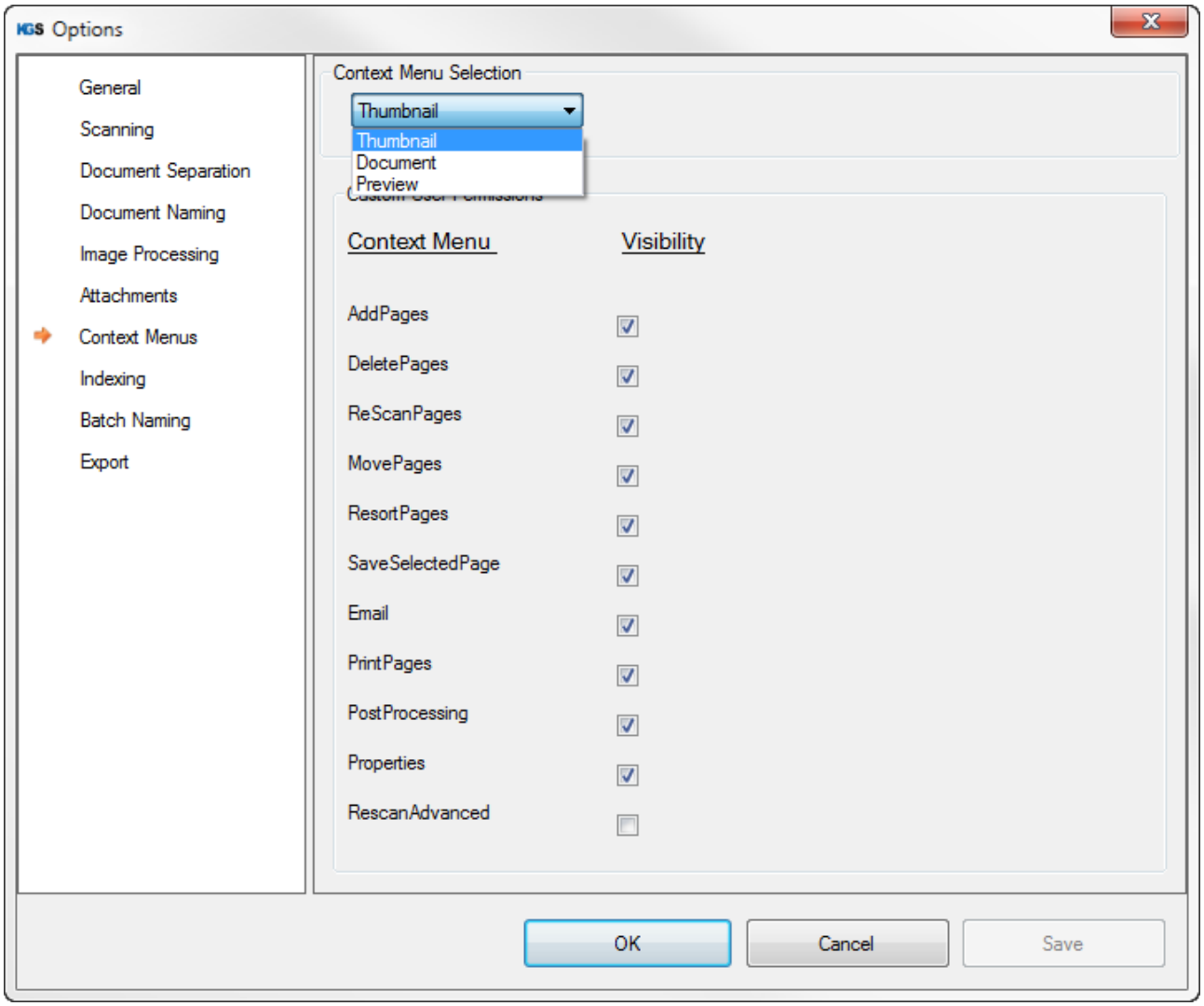


In the given example, all pages that match barcode type 128 and barcode value ‘Attachment’ (as well as all subsequent pages) would be attached to the previously scanned page.

This allows you to correctly allocate and structure documents and attachments.

12. Context Menus

The ‘Context Menus’ tab allows you to customize the visibility of context menu items for the scan user.



The administrator is able to disable/enable specific items per profile. For example disabling 'Email'-feature for scan users may be necessary in case of dealing with sensitive data.

All three Content Menus can be modified:

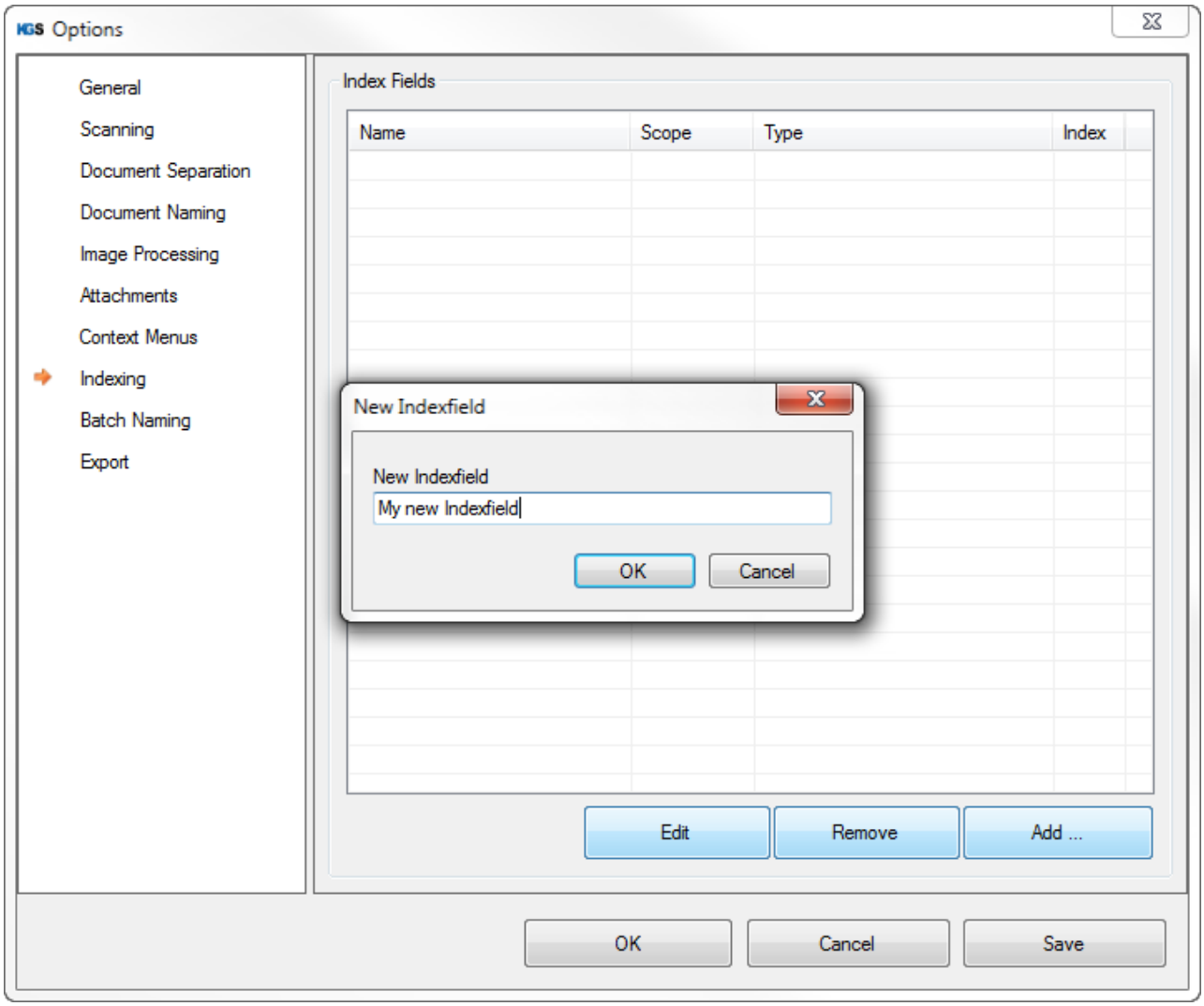
- Thumbnail: The right-click menu per page in the thumbnail preview.
- Document: The right-click menu on document separator
- Preview: The right-click menu on the main window (on the scanned image)

Important note: The item "RescanAdvanced" is disabled per default. Use this checkbox only to allow scan user to use the TWAIN-UI for rescanning documents. Using this option will allow the users to bypass the profile settings (per rescan) regarding TWAIN capabilities (dpi,color-mode etc.).

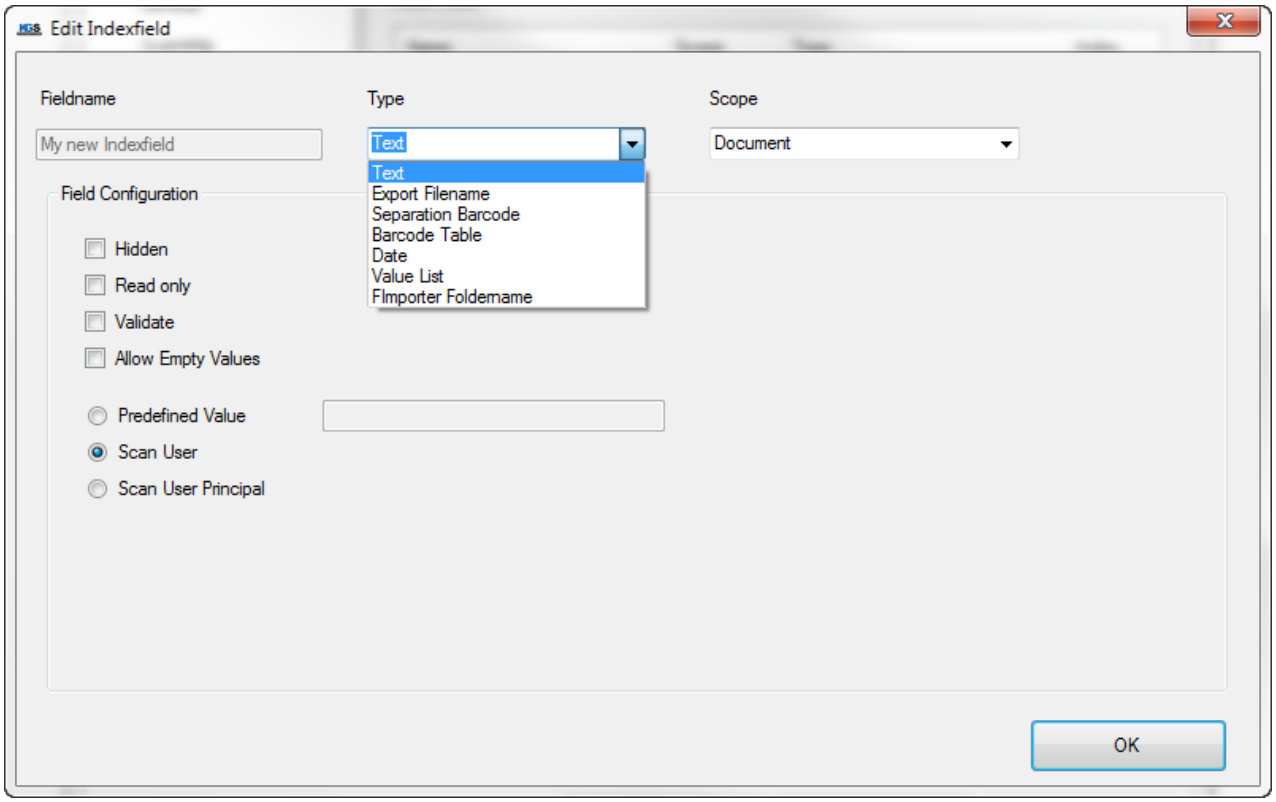
13. Index Fields

The ‘Indexing’ tab allows you to export additional values and information, which you can use, for example, in a KGS DocumentRouter scenario. The associated information is stored in index files (IDX files).

Click ‘Add…’ and assign any name to your index field.



Next, the index field editor dialog will be called up:



Note: Once assigned, you can no longer change field names.

There are specific field configurations for each field type (*Text, Export Filename, Separation Barcode, Barcode Table, Date, Value List, Fimporter Foldername*).

13.1 Field Configurations

13.1.1 Hidden

The field is not visible to users (and thus cannot be edited or manipulated in any way), but it is still entered in the IDX file.

13.1.2 Read only

Define the field as write protected. It will be grayed out in the table. Users will see the value in the index screen, but they cannot change it.

13.1.3 Validate

During any export, each field for which this option has been chosen must be confirmed using <Enter>. The exporter will inform users that there are still fields with unconfirmed values that need to be confirmed for the export to take place.

13.1.4 Allow Empty Values

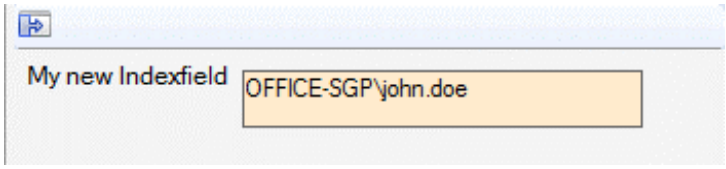
Enable this checkbox to allow users to export empty index fields. **Note:** Use this option with caution since the processing instance (e.g. KGS DocumentRouter) may not know how to handle empty fields.

13.1.5 Predefined Value

Enter a default value to be entered into the corresponding index field.

13.1.6 Scan User

By default, the MS Windows user including the domain will be used.



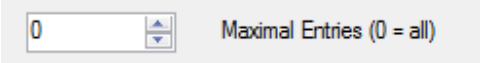
13.1.7 Scan User Principal

Only the user itself (in this example john.doe) is preset as the default value.

Note: Each index type (text, file name …) differs, among other things, as regards the selectable field configurations! It is also possible to combine selectable fields!

13.1.8 Maximum Entries

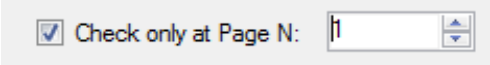
This field configuration is only available for Barcode Table.



If a value greater than zero is set, KGS SCAN will list only the first 'N' (=value) Barcodes per Document. Per default the value is 0, this means that there is no limitation regarding barcode entries.

13.1.9 Check only at Page N:

This field configuration is only available for Barcode Table.



Is the checkbox checked, KGS SCAN only search Page "N" (= value). In This example, the KGS SCAN will only search on Page One per Document. If the digit configure exceeds the page number, the minimum of one index field (empty) will get created.

13.2 Field Types

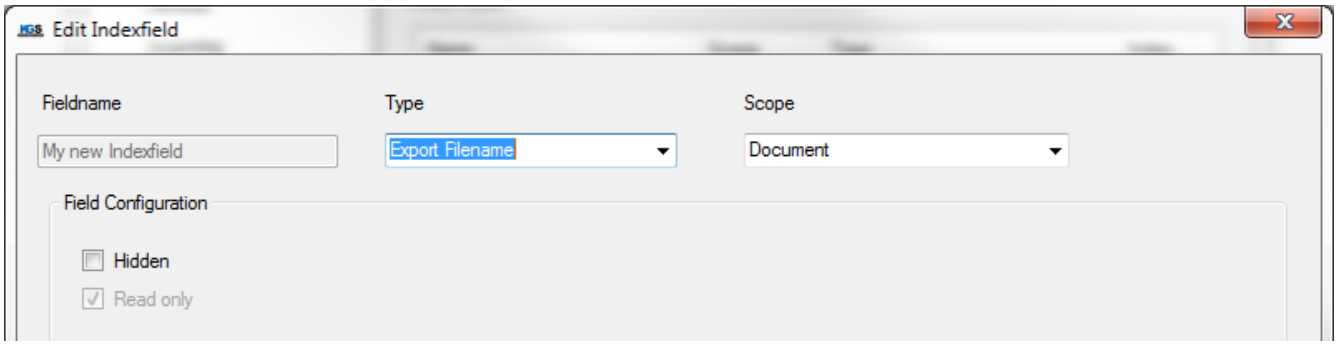
The following field types are supported:

13.2.1 Text

Users can enter any text. There are no restrictions. In this case, all field configurations listed above are eligible (see figure).

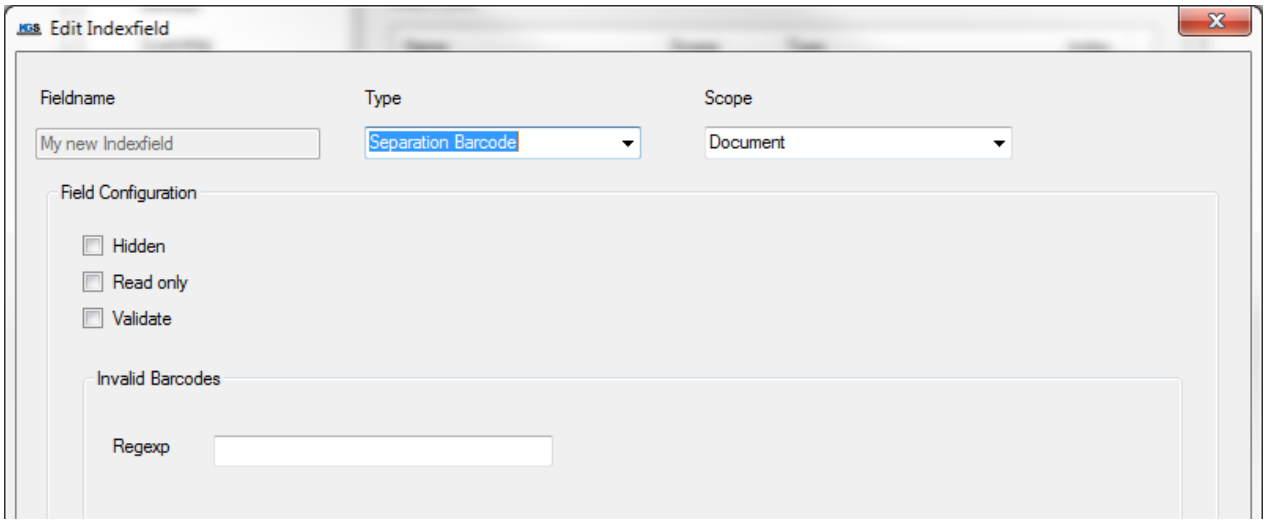
13.2.2 Export Filename

When you select this type, the file name will be written into the index field (only makes sense in combination with the FileImporter). The only configuration available is ‘Hidden’.



13.2.3 Separation Barcode

If the defined barcode separator is detected, this index field is filled with the value found (you need to previously configure this on the ‘Document Separation’ tab. Also, on the ‘Image Processing’ tab you need to have enabled the ‘Barcode Detection’ option.)



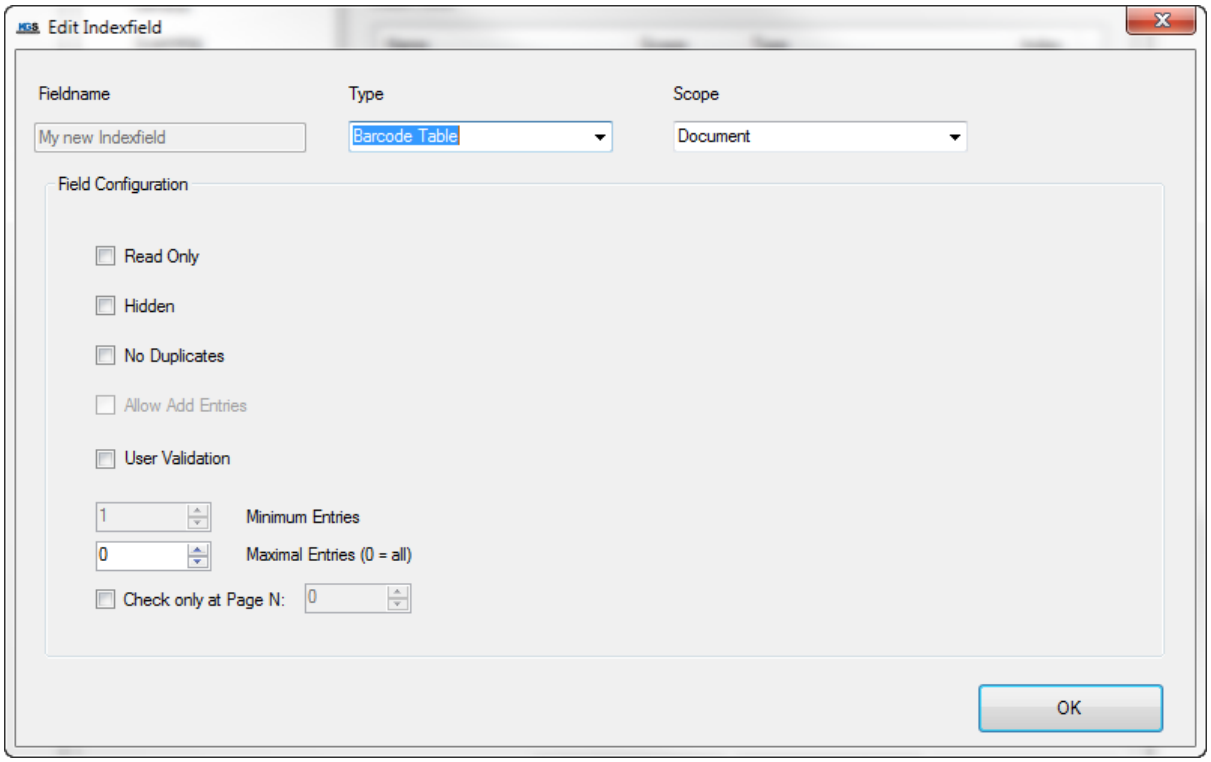
The available field configurations are Hidden, Read Only and Validate.

In addition, you can define regular expressions to ignore barcodes.

13.2.4 Barcode Table

Note: You previously need to enable barcode recognition on the 'Image Processing' tab!

Use this index field to write all detected barcodes (even multiple items per page) to the indexer.



The available field configurations are 'Read Only', 'Hidden', 'No Duplicates', 'Validate', 'Maximum Entries' and 'Check only on Page N:'.

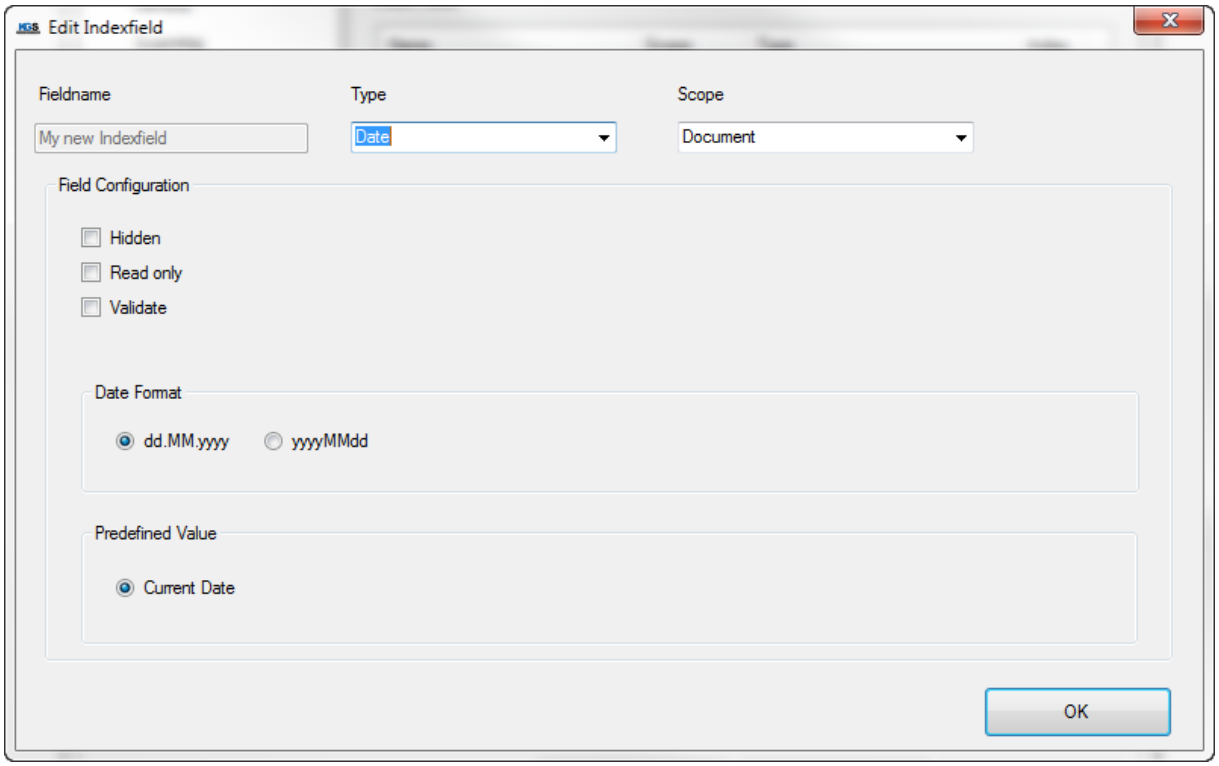
13.2.5 Date

This index field is preset with the current date. If it is not set to 'Read only', users can change the date using the date selection box.

The following date formats are available:

dd.MM.yyyy

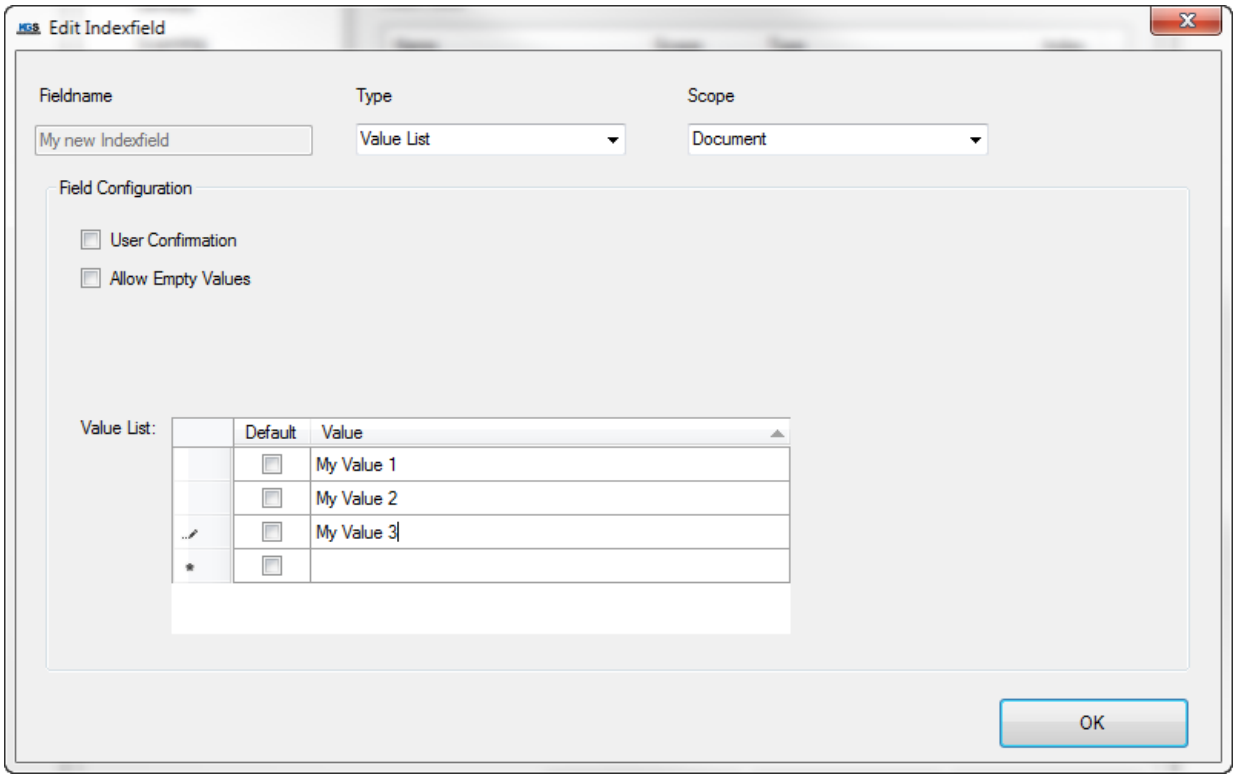
yyyyMMdd



The available field configurations are ‚Hidden', ‚Read Only' and 'Validate'.

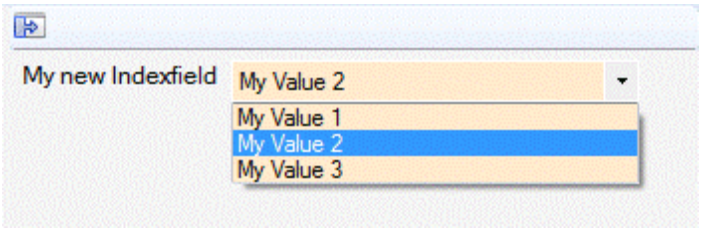
13.2.6 Value List:

This field enables a selection list for users. The selection list is created by the profile administrator.



The profile creator defines any number of values in the list by clicking ‘Value’ in the last row and entering a value. It is also possible to define a default value. This is used to initialize the value list.

The result will look like this on the index screen:



The available field configurations are ‘User Confirmation’ and ‘Allow Empty Values’.

13.2.7 Documentname

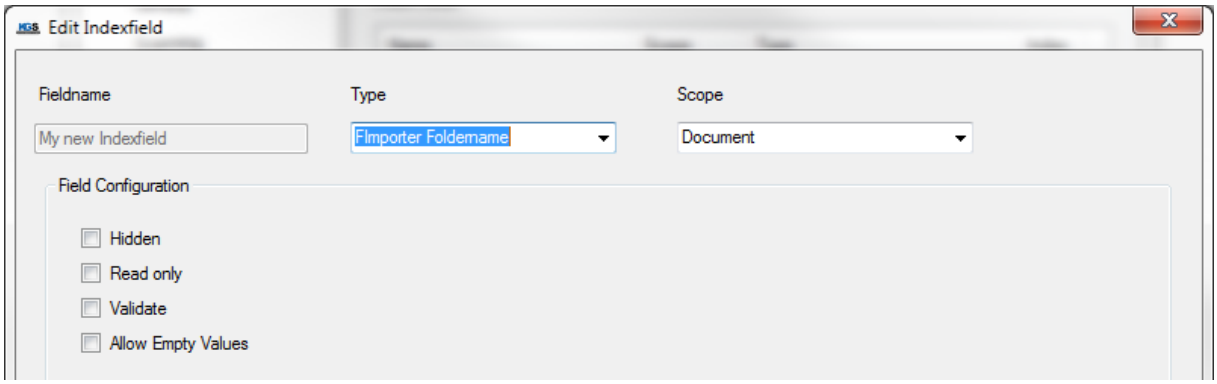
This field will only be shown if you previously selected ‘Document’ at the document separation option.

The index field will be filled with the name of the file from which the pages were imported. You can furthermore decide whether to keep or delete the file extension.

13.2.8 FImporter Foldername

Note: This index field can only be used in combination with the FileImporter.

The index field will be populated with the name of the directory from which the document was imported.



The available field configurations are ‚Hidden‘, ‚Read only‘, ‘Validate’ and ‘Allow Empty Values’.

13.2.9 SAP DocID

This Indexfield generates automatically a 32-Digit random number/letter combination per Document in the Batch. This Field is usually used in the ExportTyp "*ContentServer Exporter / SAP Linking"* (In Case an DocID is needed as Indexfield for a Custom Function Module Parameter).

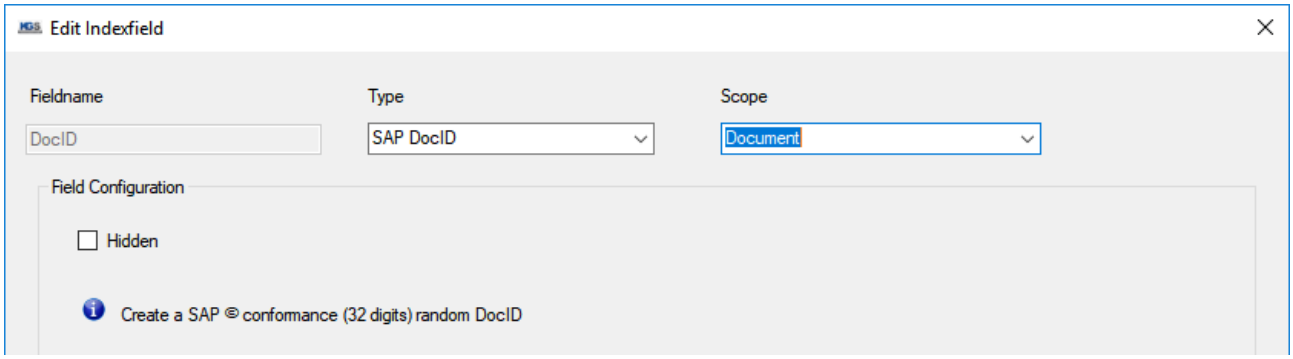


Abbildung 1 Indexfield: Typ SAP DocID

The available field configurations is ‚Hidden'.

13.3 Prefilling SAP Index Fields

Note: The scenario described below requires the respective SAP system to be fitted with a custom function module. As different values are used for each scenario, a solution is discussed and planned for the customer on an individual basis. If you are not interested in this feature, please skip this item.

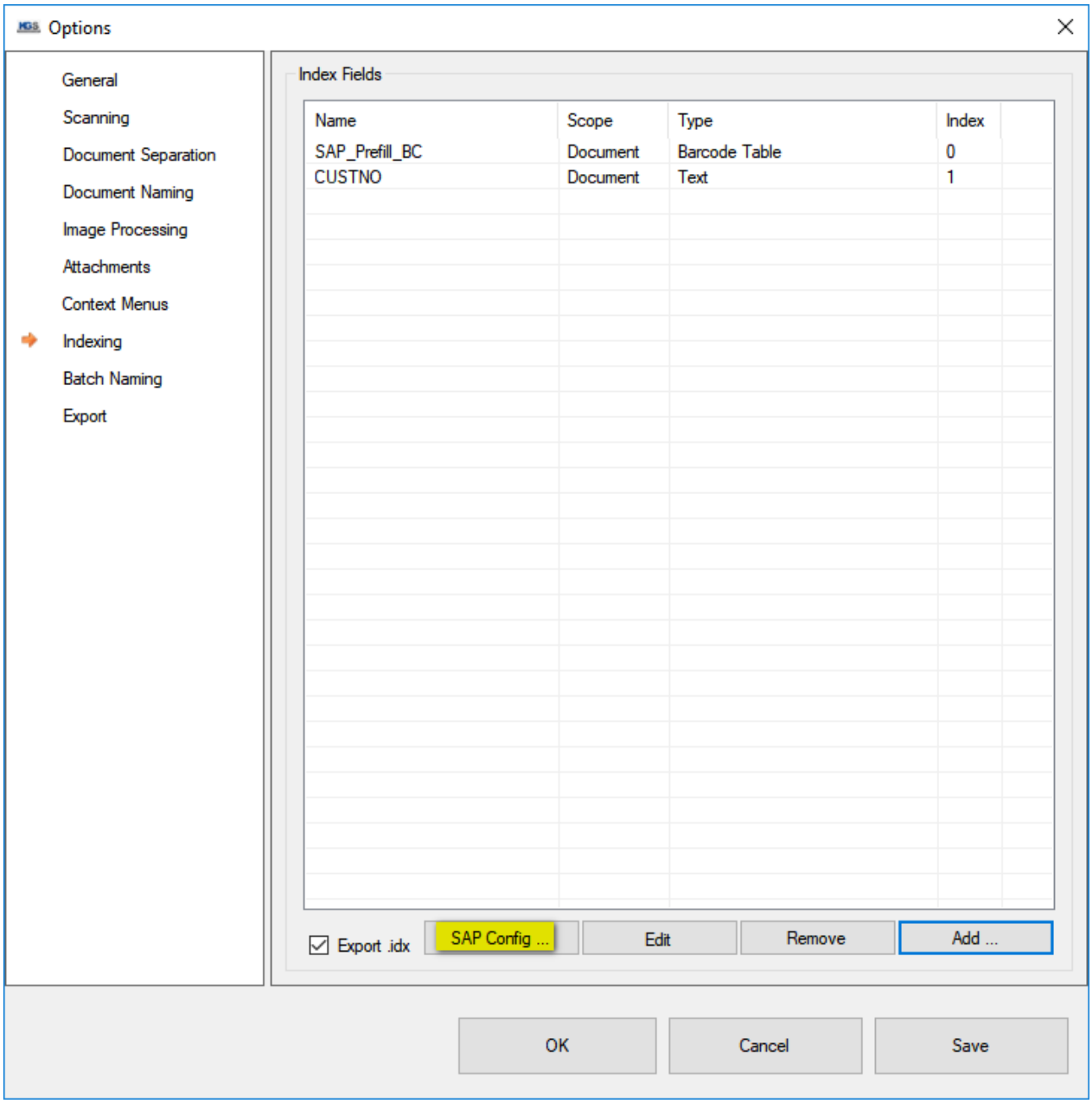
KGS Scan can check recognized index values (e.g., based on a barcode etc.) against an SAP system to fill other index fields with associated values. Example:

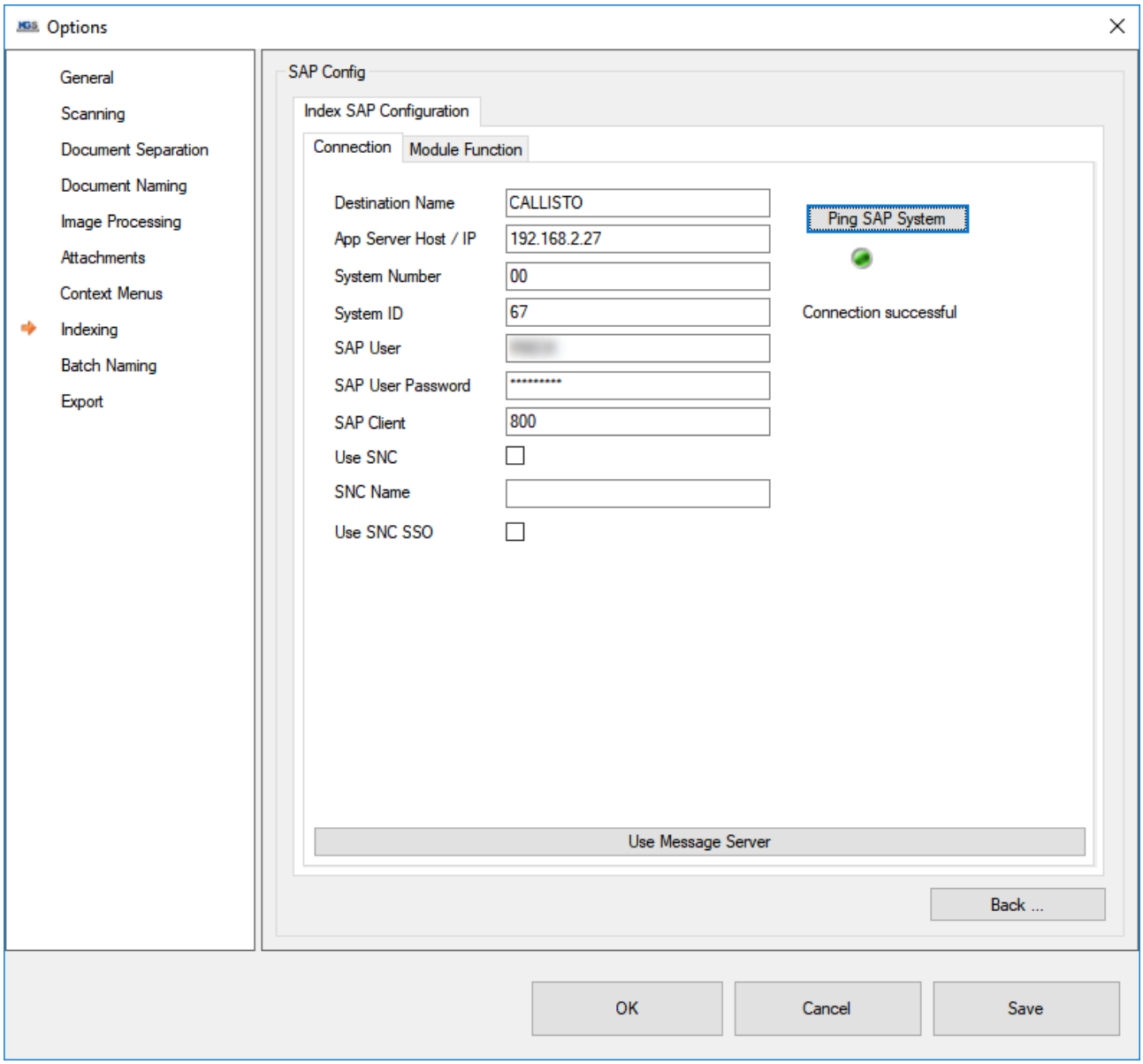
The SAP system has meta data stored for a specific barcode. The user scans a document for which a barcode is detected. If the '(SAP)Prefill Master' checkbox is enabled for this index field, a SAP connection will be established (via RFC) after scanning. The connection loads all associated meta data from the SAP system and distributes these to additional index fields if the associated SAP field name or index field name matches the name of the meta data record.

13.3.1 Maintaining SAP Connection Data

You must establish a so-called RFC connection in order to load meta data from a SAP system. The connection data required for this is configured using the 'Index SAP Config ..' option:

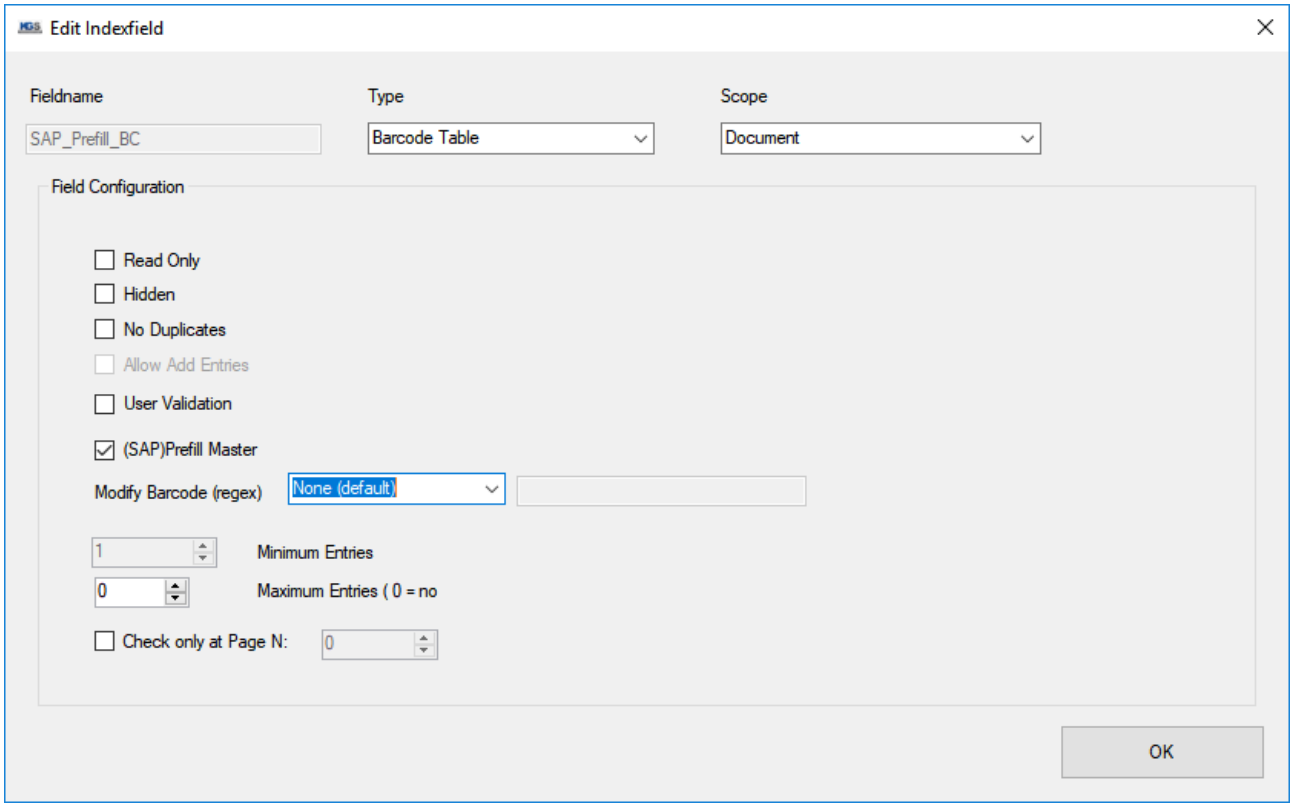
Press 'Ping SAP System' to check whether it is possible to establish a connection. A green LED indicates that a connection can be established. If a red LED lights up, a corresponding error message will appear below 'Ping SAP System':


Options
General
Scanning
Document Separation
Document Naming
Image Processing
Attachments
Context Menus
Indexing
Batch Naming
Export
Index Fields
Name
Scope
Type
Index
SAP_Prefill_BC
Document
Barcode Table
0
CUSTNO
Document
Text
1
Export .idx
SAP Config ...
Edit
Remove
Add ...
OK
Cancel
Save



Index fields: Configuring SAP - Connection 2

13.3.2 Example of Prefilling an SAP Index Field

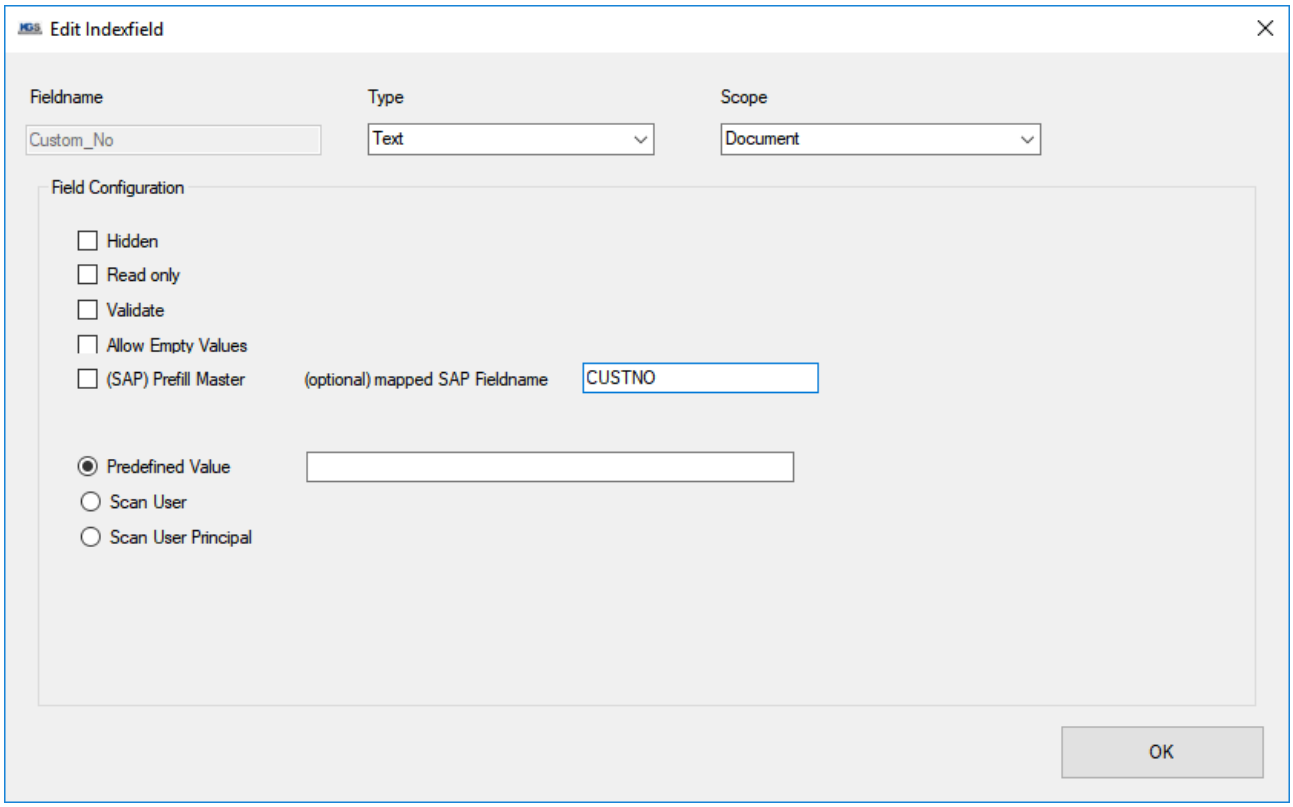


Scenario: Prefilling an SAP index field

A record (name/value pair) returned from the SAP system could look like this, for example:

‘CUSTNO’ - ‘12345’

(i.e., customer number ‘CUSTNO’ with value ‘12345’)



Scenario: Prefilling an SAP index field – SAP key

As a result, KGS Scan will fill all index fields whose mapped SAP field name or index field itself is 'CUSTNO' with the value '12345'.

Scenario: Prefilling an SAP index field – Indexer view

If you manually enter a value into a prefilling key (in this case into the 'Barcode' index field), you can use the magnifying lens next to the index field to trigger a request to the SAP system in order to retrieve the corresponding values again.

If you chose a PDF type as the export format, you are provided with the additional option of generating searchable PDFs.

Enable the 'Searchable PDFs' checkbox to instruct KGS Scan to perform OCR text recognition when exporting data. For this you must select at least one language pack. It is also possible to utilize multiple language packs in parallel.

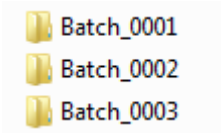
Important note: As KGS Scan performs a full-text search, use of the OCR text recognition option will increase the processing time during data export (0.5 to 1 second per page, depending on the text length and the language packs selected). We generally recommend assigning no more than two or

three languages. For additional information on searchable PDFs, please see the Searchable PDF – OCR Text Recognition section.

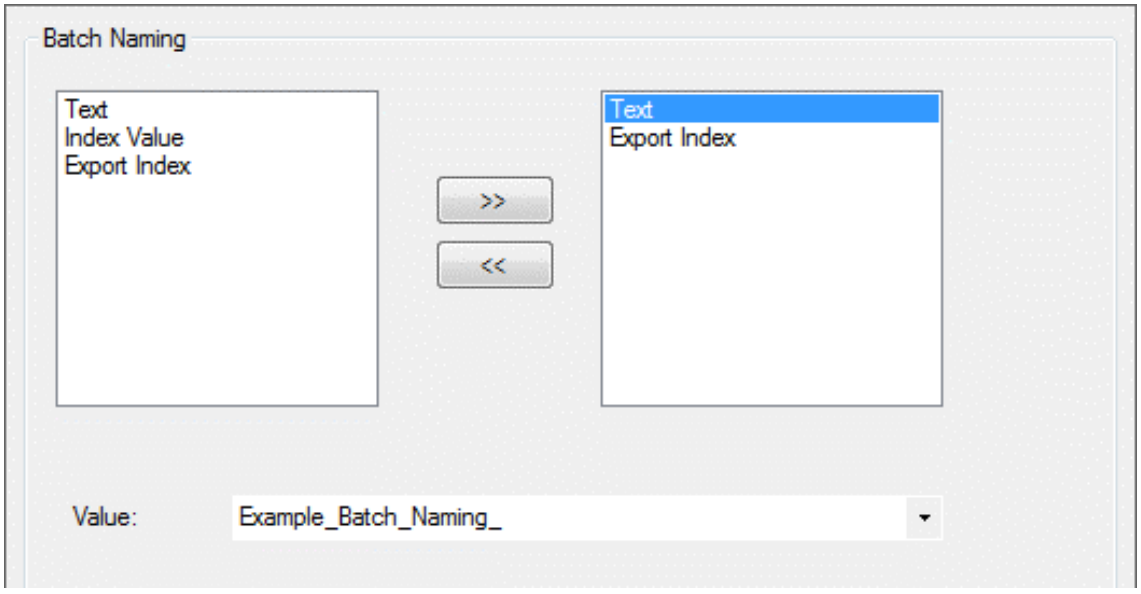
Note: Environment variables are admissible as the export directory.

14. Batch Naming

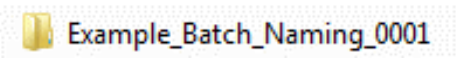
Similar to the document naming function, ‘Batch Naming’ allows you to assign a name to the entire export, which is referred to as a batch. If you export, for example, a batch (using batch export) without having assigned batch naming, each export will be named ‘Batch_[increment]’.



‘Batch Naming’ allows you to change this name. The configuration...

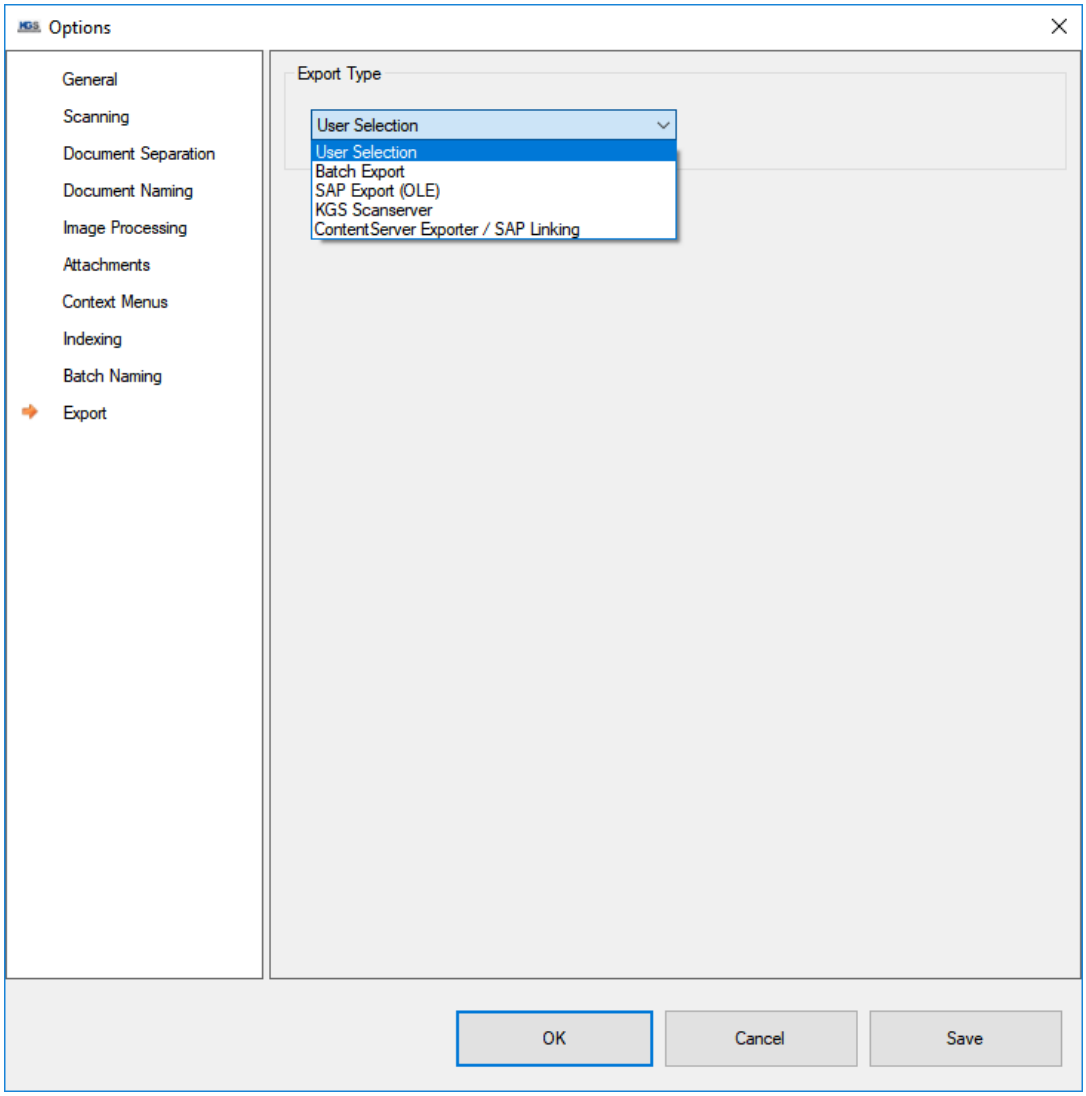


...would be assigned the following folder name after batch export:



15. Export

The ‘Export’ tab offers options for storing and backing up processed files/scans.

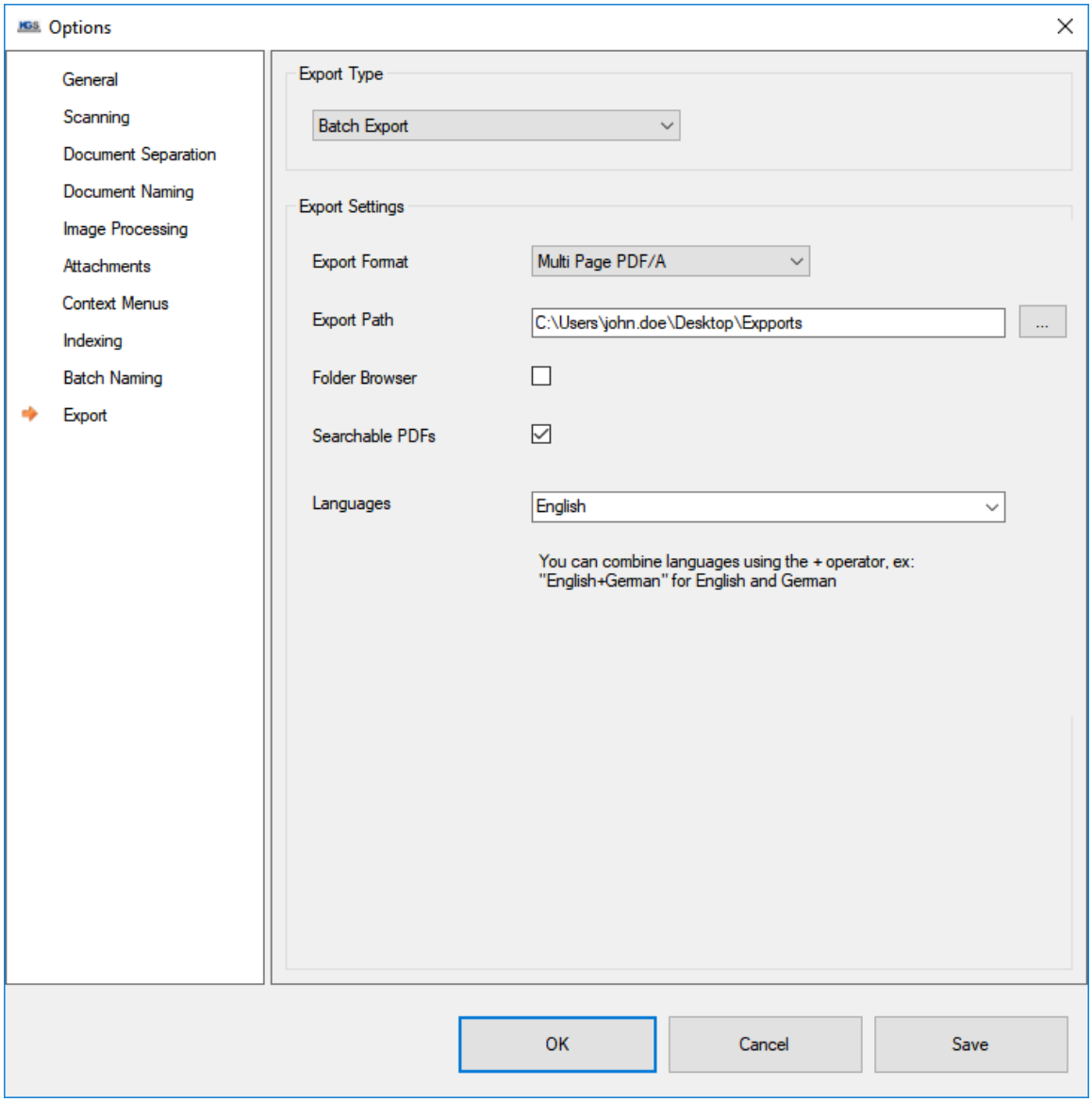


The following export types exist:

15.1 User Selection

When you start an export, the system will display a ‘Save As’ dialog. Here you can specify a path and file format (TIF, PDF) for storing the documents. If there is only a single document, it will be directly exported as a TIF or PDF file (whose name can be freely assigned); in the case of multiple documents, multiple files will be created.

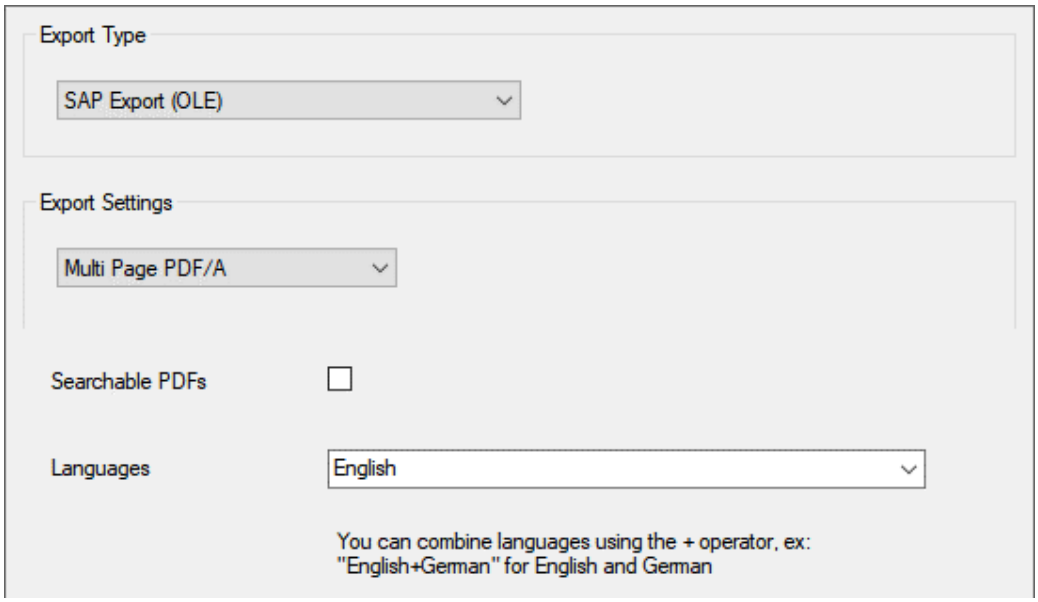
15.2 Batch Export



'Batch Export' utilizes a predefined target path and format. This allows the profile administrator to assign a fixed export directory, export format, export (folder) name (using Batch Naming) as well as an export (file) name (using Document Naming).

If you enable the 'Folder Browser' checkbox, the user is able to select a folder of his or her choosing.

15.3 SAP Export



If you select this export type, KGS SCAN will use the integrated OLE bridge to connect to the SAP system (this needs to be configured as illustrated in '4. SAP Configuration') and perform the export. There are two different scenarios:

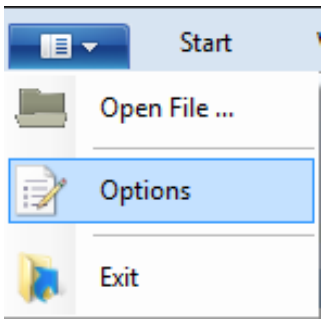
a. KGS SCAN is called directly from within SAP (as explained in section 4), and the profile will be named according to the scheme <ContentRepository>_<FileFormat>. After a valid call from SAP with the corresponding content repository, KGS SCAN will store the documents in SAP or via the specified content server (as configured).

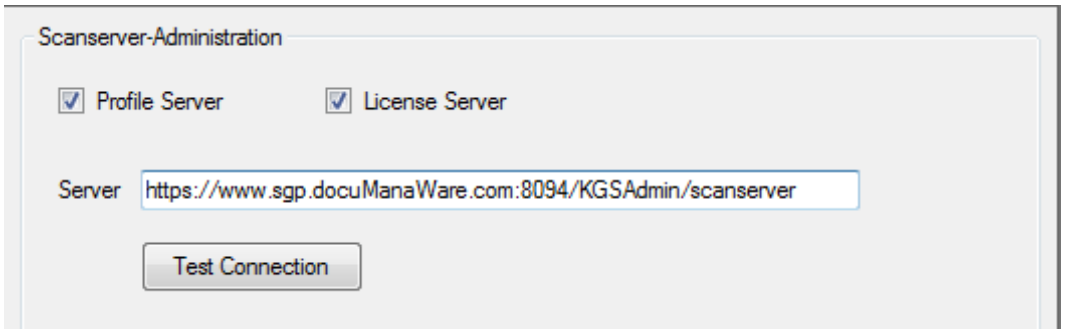
b. First KGS SCAN is opened, scanning will take place based on any desired profile (for which SAP has been set as the export type), and finally scanning is commenced via SAP. Here, too, the documents will be stored via the configured content server.

During this process, you can also configure the file format (multi-page PDF, multi-page PDF/A, multi-page TIFF).

15.4 Scan Server

If you have entered a valid and accessible scan server under 'Options' (global), KGS SCAN can send the documents to a remote scan server for storing.

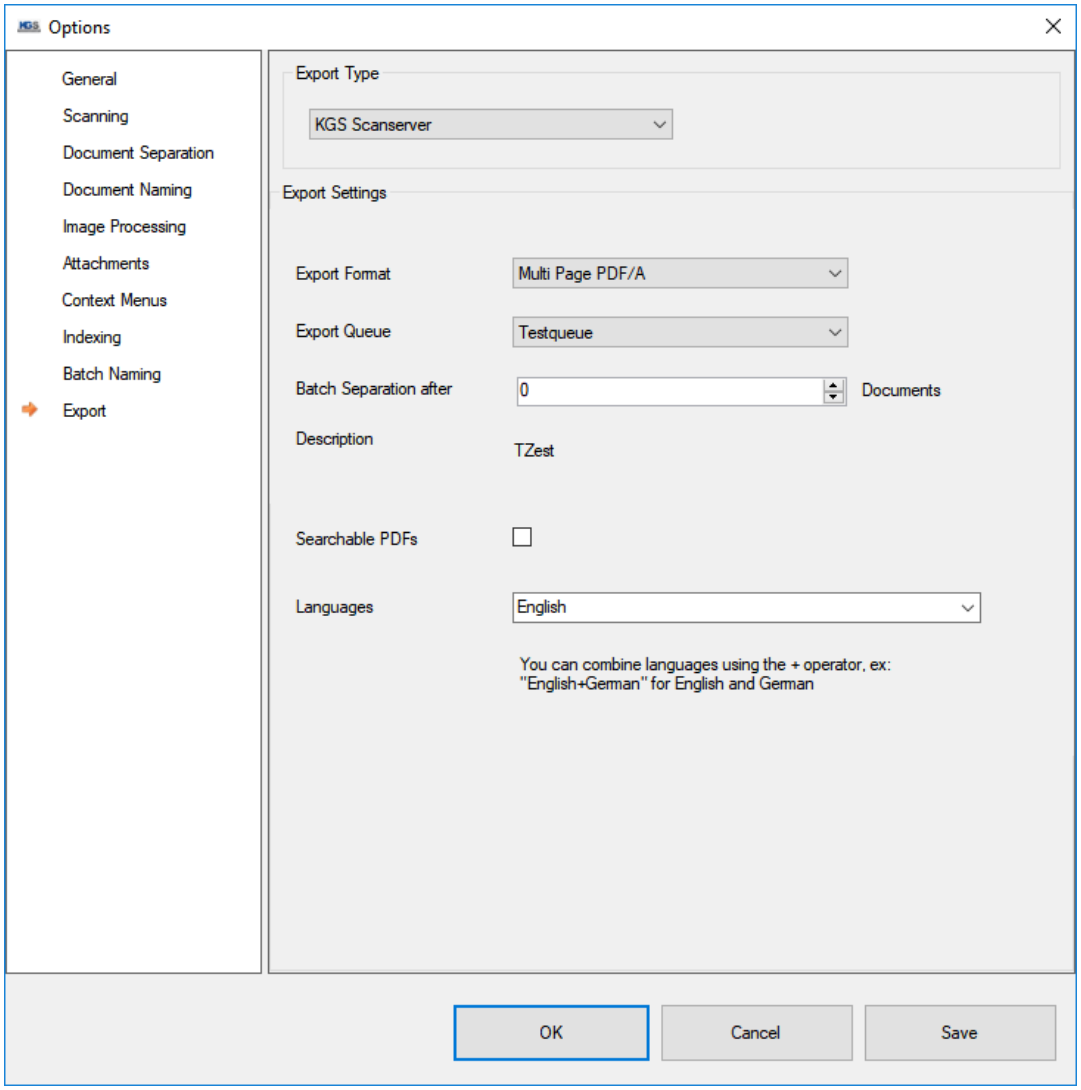




In the ‘Export’ option, you can now select KGS SCANSERVER. When doing so, you need to make some configurations on the SCANSERVER.

You need to specify queues and valid users on the server side.

As an option, you can configure fixed batch separation as a post-scanning action. ‘Zero’ means there will be no fixed batch separation. If you change the value to ‘X’, the scan server will separate the received data in batches after each X documents.



Note: For detailed information on the configuration options with KGS SCANSERVER, please refer to the *KGS SCANSERVER Installation and Configuration Manual*.

15.4.1 Scanserver Service

During KGS Scan setup, a data transfer service called 'KGS Scan Transfer' is installed.

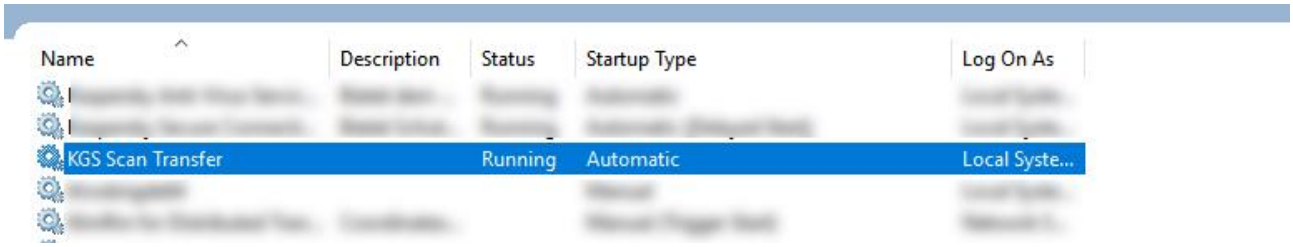


Figure 52: Scanserver service view

This service is set to 'Automatic' by default. Please ensure that it has been assigned all authorizations required to read and write to the file system (C:\ProgramData\KGS Scan\Transfer and C:\ProgramData\KGS Scan). This requirement is fulfilled if the service is automatically launched as 'local system'. If you launch this service as another user, you must ensure that the user has the needed access authorizations.

The files are transferred in encrypted format to the scan server URL configured in KGS Scan (which has a built-in x509 certificate and conforms with SAP HTTP Content Server). In addition, the HTTPS protocol is supported for the target server.

As of KGS Scan version 1.42.09, you can also set a so-called debug level for the transfer. By default, the KGS Scan Transfer service writes log files set to 'INFO' level to the *C:\ProgramData\KGS Scan\TransferServiceLog\TransferService.Log* file.

The file is structured as follows:

<log level> - **<time stamp>** - **<current user>** - **<message type>** - **<queue name>** -**<index fields (separated by a semicolon)>** - **<transfer status** (HTTP status code)>

Example:

INFO::19.04.2017 12:53:06 - m.rieck document transfer: Queue:Local D Exports Prefilled Example;50000077092003;Example to choose 1 0200

Proceed as follows to change the logging depth:

In 'Services' double-click the 'KGS Scan Transfer' service.

Figure 53: Scan Transfer service

Enter the debug level as the launch parameter:

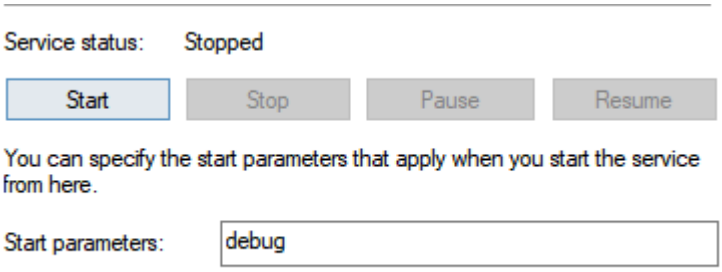


Figure 54: Scan Transfer service – Setting the logging depth

Launch the service using the 'Start' button.

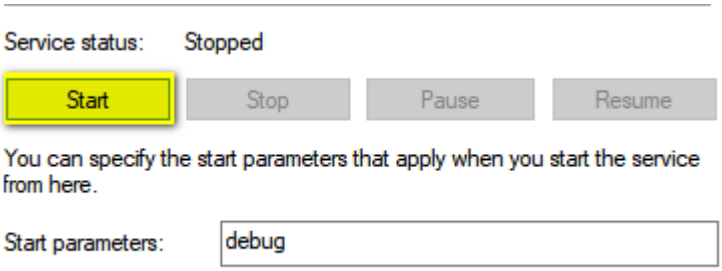


Figure 5: Scan Transfer service – Launching the service

Note: If you launch the service from the service overview, the configured launch parameter will not be applied.

15.5 ContentServer Exporter / SAP Linking

This export type allows you to directly save scanned documents to an archive via the SAP Content Server http interface. This means that archive systems certified for SAP ArchiveLink 4.5 or higher can be used as target systems.

If you successfully placed a scanned document in an archive (PUT), KGS Scan will automatically link the corresponding index fields in the SAP system according to the configuration.

Export: ContentServer Exporter / SAP Linking type – Overview

15.5.1 Maintaining HTTP ContentServer Data

You need to maintain connection data in order to successfully connect to an archive or content server. It is essential to enter the server address and the server script (can be identified in the SAP system via the OAC0 [→ 'HTTP Script' field] transaction), including the name of the leading computer.

You further need to indicate which content repository (contRep) this profile is to be saved to.

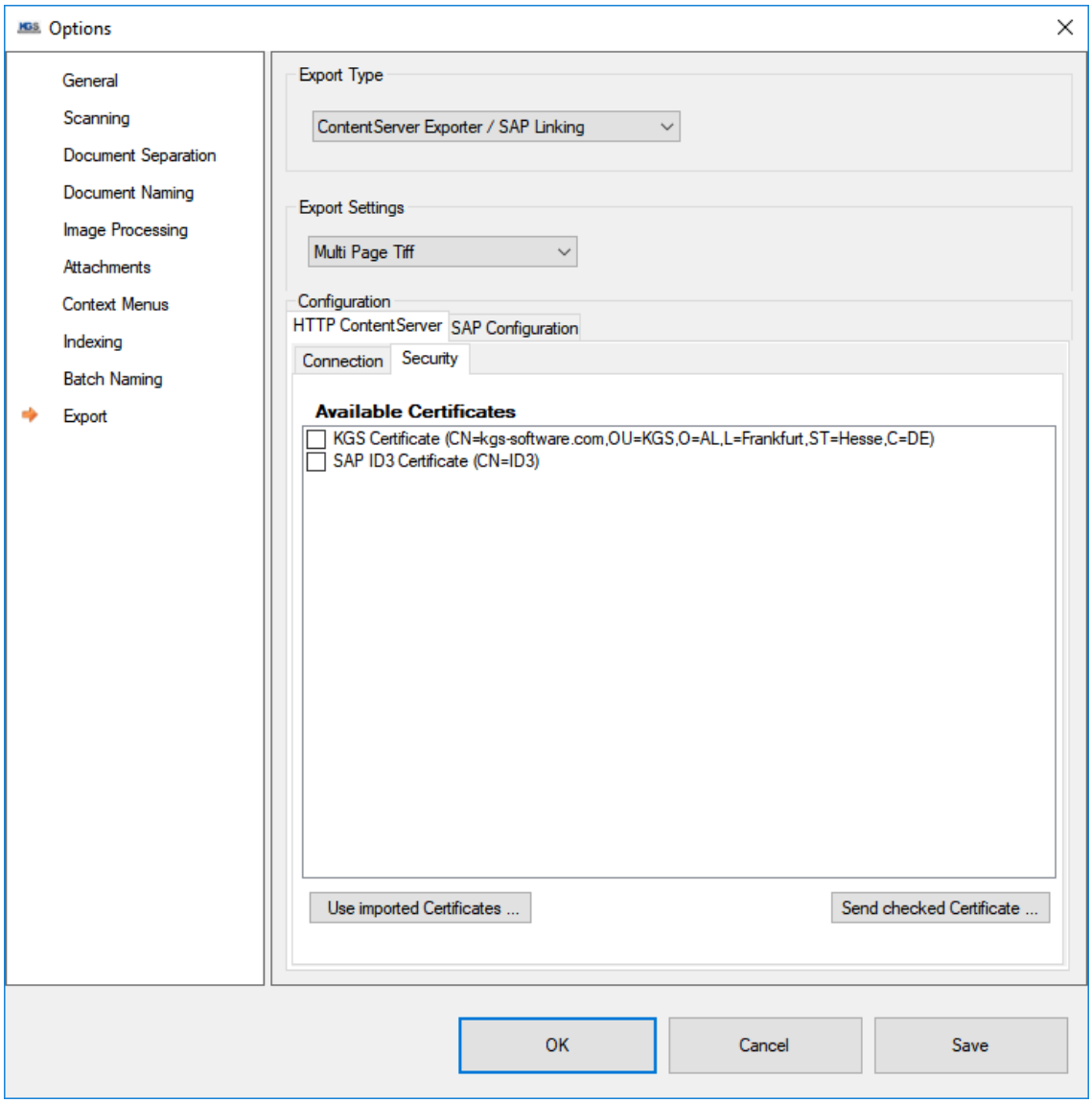
You must also enter the component ID (compId). We expressly recommend you use the 'data' component ID for all supported ArchiveLink scan scenarios. If required, you can, however, enter an alternative component ID.

The final data you need to supply is the SAP ArchiveLink protocol version (pVersion).

Pressing the 'Test Connection' button will send a 'ServerInfo' command to the archive or the content server. If the command resulted in a successful reply, KGS Scan will show the received server status information.

15.5.1.1 Security

If you enable the 'Enable Security' checkbox, KGS Scan will activate the security level for ArchiveLink communication. You need to configure additional parameters for this option. Go to the 'Security' tab to select the certificate to be used.



Export: ContentServer Exporter / SAP Linking type - Security Settings

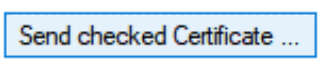
15.5.1.1.1 Available Certificates

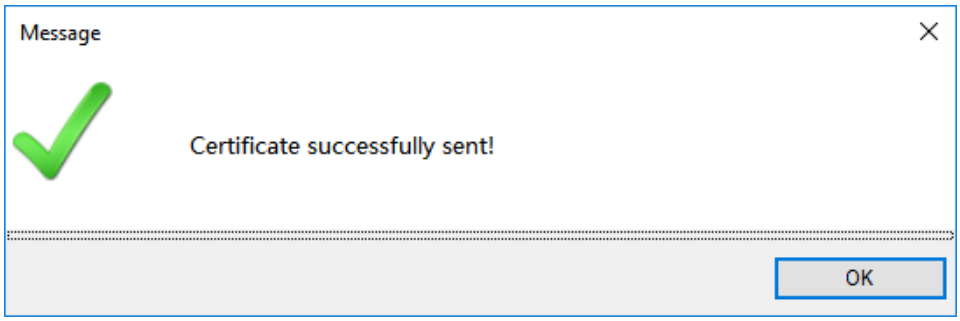
This section allows you to choose whether to use a stored certificate or whether to import and use an individual one. Two certificates have already been stored:

KGS Certificate

SAP ID3 Certificate

If you select one of these certificates, you can enable it by clicking the checkbox beside it. If the content server or archive system does not know the corresponding certificate yet, you must send it. To do so, press the button





Export: ContentServer Exporter / SAP Linking type – Sending a certificate to the archive

Note: You may need to prepare the archive system or content server for receiving a certificate. In general, certificates must be enabled in the archive/content server after uploading them. Please ask your archive team for assistance in this matter.

15.5.1.1.2 Own Certificastes

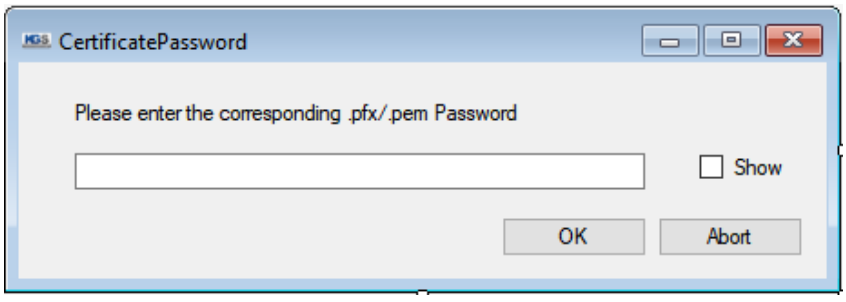
If you decide to use your own certificate, you need to be aware of certain limitations. Use the ‘’Use imported Certifcates …’ button to list all certificates in the Windows certificate storage (‘MY’).

You can import your own certificates by copying them to the Windows certificate storage.

You need to ensure to use the correct format: For signing, KGS Scan requires a container that contains both the public and private key. It is the private key that allows you to sign files. The public key is only used for verification.

Please consult with the relevant specialist department on creating a corresponding container. If required, KGS is happy to provide assistance.

The allowed file formats are PFX and PSE. Such containers holding sensitive data (the private key) quite often also include password protection. If this is the case, you will be asked to provide the password:



Export: ContentServer Exporter / SAP Linking type – Using own certificates

After successful import, you need to select the imported certificate. KGS Scan will check whether the certificate is still valid and whether the required private key exists.

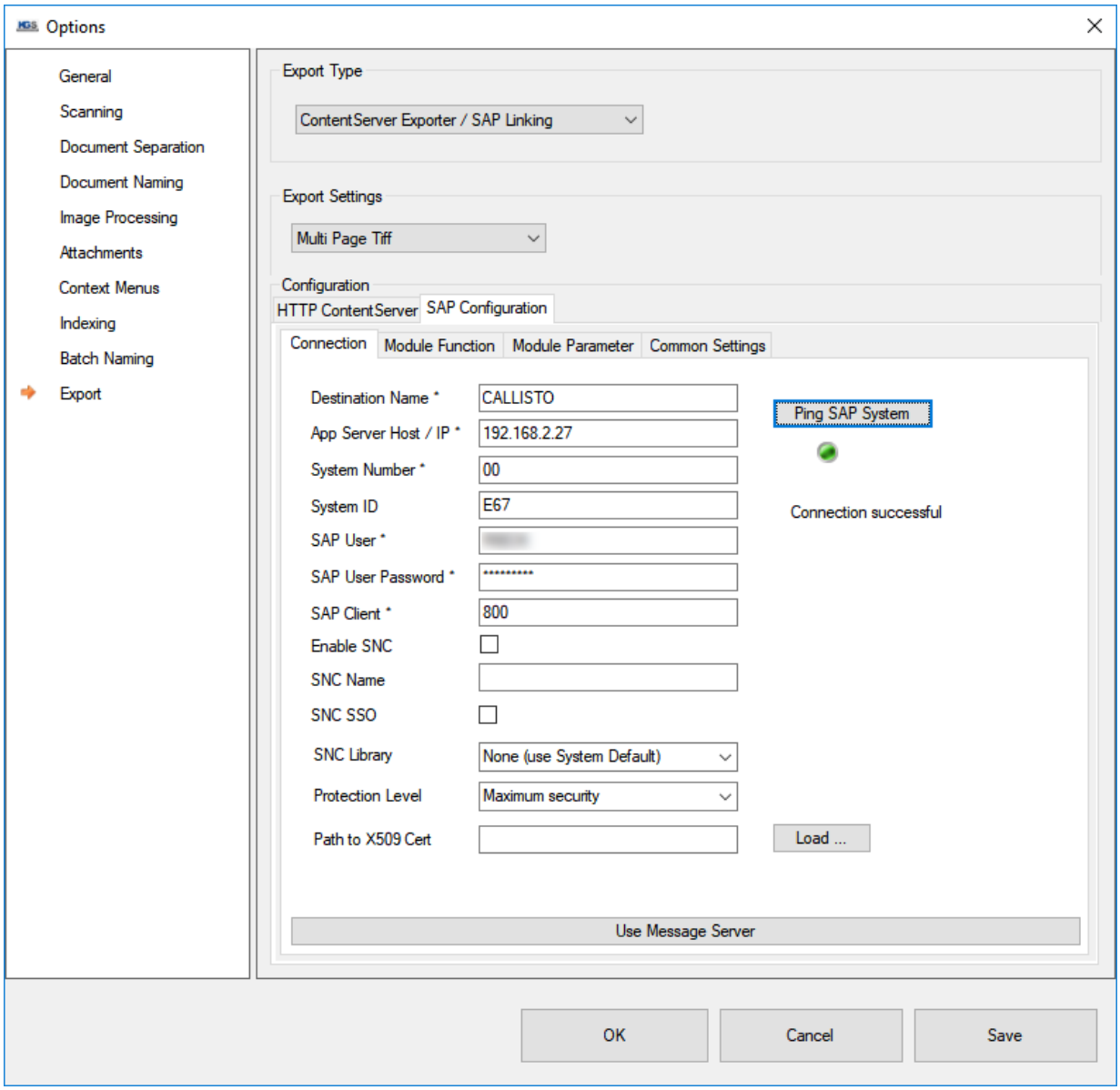


Figure 6: Export: ContentServer Exporter / SAP Linking type – Security: Selecting own certificates

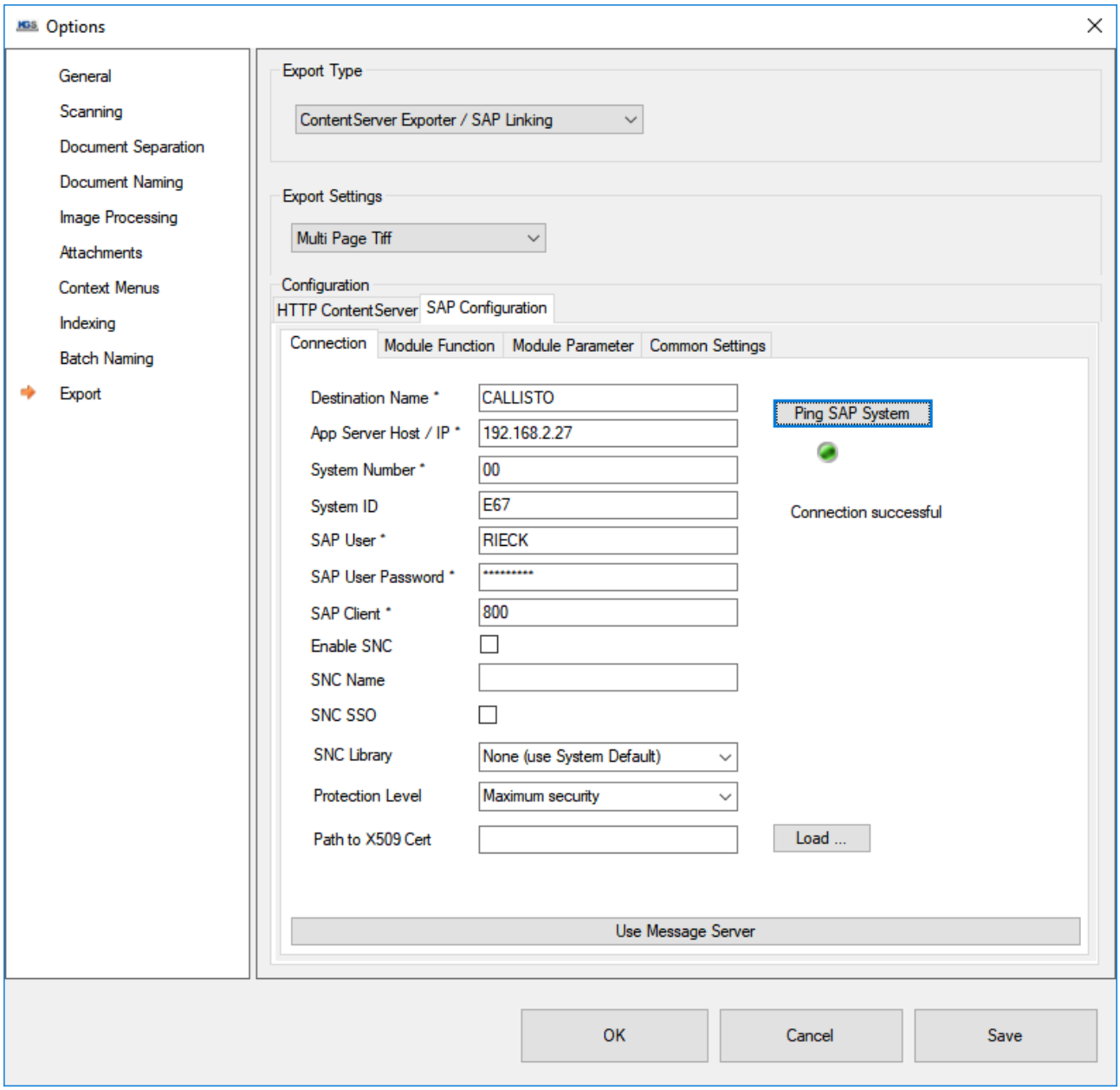
Here, too, you may first need to send the certificate to the archive/content server and then enable it. In this case, also use the 'Send checked Certificate…' button to send the certificate.

15.5.2 Maintaining the SAP Configuration

KGS Scan can communicate with SAP application servers and with SAP message servers.

Configuring SAP Application Server Parameters

In order to connect to an SAP application server, please enter the connection parameters in the 'SAP Configuration → Connection' tab.



Export: ContentServer Exporter / SAP Linking type - SAP Configuration

15.5.2.1.1 Description of Parameters

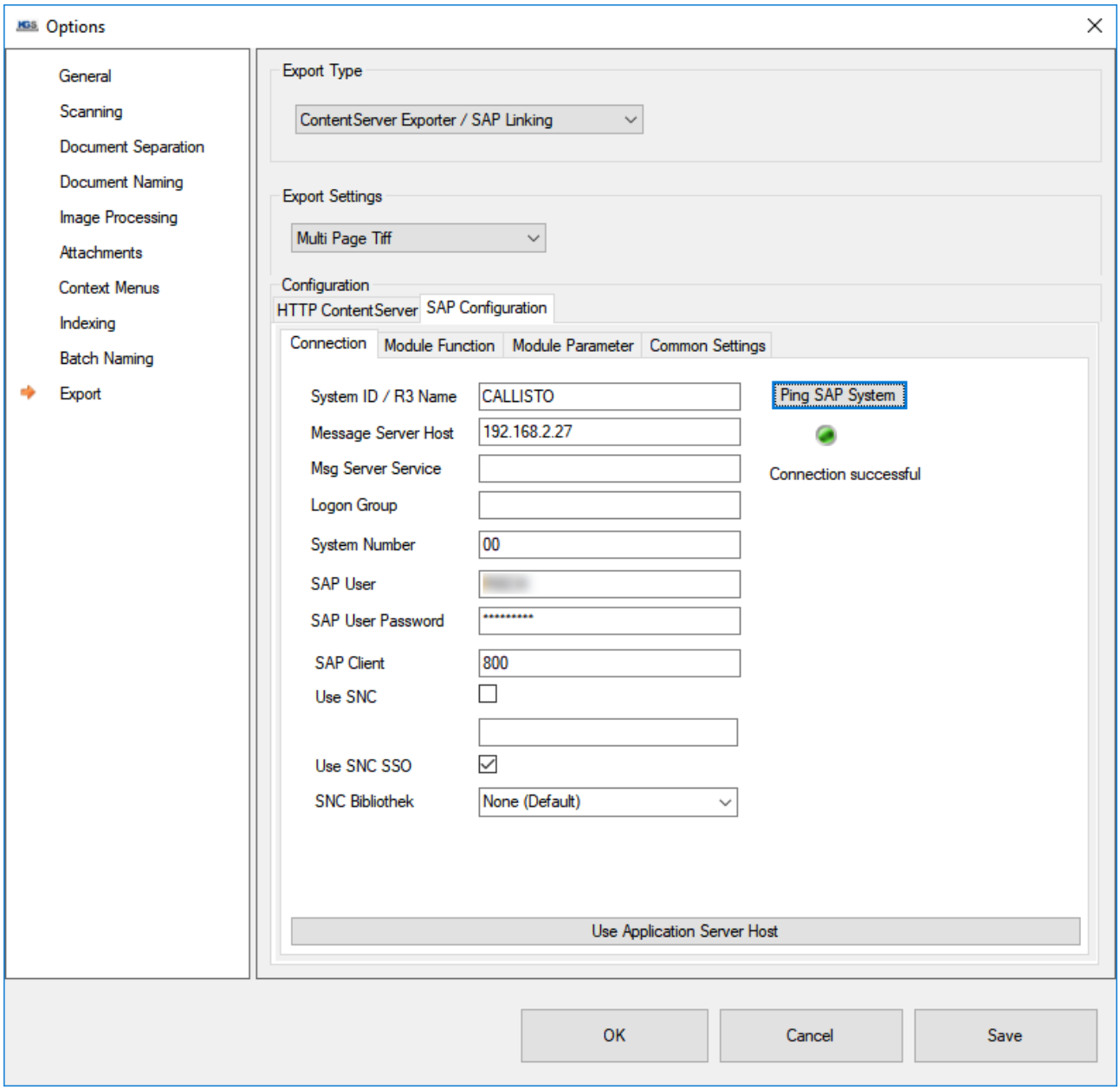
Parameter Name	Mandatory (normal/SNC)	Description
Destination Name	YES	The name or alias name of the target computer. You can freely assign this parameter, but you must not leave it blank. Example: Callisto

App Server Host / IP	YES	The correct address (IP or HOSTNAME) of the application server. **Example: 10.10.3.12**
System Number	YES	The SAP system number of the system to be connected. **Example: 00**
System ID	NO	Unique identifier of an SAP system ('SAP SID'). **Example: E67**
SAP User	YES	User name to be used for logging into the SAP system. **Example: JOHNDOE** Note: If an x509 certificate is being used instead of user/password, this parameter is not required.
SAP User Password	YES	The password associated with the SAP user for logging into the SAP system. **Example: MyPassword123** Note: If an x509 certificate is being used instead of user/password, this parameter is not required.
SAP Client	YES	SAP client number to be used for logging in. **Example: 800**
Enable SNC	NO (YES)	Enable this checkbox if SNC is to be used. **Default: OFF**
SNC Name	NO (YES)	If SNC is to be used, this is where you need to enter the SNC partner name (of the SAP system). Example: **p:CN=ABC, O=MyCompany, C=US**
SNC SSO	NO	Enable this checkbox if SNC is to be used with single sign-on. **Default: OFF**
SNC Library	NO (YES)	If SNC is to be used, select an SNC library in this section. **Default: NONE (default)**

		Note: We recommend you keep the standard library (None → Default). This is the SAP Common Crypto Lib (published in July 2017).
Protection Level	NO (YES)	If SNC is to be used, you can set the level of protection, among other things: Auto (defined by the SAP system) Authentication only Integrity protection Privacy Protection Maximum security **Default: Maximum security** Note: This parameter conforms with the SNC settings of the SAP LOGON program.
Path to X509 Cert	NO	If the SAP system has been configured accordingly, you can log into the SAP system using an x509 certificate rather than with a user ID and password. If you choose this method, set the absolute file path to the file in this section. **Default: empty**

15.5.2.2 Configuring the SAP Message Server

In addition to the application server method described above, you can also connect to an SAP message server. To do so, navigate to the *SAP Configuration → Connection tab* and click the Use Message Server' button.



Export: ContentServer Exporter / SAP Linking Type -SAP Configuation - Connection

15.5.2.2.1 Description of Parameters

Parametername	Notwendig (normal/SNC)	Beschreibung
System ID / R3 Name	YES	The name or alias name of the target computer. You can freely assign this parameter, but you must not leave it blank. Example: Callisto

Message Server Host	YES	The correct address (IP or HOSTNAME) of the message Server **Example: 10.10.3.12**
Msg Server Service	NO	If a specific message server service is in use, this is where you can define it. **Default: empty**
Logon Group	NO	In case a logon group is used, this is where you can define it. **Default: Leer**
System Number	NO	The SAP system number of the system to be connected. **Example: 00**
SAP User	YES	User name to be used for logging into the SAP system. **Example: JOHNDOE** Note: If an x509 certificate is being used instead of user/password, this parameter is not required.
SAP User Password	YES	The password associated with the SAP user for logging into the SAP system. **Example: MyPassword123** Note: If an x509 certificate is being used instead of user/password, this parameter is not required.
SAP Client	YES	SAP client number to be used for logging in. **Example: 800**
Use SNC	NO (YES)	Enable this checkbox if SNC is to be used. **Default: OFF**
SNC Name	NO (YES)	If SNC is to be used, this is where you need to enter the

		SNC partner name (of the SAP system). Example: **p:CN=ABC, O=My-Company, C=US**
SNC SSO	NO	Enable this checkbox if SNC is to be used with single sign-on. **Default: OFF**
SNC Library	NO (YES)	If SNC is to be used, select an SNC library in this section. **Default: NONE (default)** Note: We recommend you keep the standard library (None → Default). This is the SAP Common Crypto Lib (published in July 2017).

15.5.3 Maintaining Function Modules

In order to make documents that have been scanned and stored directly in the archive available to the SAP system, you need to call an SAP function module that will perform the so-called 'linking' procedure. As part of this procedure, the module links the document to suitable SAP business objects.

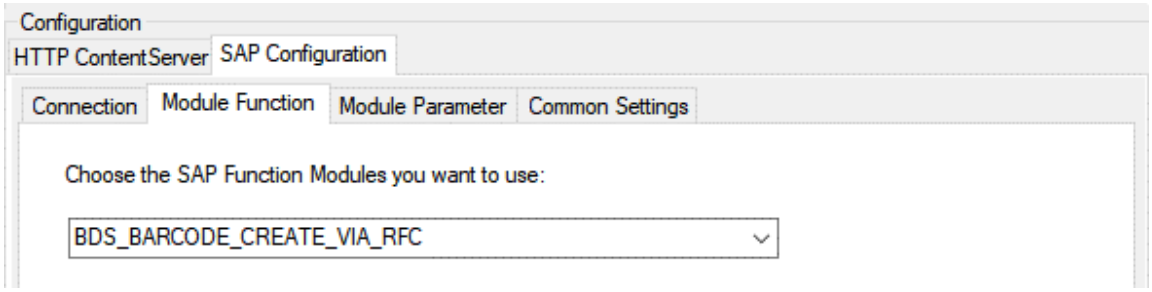
Two modules are currently supported:

BDS_BARCODE_CREATE_VIA_RFC

/KGS1/ZADOC_PROCESS_DR_REQ

15.5.3.1 BDS_BARCODE_CREATE_VIA_RFC

Any SAP system has this standard module, but it may be necessary to enable it.



Export: ContentServer Exporter / SAP Linking type – SAP Configuration – Function Module

Important note: In order to perform such a linking procedure (in the BDS_BAR_EX table) for the 'late archiving' SAP ArchiveLink scenario, you need to pass a linking barcode value to the SAP system. To ensure this is possible, configure at least one index field of type 'Barcode Table' or 'Separation Barcode'.

15.5.3.2 /KGS1/ZADOC_PROCESS_DR_REQ

This function module is a KGS module that you first need to import using a transport container. It was specifically designed for linking multiple (meta) data in the SAP system and delivers a broad range of applications for generating links to SAP business objects when used together with the ZA-DOC® product from KGS.

If you require more information, please directly contact KGS.

The module mentioned previously requires you to supply several additional parameters. These are, primarily:

AR-OBJECT (maintained in the 'Module Parameter' section)

ZADOC document type defined via SAP customizing.

Refer to the ZADOC manual.

Example: ZZADOC

OBJECT_ID

The /KGS1/ZADOC_PROCESS_DR_REQ module requires an additional OBJECT_ID input parameter. Create this ID under 'Index' using the 'Text' type. The index field must either be named 'OBJECT_ID' or must have been assigned the configured name 'OBJECT_ID'.

Example: 100019000000002017

Note: A common way to go about this is to set up the above-mentioned index field as a *hidden field* as users are generally not supposed to see/alter this field.

SAP_OBJECT

This module requires an SAP_OBJECT identifier as an additional input parameter. Create this entry under 'Index' using the 'text' type. The index field must either be named 'SAP_OBJECT' or must have been assigned the configured name 'SAP_OBJECT'.

Example: BKPF

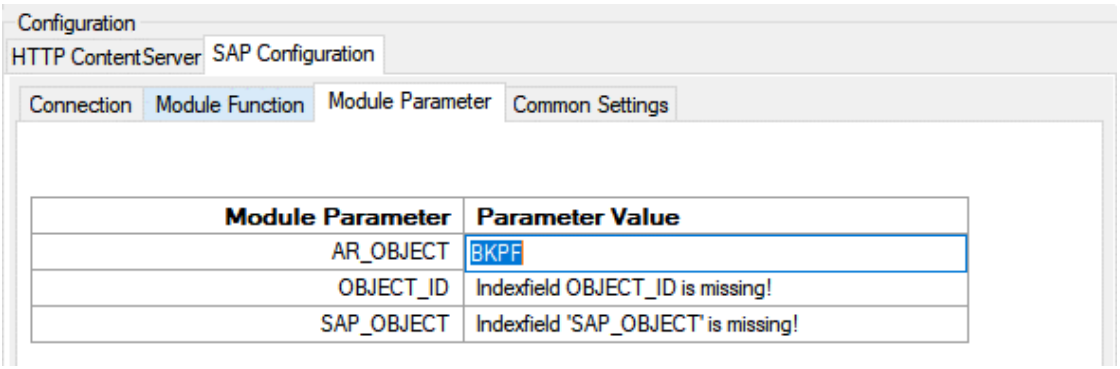


Figure 7: Export: ContentServer Exporter / SAP Linking type – SAP Configuration – Module Parameter – Incomplete configuration

15.5.3.3 Custom

Is in the Dropdown list in Module Function "Custom" selected, a new empty text field under the list is available. Here, a custom function module (name) can be entered.

In case a SAP-System was configured in the previous steps (*Maintaining the SAP Configuration*), the next time you open the tab "Module Parameter", the Scan Client connects to the SAP System and ask for all related import parameters and related tables from the custom function module. Those are displayed in to additional tabs ['import' and 'tables'].

15.5.4 Module Parameter

This tab lists all open configuration parameters that still need to be defined for the previously selected function module. Once you have set all parameters (excluding fixed parameters that are not controlled via index fields [e.g. AR_OBJECT]), a confirmation message is displayed.

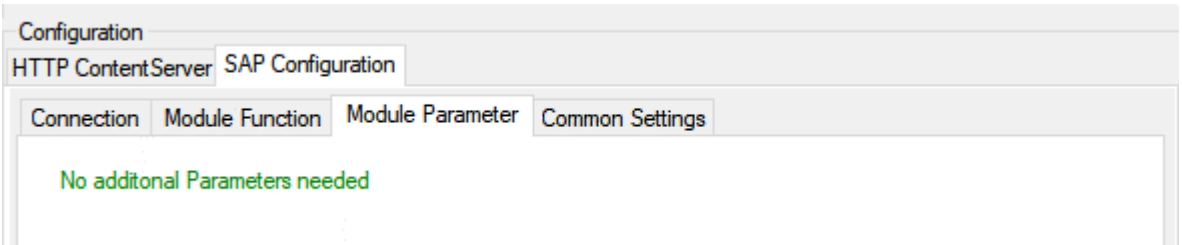


Figure 8: Export: ContentServer Exporter / SAP Linking type – SAP Configuration – Module Parameter – Configuration complete

15.5.4.1 Custom Parameter

In case a custom function module is provided in the tab “Module Function”, all related parameters and tables are displayed in Tabs and Tables in the “Module Parameter”-Tab. In those, the Profileadministrator can configure Indexfields for each Parameter.

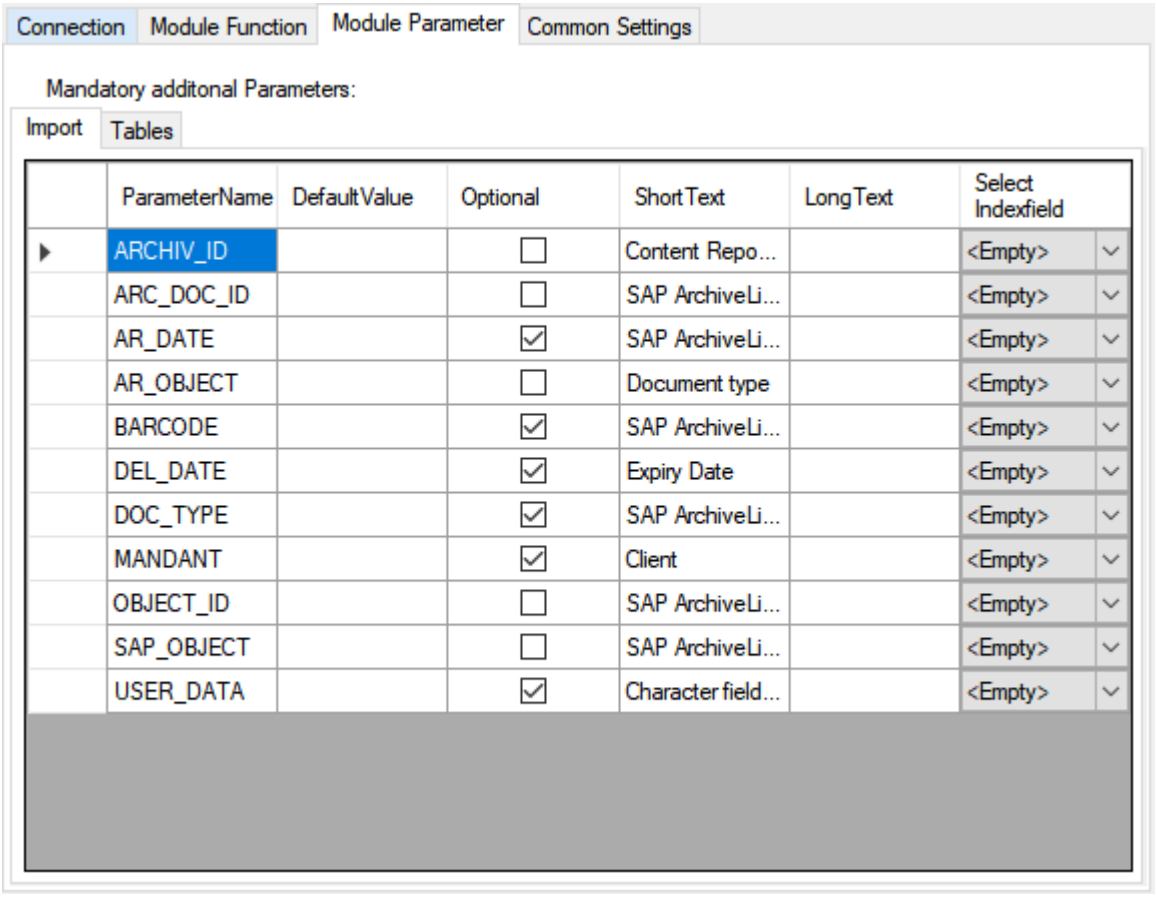


Abbildung 9 Example of the Importparameters of the custom module “/KGS1/ZADOC_PROCESS_DR_REQ”.

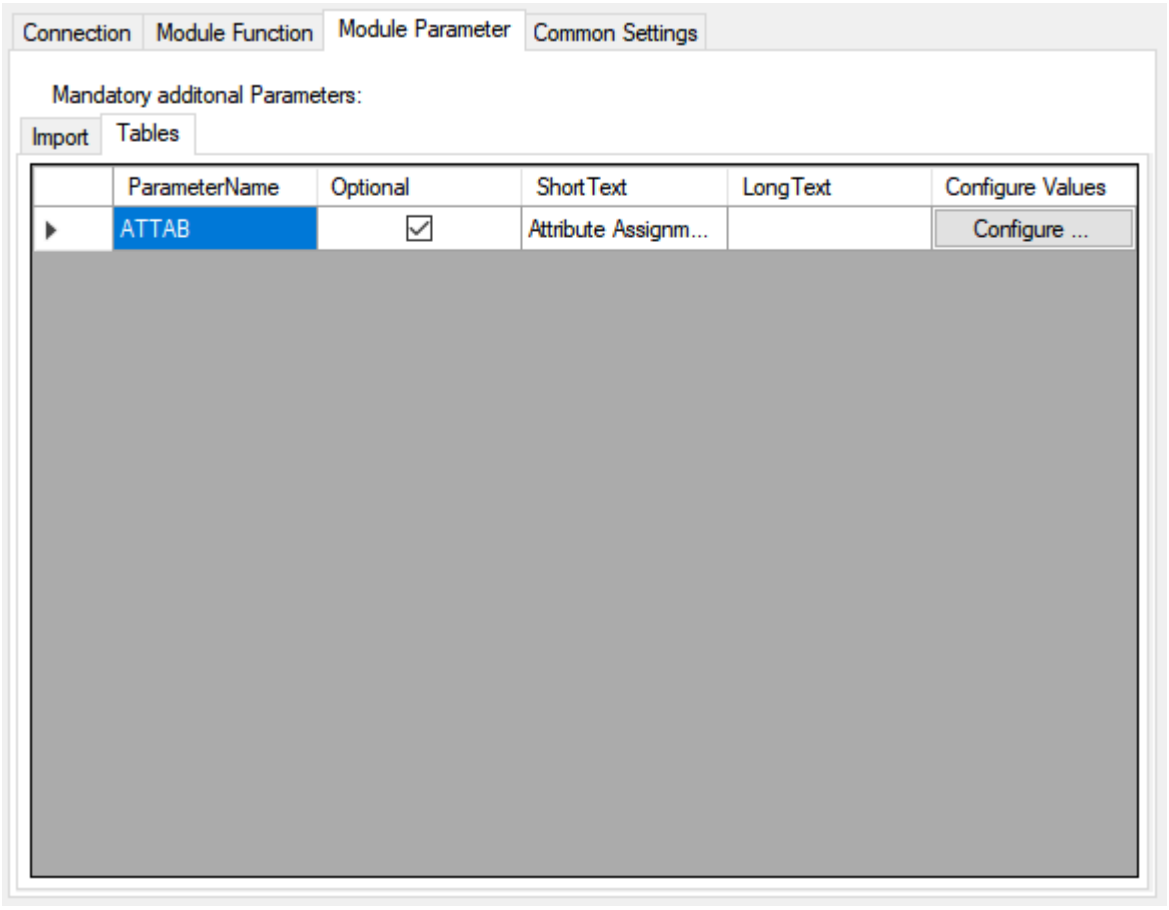


Abbildung 10 Example of the Tables in the (custom) function module (here: "/KGS1/ZADOC_PROCESS_DR_REQ")

Does the choosen custom function module contains any tables, these are listed in the tab “Tables”. Per each table, values (Indexfield) can be configured that are later used to fill the table.

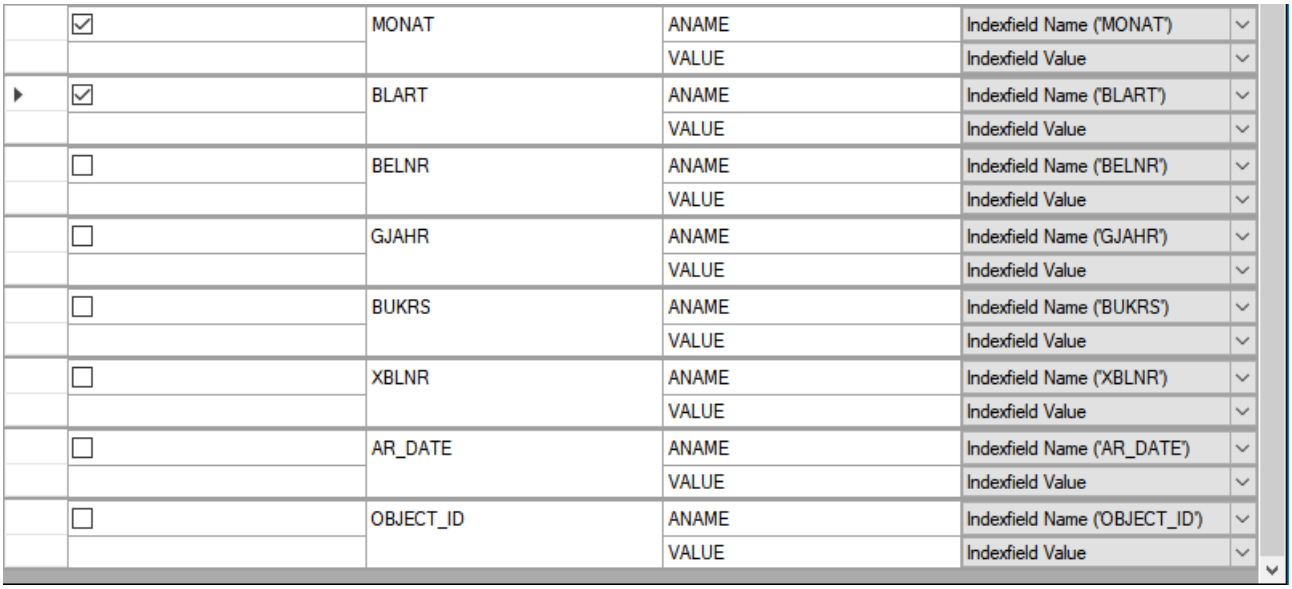


Abbildung 11 Example filling of a set of selected Indexfields that should used in the table.

Hint: In the showed example, the table “ATTAB” (table in the custom module "/KGS1/ZADOC_PROCESS_DR_REQ) contains only two components (ANAME and VALUE). Those are only examples and may differ in other function modules by name and amount of components.

For more information on this topic, consult the Maintaining Function Modules section.

15.5.5 Common Settings

You can use the ‘Common Settings’ tab to enter a log data path. The log is offered specifically for this export type. If no path is configured (default), KGS Scan will automatically create the ‘SAP_CSExport.log’ file in the *C:/ProgramData/KGS Scan* directory. You can adjust the log depth, which is set to ‘Info’ by default.

16. Miscellaneous

16.1 Searchable PDF – OCR Text Recognition

As of KGS Scan version 2.2.7, you can generate searchable PDFs. This is done using the *Tesseract OCR*[1] *3.04* text recognition library, which recognizes characters during document generation and places them on a transparent layer above the text.

KGS Scan supports three OCR languages by default (English, German, French). These are located in the ‘*C:\ProgramData\KGS Scan\OCRData*’ directory and are generated there when the application is launched (if they do not yet exist). *Tesseract* currently supports over 100 languages. You can add languages to the KGS Scan configuration at any time. Do so by loading the ‘KGS OCR Tesseract Language Packages.zip’ file from the KGS download section. The package contains all supported languages as *.traineddata* files. The three preceding characters (for example ‘ita’) identify the respective country (in this case ‘Italy’).

This is a list of the language packs:

afr (Afrikaans) **amh** (Amharic) **ara** (Arabic) **asm** (Assamese) **aze** (Azerbaijani) **aze_cyrl** (Azerbaijani - Cyrilic) **bel** (Belarusian) **ben**(Bengali) **bod** (Tibetan) **bos** (Bosnian) **bul** (Bulgarian) **cat** (Catalan; Valencian) **ceb** (Cebuano) **ces** (Czech) **chi_sim** (Chinese - Simplified) **chi_tra** (Chinese - Traditional) **chr** (Cherokee) **cym** (Welsh) **dan** (Danish) **dan_frak** (Danish - Fraktur) **deu** (German)**deu_frak** (German - Fraktur) **dzo** (Dzongkha) **ell** (Greek, Modern (1453-)) **eng** (English) **enm** (English, Middle (1100-1500)) **epo**(Esperanto) **equ** (Math / equation detection module) **est** (Estonian) **eus** (Basque) **fas** (Persian) **fin** (Finnish) **fra** (French) **frk**(Frankish) **frm** (French, Middle (ca.1400-1600)) **gle** (Irish) **glg** (Galician) **grc** (Greek, Ancient (to 1453)) **guj** (Gujarati) **hat**(Haitian; Haitian Creole) **heb** (Hebrew) **hin** (Hindi) **hrv** (Croatian) **hun** (Hungarian) **iku** (Inuktitut) **ind** (Indonesian) **isl** (Icelandic)**ita** (Italian) **ita_old** (Italian - Old) **jav** (Javanese) **jpn** (Japanese) **kan** (Kannada) **kat** (Georgian) **kat_old** (Georgian - Old) **kaz**(Kazakh) **khm** (Central

[1] OCR = Optical Character Recognition

Khmer) **kir** (Kirghiz; Kyrgyz) **kor** (Korean) **kur** (Kurdish) **lao** (Lao) **lat** (Latin) **lav** (Latvian) **lit** (Lithuanian)**mal** (Malayalam) **mar** (Marathi) **mkd** (Macedonian) **mlt** (Maltese) **msa** (Malay) **mya** (Burmese) **nep** (Nepali) **nld** (Dutch; Flemish) **nor** (Norwegian) **ori** (Oriya) **osd** (Orientation and script detection module) **pan** (Panjabi; Punjabi) **pol** (Polish) **por**(Portuguese) **pus** (Pushto; Pashto) **ron** (Romanian; Moldavian; Moldovan) **rus** (Russian) **san** (Sanskrit) **sin** (Sinhala; Sinhalese)**slk** (Slovak) **slk_frak** (Slovak - Fraktur) **slv** (Slovenian) **spa** (Spanish; Castilian) **spa_old** (Spanish; Castilian - Old) **sqi** (Albanian)**srp** (Serbian) **srp_latn** (Serbian - Latin) **swa** (Swahili) **swe** (Swedish) **syr** (Syriac) **tam** (Tamil) **tel** (Telugu) **tgk** (Tajik) **tgl** (Tagalog)**tha** (Thai) **tir** (Tigrinya) **tur** (Turkish) **uig** (Uighur; Uyghur) **ukr** (Ukrainian) **urd** (Urdu) **uzb** (Uzbek) **uzb_cyrl** (Uzbek-Cyrilic) **vie**(Vietnamese) **yid** (Yiddish)

If you want to process mixed documents that contain multiple languages, use the '+' operator to assign multiple language packs. For instance, the string 'German+English+French' will cause the OCR recognition to account for these three languages when processing the document. You can assign any number of languages. The string must contain the full names of the languages (as shown in the above example). If you do not assign any languages but the checkbox has been enabled, English will be applied by default.

Important note: *As* KGS Scan *performs a full-text search, use of the OCR text recognition option will increase the processing time during data export (0.5 to 1 second per page, depending on the text length and the language packs selected). We generally recommend assigning no more than two or three languages.*

Note: Tesseract is a free OCR library and **not** a KGS product. KGS GmbH & Co. KG does not extend a guarantee as regards the correct and/or complete identification of recognized texts. According to the Tesseract designers, the recognition precision is 97.69 percent. Please note that the actual recognition performance also depends on the image quality and type of font used.

16.2 Patch Code Sheets

As described in 8.8Patch Code, KGS SCAN supports separation using patch code sheets.

Kodak initially introduced patch code sheets for the purpose of separating documents based on fixed barcodes (barcodes with a fixed position on the page). Later, these sheets were also used to trigger events.

Properly adhering to the designated dimensions/margins is essential in this context. During printing, unwanted size changes can occur.

The patch codes should be positioned as follows[2]:

- Parallel to the lead edge of the document.
- At least 0.20 inches (5.08 mm) away from the lead edge of the document.
- At most 3.75 inches away from the lead edge of the document.

These are the official Kodak patch code specifications:

[2] Source: Patch Code Specs Capture Administrators Guide.pdf (IBM FileNet)

"The wide bars should be 0.20 inches (5 mm) wide + 0.01 inches (0.25 mm). The narrow bars and spaces should be 0.08 inches (2.03 mm) wide + 0.01 inches (0.25 mm). The maximum width of the patch code is 0.80 inches (20 mm) +0.01 inches (0.25 mm). The minimum overall length of the patch bars is 2 inches (50 mm).[3]

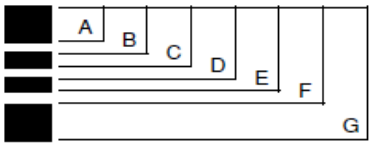
Patch Codes

Patch 2

Assigns image level 2 to the *current* document.

Patch code specifications

Patch 2

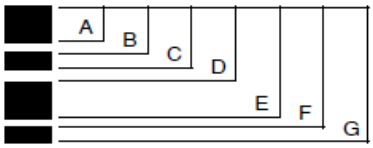


Zone	Inches		Millimetres	
	Low Range	High Range	Low Range	High Range
A	0.19	0.21	4.83	5.33
B	0.27	0.29	6.86	7.37
C	0.35	0.37	8.89	9.40
D	0.43	0.45	10.92	11.43
E	0.51	0.53	12.95	13.46
F	0.59	0.61	14.99	15.49
G	0.79	0.81	20.07	20.57

Patch 3

Assigns image level 3 to the *current* document.

Patch 3

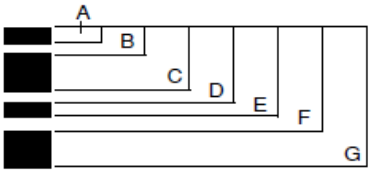


Zone	Inches		Millimetres	
	Low Range	High Range	Low Range	High Range
A	0.19	0.21	4.83	5.33
B	0.27	0.29	6.86	7.37
C	0.35	0.37	8.89	9.40
D	0.43	0.45	10.92	11.43
E	0.63	0.65	16.00	16.51
F	0.71	0.73	18.03	18.54
G	0.79	0.81	20.07	20.57

Patch T / Transfer Patch

Assigns a predefined image level to the *next* document. The predefined image level is based upon the transfer patch definition which is defined for each applica-

Patch T / Transfer Patch



tion. For example, if the transfer patch definition is image level 2, then use of a transfer patch assigns image level 2 to the *next* document.

Zone	Inches		Millimetres	
	Low Range	High Range	Low Range	High Range
A	0.07	0.09	1.78	2.29
B	0.15	0.17	3.81	4.32
C	0.35	0.37	8.89	9.40
D	0.43	0.45	10.92	11.43
E	0.51	0.53	12.95	13.46
F	0.59	0.61	14.99	15.49
G	0.79	0.81	20.07	20.57

Fig.: Kodak Patch Code Specification A61599

For further information and the sources previously mentioned, please visit the KGS SCAN download page:

http://www.kgs-software.com/loesungen/de-kgs-scan.html

[3] Source: Kodak Patch Code Spezifikation A61599.pdf

12.7 mm
(minimum)

12.7 mm
(minimum)

(your logo)

Document Separation Sheet

Sized for printing unscaled on A4 paper

Printing Instructions:

For proper operation, this scanner separator sheet must be printed with a scale of 100% or unscaled on A4-size paper (210 mm x 297 mm).

The printing should be done in black on white or light pastel colored background.

To verify this patch page has been printed with the proper scaling, measure the vertical and horizontal dimension lines and the spacing from the edge of page to start of first bar.

1) The vertical dimension line must be exactly 210 mm (0.27 in.)
2) The horizontal dimension line must be exactly 127 mm (5.0 in.)
3) The distance from edge of page to start of first bar must be at least 0.5 inches (12.7 mm)

This dimension line must measure 210mm (8.27in.)

This dimension line must measure 127mm (5.0in)

(minimum)
0.5 in
12.7 mm

(minimum)
0.5 in
12.7 mm