



PixEdit[®]

Server

Product Guide

v. 2.7

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About PixEdit® Server

Automatic image processing and archiving of electronic documents

PixEdit® Server will automatically process all your electronic documents and store them in your digital archive. The product runs as a service on your Windows server, and easily integrates with your document management system by selecting one or more monitoring folders. Documents will automatically be processed and placed in the designated output folder. There is also an email-monitoring feature, which enables image processing on documents attached to emails.

Key features

- Flexible and user-friendly interface for administering PixEdit Server users, job profiles and configurations
- Automatic image processing and preparation of documents for digital archives
- Document separation with various methods, like for instance type 39, type 128, QR codes or blank sheets
- Corrects skew that may occur during document scanning
- Splitting and sorting of scanned booklets
- Joining pages in a scanned document
- Automatically crop documents to the correct page size
- Convert all types of scanned documents (PDF Raster, Tiff, JPG, PNG and 100 other multi-page and single-page image formats)
- Convert born-digital documents, like for instance Office Documents
- OCR (text recognition) to make **searchable PDFs**
- Save document to PDF/A, an ISO standard for long-term preservation of electronic documents. Other file formats are also available
- Full utilization of all available hardware capacity (use any number of servers and CPU cores)
- Unlimited number of documents

System requirements

Operating System*	Microsoft® Windows Server® 2019 Microsoft® Windows Server® 2016 Microsoft® Windows Server® 2012 R2 Microsoft® Windows Server® 2012
Microsoft® Office**	Microsoft® Office 2019 Microsoft® Office 2016 Microsoft® Office 2013
Other software***	Microsoft® Visio® 2010/2013 (VSD and VSDX documents) CorelDRAW X5 or later. (CDR documents) AutoCAD 2017 (DWG drawings) PixJet and Adobe Reader 11.0/DC (PDFs that contain XFA forms) PixJet and OpenOffice™ (ODG documents)
Memory (RAM)	4-64 GB depending on workload
Processor (CPU)	Intel® SSE2 compatible (Pentium 4 or later) Intel® Xeon™ (or equivalent AMD) recommended, 2-32 cores depending on workload
Display	Kernel services: Display not required Manager application: 1280 X 1024 pixels

The PixEdit® Server kernel consists of two 64-bit Windows Service applications, which run on 64-bit Microsoft® Windows Server® operating systems. The PixEdit® Server Manager may be installed separately on another system and may run on Windows 7 or Windows 8. Depending on your document throughput requirements (speed and volume), we recommend increasing the amount of memory, the processor speed and number of cores accordingly.

*The service based architecture and per user licensing model makes this software well suited for deployment on virtual servers. This greatly simplifies the process of scaling machine resources for PixEdit® Server so that it will have the document throughput capacity that your company or organization needs.

**Microsoft Office is required to support conversion of Office documents. The Office package must be installed on the server and should include Microsoft Outlook to support conversion of e-mails.

***PixEdit® Server supports most scanned document types such as PDF and TIFF as standard. With Microsoft Office it also supports most office document types, such as Microsoft Word, Excel, PowerPoint, Publisher, Open Office and e-mail. To support conversion of other document types, installing additional applications on the server may be required.

Please contact [PixEdit](#) if you need more information.

Main functions

User management

In the tab “User management”, you manage your users.



This is the toolbar for “User management”. Here you can create a new user, delete existing user and edit users.

The user management functions are also available from the User View’s context menu.

List of users

NAME	JOB PROFILES	COMMENT
My User	Another profile	Created for product guide
admin	Converter Profile	Default administrator account created on first startup

This is the list of all the users created. Here you can see the usernames, comments added to the users and you can see which job profiles connected to the different users.

Job profiles

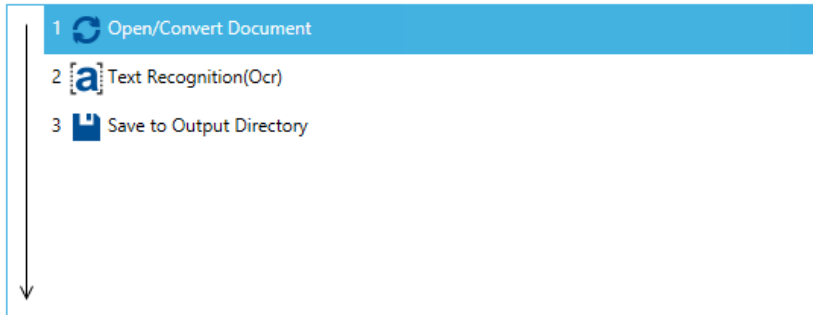
In the tab “Job profiles”, you create, delete and modify your profiles. You can also print out your profile as a profile sheet.



In this toolbar, you can choose between your profiles, you can create new profile, edit existing profile and delete a profile. When you choose between the profiles, the configurations under will change accordingly to what have previously been done to the different profiles. You can also create a profile sheet for your profile. More about the “profile sheet” functionality is explained [here](#).

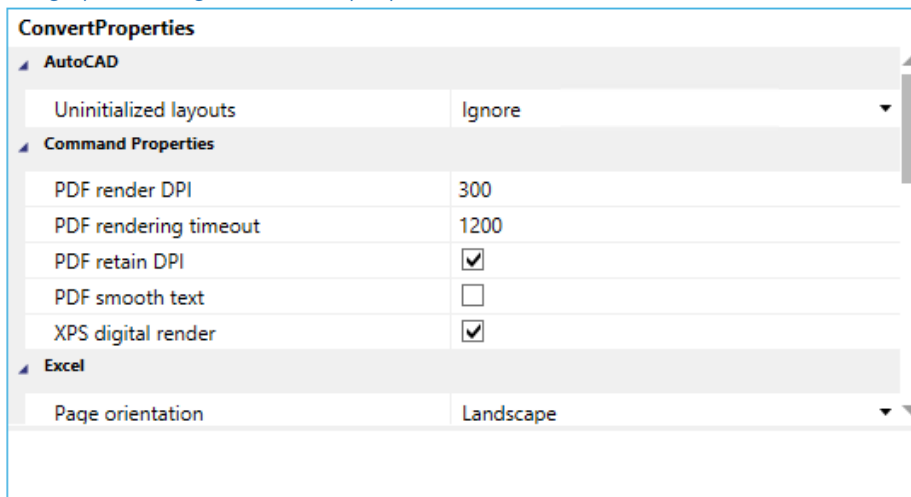
Info: There is no save button in the PixEdit Server Manager, because every change performed either to job profiles or processing configurations are saved consecutively.

Command sequence



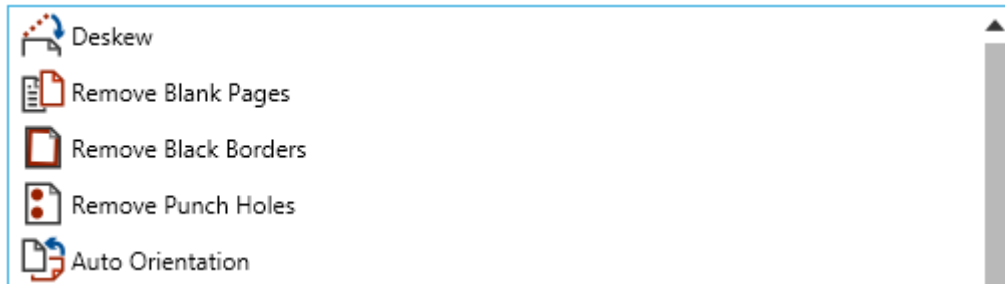
This is the command sequence and its order in the selected profile. You can change the order by simple drag-and-drop operations in the list. The processing commands will execute in the numbered order.

Image processing commands properties



Every processing command may have one or several properties attached to it. As an example, the figure above shows the properties for “Open/Convert Document”. The properties can be adjusted and will then be saved for the current selected Job Profile.

List of image processing commands




This list contains every supported image processing command in PixEdit Server. From this list, you can drag-and-drop image processing commands over to your current job profile's command sequence.

Image processing commands: Explanation

Here is the complete list of all image processing commands with their respective properties.

Open/Convert document

-  The Open/Convert document command is not optional and is always added whenever a new job profile is created. It contains parameters for opening and loading documents.

Properties

AutoCAD

Uninitialized layouts: PixEdit Server uses layouts in AutoCAD to determine how a drawing should look on paper. A layout contains information about paper size, scale, which view the object shall be viewed from and much more. PixEdit Server needs at least one such layout to know how the final PDF should look.

AutoCAD creates two default layouts when a new drawing is created. If these layouts are not configured when the drawing is created, they are treated as “uninitialized layouts”. PixEdit Server is able to handle such uninitialized layouts in different ways:

- Ignore – The layout is ignored. If no initialized layouts exist, the document will fail.
- Initialize – The layout gets initialized with the view the drawing was shown from, last time it was open. The drawing will not fail due to an “uninitialized layout,” but we cannot guarantee that the drawing will be shown from a desirable view.
- ThrowError – The conversion gets cancelled and an error is thrown.

Command properties

PDF render DPI: The resolution when PixEdit Server need to render and image.

PDF rendering timeout: Here you can put in a timeout value for rendering PDF. Value measurement is in seconds.

PDF retain DPI: When enabled, the program is capable of retaining the resolution in single image PDF files.

PDF smooth text: For monochrome PDF files, containing text the readability can be improved by enabling text smoothing. If you enable Smooth text, the image converts to full color.

XPS digital render: Enable this to render XPS documents digitally.

Excel

Page orientation: Choose the page orientation of Excel conversions. Automatic, Landscape or Portrait.

HTML conversion

Program used for html conversions: Here you can choose program for HTML conversions. Word or Excel.

Microsoft Office

Automatic office timeout: When enabled the Office application will timeout if inactivity is detected for a certain period of time.

Specified office timeout: If manual timeout is selected. PixEdit Server will wait for the specified amount of time before the Office application terminates. Value measurement is in seconds.

Outlook attachments

Include Outlook attachments: By enabling “Include attachments and combine them to a single document”, PixEdit Server will convert and combine all documents attached to an email to one single PDF. If this setting is un-checked, the software will only convert the email body to PDF.

Throw outlook attachment error: When this setting is enabled PixEdit Server will raise an error if it detects an attachment which is not supported. If this setting is un-checked PixEdit Server will ignore attachments which is not supported.

Remove images with reference to internet: By enabling “Remove images with reference to internet”, PixEdit Server will replace all images that has some kind of reference to the internet with a line of text.

Verify PDF/A

Verify PDF/A-1b: Verify documents according to PDF/A-1b. When enabled, and the current document in process qualifies according to the standard, the document will be moved untouched to the designated folder. It is possible to configure a specific folder to put documents, which is already according to the PDF/A standard.

Verify PDF/A-2b: Verify documents according to PDF/A-2b. When enabled, and the current document in process qualifies according to the standard, the document will be moved untouched to the designated folder. It is possible to configure a specific folder to put documents, which is already according to the PDF/A standard.

Verify PDF/A-3b: Verify documents according to PDF/A-3b. When enabled, and the current document in process qualifies according to the standard, the document will be moved untouched to the designated folder. It is possible to configure a specific folder to put documents, which is already according to the PDF/A standard.

Word

Show markup: When enabled markup in Word documents may show depending on your choice in “Track word changes”. If not enabled, markup will not show regardless of your choice from “Track word changed”.

Track word changes: Here you get the choice of what to do with track word changes. It’s the same behavior as in MS office word.

Zip archive

Merge zip archive content: Merge content of zip archive to one single document.

Throw zip document error: Enable this if you want PixEdit Server to raise an error when unsupported documents are detected in the zip-archive.

Deskew



Scanned images are often slightly skewed. The most common method of correcting this problem is to add the deskew command to your Job Profile.

Properties

Detect background color: Check this if you want to detect the original background color and fill the new areas created from deskewing with this color.

Maximum deskew angle: If the detected skew angle is above this value no deskew is performed to the document page.

Remove blank pages



This function automatically removes blank pages from your multi-page document. To remove blank pages, add this command to you Job Profile.

In some cases, blank pages may contain a small amount of graphics because of dark scanner settings or spots on the original document. You may therefore want to adjust the default 0.06% value of acceptable noise level to a higher value.

Some blank pages may also contain some extra graphics on the edges. PixEdit may therefore be configured ignore a specified area along the edges before analyzing.

Properties

Left top margins: Exclude left/top edge property. Specify a value in millimeter to exclude before analyzing for blank page removal.

Right bottom margins: Exclude right/bottom edge property. Specify a value in millimeter to exclude before analyzing for blank page removal.

Percent graphics allowed: The threshold for blank page detection. Default value is 0.06% and may be increased if the scanned document pages contains a lot of background noise.

Remove black borders



Some scanners include a black border around each scanned page. PixEdit can use this information to automatically crop the page to the original paper size, making it possible to scan different page sizes in one batch. This function also includes an automatic deskew process.

Properties

Crop: Enable this feature if you would like the pages to be automatically cropped

Maximum deskew angle: If the detected skew angle is above this value, no deskew will be performed to the document page.

Remove punch holes



Removes unsightly punch holes from your scanned document. If you frequently scan documents with punch holes, we recommend you add punch hole removal in your job profile.

Properties

This image processing command does not have any properties.

Erase Borders



Erase borders may be used to erase any remaining graphics noise near the document edges.

Properties

Bottom border: How many millimeters you want to erase from bottom up.

Left border: How many millimeters you want to erase from left to right.

Right border: How many millimeters you want to erase from right to left.

Top border: How many millimeters you want to erase from top down.

Auto orientation



PixEdit Server can automatically correct each page in scanned documents having a mixture of orientations. Add this command to your profile if you want automatic page orientation detection.

Properties

This image processing command does not have any properties.

Text recognition (OCR)



PixEdit Server's OCR function translates scanned documents into readable and searchable PDF files. Add this command to your job profile if you want to enable this feature in your document production.

Properties

Export page separator string: The text that will separate the pages in the text file. If text is "- Page {0} -" as default, it will leave the page number as the separator.

Export remove linefeed: If checked, removing the linefeeds in the text file.

Export text file: If checked a text file with the OCR processed text will be created with the converted file.

Filter large objects: Filter large objects before text is recognized. Specify a value in millimeter. Specify a 0 mm value for no filtering.

OCR export only: If checked, only the text file will be delivered in the output.

OCR timeout: Option to set OCR timeout value.

Auto reduce colors



Automatically reduce document pages to grayscale or black and white if the graphical content allows it.

Properties

Detect small color areas: Enable this if you want to increase sensitivity to small colored areas on the document page.

Fixed threshold: A value of 0-255 will use this as the threshold for converting grayscale to black and white, while -1 will auto-detect the best threshold for the current document page.

Gray sensitivity: Sensitivity of detecting whether colors should be converted to grayscales (Range 0-5, 2 is standard).

Ignore colorcast: By enabling this PixEdit Server will detect if the document pages is not white, and ignore this color for the analysis.

Mono sensitivity: Sensitivity of detecting whether grayscales should be converted to monochrome (Range 0-5, 2 is standard).

Use 16 grays: By enabling this feature, PixEdit Server will use a table of only 16 grayscales, if disabled the process will use 256 shades of gray.

Turn document



Turn document pages to change the orientation.

Properties

Turn type: Select how you want your document pages turned.

Enhance contrast



Faded document pages scanned in color or greyscale mode may sometimes result in low contrast. You can automatically maximize contrast by adding an Enhance Contrast command to your job profiles.

Pages with high contrast will not be affected. Some low contrast pages may contain a few perfectly white or black sections at the same time as the page gives you a faded impression. In such cases you may want to specify a somewhat higher tolerance value than the default 0.01%.

Properties

Clip percent: In the general, increasing this value will result in a stronger contrast enhancement effect.

Split document pages



Automatically split document pages.

Properties

Split direction: Horizontal or vertical.

Split position: Split page at an exact position specified in millimeters.

Split type: Split automatic, split in half or split by position.

Split booklet



Add this image command to your job profile if you need to split and rearrange scanned booklets.

Properties

Split direction: Horizontal or vertical.

Document separation Generic barcodes



Separate documents by detecting the specified barcode type and use this content for naming the document file.

Properties

Barcode separator: Used for connecting multiple barcodes when naming the document file. Default separator character is '_'.

Barcode type: Specify which barcode to detect. Supported barcode types are Barcode type 39, 39 Extended, type 128, type EAN 128, type UCC 128 and Interleaved 2 of 5.

Include barcode page: Enable this setting to include the page containing the barcode.

Numbers of barcodes: Specify the number of barcodes to detect.

Replace characters: Replace character(s) with other character(s) in the barcode.

Threshold: The threshold value is used for converting grayscale to black and white during barcode detection. The default value is 170 (range 0-255).

Show error when no separation sheet: Raise an alert when no barcode separation sheet is detected.

Characters required: Barcodes without the given character will be ignored.

Remove characters: Enable this setting to remove the given character from the barcode.

Document separation Tieto barcodes



Add this image command if you are using Tieto separation sheets.

Properties

Attachment keyword: Keyword to detect attachment document and connecting this to the correct main document. Default is "00000".

Barcode separator: Used for connecting multiple barcodes when naming the document file. Default separator character is '_'.

Barcode type: Specify which barcode to detect. Supported barcode types are Barcode type 39, 39 Extended, type 128, type EAN 128, type UCC 128 and Interleaved 2 of 5.

Include barcode page: Enable this setting to include the page containing the barcode.

Numbers of barcodes: Specify the number of barcodes to detect.

Replace characters: Replace character(s) with other character(s) in the barcode.

Threshold: The threshold value is used for converting grayscale to black and white during barcode detection. The default value is 170 (range 0-255).

Show error when no separation sheet: Raise an alert when no barcode separation sheet is detected.

Document separation PixEdit barcodes



PixEdit's own barcode sheet. This sheet can be generated from PixEdit Desktop and can be configured with several features for document separation.

Properties

Add incrementing number at the end of the filename: enable or disable an incrementing number on the end of the filename in the output result.

Threshold: The threshold value is used for converting grayscale to black and white during barcode detection. The default value is 170 (range 0-255).

Show error when no separation sheet: Raise an alert when no barcode separation sheet is detected.

Document separation Ephorte barcodes



With this image command, PixEdit Server is able to name documents suitable for integration with Ephorte document management system.

Properties

Add text to separated file names: Add a guid, date and time or the original filename to the job and the separated files.

Include QR separation page: Check this if you want to have the QR code included in the document. This only work if you have selected to separate with QR codes.

Remove blank page: When enabled, PixEdit Server will remove any blank sheet on the backside of the separation sheet.

Search all directions: Search for barcodes in all document directions.

Separate main document: This Keyword will trigger main document generation. Default is “sephoveddok».

Separate sub document: This keyword will trigger sub document generation. Default is “sepvedlegg».

Separate with QR-Codes: Enable or disable the use of QR-Codes instead of barcodes.

Threshold: The threshold value is used for converting grayscale to black and white during QR code detection or barcode detection. The default value is 170 (range 0-255).

Show error when no separation sheet: Raise an alert when no barcode separation sheet is detected.

Document separation Acos Barcodes



With this image command, PixEdit Server is able to name documents suitable for integration with Acos document management system.

Properties

Add text to separated file names: Add a guid, date and time or the original filename to the job and the separated files.

Include QR separation page: Check this if you want to have the QR code included in the document. This only work if you have selected to separate with QR codes.

Remove blank page: When enabled, PixEdit Server will remove any blank sheet on the backside of the separation sheet.

Search all directions: Search for barcodes in all document directions.

Separate main document: This Keyword will trigger main document generation. Default is “ACOSH».

Separate sub document: This keyword will trigger sub document generation. Default is “ACOSV».

Separate with QR-Codes: Enable or disable the use of QR-Codes instead of barcodes.

Threshold: The threshold value is used for converting grayscale to black and white during QR code detection or barcode detection. The default value is 170 (range 0-255).

Show error when no separation sheet: Raise an alert when no barcode separation sheet is detected.

Immigration authorities separation sheets



This image command is custom made for the Immigration authorities.

Properties

Search all directions: Search for barcodes in all document directions.

Threshold: The threshold value is used for converting grayscale to black and white during barcode detection. The default value is 170 (range 0-255).

Show error when no separation sheet: Raise an alert when no barcode separation sheet is detected.

Document separation QR-codes



Separate documents by detecting QR-codes and use the content for naming the document file.

Properties

Include QR-code page: Enable this if you are using QR-code labels and the label is attached to a page which is part of the document.

Threshold: The threshold value is used for converting grayscale to black and white during QR-code detection. The default value is 128 (range 0-255).

Use original filename: Enable this to keep the original filename in the output filename.

Characters required: Barcodes without the given character will be ignored.

Remove characters: Enable this setting to remove the given character from the barcode.

Document separation blank sheets



Separate document by detecting blank sheets.

Properties

Exclude border: Exclude a border defined in millimeters before detecting blank page separation.

Separate when two blank sheets are detected: Enable this if your scanner is set to double sided scanning.

Brightness and contrast



Brightness and Contrast is a very powerful image enhancement tool. Adjusting a positive brightness will make the image brighter and negative value will make it darker. Adjusting contrast will increase or decrease the distance between light and dark areas locally.

Properties

Brightness: The amount of brightness to apply, -100 to +100.

Contrast: The amount of contrast to apply, -100 to +100.

Automatic crop



Automatically crop the document pages to the graphical content on each page.

Properties

White Color tolerance: White color tolerance value range 0 to 100 % (true color pages only).

Left top margins: Left top white border specified in millimeters.

Right bottom margins: Right bottom white border specified in millimeters.

Crop half page size



Automatically crop pages to half the size. This is possible when more than half the page is white. This processing command can be useful when scanning a mix of A3 and A4 pages with a multifunctional printer (MFP).

Properties

This image processing command does not have any properties.

Scale down pages



Scales down the image size of converted documents.

Properties

DPI: Select new DPI value for the down scaled document.

Resize to standard page sizes



All document pages will be adapted to standard sizes to create a uniform document.

Properties

Maximum page size deviation: Upper limit for page size deviation specified in percent.

Resize image: If checked, this will also resize the image data.

Remove pixel noise



A dirty image sensor on your document scanner can cause pixel noise. Add this processing command to your job profile to remove pixel noise from scanned documents.

Properties

Filter type: Objects, extent of objects, holes, extent of holes, hairs.

Minimum size of noise: Specified in pixels.

Maximum size of noise: Specified in pixels.

Despeckle



Some scanned black and white documents may contain undesired graphics like extra dots or speckle. Use Despeckle to remove unwanted graphics.

Properties

Despeckling type: Choice on type of despeckling.

- **Simple despeckle:** Use this option for careful filtering. PixEdit Server will apply a simple image despeckle to each page and perform safe speckle removal.
- **Thorough despeckle:** Useful for medium to difficult documents. PixEdit Server will apply advanced image analysis, combined with a user specified density specification and comprehensively remove graphics interpreted as speckle. Speckle with a lower density than specified will be removed, except when found inside enclosed frames and halftone images. Don't use a higher value than 2-3 percent unless your document is very dirty. Thorough despeckle is somewhat slower than a simple despeckle.
- **Specific despeckle:** (Advanced) Use this option for difficult and very dirty documents. In addition to the density parameter described above, you can also specify how close the despeckle filter shall operate to real graphics like text. The distance parameter can be adjusted between two quite small values, and is therefore specified in pixels so that you can easily remember these values for different types of documents. For example, if you are using a distance value of 8, PixEdit Server will not remove speckle closer than 8 pixels to real graphics like text.

Speckle density: The density of speckle to be removed (in percent). Applies to "Thorough" and "Specific" despeckling.

Speckle distance: The minimum distance of speckles to be removed (in pixels). Applies to "Specific" despeckling.

Median Filter



Median filtering is useful for removing noise and rasters from a scanned printed poster or photograph.

Properties

This image processing command does not have any properties.

Document stamp



Inserts configurable digital text to your converted documents.

Properties

Font bold: Choice of making the font bold or not.

Font italic: Choice of making the font italic or not.

Font size (pt): Choice of size on the font, measured in points.

Stamp first page only: Choice of stamping all or first page only.

Stamp position: Here you can select where you want the stamp to be located on your page.

Stamp text: Here you type what you want your text to contain.

Text color: Choice of color to the stamp.

Text transparency: Slider where you can choose the transparency of the stamp. Please notice that PDF/A-1b standard do not support transparency.

Save to output directory



The Save to output directory is used to save the document to the output folder in your configurations. It also contains several properties for filename generation, quality and alternative save paths.

Properties

File format: The Selected file format to save process documents. Select between PDF, PDF/A-1b, PDF/A-2b, TIFF and JPEG.

Image quality: The image quality has a range from 1 to 100, where 100 is the best possible quality. This parameter will only affect the quality of scanned images and their file sizes. The default value is 85.

Recompress image: Enable this to recompress images to the selected quality even if the image data is not changed.

Throw error if document is empty: Enable if you want empty documents to be failed.

Add original filename extension: Adds original filename as an extension.

Alternative savepath: If an alternative save path is specified, PixEdit Server will save documents directly to this location and ignore any other path's set by the PixEdit Server Manager.

Digits: Number of digits when incrementing filename generation is selected.

Document name format: Date and time, Incrementing filename or original filename.

Increment start number: The start number for the incrementing filename generation.

Prefix: Add a prefix to the generated document name.

Suffix: Add a suffix to the generated document name.

Save to SharePoint



The "Save to SharePoint" is used to upload your documents directly to SharePoint. It also contains properties for filename generation and quality.

Properties

File format: The Selected file format to save process documents. Select between PDF, PDF/A-1b, PDF/A-2b, TIFF and JPEG.

Image quality: The image quality has a range from 1 to 100, where 100 is the best possible quality. This parameter will only affect the quality of scanned images and their file sizes. The default value is 85.

Recompress image: Enable this to recompress images to the selected quality even if the image data is not changed.

Throw error if document is empty: Enable if you want empty documents to be failed.

Add original filename extension: Adds original filename as an extension.

Digits: Number of digits when incrementing filename generation is selected.

Document name format: Date and time, Incrementing filename or original filename.

Increment start number: The start number for the incrementing filename generation.

Prefix: Add a prefix to the generated document name.

Suffix: Add a suffix to the generated document name.

Connection status: Test the connection to SharePoint with the given credentials.

Library\subfolders: The name of the SharePoint library path to which the file is to be submitted. Subfolder can be specified with “\”.

SharePoint site URL: The URL of the SharePoint site which the file is to be submitted.

Sign-in name: The username of the account that should upload the file.

Sign-in password: The password for the account that should upload the file.

Save to Archive (PixEdit Desktop integration)



The “Save to Archive” is used with the PixEdit Desktop integration. It is used to determine the save properties and archive path.

Properties

File format: The Selected file format to save process documents. Select between PDF, PDF/A-1b, PDF/A-2b, TIFF and JPEG.

Image quality: The image quality has a range from 1 to 100, where 100 is the best possible quality. This parameter will only affect the quality of scanned images and their file sizes. The default value is 85.

Recompress image: Enable this to recompress images to the selected quality even if the image data is not changed.

Throw error if document is empty: Enable if you want empty documents to be failed.

Add original filename extension: Adds original filename as an extension.

Archive savepath: The savepath where you want your document saved, after “Archive” has been pressed in PixEdit Desktop.

Digits: Number of digits when incrementing filename generation is selected.

Document name format: Date and time, Incrementing filename or original filename.

Increment start number: The start number for the incrementing filename generation.

Prefix: Add a prefix to the generated document name.

Suffix: Add a suffix to the generated document name.

Scan properties



The “Scan Properties” is used with the PixEdit Desktop integration. This controls all the scanner settings in PixEdit Desktop.

Properties

Brightness: Adjusting brightness for scanning.

Color mode: Choose color mode for scanning. Black\white, grayscale or RGB full color.

Contrast: Adjusting contrast for scanning.

DPI: Scanning resolution. Recommended value is 300 dpi.

Lock settings: Enable this if you want to lock the scan settings. Users in PixEdit Desktop will not be able to change settings.

Page mode: Choose where to insert the next scanned pages.

Page orientation/rotation: Choose the orientation of the pages.

Paper mode: Select to scan single sided or double sided

Paper size: Select the size of the paper to scan.

Prompt user: Enable this and the user of PixEdit Desktop will be prompted with a dialog presenting options on how to proceed the current scan job.

Document processing





In the tab “Document processing”, you can create, delete and modify your converter configurations. This is also, where you can see ongoing conversion activity and server performance.

Toolbar



This is the toolbar for “Document processing”. Here you can create unlimited number of configurations. You can configure watch folders or email inbox configurations. You can also delete configurations from the toolbar.

List of configurations

CONFIGURATION NAME	USER	JOB PROFILE	INPUT	OUTPUT	FAILED	ENABLED	PRIORITY
 Conversion config	admin	Converter Profile	0	0	0	 <input checked="" type="checkbox"/>	<input type="checkbox"/>
 Mail watch config	admin	Converter Profile	-	0	0	 <input type="checkbox"/>	<input type="checkbox"/>

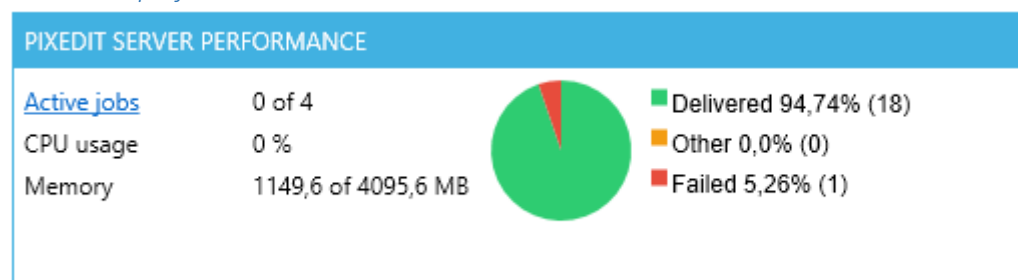
Here you have the list of configurations. This list shows:

- **Configuration name.**
- **User** – The user running in this given configuration
- **Job Profile** – The job profile selected for this configuration.
- **Working** – This shows how many files there is in the input folder. If the configuration is a watch email inbox configuration, working will only show a “-“.
- **Output** – shows how many files there is in the output folder.
- **Failed** – shows how many files there is in the failed folder. The blue icon “i” is a button that will bring up a list of the failed documents.
- **Enabled** – The checkbox enables/disables the configuration, i.e. turns it on or off.
- **Priority** – When enabled, file picking will be prioritized from this configuration.

The “working”, “output” and “failed” are clickable numbers. If you click one of them, they will lead you to the selected folder.

Here you can also right click on the configurations to edit them.

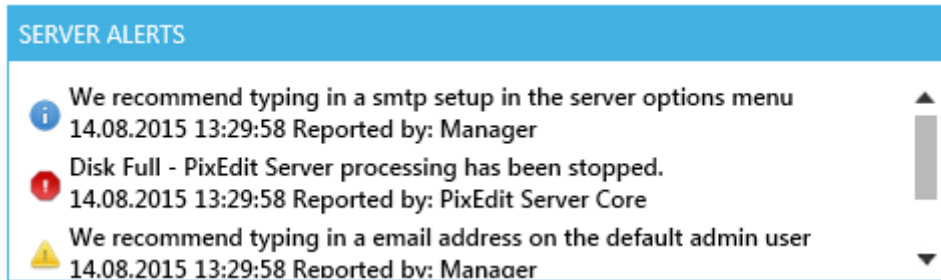
Live server performance



This section shows the performance of the server. It shows how many active jobs are running now, CPU usage of the Windows server, memory usage and it shows statistics for how many delivered and failed jobs there are.

The “Active jobs” item is a hyperlink. If you click on this link, a fly out window will appear showing you the current documents in progress. It will also show you the status on those documents.

Server alerts






This is the server alerts window. In this section of the server manager, PixEdit Server will display useful information or critical server alerts to the user.

The “Reset” button will be visible if any alerts are present. By clicking, this button you will clear all server alerts. Error alerts (red) which are not resolved will re-appear until the undelaying problem is fixed

There are three different alert types for PixEdit Server

Alert types

-  **Info** – These are information alerts, suggestions and recommendations.
-  **Warning** – These are warning alerts. Advice/recommendations.
-  **Error** – These are error alerts. They are critical failures or problems and if one of these shows in the server alert window, all active configurations stops.

Analytics

In the tab “Analytics”, you can view and analyze any failed jobs.

Toolbar



With this toolbar, you can select between three predefined time spans.


- Last week
- Last month
- Last 3 months

All the predefined time spans go back in time.

You can also do a specific search with the “From” date picker and “To” date picker. When you select a predefined value from the drop-down list, the failed conversion list will automatically be updated. However, if you select a specific “From” and “To” date you have to press the “search” button after you have selected your desired dates.

There is also an option for generating error report to a txt file. The syntax of the report is adapted so it easily can be imported to MS Excel.

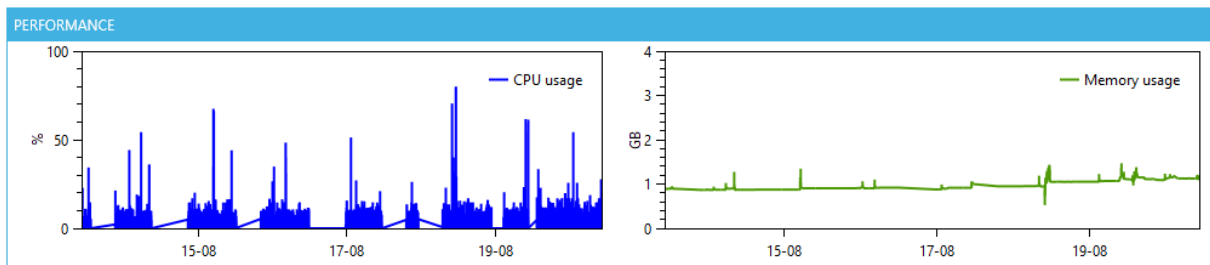
Failed conversions list

FAILED JOB TITLE	STATUS	TIME	ERROR MESSAGE
20150819141256.pdf	Failed	19.08.2015 14:08:53	 Error: GenericSeparate - First page must contain a barcode separator sheet (Error code: -1)

In this list all failed converter jobs which matches your search criteria will be displayed. The default time span is set to Last week.

In the result list, you will see the job title, status of the job, time and the error message. If you click the blue icon “i” in front of the error message, a fly out window will be displayed showing all the error information stored regarding the specific file.

Historic server performance



Here you have two interactive historic performance views. You can drag to the sides, scroll in and out to get a bigger or smaller time span. You can also click the line to get an accurate point of time and use. The left (blue) window shows CPU usage and the right (green) window shows memory usage.

Server options

PixEdit server – Performance



The screenshot shows a settings panel titled 'PIXEDIT SERVER - PERFORMANCE'. It features a dropdown menu currently set to 'High' and a checked checkbox labeled 'Silent mode (User interaction not possible)'.

There are three different performance settings for PixEdit Server

- **Economic** – Max CPU's / two.
- **High** – Max CPU's minus one. (Default)
- **Maximum** – All CPU's.

Silent mode: When silent mode is enabled, all Office applications will run in the background during conversion. Deactivate silent mode to show Office applications on screen when the documents are

getting converted. This could be useful e.g. when converting password protected files or other troublesome files.

PDF Description – Author

PDF DESCRIPTION - AUTHOR

Current account: AdmPixedit - (Does not replace existing data)

Empty Clear existing data

PDF files have author as META data tag. Here you can determine the input for that tag.

- **Current account** – This will list the current account name, if the tag is empty.
- **Empty** – This will leave the tag empty if there is no entry in the tag. If you enable the “Clear existing data” it will delete any existing data.
- **Free text** – Here you can type in any desired text for the author tag.

PixEdit server – Email configuration (SMTP)

SMTP CONFIGURATION

Used for sending email notifications to the selected users.

Server name (or ip address): Secure (TLS/SSL)

Port: Sender address:

Username: Password:

Mail address to receive test mail:

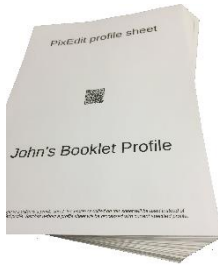
By providing an SMTP setup, PixEdit Server will use this setup to send mails to the configured users.

Detect PixEdit configuration sheet

PIXEDIT CONFIGURATION SHEET

Detect PixEdit configuration sheets

Detects PixEdit configuration sheets such as profile sheets or sheets that contain SharePoint settings. If the first pages in a batch is a PixEdit configuration sheet the settings provided in the sheet will override the settings in the current profile.



The use of batch profile sheets eliminates reconfiguration in environments where a common scanner is used by several operators and in production environments where frequent profile switching is required.

In a multi-operator scanning environment, each operator puts their own personal profile sheet at the top of each batch to automatically select a personal profile. If no profile sheet is used, PixEdit Server will use the default processing profile.

Each operator may have several profile sheets handy to process different types of jobs, such as booklet scanning, various types of barcode separation and so on. The only requirement is that the processing profile specified on the profile sheet has been configured in PixEdit Server.

Receivers of critical errors

REPORT CRITICAL PIXEDIT SERVER ERRORS

Notify the following users(s):

admin	user@domain.com

Here you can select which user(s) who will receive email alerts if a problem should occur in server. A valid SMTP configuration must be provided before PixEdit Server is able to send email alerts.

OCR options

Languages

SELECT LANGUAGES

- Danish
- German
- English
- French
- Italian
- Dutch
- Norwegian
- Swedish

By selecting your preferred language, the OCR engine will be more accurate when generating searchable documents. English is default selected and cannot be switched off.

You can choose more languages but this will slow down the OCR process during conversions significantly.

Do your documents have a language that are not supported in PixEdit Server? Please contact us and we might be able to provide the missing language.

Getting started

How to get started with PixEdit Server software.

Setting up your own personal configuration

PixEdit® Server is by default ready to use. When the software starts for the very first time it creates and “Admin” user and a default profile called “Converter profile”. With this initial setup, you are ready to start converting your documents to PDF.

However, it is possible to configure your own users and profiles for more specialized tasks. Like for example if you want a profile where OCR is not applied to your conversion job or you want a profile where markup is not shown. Here is our recommended way to do this.

Create and personalize your job profile

First, we recommend creating a new job profile. Go to the “job profiles” tab, here you will find all you need to create your own job profile. Find and click the button “Create new job profile”. A new dialog box appears in the middle of the screen. Type in your desired profile name in the text box called “Profile name”. Choose an image you would like to represent your profile. Press ok.



Now you have created your own job profile. You will see it has automatic been chosen in the list in the top left corner. You can now begin to personalize your profile. The profile will automatically be saved whenever you change some of its parameters.

Create your new user

Second, we recommend creating a new user. Go to the “User management” tab, here you can see the list of all server users. You can also delete, edit and create new users here. Find and click the button “Create a new user”. A new dialog box appears in the middle of the screen. Type in the information about the user. Username, e-mail, password and a comment if that is desirable. Now you can add you job profile. The list shows all created job profiles, choose the profile that you just made. You can also add more profiles with CTRL if the user should have access to different profiles.



In the bottom is a choice that says “Send e-mail notifications when document processing fails”, mark this if you want the user to get an email when a document conversion fails with this user. For this to work you will need to have set up the SMTP account in “[Server options](#)”. Press ok and you user is ready to go.

Set up your configuration

Last, we recommend setting up your configuration. Go to the “Document processing” tab, here you can see all your configurations. You can edit, delete, start, stop and create new configurations. There are two different configurations. Folder watcher and email inbox watcher.

Folder watcher

Find and click the button “Add watch folder configuration”. A new dialog box appear in the middle of the screen. Type in your desired configuration name. Then choose the user that you have created. After you have chosen the user, the list with job profiles will show the profiles that are connected to that specific user that you have selected. Select the newly created profile. Now choose the desired input, output and error folders. Press ok, and your configuration will appear in the list.

Your new configuration is by default disabled. You have to enable the configuration for the document conversion to start.

Email inbox watcher

Email inbox watcher is a service, which listens to an email inbox for incoming emails. Emails, which contains documents, will then be sent to file format conversion.

Find and click the button “Add watch email inbox configuration”. A new dialog box will appear. Type in your desired configuration name and the email credentials for the specific account. Please keep in mind that the email watcher will delete the email after it has been read. So using your personal email account to watch is not a good idea.

You may verify the email account settings by pressing “Test connection”. You will then get a response in a couple of seconds, whether the setup was okay or not.

There is a setting in this dialog to send the converted document in reply to the sender or a notification if the conversion for some reason fails. For this to work you will have to set up the SMTP account in “[Server options](#)”.

There is also a setting in this dialog to control whether all attachments should be combined to one single PDF document, or processed separately as single documents.

Now you can choose if you want to combine attachments or convert them as separately documents.

If you want to add some restrictions to witch emails the system should process, just press “Filters...”. Here you can add restrictions to specific senders, subjects or domains. Now you can select your user and then the job profile. Select your desired output folder and error folder and press ok.

Your new configuration will now show in the list of configurations. Please tic the “Enable” checkbox to start processing documents with this configuration

PixEdit® Server Security Configuration (advanced)

WCF Communication

PixEdit® Server uses WCF (Windows Communication Foundation) to expose a Web Service interface which can be used by dedicated client applications. Currently, the applications that can utilize this Web Service interface are *PixEdit Server Input Connector*, *PixEdit Server Manager* and *PixEdit Desktop*.

In principle, all these applications can run as WCF clients on different machines on the intranet. However, in almost all cases, the *PixEdit Server Input Connector* is run on the same machine as the PixEdit Server Core. For some setup configurations, it may be practical to run the *PixEdit Server Manager* on a client machine. This will allow an administrator to manage PixEdit Server users and processing profiles without logging on to the server with Remote Desktop. But, the most relevant case of cross machine WCF communication with PixEdit Server is the *PixEdit Server – PixEdit Desktop Integration*. This enables users of PixEdit Desktop on client machines to utilize PixEdit Server for automatic post-processing and archiving.

WCF Configuration

WCF has a very flexible configuration system in order to accommodate various intranet environments. One important setting at the top level is the type of protocol or binding. PixEdit Server in an intranet setup uses the net.tcp protocol, which is called NetTcpBinding in WCF. (It can also use the https protocol (WSHttpBinding), but that feature is beyond the scope of this document.) All the WCF configuration settings are located in .config files which reside in the local folder of the service or application:

- PixEdit Server Core (server): <Program Files>\PixEdit Server\Core\PixEditService.exe.config
- PixEdit Server Input Connector (client): <Program Files>\PixEdit Server\InputConnector\PixEditServerInputConnector.exe.config
- PixEdit Server Manager (client): <Program Files>\PixEdit Server\ServerManager\PixEditServerManagerWPF.exe.config
- PixEdit Desktop (client): <Program Files>\PixEdit Desktop\PixEdit.exe.config

Security

One of the key aspects of WCF communication and configuration is security. Even on an intranet, you want to control who has access to what and to make sure that files and setups cannot be tampered with, neither by accident nor intention. In WCF, there are also numerous possibilities for security setups, but we will focus on those most relevant in PixEdit Server intranet setups.

Transport security with Windows credentials

This is the default setup that you will find in the .config files after installing PixEdit Server and PixEdit Desktop. You will see the following tags on both server and client:

```
<netTcpBinding>
  <binding ...>
    <security mode="Transport">
      <transport clientCredentialType="Windows"/>
    </security>
  </binding>
</netTcpBinding>
```

This essentially means that only the transport, i.e. pipe is secured with client/server authentication and encryption of data. And Windows provides the authentication mechanism and encryption

scheme. Windows authentication is a huge topic which we cannot cover in detail here. However, there are two important mechanisms which we will discuss: NTLM (NT LAN Manager) and Kerberos.

Windows Workgroup and NTLM

When the server are members of a Workgroup (and not a domain), users are authenticated through NTLM. This is most common in home and very small corporate networks. Access to resources on another machine is granted either by local users being present with the same password on both machines, or by users belonging to the same HomeGroup. If a PixEdit Server client runs on a system/user which is not part of a domain and the PixEdit Server Core service runs as a user which is not part of a domain, NTLM authentication will be used. Hence, the client user must either be present on the server with the same password, or must be part of the same HomeGroup as the PixEdit Server Core service user on the server.

AD Domain and Kerberos

If the server is not in a Workgroup and the PixEdit Server Core service is running under an AD (Active Directory) user, the client application must identify itself to authenticate on the server. This can be done in several ways, but we recommend the following setup:

Associate the AD user under which the service is running with an SPN (Service Principal Name). This can be done on the server using the command line utility SETSPN. We suggest the following SPN: "PixEditWebService/<servermachinename>". The command lines would be:

```
setspn -a PixEditWebService/servermachinename domain\Username  
setspn -a PixEditWebService/servermachinename fullyqualifieddomainname\Username
```

The client application must then provide this SPN when trying to connect with the server. For *PixEdit Server Manager*, this can be done entirely in the PixEditServerManagerWPF.exe.config file like this:

Set the "CoreServerHostAddress" appSetting to an empty string:

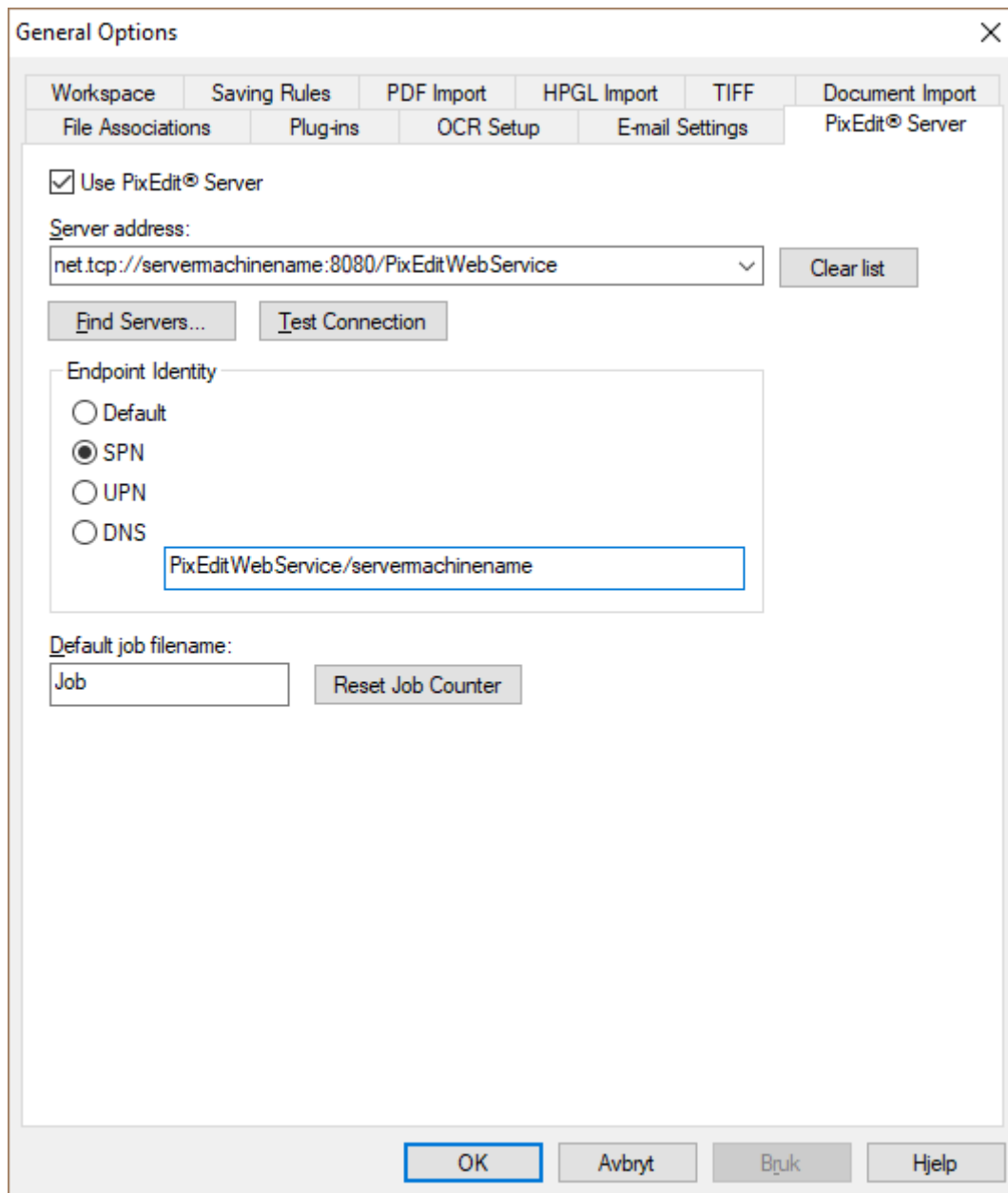
```
<appSettings>  
  <add key="CoreServerHostAddress" value=""/>
```

Then add the endpoint identity like this:

```
<endpoint address="net.tcp://servermachinename:8080/PixEditWebService/" binding="netTcpBinding"  
bindingConfiguration="NetTcpBinding_IPixEditWebService"  
contract="PixEditWebServiceReference.IPixEditWebService" name="NetTcpBinding_IPixEditWebService">  
  <identity>  
    <servicePrincipalName value=" PixEditWebService/servermachinename" />  
  </identity>  
</endpoint>
```

Make sure you restart the application for the config changes to take effect.

For PixEdit Desktop you must start the application and use the Tools, Options... dialog -> PixEdit Server tab:



Choose "Endpoint Identity": "SPN". You will see that the identity name is automatically set according to the servermachinename. Click on "Test Connection" to see if it works.

[A note on Kerberos vs NTLM authentication](#)

Sometimes, security measures on an intranet are set up to use a mixture of AD domain users and local workgroup users. WCF is designed to utilize this by – under certain conditions – falling back to NTLM if the Kerberos authentication fails. Hence, you may experience that the authentication "just works" independently of your endpoint identity setup, f.ex. if you set an empty SPN in the client config. If you want to prevent this from happening, you can do so by disabling NTLM authentication in the group policy for your AD domain. You can find this policy setting **Network Security: Restrict NTLM: NTLM authentication in this domain** in the AD Object Manager under *Computer Configuration\Windows Settings\Security Settings\Local Policies\Security Options*. Be careful, because altering this policy might affect a lot of users and servers, and will affect other applications than PixEdit Server. You can find more information about this policy setting in the following

Microsoft article: <https://docs.microsoft.com/en-us/windows/security/threat-protection/security-policy-settings/network-security-restrict-ntlm-ntlm-authentication-in-this-domain>

Transport security with Certificate

It is also possible to use an X.509 certificate to authenticate clients with the server and encrypt the data packages that are sent between them (SOAP messages). One may obtain such a certificate either from an official certified issuer or by creating a self-signed certificate. How you do this, is up to you. However, using self-signed certificates for production environments is generally not recommended.

Installing the certificate

To use a certificate for secure WCF communication with PixEdit Server, the certificate must be installed on both the server and client machines. Any root certificates of the certificate must be present in the “Trusted Root Certification Authorities” store, and the certificate must be present in the “Trusted People” store. You may choose to store the certificates under “CurrentUser” or “LocalMachine” depending on your setup and under which current user the server and clients are running.

Configuring the server

In PixEditService.exe.config enable certificate credentials:

```
<netTcpBinding>
  <binding ...>
    <security mode="Transport">
      <transport clientCredentialType="Certificate" />
    </security>
  </binding>
</netTcpBinding>
```

Then set the certificate:

```
<behaviors>
  <serviceBehaviors>
    <behavior>
      <serviceCredentials>
        <serviceCertificate findValue="PixEditServer" x509FindType="FindBySubjectName"
          storeLocation="CurrentUser" storeName="TrustedPeople"/>
        <clientCertificate>
          <authentication certificateValidationMode="PeerOrChainTrust" revocationMode="NoCheck"/>
        </clientCertificate>
      </serviceCredentials>
    </behavior>
  </serviceBehaviors>
</behaviors>
```

The “findValue” value is the name of the certificate. Note also that you must select the right location of the certificate by setting the storeLocation value to “CurrentUser” or “LocalMachine”.

Make sure you restart the the PixEdit Server Core service for the config changes to take effect.

Configuring the client

In PixEditServerManagerWPF.exe.config and PixEdit.exe.config enable certificate credentials:

```
<netTcpBinding>
  <binding ...>
    <security mode="Transport">
      <transport clientCredentialType="Certificate" />
    </security>
  </binding>
</netTcpBinding>
```

And set the certificate:

```
<behaviors>
  <endpointBehaviors>
    <behavior>
      <serviceCredentials>
        <serviceCertificate findValue="PixEditServer" x509FindType="FindBySubjectName"
          storeLocation="CurrentUser" storeName="TrustedPeople"/>
        <clientCertificate>
          <authentication certificateValidationMode="PeerOrChainTrust" revocationMode="NoCheck"/>
        </clientCertificate>
      </serviceCredentials>
    </behavior>
  </endpointBehaviors>
</behaviors>
```

IMPORTANT: In PixEditServerMangerWPF.exe.config you must also change the hostname in endpoint address from localhost to the machinename.

```
<appSettings>
  <add key="CoreServerHostAddress" value="net.tcp://machinename:8080/PixEditWebService"/>
```

DNS names in X.509 certificates

We suggest you use the Subject name "PixEditServer" in the certificate, and the DNS name should be either "machinename" for a machine-specific certificate or "PixEditServer". This way, you can use the same certificate for multiple servers. Note that WCF does not match against multiple DNS names in a certificate. If there are multiple DNS names in the certificate, WCF will only match against the last one.

When using a certificate for authentication, the client must provide an identity which is matched against the identity of the service. This identity can be specified in different ways depending on the scenario. Here we will only discuss the DNS identity type, which is very practical in a certificate authentication scenario. To specify a DNS identity for Server Manager, modify PixEditServerManagerWPF.exe.config like this:

Set the server host address app setting to an empty string like this:

```
<appSettings>
  <add key="CoreServerHostAddress" value=""/>
```

Then specify the endpoint address and identity below like this:

```
<endpoint address="net.tcp://servermachinename:8080/PixEditWebService/" binding="netTcpBinding"
  bindingConfiguration="NetTcpBinding_IPixEditWebService"
  contract="PixEditWebServiceReference.IPixEditWebService"
  name="NetTcpBinding_IPixEditWebService">
  <identity>
    <dns value="PixEditServer" />
  </identity>
</endpoint>
```

Obviously, the dns value must match the (last!) DNS name in the certificate.

In rare cases, you might need to specify a DNS identity for the Input Connector as well. This is done in the same way as with the Server Manager, but the CoreServerHostAddress app setting is found in a separate file appSettings.config, and the endpoint configuration can be found in PixEditServerInputConnector.exe.config.

For PixEdit Desktop, you there is a two-step process: First you must configure the certificate in PixEdit.exe.config. Then you must start PixEdit Desktop, go into the Tools, Options -> PixEdit Server tab, and specify the endpoint address and DNS identity like this:

The image shows a screenshot of the 'General Options' dialog box, specifically the 'PixEdit Server' tab. The dialog has a title bar with a close button (X) and a menu bar with the following options: Workspace, Saving Rules, PDF Import, HPGL Import, TIFF, Document Import, File Associations, Plug-ins, OCR Setup, E-mail Settings, and PixEdit Server. The 'Use PixEdit Server' checkbox is checked. Below it, the 'Server address:' label is followed by a dropdown menu containing the text 'net.tcp://servemachinename:8080/PixEditWebService' and a 'Clear list' button. There are two buttons: 'Find Servers...' and 'Test Connection'. The 'Endpoint Identity' section has four radio buttons: 'Default', 'SPN', 'UPN', and 'DNS', with 'DNS' selected. Below the radio buttons is a text box containing 'PixEditServer'. The 'Default job filename:' label is followed by a text box containing 'Job' and a 'Reset Job Counter' button. At the bottom of the dialog are four buttons: 'OK', 'Avbryt', 'Bruk', and 'Hjelp'.

Again, make sure you restart the applications for the config changes to take effect.

Message security

WCF communication with PixEdit Server can also be set up to use Message security. This will provide security also when communication goes through intermediate hops. This type of security will make the communication slower, so we do not recommend this unless you need to communicate through Intermediaries. On most intranets, Transport security will be secure and have better performance. We will not cover Message security here, but if it is a requirement for your setup, please contact PixEdit Support: support@pixedit.com