



ABBYY FineReader Server 14 R1 Release Notes

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1. Introduction

1.1 About this document

This document describes the improvements that have been implemented in ABBYY FineReader Server 14.

1.2 About the current release

ABBYY FineReader Server 14 Release 1 includes new features and a number of bug fixes. ABBYY FineReader Server 14 provides new technology, including improved visual quality of PDF files and improved OCR quality for the CJK and Arabic languages. The new version offers smart detection of PDF quality and supports new PDF standards. Other improvements include GUI changes and bug fixes. The main changes introduced in the new version are described below.

2. Key Enhancements

FineReader Server 14 Release 1

Part #1340/5, build # 14.0.1.10, OCR Technologies build #16.1.292.3, release date: 26.07.2018.

- High-quality conversion and creation of PDFs
 - Smart detection of PDF quality
 - Improved visual quality of PDF files
 - Support for new PDF standards
 - Conversion of MSG files to PDF
 - Preserving bookmarks from original PDF files
 - Supplying PDF files with watermarks
- High-quality OCR
 - Improved OCR for complex-script languages
 - Applying user languages to adapt OCR to specific document languages
 - Farsi OCR support
 - Improved barcode recognition
- Native 64-bit support
- Ability to access servers installed in remote locations from the Administration Console
- Advanced document editing on the Indexing and Verification Stations

- UI improvements for the Indexing and Verification Stations
- Page and image editor on the Indexing Station
- Text redaction
- Document assembly tools
- Creation of user patterns and languages on the Verification Station
- Automated document indexing using a fixed region template
 - Ability to create field region templates on the Indexing Station
 - Ability to automatically recognize index fields on the first page using fixed zones (regions)

3. Installing the New Version

FineReader Server 14 can be installed on the same computer where Recognition Server 4 or earlier is installed.

The configuration settings used in your previous version of ABBYY Recognition Server can be imported into ABBYY FineReader Server 14. For further information, please see the section “Upgrade from the previous versions of ABBYY Recognition Server” in the *System Administrator’s Guide*.

4. Licensing

FineReader Server 14 cannot work with licenses generated for previous versions of Recognition Server.

5. New Features and Improvements

5.1 Server features

5.1.1 Native 64-bit support

Computers running 64-bit versions of Windows generally have more resources, such as processing power and memory, than their 32-bit predecessors. In addition, 64-bit applications can access more memory than 32-bit applications. Therefore, if user scenarios require working with large files or large data sets, then 64-bit is the right choice.

5.2 Administration Console

5.2.1 Ability to access servers installed in remote locations (e.g. Microsoft Azure) from the Administration Console

Starting from FineReader Server 14 R1, it is possible to connect to servers outside the home network. This option includes Microsoft Azure machines. Connection is made under an anonymous user account.

5.3 Workflow settings

5.3.1 Mail workflow type

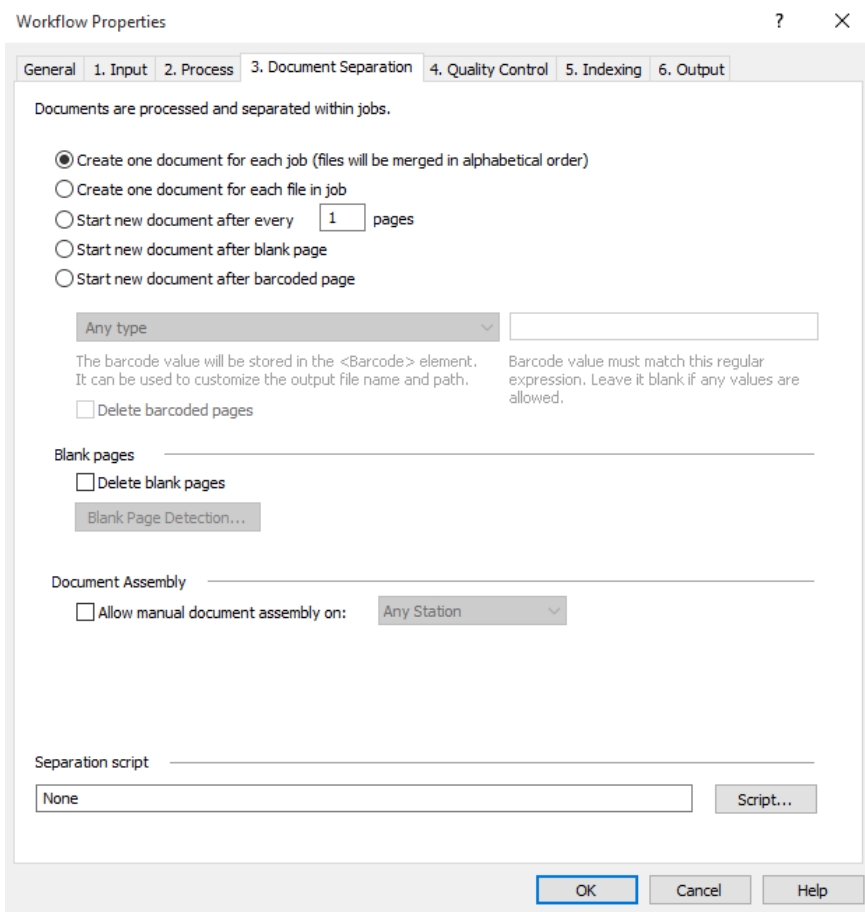
5.3.1.1 *Input settings*

IMAP Email Server has been added as a new source type for mail workflows. This allows converting letters from this kind of email servers.

5.3.2 Document separation

5.3.2.1 *Manual document assembly*

To facilitate working with documents on the Verification and Indexing Stations, a new option, *Manual document assembly*, is now available.



This allows assigning all documents within the task to one operator for indexing or verification. Thus, the operator won't need to switch between different document types too often. Additionally, this results in increased speed and quality of verification or indexing operations. This also allows moving pages between documents within the task (this can be useful if an error occurs during automatic job splitting).

This option will not be applied if all the documents satisfy certain automatic verification or indexing script rules which exclude manual indexing.

If this option is selected, the task will be published only after all the documents have been reviewed and all the errors have been resolved.

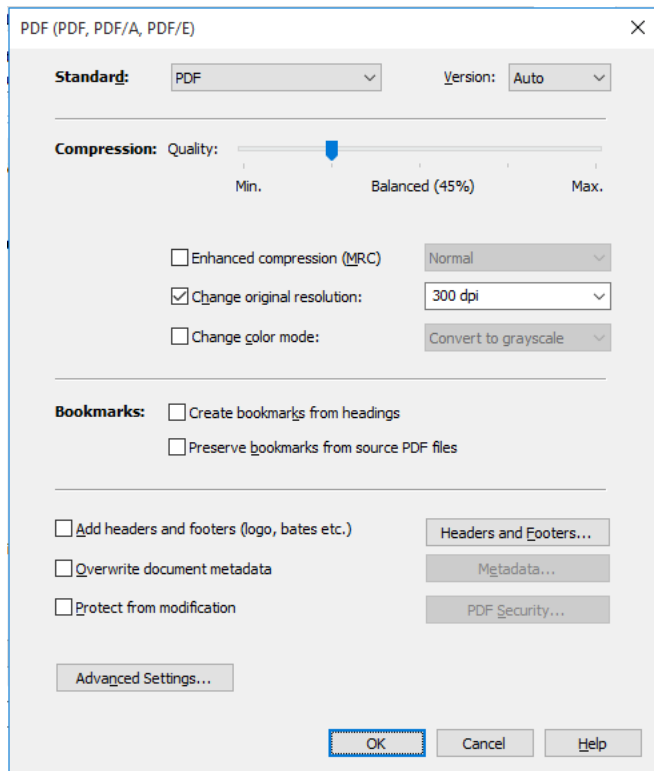
5.3.3 PDF processing options

5.3.3.1 Support for new PDF standards

FineReader Server 14 now supports the PDF/E standard for output and the PDF/UA extension, which can be used with all other formats. The supported PDF standards are PDF/A-1a, PDF/A-1b, PDF/A-2a, PDF/A-2b, PDF/A-2u, PDF/A-3a, PDF/A-3b, PDF/A-3u, and PDF/E.

5.3.3.2 Adding watermarks and pictures to resulting PDF files

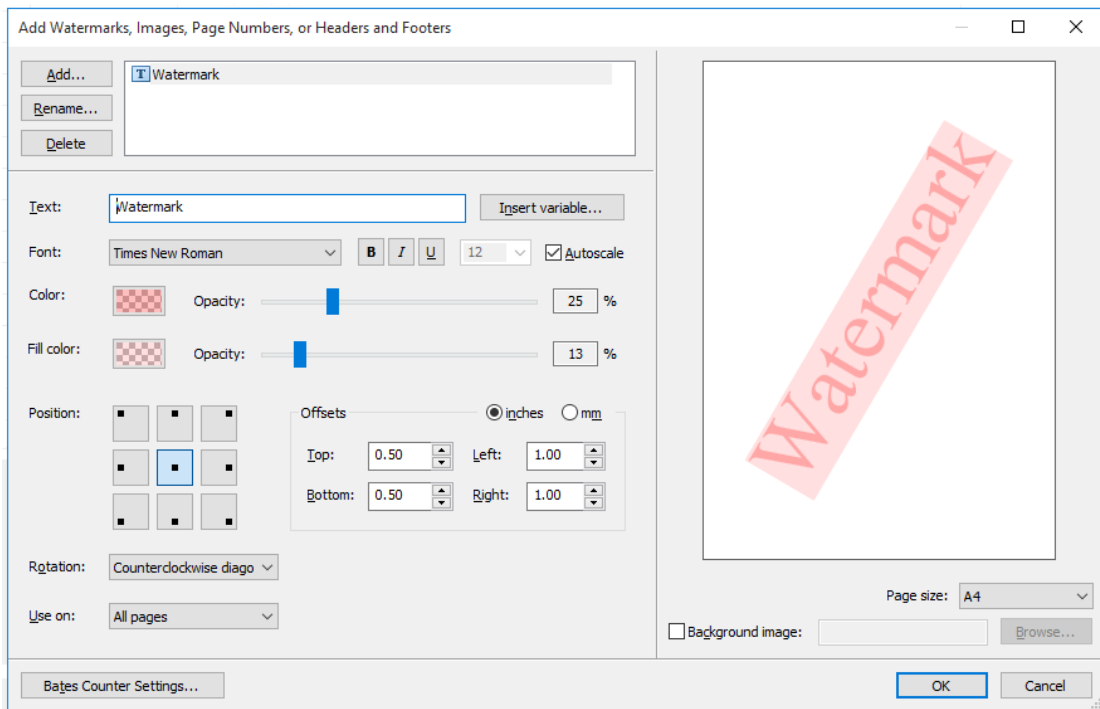
It is now possible to add watermarks and pictures to resulting PDFs. This can be done using the **Headers and Footers** command:



Any text or variable can be added as a bookmark. The following items can be added as variables:

- Barcode (the value of the separating barcode)
- BatesNum (an automatically incrementing number)
- CustomText
- Dd. Current Date
- DocumentType
- Email subject
- FileName (the output file name)
- Folder (the name of the parent subfolder in the image folder)
- IndexFiled (the value of the index field)
- Mm (the current month)
- PageNum (the page number)
- Time (the current time)
- Yy (the current year in 2-digit format)
- Yyyy (the current year in 4-digit format)

Additionally, the user can choose a font, color, fill color, position, offsets, rotation, and where to use the bookmark (on all pages, on the first page, or on all pages except the first).

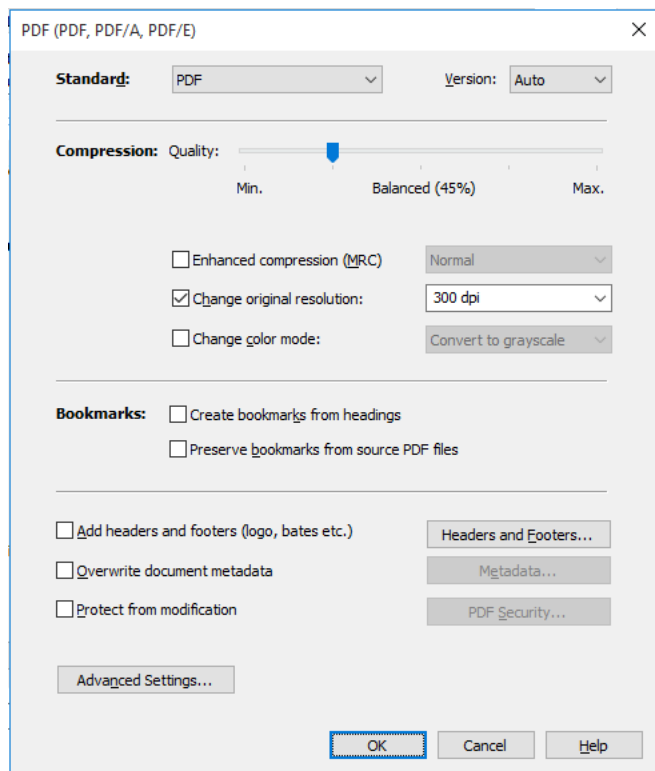


This option also allows adding a background image.

5.3.3.3 Preserving bookmarks from original PDFs

It is now possible to preserve bookmarks from original PDFs.

This option is located in the PDF output profile settings:



5.4 Document processing

5.4.1 Conversion of MSG files to PDF

MSG files can now be processed using the Hot Folder.

5.4.2 Improved OCR for complex-script languages

OCR quality for the CJK and Arabic languages has been improved.

5.4.3 Farsi OCR support

Farsi with dictionary support has been added.

5.4.4 Preserving bookmarks from original PDFs

5.4.5 Improved barcode recognition

New barcode types have been added:

- Postal: Australia 4-State
- Postal: KIX (Dutch)
- Postal: Royal Mail 4-State (RM4SCC)
- Code 39: Full ASCII Mode
- Code 32
- 2D: Maxi Code

You can find the full list of supported barcodes in **Main Help.chm -> Specifications -> Barcode Types**.

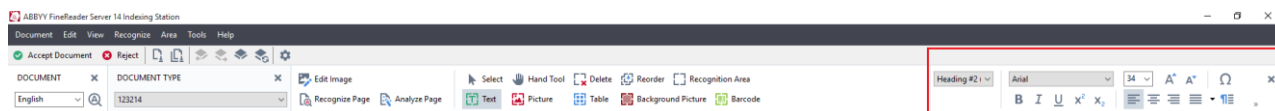
5.5 Verification and Indexing Stations

The Verification and Indexing Stations have been updated to the FineReader 14 functionality, including redaction, pattern training, and image editing. Some of them will be described in more detail further.

5.5.1 Text editing on the Indexing Station

Text editing is now also available on the Indexing Station (previously it was only available on the Verification Station).

The same text editing panel that was previously available only on the Verification Station has now been added to the Indexing Station:



To open this panel, click **Show OCR Results (F7)** in the right-hand part of the screen.

5.5.2 New selection type on the Indexing Station

It is now possible to select text in the same manner as in the text editor (previously, only block selection was available). This will make it easier to index documents with non-European languages and work with such documents.

5.5.3 Field region templates on the Indexing Station

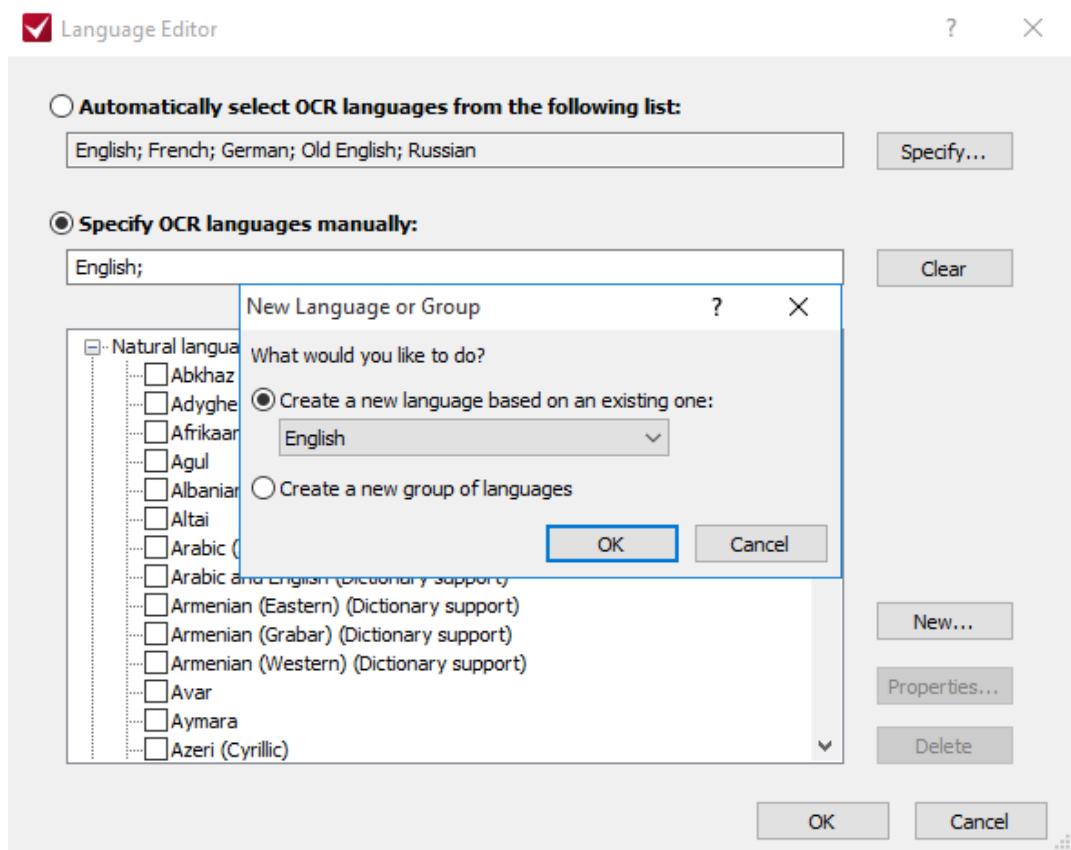
Starting from FineReader Server 14, the user can set up a field region template on the Indexing Station to speed up indexing. This can be useful when the structure of the documents is identical.

5.5.4 Pattern training on the Verification Station

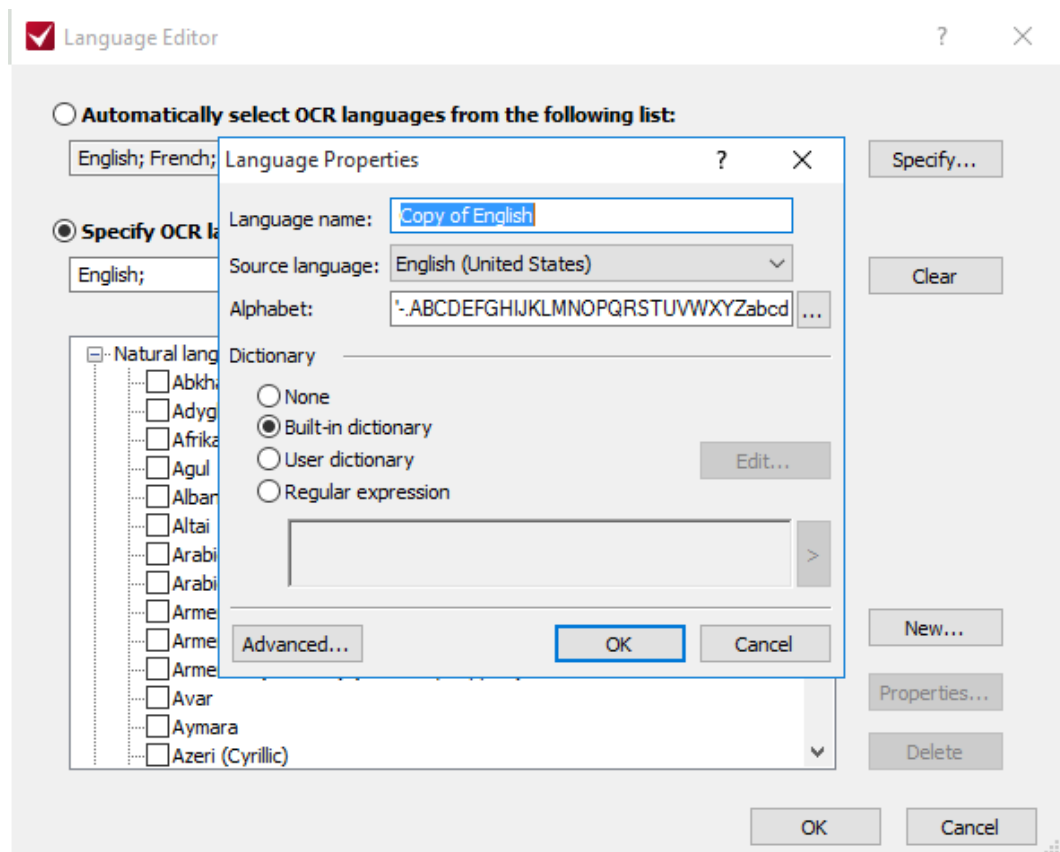
5.5.5 Creation of new languages on the Verification Station

To improve OCR quality, new languages can be added on the Verification Station. This will make it easier to work with documents in old languages or containing characters that are missing in the default languages.

To create a new language, click **Tools - > Language Editor** and then click the **New** button:



Then choose a source language and click **OK**.



Now additional settings can be applied and saved.

All the changes can then be uploaded onto the server and applied to the workflow.

5.6 Redaction mode on the Indexing and Verification Stations

Starting from FineReader Server 14, text redaction functionality is available on the Indexing and Verification Stations.

This is useful in scenarios where certain text fragments (e.g. those containing sensitive data) should be sanitized at the indexing or verification stage.

5.7 Changes to the COM-based API and the Web API

5.7.1 All information about a task is now stored in an internal database (both for the COM and the Web APIs)

In Recognition Server 4, some tasks could be lost if the COM-API module was unloaded from memory, or if the IIS process that handled the task creation request was recycled.

Now all information about the task is stored in an internal database on the machine where the COM or WEB API is installed. This leads to several benefits.

- For the Web API: Task results can be safely retrieved by any client independently of how IIS handles web requests.
- For the COM API: Task results can be created in one process and obtained in another.

5.7.2 Getting the job state right after job creation (both for the COM and Web APIs)

Now, immediately after sending a job and before taking it into work, `GetJobState` returns *Waiting* instead of *NoSuchJob*, as was the case in Recognition Server 4.

```
var jobId = service.StartProcessTicket(...) // Creating job and getting its state right after creation
var state = service.GetJobState(..., jobId) // Now returns Waiting
```

5.7.3 New method `GetJobResultEx` (Web API)

The new `GetJobResultEx` method is an extension of `GetJobResult` and can be used for:

1. Getting a job result without deleting it. Deleting unused jobs can be done with the `DeleteJob` method. The `GetJobResult` method, on the other hand, deletes a job and if network problems occur, there is no way to get the result once again.

To use this option, a `GetJobResultOptions.DoNotDeleteJob` parameter should be added to `GetJobResultEx`:

```
var result = service.GetJobResultEx(..., jobId..., GetJobResultOptions.DoNotDeleteJob) // This call can be
repeated as many times as needed and if the job is not needed anymore, then service.DeleteJob(..., jobId)
should be executed.
```

2. Getting only xmlResult without files. This can reduce network traffic when only general information about the result is needed.

To use this option, a `GetJobResultOptions.DoNotSendFiles` parameter should be added to `GetJobResultEx`:

```
var result = service.GetJobResultEx(..., jobId..., GetJobResultOptions.DoNotSendFiles)
```

5.7.4 New method `GetJobStateInfo` (Web API)

Besides GetJobState, a new method named GetJobStateInfo has been added. It returns not only the state of the job, but also the percentage of completion as an integer between 0 and 100.

6. Update 1

6.1 Key enhancements

ABBYY FineReader Server 14 Release 1 Update 1

Part #1340/6, build # 14.0.1.14, OCR Technologies build #16.1.393.0, release date: 11.10.2018.

- User interface now also available in French and German
- Web API step-by-step demo added
- Improved OCR for Japanese and Chinese texts
- Indexing no longer requires OCR
- Settings added that allow working with PDF documents containing digital signatures
- New mode for regulating file transfer using paths

6.2 UI now also available in French and German

Starting from FineReader Server 14 R1 Update 1, the user interface is also available in French and German. The following components have been localized into French and German:

- Administration Console
- Scanning Station
- Verification Station
- Indexing Station
- Installer

6.3 Improved OCR for Japanese and Chinese texts

Additional improvements have been made for OCR of texts written in Japanese and Chinese. Now texts in these languages are recognized with the help of neural networks, which provides better quality OCR results.

6.4 Web API step-by-step demo added

A new demo for the Web API has been added. It allows the user to go through the whole process step by step, from establishing a connection to getting the result. It will help the user to understand the basic functionality of the Web API. This demo shows that integration is a simple and straightforward process. To run this demo, just click on “Web API Sample” in the FineReader Server folder in the Start menu.

6.5 Indexing no longer requires OCR

In previous versions, the indexing step required OCR. This meant that indexing was not available for workflows that did not include OCR.

Starting from FineReader Server 14 R1 Update 1, the indexing step can be added regardless of whether a workflow includes OCR or not.

6.6 Settings added that allow working with PDF documents containing digital signatures

Depending on the user scenario, there are three ways to process PDF documents that contain digital signatures:

- **Recognize.** In this case, the digital signature will become invalid because the source file will be modified.
- **Move to exceptions folder without modification.** In this case, all documents with digital signatures will be stored separately from the other processed documents, pending further action.

- **Move to results folder without modification.** In this case, documents won't be modified in any way and will be kept together with the other processed documents.

This setting can be changed in workflow.xml by modifying the following parameters:

DontModifyDocumentsWithDigitalSignature,
DiscardJobWithDocumentsWithDigitalSignature.

By default, both these parameters are set to "false," which means that documents will be recognized.

6.7 New mode for regulating file transfer using paths

To prevent accidental security vulnerabilities in the Web API, the following new option has been added: `fineReaderServerWebService.directFileAccess`.

It can be turned on in web.config, which is located in `INSTALLDIR\FineReaderServerWS`. By default it's switched off. To turn it on, add the following to web.config:

```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  ...
  <configSections>
    <section name="fineReaderServerWebService"
type="FineReaderServer.WebService.WebServiceConfigurationSection, FineReaderServer.WebService.Core" />
  </configSections>
  <fineReaderServerWebService>
    <directFileAccess enabled="true" />
  </fineReaderServerWebService>
  ...
</configuration>
```

7. Update 2

ABBYY FineReader Server 14 Release 1 Update 2

Part #1340/7, build # 14.0.1.14, OCR Technologies build #16.1.393.0, release date: 02.11.2018.

7.1 Bug fixes

Issue description
During the processing of pdf files sometimes additional spaces occur – fixed
Web API couldn't be installed on Windows 7 - fixed

8. Update 3

8.1 Key enhancements

ABBYY FineReader Server 14 Release 1 Update 3

Part #1340/8, build # 14.0.1.30, OCR Technologies build # 16.1.452.0, release date:07/12/2018

- User interface now also available in Japanese, Spanish, Portuguese (Brazilian), and Chinese (Simplified)
- JSON added to Web API
- Web API step-by-step demo updated with JSON
- New library audit workflow
- Added option to choose whether or not to preserve source folder structure
- Added support for SharePoint Managed Metadata and Lookup fields
- Added Georgian OCR language
- Added access to field coordinates from indexing script
- Added ability to restrict verification or indexing tasks to specific users

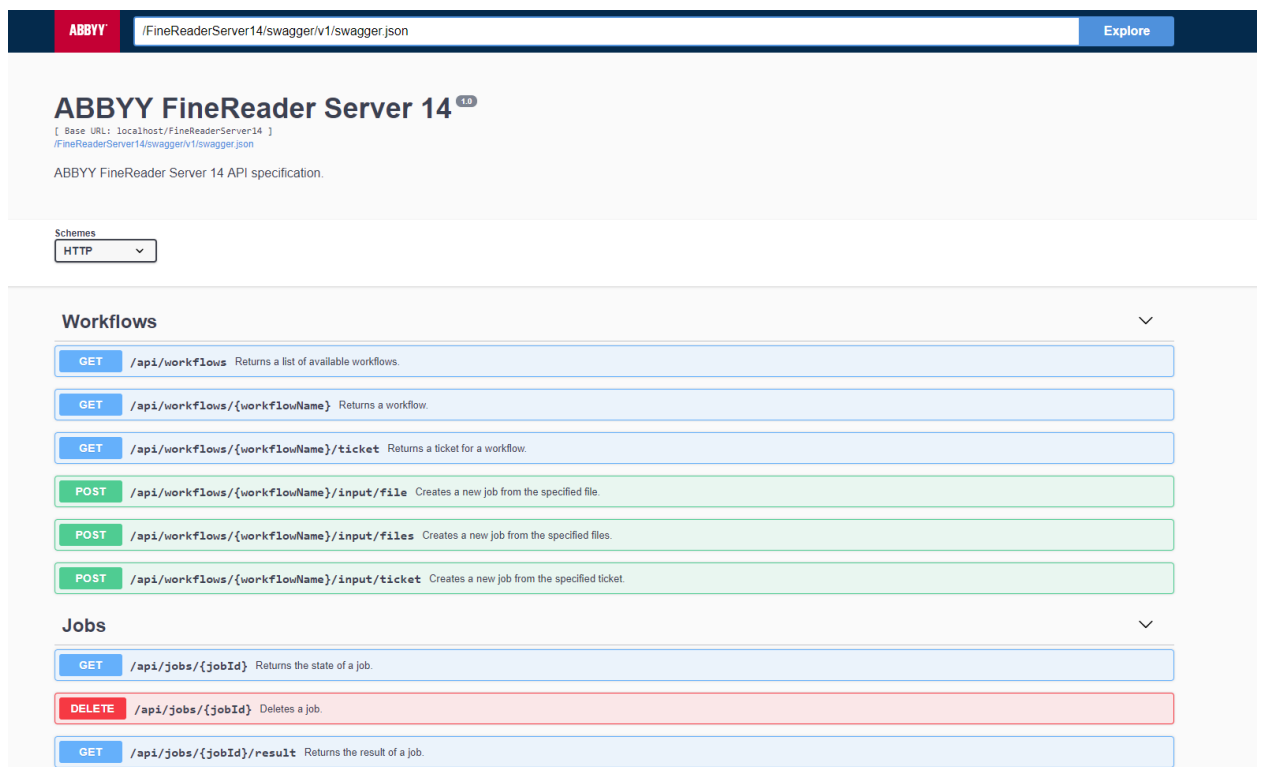
8.2 UI is now also available in Japanese, Spanish, Portuguese (Brazilian), and Chinese (Simplified)

Starting from FineReader Server 14 R1 Update 3, the user interface is now also available in Japanese, Spanish, Portuguese (Brazilian), and Chinese (Simplified). The following UI components have been localized into these languages:

- Administration Console
- Scanning Station
- Verification Station
- Indexing Station
- Installer

8.3 JSON added to Web API

Starting from FineReader Server 14 R1 Update 3, a JSON API is available. It has the same functionality as the SOAP API. The setup package contains a Swagger specification and a Swagger UI for easy understanding and use. By default, the Swagger UI is located in <http://localhost/FineReaderServer14/swagger/ui/#/> and looks as follows:



The screenshot shows the Swagger UI for the ABBYY FineReader Server 14 API. The interface is clean and modern, with a dark blue header bar containing the ABBYY logo and the API URL. Below the header, the title 'ABBYY FineReader Server 14' is prominently displayed. The main content area is organized into sections, with 'Workflows' and 'Jobs' being the primary categories. Each endpoint is clearly listed with its HTTP method, path, and a brief description of its function. The 'Workflows' section includes endpoints for listing workflows, retrieving a specific workflow, and creating jobs from various inputs (file, files, ticket). The 'Jobs' section includes endpoints for checking the state of a job, deleting a job, and retrieving the job's result. The overall layout is user-friendly and provides a clear overview of the API's capabilities.

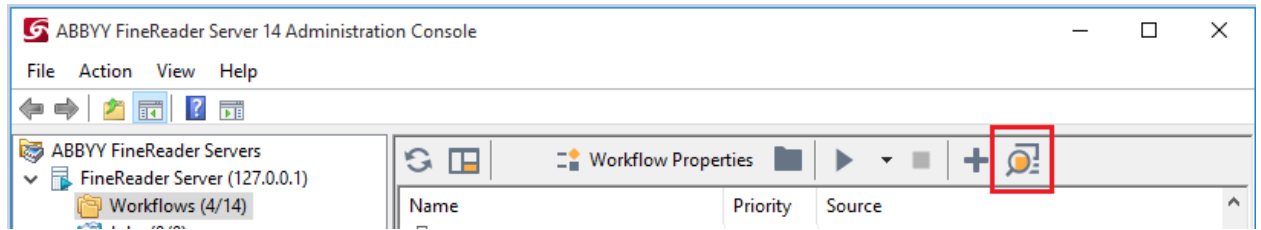
8.4 Demo API updated with JSON

For consistency and to provide more examples, the Demo API has been updated with JSON. Now there are two tabs, one for XML and another for JSON:

8.5 New library audit tool

To help you determine how many documents in a library may potentially need to be converted, a new workflow type named *audit workflow* has been added. The only parameter that is required is the path to the library. When launched, this workflow will crawl all the files in the desired location and report back the number of files that may need conversion.

To create this type of workflow, go to the workflows in the Administration Console and click “Create new audit workflow.”



Once crawling is finished, full statistics about the documents in the library will be available in the form of a table as shown below:

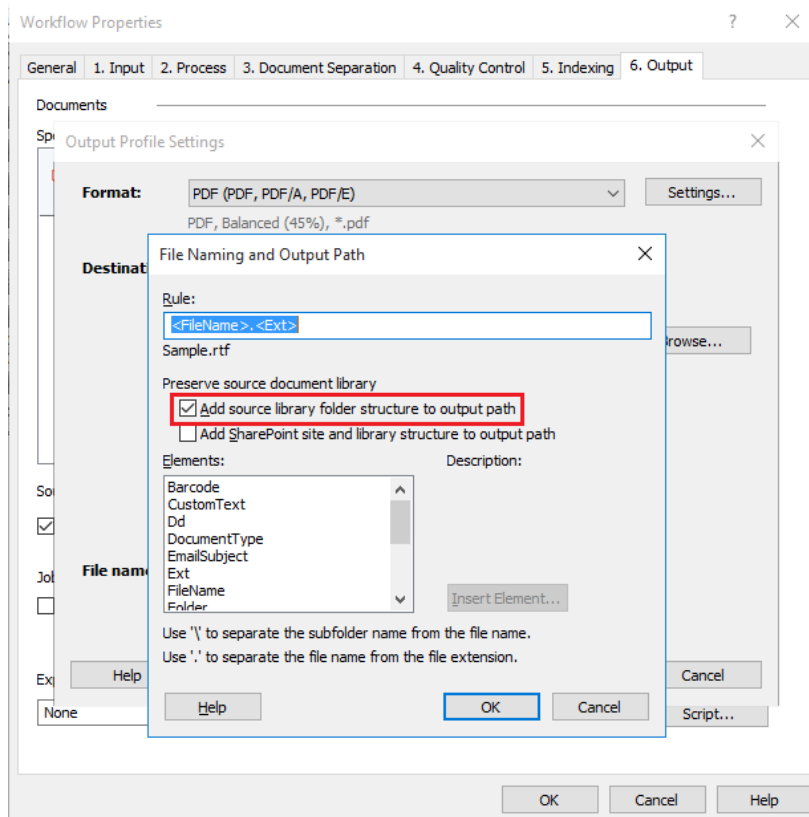
Note: Please note that the number of pages shown in the statistics is preliminary. The actual number of pages may be different when the documents are converted.

8.6 Option to choose whether or not to preserve source folder structure

Starting from FineReader Server 14 R1 Update 3, the user can choose whether or not to preserve the source folder structure for output files. Previously, the source folder structure was always preserved.

The default behavior remains the same (i.e. ABBYY FineReader Server 14 will preserve the folder structure).

To change this setting, open the Administration Console, open the workflow settings, click the **Output** tab, and either choose to edit an existing file format or add a new format. Then under **File name** choose **Custom**. In the **File Naming and Output Path** dialog box that opens, clear the **Add source library folder structure to output path** option:



8.7 Support for SharePoint Managed Metadata and Lookup fields

FineReader Server 14 R1 Update 3 can preserve data from fields of Managed Metadata and Lookup types. This means that if FRS gets such fields in input documents obtained from SharePoint, they will be saved in the output results.

8.8 Georgian OCR language

Starting from FineReader Server 14 R1 Update 3, the Georgian OCR language is supported. There is no dictionary support for this language.

8.9 Access to field coordinates from scripts

In some scenarios, field coordinates may be needed in order to use data from indexing fields. It is now possible to get field coordinates from an export script, from a server indexing script (only for fixed forms), and for indexing events on the indexing station.

8.10 Ability to restrict verification or indexing tasks to specific users

In some cases, a task may need to be further processed by a specific user (e.g. by the same user that did the scanning). To accommodate this scenario, additional settings have been added to the Scanning station UI, XML Ticket in the Scanning Station and to the XmlTicket object in the API.

Two new properties have been added to The XmlTicket object in the API: *VerificationUserNameRestrictions* and *IndexingUserNameRestrictions*. By default, these arrays are empty, so the behavior will be the same as before (i.e. all stages will be accessible to all users). You can add the names of specific users to these arrays to make the respective stage available only to those users.

XML Ticket example:

```
<XmlTicket>
  <InputFile Name="a.png"/>
  <VerificationUserNameRestrictions/>
  <IndexingUserNameRestrictions>
    <UserName>DOMAIN\UserName1</UserName>
    <UserName>DOMAIN\UserName2</UserName>
  </IndexingUserNameRestrictions>
</XmlTicket>
```

In this example, the verification stage is accessible to all users, but only the users *UserName1* and *UserName2* can do the indexing.

9. Update 4

9.1 Key enhancements

ABBYY FineReader Server 14 Release 1 Update 4

Part #1340/9, build # 14.0.1.39, OCR Technologies build #16.1.452.2, release date: 27/12/2018

- User interface now also available in Korean, Hungarian and Czech
- Administration Console Help is available in French

9.2 UI is now also available in Korean, Hungarian and Czech

Starting from FineReader Server 14 R1 Update 4, the user interface is now also available in Korean, Hungarian and Czech. The following UI components have been localized into these languages:

- Administration Console
- Scanning Station
- Verification Station
- Indexing Station
- Installer

9.3 Administration Console help file is available in French

Starting from FineReader Server 14 R1 Update 4 Administration Console Help file is also available in French.

9.4 Bug fixes

Issue description
Error Lbl and LBody during Accessibility check in Adobe Acrobat - Fixed
Incorrect information about maximum number of jobs in the queue in Help File - Fixed

10. Update 5

10.1 ABBYY FineReader Server 14 Release 1 Update 5

Part #**1340/10**, build # **14.0.1.44**, OCR Technologies build #16.1.519.0, release date: 22/02/2019

- User interface now also available in Polish
- Administration Console Help is available in German
- Saving original images in pdf is supported

10.2 UI is now also available in Polish

Starting from FineReader Server 14 R1 Update 5, the user interface is now also available in Polish. The following UI components have been localized into this language:

- Administration Console
- Scanning Station
- Verification Station
- Indexing Station
- Installer

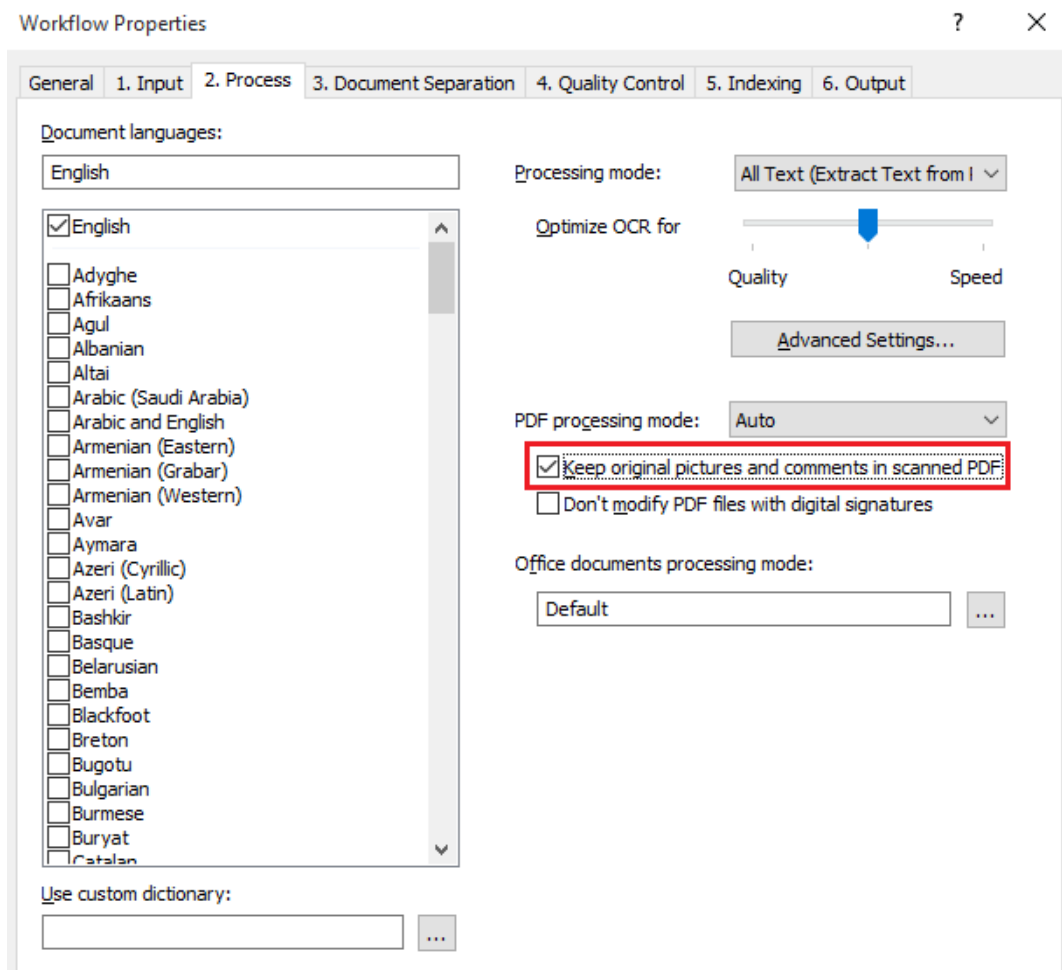
10.3 Administration Console help file is available in German

Starting from FineReader Server 14 R1 Update 4 Administration Console Help file is also available in French.

10.4 Embedding source pictures into pdf without any modification

For cases where it is important to embed source images (in jpeg, jpeg 2000 formats) without any modifications into result pdf such possibility was added.

To set it up go to 2.Process tab and check “Keep original pictures and comments in scanned pdf” option:



10.5 Bug fixes

Issue description
Changing the setting of MRC and Fast Web view didn't take affect - Fixed
With Fast Web View and MRC setting some symbols are deposited on each other- Fixed

11. Update 6

11.1 Key improvements

ABBYY FineReader Server 14 Release 1 Update 6

Part #1340/11, build # 14.0.1.51, OCR Technologies build #16.1.582.0, release date:17.05.2019

- Administration Console Help is now available in **Spanish**
- Verification and Indexing Stations' help files are now available in **German**
- Verification, Indexing and Scanning Stations' help files are now available in **Japanese**
- The Profiles feature that makes working with image processing settings more convenient is now available
- Added a new setting for Verification and Indexing Stations to be disconnected from the server due to user inactivity
- Added a KeepLibraryStructureInOutFolder parameter to the UI for Hot Folder workflows
- Added a new setting for moving invalid PDF/A and standard PDF files to the exception folder
- Other bug fixes

11.2 Localization of help files

11.2.1 New help files in Spanish

From FineReader Server 14 R1 Update 6 onwards, the Administration Console help file will also be available in Spanish.

11.2.2 New help files in German

From ABBYY FineReader Server 14 R1 Update 6 onwards, the Verification and Indexing stations Help files will also be available in German.

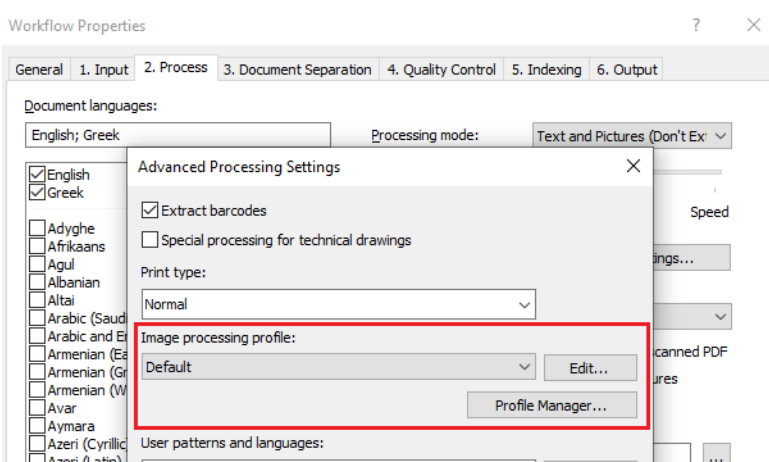
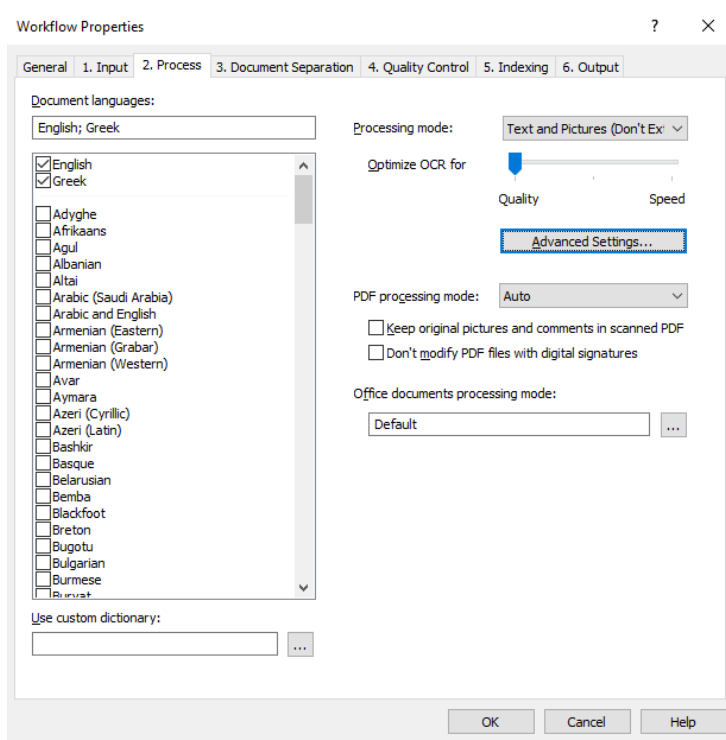
11.2.3 New help files in Japanese

From ABBYY FineReader Server 14 R1 Update 6 onwards, the Verification, Indexing, and Scanning Stations' help files will also be available in Japanese.

11.3 Image processing profiles

All image pre-processing settings have been combined into profiles. Each profile can be re-used in different workflows.

You can access the processing profiles on the **2. Process** tab in **Advanced Settings**:



There are 3 pre-defined profiles:

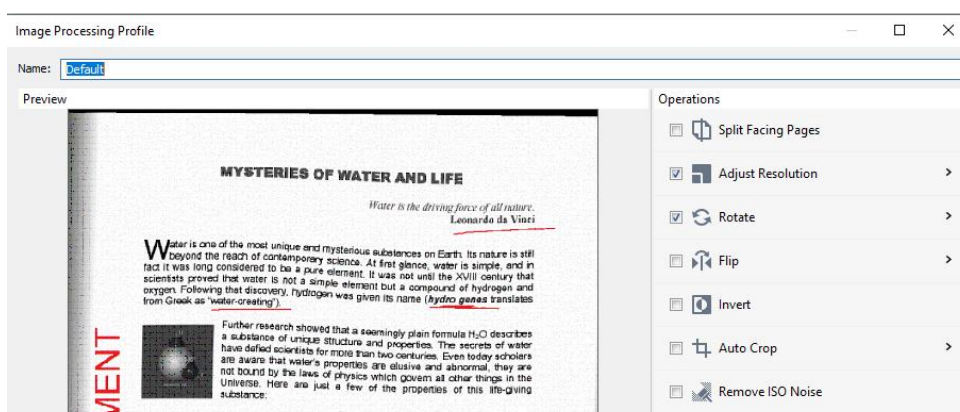
- **Default.** Set as default for all workflows. The **Default** profile settings are the same settings that were used by default in previous FRS versions.
- **Photo.** Designed for better processing of photographed documents.
- **Scan.** Designed for better processing of scanned images.
- **No processing.** No preset settings.

Additionally, new profiles can be created. Once a profile is created, it can be used in different workflows.

In addition to the image processing settings present in the existing version, several new ones have been added:

- **Resolution.** The **Auto** setting works the same way as the **Correct resolution of photos** setting. It also has additional options for adjusting the resolution.
- **Flip.** Mirrors the image.
- **Invert Colors.** This option substitutes the original colors for their complementary colors. For example, white becomes black and vice-versa.
- **Auto Crop.** Automatically determines the borders of a page and selects an area for recognition. This feature also fixes distortions. **Auto Crop** has 3 modes: **Generic**, **Photo**, and **Scan**.
- **Remove Motion Blur.** Removes blurring that occurs due to a document or the camera/scanner being moved.
- **Photo Correction.** The **Whiten background** setting from the previous version is now a part of this feature. The second part of this option is **Equalize brightness**.
- **Remove Color Marks.** Removes all colored elements (except gray). It has an additional setting for removing some selected colors only.
- **Remove Geometrical Distortions.** Removes distortions.
- **Remove Scanner Shadow.** Removes dark lines that can sometimes occur during scanning.
- **Brightness and Contrast.** Allows the user to set up brightness and contrast levels.
- **Convert to B/W** (formerly **Convert color and grayscale images to black and white**)

All settings can be accessed by clicking the **Edit** button:



11.4 Automatically disconnecting Verification and Indexing Stations from the server

From ABBYY FineReader Server 14 R1 Update 6 onwards, there will be an additional option to automatically disconnect Verification and Indexing Stations from the server after a certain period of time of user inactivity. After a station has been disconnected, the license that it has been using will become available to other stations.

To enable this feature, the following four parameters should be turned on in the XML code:

```
<QueueManager ... UseOperatorStationInactiveTimeout="true" OperatorStationInactiveTimeoutInMinutes="1"
UseOperatorStationDisconnectTimeout="true" OperatorStationDisconnectTimeoutInSeconds="60" ...>
```

Where *UseOperatorStationInactiveTimeout* and *UseOperatorStationDisconnectTimeout* should both be set to *true*.

UseOperatorStationInactiveTimeout and *OperatorStationInactiveTimeoutInMinutes* settings are responsible for returning tasks to the queue after timeout. By default, *UseOperatorStationInactiveTimeout* is set to *true*.

UseOperatorStationDisconnectTimeout and *OperatorStationDisconnectTimeoutInSeconds* are used for disconnecting inactive stations. By default, *UseOperatorStationDisconnectTimeout* is set to *false*.

This combination of settings works as follows: first, after the time period specified in *OperatorStationInactiveTimeoutInMinutes* has elapsed, the tasks will be returned to the queue. After that, *OperatorStationDisconnectTimeoutInSeconds* will be applied. If a station is inactive for at least the time period specified by *OperatorStationInactiveTimeoutInMinutes* + *OperatorStationDisconnectTimeoutInSeconds*, the station will be disconnected from the server.

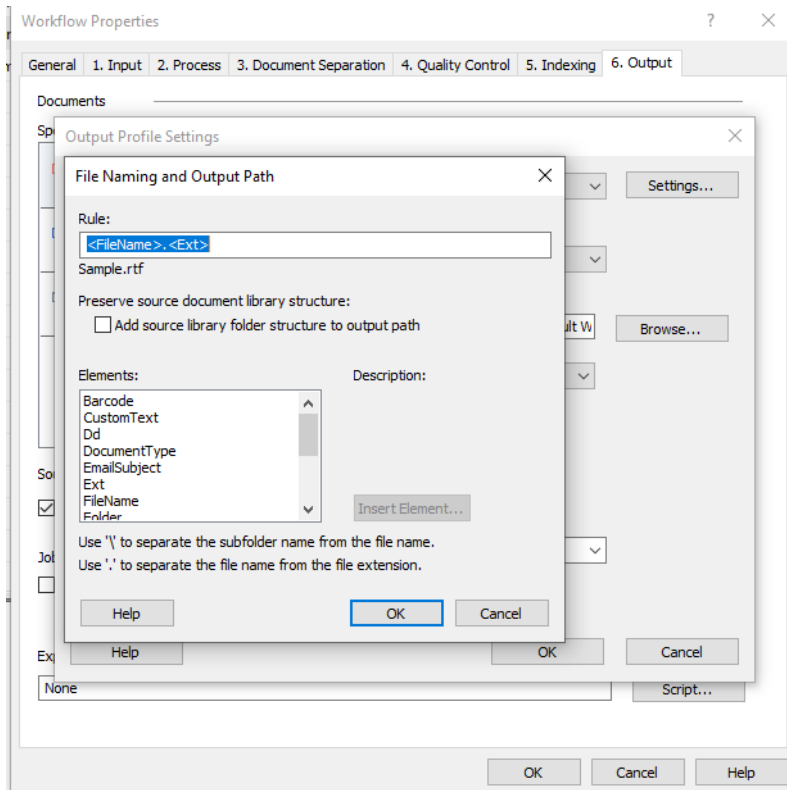
For example, if

```
<QueueManager ... UseOperatorStationInactiveTimeout="true"
OperatorStationInactiveTimeoutInMinutes="1" UseOperatorStationDisconnectTimeout="true"
OperatorStationDisconnectTimeoutInSeconds="60" ...>
```

,

then Verification and Indexing Stations will be disconnected after about 2 minutes of user inactivity.

11.5 Added a KeepLibraryStructureInOutFolder parameter to the UI for Hot Folder workflows



KeepLibraryStructureInOutputFolder has been added to the UI for Hot Folder workflows:

11.6 A new setting for moving invalid PDF/A files to the exceptions folder

For situations where it can be determined that ABBYY FineReader Server has produced an invalid PDF/A file, a *FailIfCantConvert* setting has been added to the XML code that enables the program to move invalid files to the exceptions folder. By default, the setting is set to *false*. Specific information about the PDF/A file will also be added to the job log if there are still any outstanding PDF/A validation errors, for example: "The following issues occurred while converting to PDF/A: Text cannot be mapped to Unicode on pages 1, file name: MyFileName.pdf"

11.7 Key bug fixes

Issue description
A KeepLibraryStructureInOutputFolder parameter in the UI for Hot Folder workflows – Added
An error that occurred during document processing on machines with the Korean regional settings – Fixed
An error that occurred during processing a document with the "Optimize OCR for Quality" option enabled – Fixed
Some valid files did not pass PDF/A validation– Fixed
List of errors: <ol style="list-style-type: none"> 1. CMYK used in blending color space of transparent object but PDF/A OutputIntent not CMYK 2. CMYK used for alt. color but PDF/A OutputIntent not CMYK 3. CMYK used but PDF/A OutputIntent not CMYK 4. Width information for rendered glyphs is inconsistent 5. Text cannot be mapped to Unicode (the error was fixed where possible; in other cases where this error occurs a warning is now displayed about format inconsistency) 6. Character references .notdef glyph

12. Update 7

12.1 Key improvements

ABBYY FineReader Server 14 Release 1 Update 7

Part #**1340/12**, build #**14.0.1.61**, OCR Technologies build #**16.1.618.0**, release date: **26.06.2019**

- Administration Console Help is now available in **Japanese**
- Added .Net scripts and improved the script editor
- Added the ability to generate two-layered PDFs
- Improved the stability of the product
- Bug fixes

12.2 Localization of help files

12.2.1 New help files in Japanese

From FineReader Server 14 R1 Update 7 onwards, the Administration Console help file will also be available in **Japanese**.

12.3 Added .Net scripts and improved the script editor

Starting from FineReader Server 14 R1 Update 7, several new programming languages for scripts are supported: JScript Compact, C# .Net, Visual Basic .Net, and JScript .Net.

Below is the complete list of supported scripting languages:

- JScript
- VBScript
- C# .Net
- Visual Basic .Net
- JScript .Net

The script editor has also been improved and now offers enhanced highlighting and tips.

The screenshot shows a 'Script Editor' window with a menu bar (File, Edit, View, Tools) and a toolbar containing icons for save, cut, copy, paste, delete, undo, redo, and a 'Check' button. A dropdown menu is set to 'JScript'. The main area contains the following code:

```
Arguments: this: IRecognizedPage
var pageText = Text;
var isArticle = pageText == "Separator sheet Document type: article";
var isResume = pageText == "Separator sheet Document type: resume";
var isBrochure = pageText == "Separator sheet Document type: brochure";
CustomText = "";
if( isArticle ) {
    CustomText = "Article";
} else if( isResume ) {
    CustomText = "Resume";
} else if( isBrochure ) {
    CustomText = "Brochure";
}
if( isArticle || isResume || isBrochure ) {
    IsStartingPage = true;
    IsForDeletion = true;
}
```

The status bar at the bottom right indicates 'Ln 1' and 'Col 1'.

12.4 Added the ability to generate two-layered PDFs

For better display of PDF files in PDF viewers, an option to generate two-layered PDFs has been added.

Currently, it is only available in the workflow XML file.

To turn this option on, set the CreateOCGroups parameter in the XML file to *true*.

12.5 Improved the stability of the product

In FineReader Server 14 R1 Update 7, several things have been done to improve the stability of the product:

- Several changes have been made to the API to improve performance and stability.
- Resolved an issue that caused the database to bloat.
- Resolved an issue that caused the server to stop due to an invalid configuration.xml file.

13. Update 8

13.1 Key improvements

ABBYY FineReader Server 14 Release 1 Update 8

Part #1340/13, build #14.0.1.69, OCR Technologies build # 16.1.679.0, release date: 16.08.2019

- Verification and Indexing Stations Help is now available in French and Spanish
- Ability to get information about licenses via the Web API
- Ability to get information about the size of the queue via the Web API

- Ability to process e-mails sent using the MacOS native mail client
- Improvements in troubleshooting
- Improvements in table detection
- Improvements in export to office formats
- Bug fixes

13.2 Localization of help files

13.2.1 New help files in French and Spanish

From FineReader Server 14 R1 Update 8 onwards, the Verification and Indexing Stations' help files will also be available in French and Spanish.

13.3 Ability to get information about licenses and the size of the queue via the Web API

Several new methods have been added to the SOAP and the REST API for monitoring the operation of ABBYY FineReader Server:

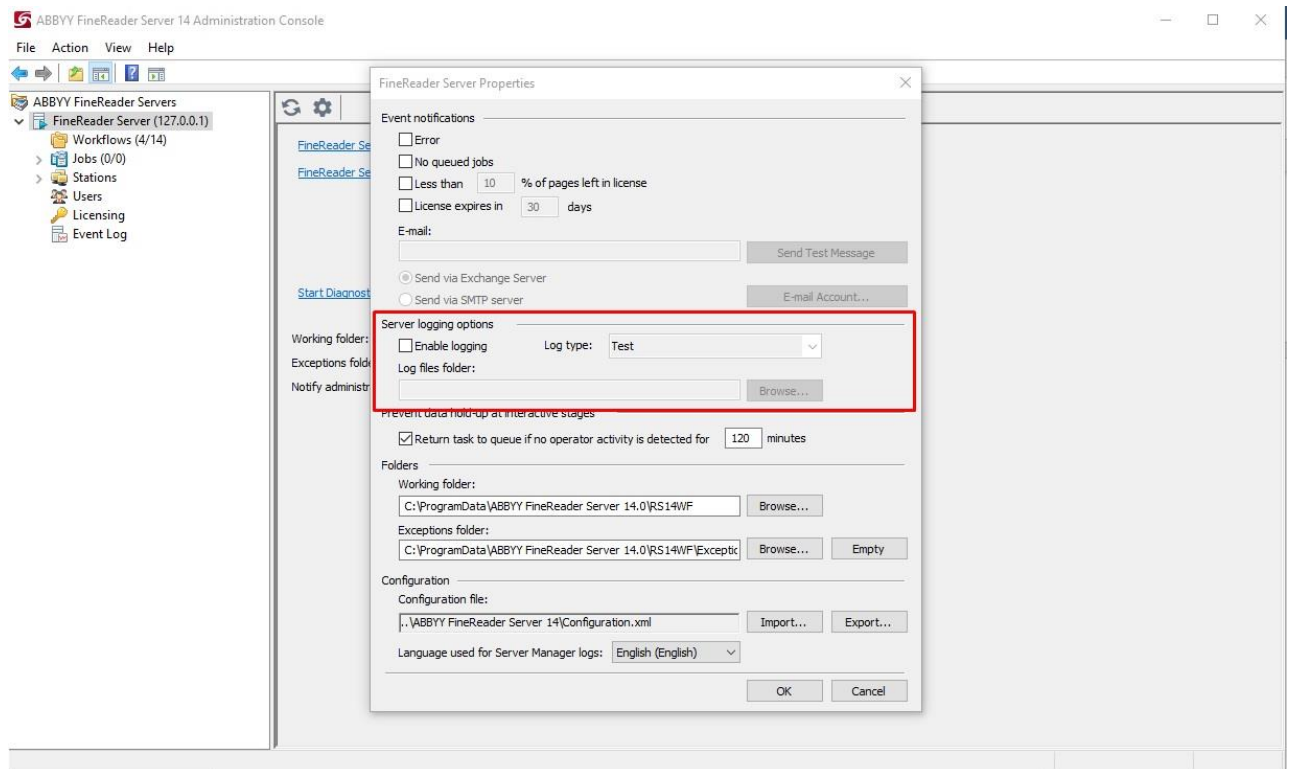
- a method that gets information about all the licenses. This method returns the parameters of all the licenses on the server (this method is available both in the SOAP and in the REST API)
- a method that gets information about an individual license (this method is only available in the REST API)
- a method that gets information about the size of the queue on the server. This method returns information about the total number of queued tasks and the following information about each workflow: workflow name, entry type, priority, status, number of tasks in the queue, maximum size of the queue (this method is available both in the SOAP and in the REST API)
- a method that gets information about an individual workflow. This method returns the following information about a workflow: workflow name, entry type, priority, status, number of tasks in the queue, maximum size of the queue (this method is only available in the REST API)

13.4 Ability to process e-mails sent using the MacOS native mail client

Starting from FRS 14 R1 Update 8, you can process e-mail messages sent using the MacOS native mail client which contain attachments added as inline items.

13.5 Improvements in troubleshooting

Starting from FRS 14 R1 Update 8, there is new setting in the UI that enables you to turn on logging.



Logging should be turned on only when you need to investigate or troubleshoot an issue. Continuous logging may slow down the performance of FRS by up to 15%.

13.6 Improvements in table detection

Thanks to technological improvements, tables in documents are now detected better.

13.7 Improvements in export to office formats

To better retain the formatting of original documents, additional fonts are now used when exporting recognized text to office formats. For example, documents with bulleted lists will now look much better.

13.8 Key bug fixes

Issue description
IPE during document separation on the Indexing Station if the new document contains more than 5 pages - fixed
Error in job publishing if an error occurs when exporting a document - fixed
QR codes from some documents missing - fixed
Access violation on Scanning Station for several documents - fixed
An additional line break appears when using the Replace function on the Indexing and Verification Stations - fixed
Error connecting to the database under a user account that doesn't have all the permissions - fixed

14. Update 9

14.1 Key improvements

ABBYY FineReader Server 14 Release 1 Update 9

Part #1340/14, build #14.0.1.76, OCR Technologies build # 16.1.723.2, release date: 17.10.2019

- PDF documents can now be protected with a digital signature
- Added the ability to open Verification and Indexing Stations using link
- More information is now available in the additional event log for advanced system monitoring
- Improved recognition quality for technical drawings
- Added online Help
- Added the ability to manage licenses from the command line
- Added a new Web API endpoint for loading large documents

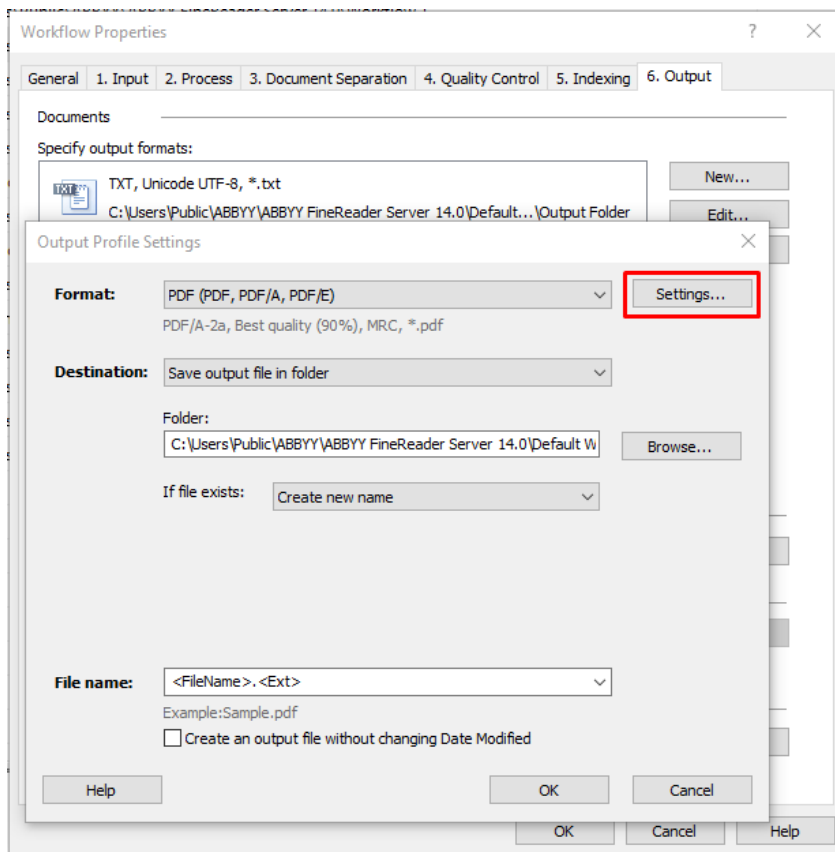
14.2 Signing documents with digital signatures

Digital signatures are often used to protect PDF files from unauthorized modification.

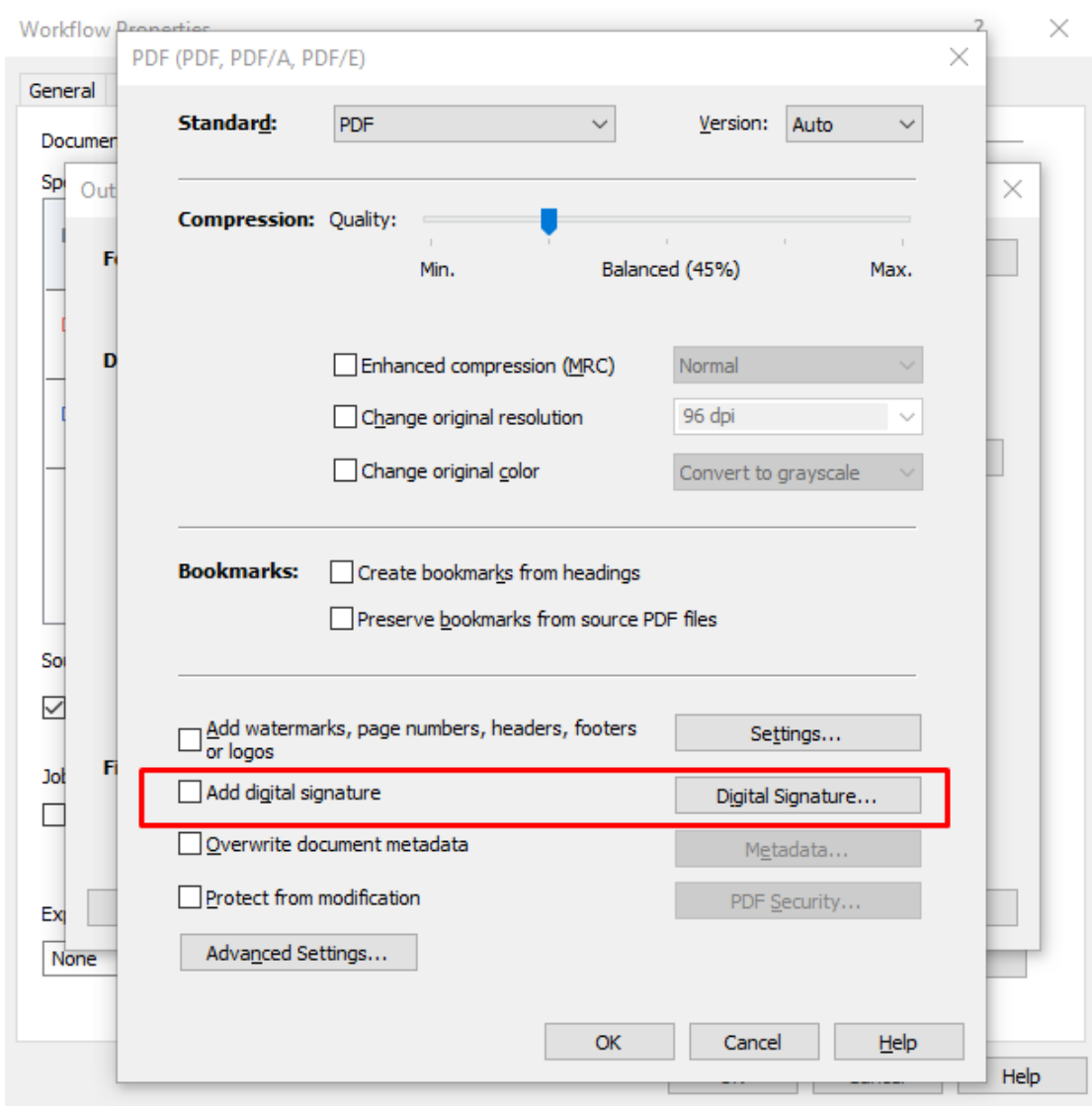
In this Update 9, an option for signing documents with digital signatures has been added.

A certificate is needed to digitally sign documents. By default, ABBYY FineReader Server comes with a certificate that can be used for signing documents. Users can also obtain and use their own certificates.

To use this feature, open the **Workflow Properties** dialog box, click the **6. Output** tab, select **PDF (PDF, PDF/A, PDF/E)** from the **Format** drop-down list, and click the **Settings** button on the right.

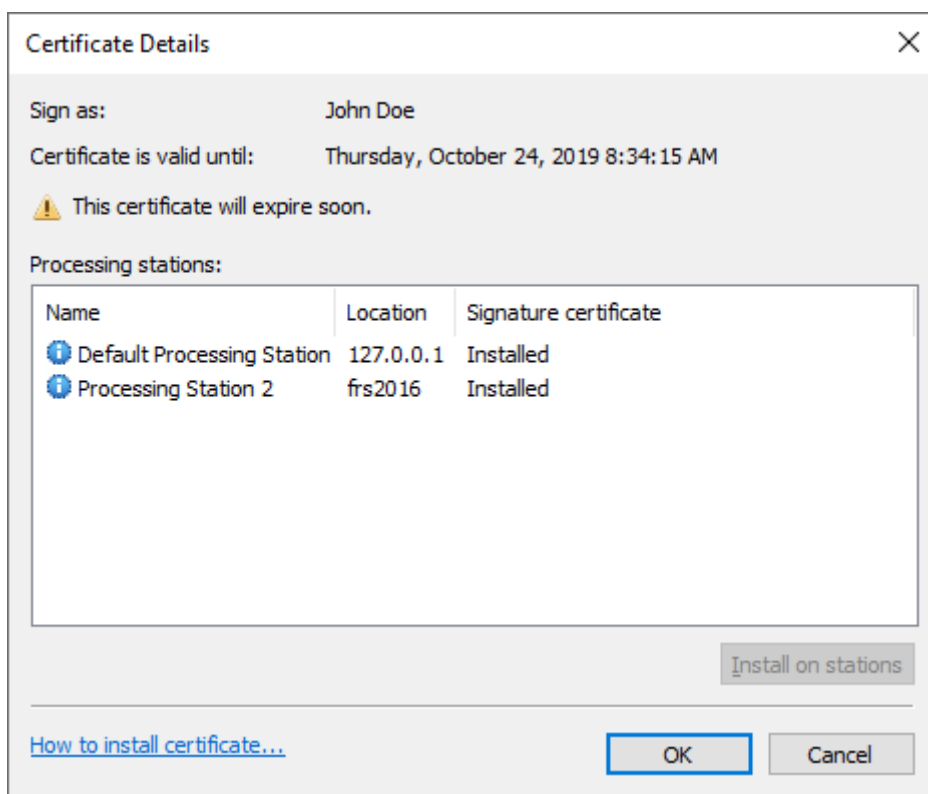


In the window that opens, select the **Add digital signature** option.



Make any other necessary changes to the PDF settings and click **OK**.

Please note that for the digital signature feature to function correctly, a processing certificate must be installed on all the Processing Stations (both local and remote). If an exportable certificate is installed on a machine that has ABBYY FineReader Server installed, you will be able to install that certificate on all the Processing Stations using the Remote Administration Console.



14.3 Using special link to open a Verification Station or an Indexing Station with connection to specified Server

If ABBYY FineReader Server is installed in a cluster and tasks are processed on multiple servers, you may need to open a Verification Station or an Indexing Station with certain parameters, specifying which instance of ABBYY FineReader Server the station should connect to.

Currently, this can be done by using links like the following in the command line:
frs14://ApplicationName?Param=Value&Another=Value. To open these links, a utility called *FRS.Launcher.exe* will be installed together with ABBYY FineReader Server and registered in your system.

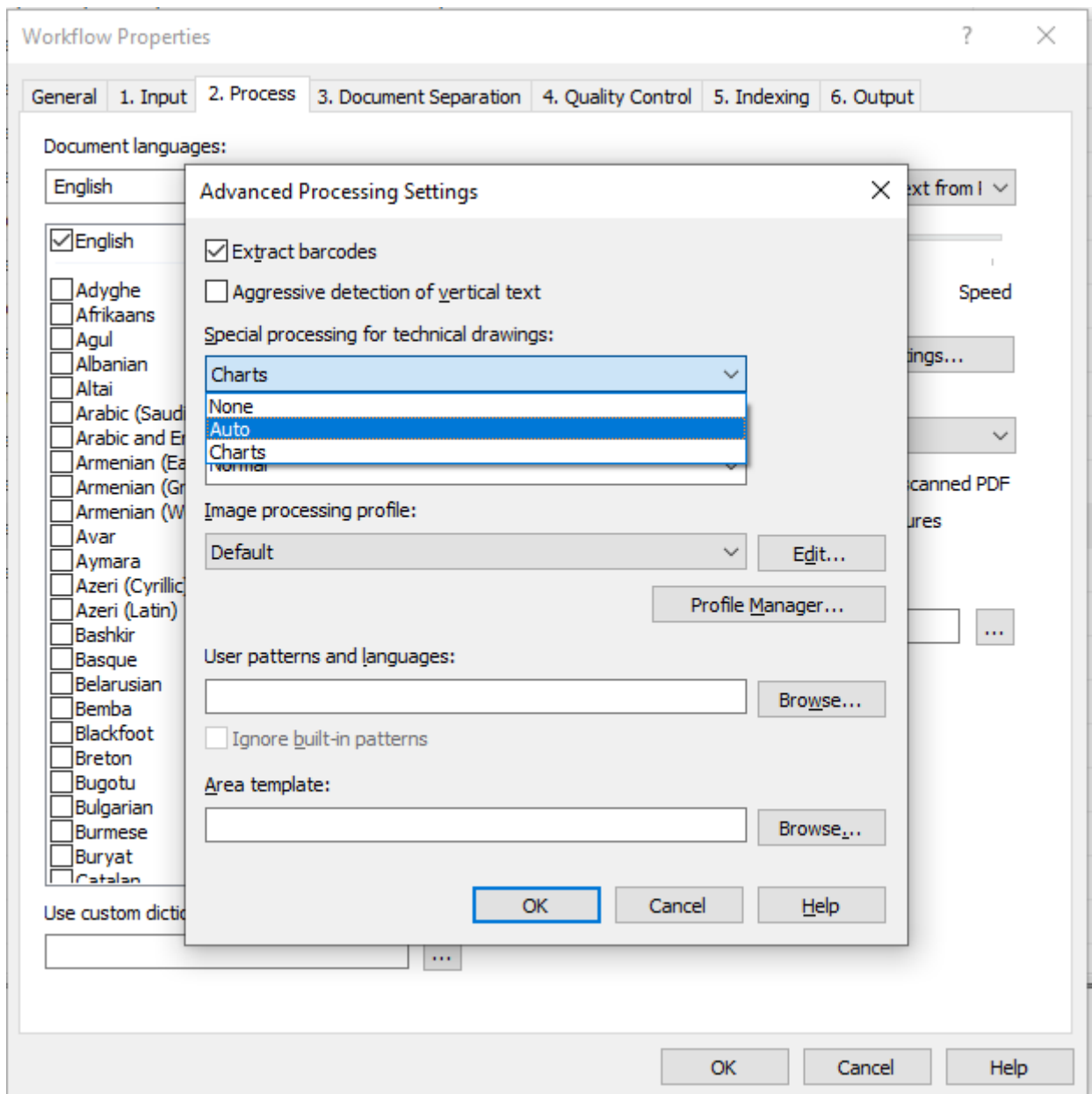
14.4 Extended event log for advanced system monitoring

Now you can enable extended event logging for monitoring user activity.

14.5 Improved recognition of technical drawings

To give users more flexibility in choosing between speed and quality when recognizing technical drawings, the **Special processing for technical drawings** check box has been replaced with a drop-down list containing three new settings — **None**, **Auto**, and **Charts**.

Additionally, a new option for aggressive detection of vertical text has been added, which is primarily intended for technical drawings.



1. **Special processing for technical drawings** (a drop-down list with three new processing modes):
 - a. **None**
No special recognition parameters will be used. Select this option if there are no technical drawings among the documents that you are going to process.
 - b. **Auto**
The program will decide whether to use the special recognition parameters based on paper size. Any pages larger than A3 will be treated as pages containing technical drawings and processed using the special recognition parameters. Select this option if you are going to process both ordinary documents and A3 or larger sized technical drawings.
 - c. **Charts**
The program will always use the special recognition parameters. Select this option if your documents contain a significant number of technical drawings on pages of varying sizes.
2. **Aggressive detection of vertical text**
This option can be combined with any of the processing modes described above. Selecting this option will significantly improve the detection of vertical text (especially in technical drawings) but will slow down the program. Select this option only if your technical drawings actually contain vertical text.

14.6 Online Help

Now you can open the online Help in your browser by pressing F1 in the remote Administration Console installed on non-server operating systems. The CHM help file will still be available locally.

14.7 Managing licenses from the command line

ABBYY FineReader Server now includes a command-line utility for managing licenses on multiple computers.

The utility allows you to activate, deactivate, specify the default settings, and perform other actions on licenses. For more information about the available commands, run the /help command.

The utility is called *LicenseManager.Console* and is installed in C:\Program Files\ABBYY FineReader Server 14.0\Bin (default location).

14.8 A new Web API endpoint for loading documents

In this Update 9, a separate endpoint has been added for loading documents as multipart/form-data. This will facilitate the handling of large files, as the current method for processing large files has certain limitations.

14.9 Key bug fixes

Issue description
For some documents, tables are analyzed as images. Fixed
Some documents are moved to the Exceptions folder with the following error: Page 1: Internal program error: Src\InlinePicturesProcessor.cpp, 249 Page 1: Access violation. The instruction at 0x00007FF89CD626F9 (c:\program files\abbyy finereader server 14.0\bin\documentanalysis.segmentation.dll) referenced memory at 0xFFFFFFFFFFFFFFFF. The memory could not be read. Fixed
Image resolution cannot be adjusted by entering an exact number. Fixed
Some barcodes are not recognized. Fixed
In some scenarios parallel usage of verification and indexing stations cause Server to stop - Fixed

15. Update 10

15.1 Key improvements

ABBYY FineReader Server 14 Release 1 Update 10

Part #1340/15, build #14.0.1.81, OCR Technologies build # 16.1.809.0, release date: 16.12.2019

- Added the ability to get reports on found duplicates in the audit workflow
- Added import from SFTP
- Scanning Station help is now available in French and German
- Switched from Native Client to OLEDB
- Installation improvements
- Minor improvements in the audit workflows
- Added new icons for workflow types and a workflow 'State' column

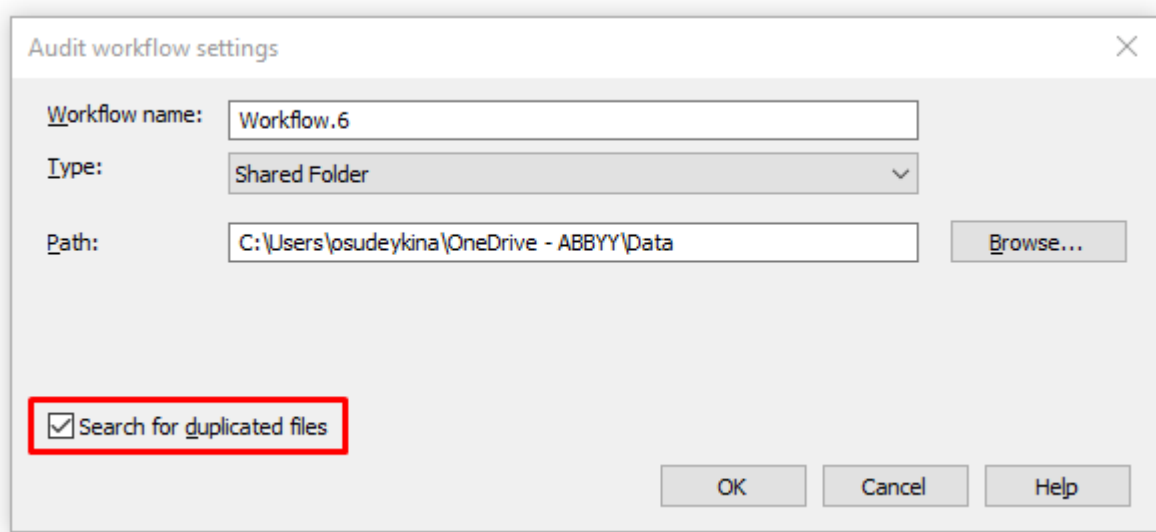
15.2 Report on found duplicates in audit workflow

The audit workflow, which helps to estimate the approximate number of pages in documents in the specified repository, now has a new feature: getting a report on the number of full duplicates found in the specified repository.

This information can be used to optimize the storage size and update the data in it.

FineReader Server only finds duplicates that are completely identical.

To obtain statistics on duplicates, you must enable the appropriate setting:



Search for duplicates can only be performed in the audit workflow and is not available in the other workflow types.

The report is generated based on the analysis of all files in the storage specified in the audit workflow and shows the following statistics:

- General information: when and where duplicate searches were made
- Number of duplicates found throughout the repository
- Information for each group of duplicates:
 - File names
 - File size
 - Dates of creation and modification

To get a report, upon completion of the audit workflow, click on the “Get Report” link in the “Duplicates” section for the selected workflow.

▼ **Library statistics**

Type	Pages ⓘ	Files	Size (MB)
Need OCR for conversion	607	236	303 MB
Images	229	229	291 MB
PDF with good text layer	378	7	11 MB
Text-based documents for conversion to PDF	1	2	<1 MB
Tables	0	1	<1 MB
Text documents	1	1	<1 MB
Other	2 800	54	321 MB
Including archives	0	8	10 MB
Other	2 800	46	311 MB
Total for conversion	3 408	292	624 MB

▼ **Duplicated files**

Duplicates found **77 files (195 MB)** [Download report](#)

15.3 Import from SFTP

Starting from FineReader Server 14 R1 Update 10, it is possible to import source files from SFTP.

To start using this feature, choose SFTP as the source type on the **1. Input** tab and specify required properties:

The screenshot shows the 'Workflow Properties' dialog box with the '1. Input' tab selected. The 'Source' section has 'Type' set to 'SFTP Folder'. Below it, the 'sftp://' protocol is shown with an empty text box and a 'Credentials...' button. The 'Select files to process' section includes 'Process files' set to '*', 'Exclude' as an empty box, and 'Other files' set to 'No action'. The 'Job files' section contains the text 'Input files are processed and separated within jobs.', 'Create job' options with 'For each file' selected, 'Create next job after' set to '120' seconds, and checked options for 'Use files in subfolders' (with 'Subfolder name mask' set to '*') and 'Delete empty subfolders when processed'. The 'Input file script' section has 'None' selected and a 'Script...' button. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

15.4 Scanning Station help is now available in French and German

Starting from FineReader Server 14 R1 Update 10, the Scanning Station help file is available in French and German.

15.5 Switch from Native Client to OLEDB

Since the Native Client that was used by FRS to connect to the database is no longer supported by Microsoft, we have switched to OLEDB (which is supported).

15.6 Installation improvements

The following changes were made to the product installation process:

1. The Web API is now installed by default on another port (8080). In previous versions, its installation was optional and it was installed by default on port (80).

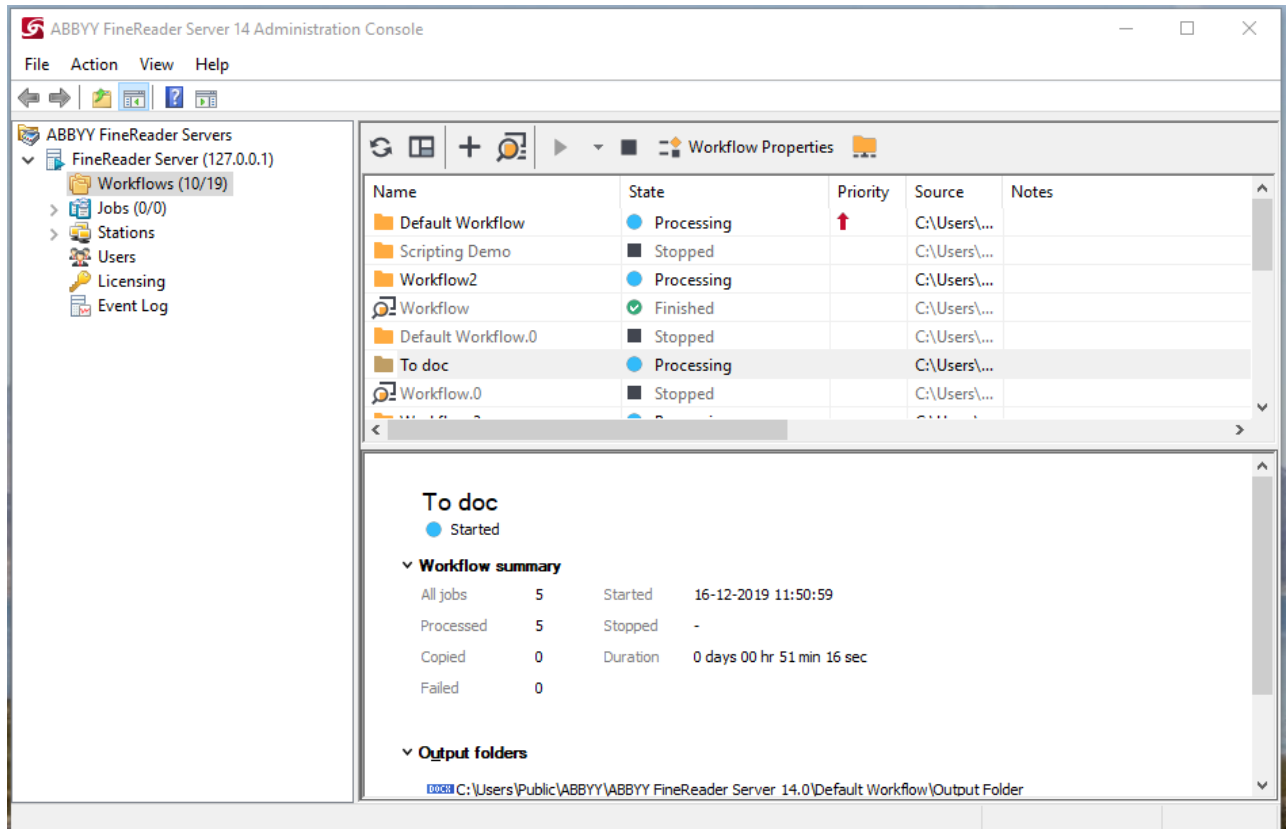
- When installing the 64-bit version, the LocalDB 2019 is installed with the product; in previous versions, LocalDB 2014 was installed.

15.7 Minor improvements to the audit workflow

The design of the table with statistics on files has been changed slightly. The order of items in the table has also been changed.

15.8 New icons for workflow types and states

In this FineReader Server 14 R1 Update 10, some improvements in the Administration Console UI have been made: a new 'State' column has been added to display workflow states together with new icons for workflow types.



15.9 Key bug fixes

Issue description
Issue related to incorrect detection of text area blocks in some documents that resulted in borders being removed from the document - fixed
Issue with unrecognized text on images in tables - fixed
Internal program error on a specific page that contained technical drawings - fixed
Internal program error IPE: ParagraphLine\RecognizedGlyphGroupsWidthCorrector.cpp, 315., export profile #1.with English, Chinese Simplified and Chinese traditional with AutoRotate and Deskew options enabled - fixed
IPE Src\FoundLayoutCreator.cpp, 1007 during processing of one document in Default workflow - fixed
IPE Src\RegionFormer.cpp, during processing of one document in custom workflow - fixed

16. Update 11

16.1 Key improvements

ABBYY FineReader Server 14 Release 1 Update 11

Part #1340/16, build #14.0.1.86, OCR Technologies build # 16.1.809.0, release date: 18.02.2019

- Bug fixes

16.2 Key bug fixes

Issue description
Internal Program Error encountered on server start when adding a 64-core station. - Fixed
Security vulnerability caused by users' ability to elevate their rights and access functions reserved for higher-privilege users. - Fixed