



ABBYY RECOGNITION SERVER 2.0 FAQ

GENERAL QUESTIONS 2

- What input formats does ABBYY Recognition Server support? Can Recognition Server process PDF files? 2
- How does Recognition Server deal with multi-page images or PDFs?..... 3
- What output formats does ABBYY Recognition Server support? 3
- Can Recognition Server save a document in multiple formats?..... 3
- Does ABBYY Recognition Server support recognition of barcodes? 3
- What recognition languages does ABBYY Recognition Server support? Does it support Asian languages? 3
- I am processing multilingual files. Does ABBYY Recognition Server support multiple languages in one document?..... 3
- Can I integrate ABBYY Recognition Server into a third-party application? 4
- Where can I find information about the ABBYY Recognition Server API and XML tickets? 4
- How can I achieve higher throughput? 4

HARDWARE AND NETWORK CONFIGURATION 5

- What ports and protocols does ABBYY Recognition Server use?..... 5
- Can ABBYY Recognition Server run without a network?..... 5
- How scalable is Recognition Server? How many CPUs can I use on one PC? How many Processing Stations can I use with one server?..... 5
- Is it better to use a multi-core machine, or use more Processing Stations? 6
- How are files distributed among CPUs and Processing Stations? 7
- How does ABBYY Recognition Server behave on system faults?..... 8
- Can I use the Server Manager on a cluster? 9
- What is the recommended configuration for Recognition Server? Can I use the server as a Processing Station as well or should I use separate computers? 7
- What kind of processors would give us better performance? 8
- Does the Server Manager itself require significant processing power? What are the hardware requirements for the server?..... 8
- What is the amount of traffic between a Processing Station and the controlling Server Manager to process a page, in bytes? What network bandwidth would be sufficient? 8

RECOGNITION SERVER SETTINGS 9

- How can I set up the workflow in order to process images at a certain time or at regular intervals?..... 9
- How many workflows can be active at the same time?..... 9
- In which order will the files in an input folder be processed? How can I speed up recognition of high-priority documents?..... 9
- Does Recognition Server also process subfolders? How do I set up the subfolder structure? 10
- What is the maximum length of a network path that can be used in Recognition Server? 10
- How many documents at a time can I put in an Input folder? 10
- Where can I find the temporary working folder used by Recognition Server? Can I move the temporary working folder to another location? 11
- Why do I have to define an Exceptions folder?..... 11
- My scanner creates an image file for each page of the document and puts pages related to one document in a separate folder. Can ABBYY Recognition Server assemble pages from each folder into one file and assign the folder name to the resulting document?... 12
- How to override the Workflow settings by using an XML ticket?..... 13
- When I'm upgrading to a new release/version, how do I keep my Recognition Server configuration?..... 13

Can I move the settings of a workflow or a server configuration if I want to re-install the program on another PC?	14
What is a "process" mentioned in the Processing Station properties? Do I need to set higher or lower numbers of processes?	14
Can I switch to another license if my current recognition Server license has not expired yet?	14
Can I Install Recognition Server on any disk drive in my PC or do I have to use C:\? ...	15

TROUBLESHOOTING	15
I get an error message when trying to add a Processing Station.....	15
I get an error message when trying to add the server in the Remote Administration Console installed on a different computer	16
I get an error message when trying to connect to the server from a Verification Station installed on a different computer	16
Pages do not arrive at the Verification Station	17
The message "Authentication failed: wrong login or password" appears when I start the Verification Station	18
The Verification Station hangs at startup	18
Why are images being deleted from the Input folder?.....	18
How to know why everything is being put into the Exceptions folder?	18
I am trying to set up an e-mail notification. Why do I not receive it?	18
Why can't I start the workflow?.....	18
The workflow cannot access the external FTP server.....	19
The workflow does not start with the error message "Some of the working folders are inaccessible".....	19
When processing images, a "Disk space is too low" warning appears on the computer where the Server Manager is running.....	19
How can I retrieve an image document that is being processed by ABBYY Recognition Server?	19
Digits in brackets are appended to the names of output files	19
I have been already waiting for a long time to get my files out. What can I do to a) get their status, b) speed up the processing, c) cancel the job?.....	20
Why does the file disappear from the Input folder but does not appear in the Output folder?.....	20
Why is the license counter incremented by several pages when I'm processing a one-page image?.....	20
The license in the USB key is not recognized by Recognition Server. The Server Manager is installed on Windows 2003 and its service is running under a user account	21
Image files disappear from the Input folder, but I don't see any new jobs in the console	21

General Questions

What input formats does ABBYY Recognition Server support? Can Recognition Server process PDF files?

ABBYY Recognition Server supports the following input formats: PDF, BMP, PCX, DCX, JPEG, JPEG 2000, TIFF, PNG, and DjVu.

ABBYY Recognition Server supports both image-only PDF files and PDF files that already contain text. PDF files that contain a text layer are processed in an "intelligent" manner: Recognition Server first extracts the text and checks its integrity. If the text layer is good, Recognition Server will use it and will not perform OCR. If the text contains errors or has encoding problems, Recognition Server will disregard it and recognize the document anew.

How does Recognition Server deal with multi-page images or PDFs?

ABBYY Recognition Server can process multi-page images and PDF files.

Usually, the entire multi-page file is sent to one OCR process running on a Processing Station and processed as a single unit. However, if a file is fairly large and there are *no more than 5 jobs* waiting in the queue, the file will be split into chunks, and the chunks will be sent to different OCR processes in order to get the work done faster. By default, the size of a chunk is 25 pages. Therefore, for example, a 100-page file will be split in 4 chunks and sent to four processes.

Each Processing Station usually runs several OCR processes (the number can be adjusted in the station's properties). The OCR processes to which the file chunks are sent are chosen on the "first available" principle, so they may be running on one or on different Processing Stations.

What output formats does ABBYY Recognition Server support?

ABBYY Recognition Server supports the following output formats: PDF, PDF/A, RTF, DOC, DOCX, XLS, XLSX, TXT, CSV, HTML, Word XML (compatible with Microsoft Word 2003), TIFF, JPEG, JPEG 2000, XML, and FineReader internal format (intended for integration with ABBYY FineReader Engine version 8.0 and higher).

Can Recognition Server save a document in multiple formats?

Yes, ABBYY Recognition Server can export a document to multiple formats at a single pass. When setting up the workflow, on the Output tab of the Workflow Properties dialog, you can add as many output formats as you need. For each output format, you can set a separate destination and file naming rule.

Does ABBYY Recognition Server support recognition of barcodes?

Yes, ABBYY Recognition Server supports can recognize barcodes of the following types: Codabar, Code 128, Code 39, Code 93, EAN 8 and 13, Industrial 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, PostNet, UCC128, UPC-E, PDF 417 (2D-barcode).

ABBYY Recognition Server can not only recognize barcodes, but also use them for separating documents that were scanned as one batch. The barcode type to be used for document separation is chosen in the Document Separation Options dialog of the Workflow properties.

What recognition languages does ABBYY Recognition Server support? Does it support Asian languages?

ABBYY Recognition Server supports a total of 191 languages, including Hebrew and the following Asian languages: Chinese (traditional and simplified), Japanese, and Korean.

The full list of recognition languages can be found in the Help file and in the Specification section of the ABBYY Recognition Server brochure.

I am processing multilingual files. Does ABBYY Recognition Server support multiple languages in one document?

Yes, Recognition Server can process multilingual documents. If you intend to process documents with multiple languages, you should select all the relevant languages on the Processing tab of the Workflow Properties dialog.

Keep in mind that the more recognition languages you select, the lower the speed of processing. It is recommended that you create different workflows for documents written in different languages.

Note: hieroglyphic languages (Chinese, Japanese or Korean) can be recognized only in combination with English language.

Can I integrate ABBYY Recognition Server into a third-party application?

ABBYY Recognition Server provides various means of integration with other front-end and back-end systems, as well as with network scanners and MFPs:

- COM-based API – an open COM-compatible programming interface that enables Recognition Server to exchange image files and recognition results with other applications.
- Web Service API – a programming interface exposed by the Recognition Server Web service. It allows for cross-platform integrations and integration with remote applications over HTTP protocol, as well as using Recognition Server in a Service-Oriented Architecture (SOA) environment.
- XML tickets – a way to customize processing parameters for individual files using special XML files (so-called “XML tickets”), which can be generated programmatically by the client application.

A detailed description of the APIs and XML tickets can be found in the Recognition Server Open API Help file.

Where can I find information about the ABBYY Recognition Server API and XML tickets?

Information about the API and XML tickets can be found in the Open API Help file in *Start >> All Programs >> ABBYY Recognition Server 2.0 >> Open API Help*.

Code samples for the COM-based API and Web Service API are provided with the program and can be accessed from *Start >> All Programs >> ABBYY Recognition Server 2.0 >> Samples*.

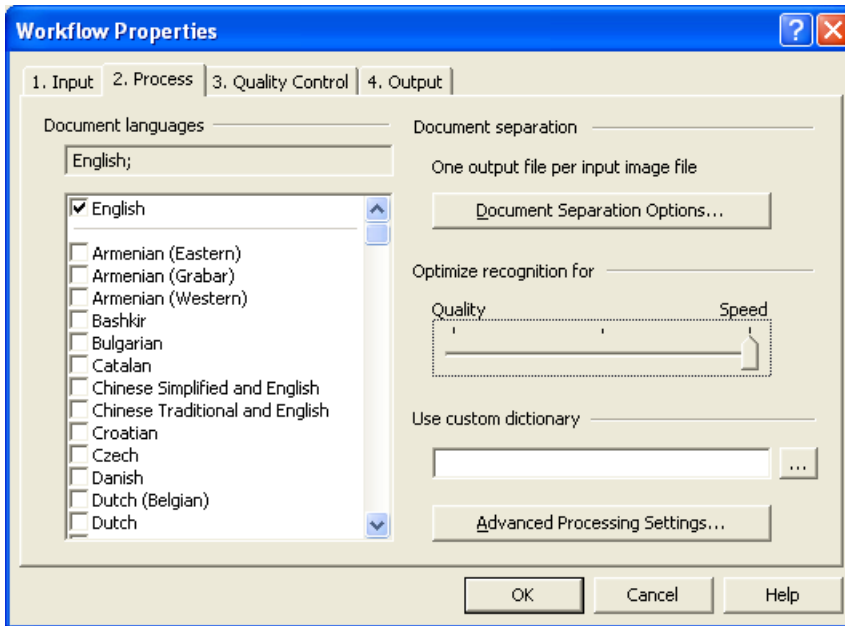
The Open API Help file and samples are installed only if you select COM-based API or Web Service API component during the program installation.

How can I achieve higher throughput?

There are several ways to increase the processing speed and throughput of ABBYY Recognition Server:

- If the license allows, increase the number of processing Stations or CPU cores used for processing. Recognition Server's throughput is almost in direct proportion to the number of CPUs in the system.
- When you are scanning documents, use scanning parameters that are optimal for OCR:
 - **scan mode:** gray or black and white. Scanning in grayscale mode provides best recognition quality. Black and white scanning maximizes scanning speed but may result in the loss of some character information. This may lower recognition quality in documents of medium and low print quality.
 - **resolution:** 300 dpi for regular texts (font size 10 pts or greater) and 400–600 dpi for texts set in smaller font sizes (9 pts or less).

- o **brightness:** a medium brightness value of around 50% should suffice in most cases. During grayscale scanning, brightness is adjusted automatically.
- Use “Optimize recognition for: Speed” setting in the Workflow properties dialog box. It will result in 2-2.5 times faster processing for good quality images.



Hardware and network configuration

What ports and protocols does ABBYY Recognition Server use?

ABBYY Recognition Server can use the Named Pipes or TCP/IP protocols for connections among its components.

By default, the Named Pipes protocol is used via port 445.

It is possible to change the protocol to TCP/IP. In this case the ports are chosen by the administrator and are defined in the Windows registry.

Detailed instruction on how to change your connection protocol can be found in the Connection Settings article of the ABBYY Recognition Server Help file.

Can ABBYY Recognition Server run without a network?

Yes, ABBYY Recognition Server can run on a standalone computer without a network connection. In this case all the required program components must be installed on the same PC.

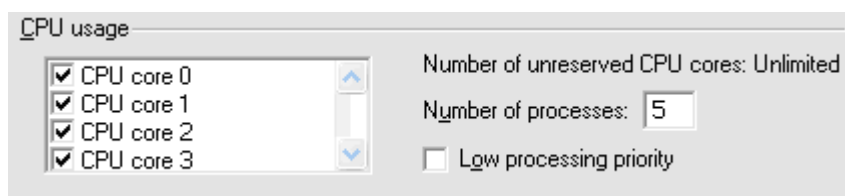
How scalable is Recognition Server? How many CPUs can I use on one PC? How many Processing Stations can I use with one server?

Recognition Server architecture makes it possible to scale the system and increase the processing power by connecting additional Processing Stations to the Server Manager, or by increasing the number of CPU cores on the Processing Stations. The Server Manager distributes the workload among all available Processing Stations and their CPU cores evenly, so that the maximum productivity is achieved.

The number of CPU cores and Processing Stations that can be used simultaneously is regulated by your license. If the license does not limit these parameters, you can connect an unlimited number of stations and enable all CPUs on the stations for OCR.

Technically, there is no known limit to how many Stations can be used by one Server Manager. Successful tests have been conducted with over 100 Processing Stations connected at the same time. The processing speed increase is almost proportional to the number of CPU cores enabled on all the Processing Stations altogether. That means, for example, that connecting 10 single-core stations would allow you to process almost 10 times as many files as one station can process in the same time.

The multi-core, multi-CPU and HyperThreading technologies are fully supported by ABBYY Recognition Server. For example, if you install a Processing Station on a server with two quad-core CPUs and your license allows at least 8 cores to be used, Recognition Server will load all 8 cores to the full extent. If you wish to leave one or two cores for tasks other than OCR, you can do so by unselecting the corresponding checkboxes in the Processing Station Properties dialog box.



Please note that a multi-core CPU usually provides slightly lower productivity increase than an equal number of single-cores. For example, productivity of a quad-core is usually less than 4 x (productivity of each core).

Note: A single-core CPU with HyperThreading will be shown as one core in the Processing Station Properties dialog box. However, Recognition Server will take full advantage of the additional power provided by the HyperThreading technology.

Is it better to use a multi-core machine, or use more Processing Stations?

Recognition Server uses the same algorithm of job distribution among CPU cores, whether these CPU cores are located on one Processing Station or on different Stations. Therefore, it does not matter for Recognition Server whether a multi-core station or several single-core stations are used. But when deciding between a multi-core PC and single- or dual-core PCs, consider the following:

- A quad- or eight-core server is usually more expensive than the equal number of single- or dual-core PCs;
- A multi-core CPU usually provides a slightly lower productivity increase than the equal number of single-cores. For example, productivity of a quad-core is usually less than 4x(productivity of each core).
- Should a multi-core computer experience a hardware failure, it becomes completely inoperable and its processing power becomes unavailable until the computer is repaired. Several computers with fewer cores each are much less likely to fail all at the same time.

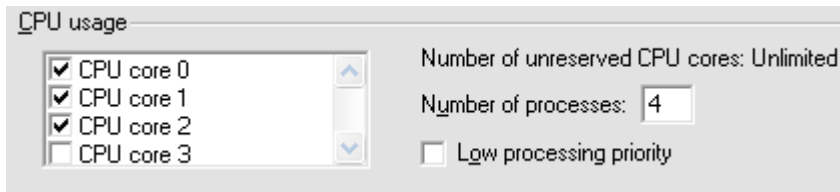
Therefore, using several single- or dual-core Processing Stations is usually more efficient than using one multi-core station.

How are files distributed among CPUs and Processing Stations?

If your license permits, you can add several Processing Stations to Recognition Server.

When image files are submitted to ABBYY Recognition Server, the Server Manager queues them for processing. The first file in the queue will be sent to the first available Processing Station for processing. If there are several Processing Stations in the system, the Server Manager will evenly distribute the images from the queue among these Processing Stations.

A Processing Station can run several OCR processes (the number of processes can be adjusted in the Processing Station properties dialog box of the Remote Administration Console).



For optimal performance, the recommended number of processes for a station is $N+1$, where N is the number of CPU cores enabled for OCR on the station (e.g. a dual-core Processing Station typically runs 3 OCR processes).

Note: For HyperThreading CPUs the recommended number of processes is $2N+1$, where N is the number of physical CPU cores.

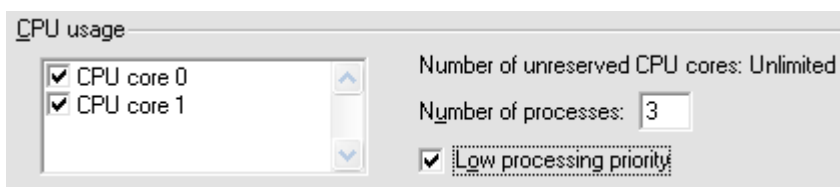
Usually each process on a Station gets from the queue one file at a time. It does not matter whether the file is single- or multi-page. For example, suppose 10 dual-core Processing Stations are connected to the Server Manager. Each Station runs 3 processes, so each will receive 3 files from the queue and recognize them in parallel. The total number of processes will be $10 \times 3 = 30$, i.e. Recognition Server will process 30 files concurrently.

However, if the file is fairly large and there are *no more than 5 jobs* waiting in the queue, the file will be split into chunks, and the chunks will be sent to different processes, in order to get the work done faster. By default, the size of a chunk is 25 pages. Therefore, for example, a 100-page file will be split in 4 chunks and sent to four processes. The processes to which the file chunks are sent are chosen on the "first available" principle, so they may be running on one or on different Processing Stations.

What is the recommended configuration for Recognition Server? Can I use the server as a Processing Station as well or should I use separate computers?

For optimal performance it is recommended that you install the Server Manager and the Processing Station on different computers in the LAN. Then the Processing Station will be able to use 100% of the CPU time for OCR providing maximum productivity, while not struggling for resources with the Server Manager.

However, if you have a limited number of computers at hand, or if you have one multi-core server that you want to use for a standalone installation, then you can install the Server Manager and the Processing Station on the same computer. In this case you should check the option "Low processing priority" in the Processing Station Properties dialog box. That will make the OCR process run with lower priority relatively to other system processes, and Windows will allocate enough CPU time for the Server Manager to do efficient load balancing.



What kind of processors would give us better performance?

The processing speed on a single CPU depends mostly on the following two factors:

1. CPU clock speed: the higher the clock speed, the faster the OCR.
2. Number of CPU cores. Tests have shown that running a Processing Station on a dual-core CPU results in about 1.85 times faster processing as compared to a single core CPU.

Does the Server Manager itself require significant processing power? What are the hardware requirements for the server?

Minimum hardware requirements for the Server Manager:

- CPU with clock speed of 500 MHz or higher
- 128 MB RAM
- 115 MB HDD space for installation and operation

The above requirements are sufficient for a standalone installation of Recognition Server, e.g. for program evaluation or for processing medium volumes of images. However, if Recognition Server is scaled up for processing large piles of images and working with many Processing Stations, more system resources will be required. Follow the guidelines below:

- **CPU** of the Server Manager PC should be powerful enough to do job distribution amongst many stations. An average server CPU like Intel Xeon 3 GHz should be sufficient.
- **The speed of disk I/O operations** on the Server Manager PC should allow moving lots of files between folders quickly. When performing backlog conversion of large volumes of images, consider creating a RAID array.
- **Free disk space** on the Server Manager PC should be at least equal to the total size of all images put in the Input folder, because all the images will be copied from the Input folder to the Server Manager temporary folder.

What is the amount of traffic between a Processing Station and the controlling Server Manager to process a page, in bytes? What network bandwidth would be sufficient?

While Recognition Server processes images, there is an intensive exchange of data going on among the Server Manager, Processing Stations, and Verification Stations: they exchange image files, intermediate temporary files, and processing results. The actual traffic depends on the format and size of images. In some cases, sizes can be fairly large and reach dozens of megabytes. Therefore, the network bandwidth on the Server Manager side should be high enough to let the intense data flow go through. It is recommended that you have at least 100 Mbps network connection.

How does ABBYY Recognition Server behave on system faults?

As Recognition Server is designed for unattended operation, it has a number of fault tolerance features that ensure robustness of the system:

- The Server Manager and Processing Stations work as Windows services, and can start automatically at Windows startup. For example, in the case of a temporary power loss, the above mentioned components will get up and running automatically after the PC is rebooted;

- The Server Manager periodically checks connection with the Processing Stations to make sure that they are running and are available. If a Processing Station is temporarily down for some reason, the Server Manager will re-establish connection after it is back to work. No administrator's involvement is required to re-connect a Processing Station.

Recognition Server processes documents in a safe way, so that no data is lost in the case of a system failure:

- All image files from the input source are imported into the Server Manager temporary folder and safely stored there during the whole conversion process. If the PC on which the Server Manger is installed experiences a failure, the files that were being processed will not be lost, they will be preserved in the temporary folder and stay in the queue. The processing of the files will continue after the PC is back to work;
- The Processing Stations and Verification Stations receive copies of images from the Server Manger. This ensures that no files are lost if an error occurs during the recognition or verification process. If a Processing Station or Verification Station experiences a failure while processing an image, the Server Manger will automatically route a copy of the image to another available station. If no stations are available at the moment, the image will remain in the queue and wait for the first available station.

Can I use the Server Manager on a cluster?

No, ABBYY Recognition Server does not support clustering technologies.

Recognition Server settings

How can I set up the workflow in order to process images at a certain time or at regular intervals?

Scheduling allows you to process images from Input Folder at specific times. The schedule is set up per Workflow, so only one Input Folder submits images to the schedule. The schedule is set up in the Schedule dialog box that opens when you click the Schedule button on the Input tab of the Workflow Properties dialog box.

You can specify the start time, the end time, the duration of the Workflow activity, the recurrence pattern, and the start and end dates of the schedule.

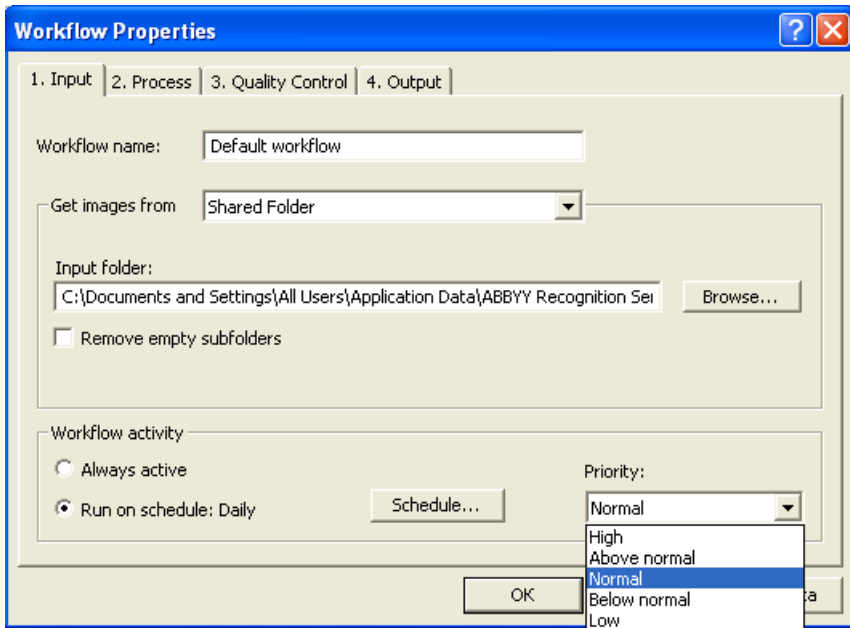
How many workflows can be active at the same time?

ABBYY Recognition Server can run up to 32 workflows concurrently.

If several workflows are running, Recognition Server will process files from all these workflows simultaneously, within the single queue, arranging the files in the queue according to their import time and priorities.

In which order will the files in an input folder be processed? How can I speed up recognition of high-priority documents?

You can select any priority level for a workflow, and documents within that workflow will be processed accordingly. The default priority for all workflows is Normal. The priority can be changed on the Input tab of the Workflow Properties dialog box.



In addition to the priority level, it is possible to schedule workflow processing. For example you can set up Recognition Server to run one workflow only on weekdays and another one on weekends. To activate the schedule on the Input tab, check “Run on schedule” option and set up the schedule you need.

Does Recognition Server also process subfolders? How do I set up the subfolder structure?

If the Input folder contains images in nested subfolders, ABBYY Recognition Server will process images from all the subfolders, traversing them recursively. When publishing the processed files, it will automatically reproduce the subfolder structure in the Output and Exceptions folders.

What is the maximum length of a network path that can be used in Recognition Server?

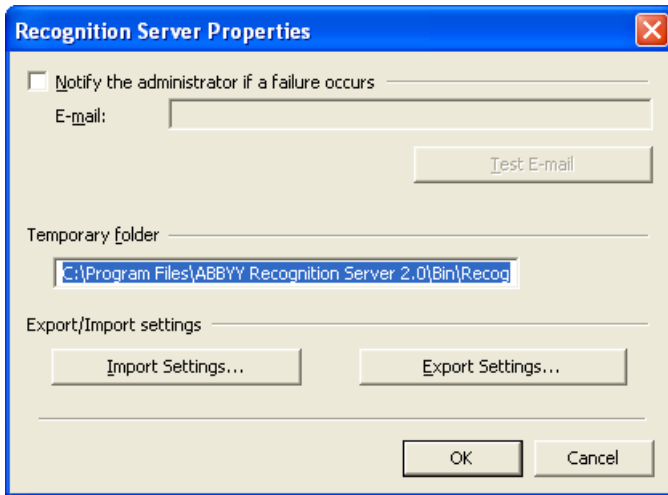
The paths to folders and files specified via ABBYY Recognition Server interfaces must not exceed 256 characters.

How many documents at a time can I put in an Input folder?

Technically, there is no limit to how many files you can put into an Input folder at once.

When the files are dropped into the Input folder of the running workflow, Recognition Server immediately starts importing (moving) them to the temporary folder located on the Server Manager computer. If you are adding a large pile of images at once, it is recommended that you set the Input folder and the Server Manager temporary folder on the same logical drive. That will significantly reduce the import times and the amount of disk operations.

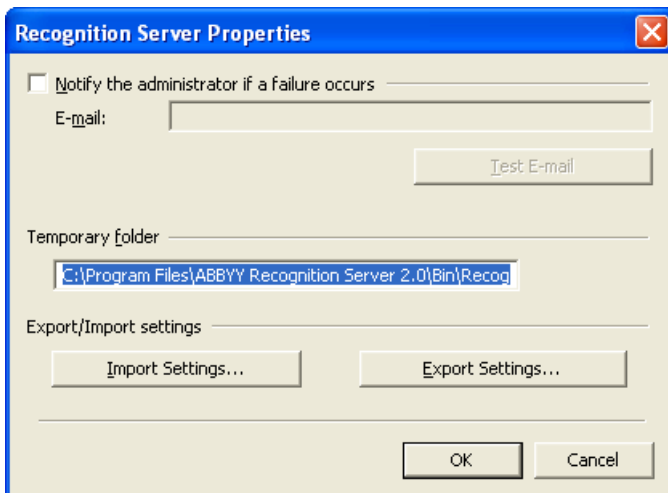
The location of the Server Manager temporary folder can be changed in the Recognition Server Properties dialog box.



Where can I find the temporary working folder used by Recognition Server? Can I move the temporary working folder to another location?

The default path to the Server Manager temporary folder is *<Installation folder>\Bin\RecognitionServer2Temp*. The current folder location can be viewed and changed in the Recognition Server Properties dialog box.

The path to the Processing Station temporary folder is *<Installation folder>\Bin\ProcessingStation2Temp*. ABBYY Recognition Server does not allow changing the location of this folder (however, this is usually not necessary, because the Processing Station gets only a few image files at a time, which doesn't consume a lot of disk space).



Why do I have to define an Exceptions folder?

It may happen that ABBYY Recognition Server cannot process some of the files dropped into an Input folder. For example, this may happen if a file format is not supported by the program or by the current license, or if a file is protected with a password. As the program is designed for automated document processing, such exceptional situations must not crush the system or block the processing of other files in the queue.

That is why you should define a special folder in which Recognition Server will put files it cannot process. Each rejected file is accompanied by a special XML result file which contains a description of the issue.

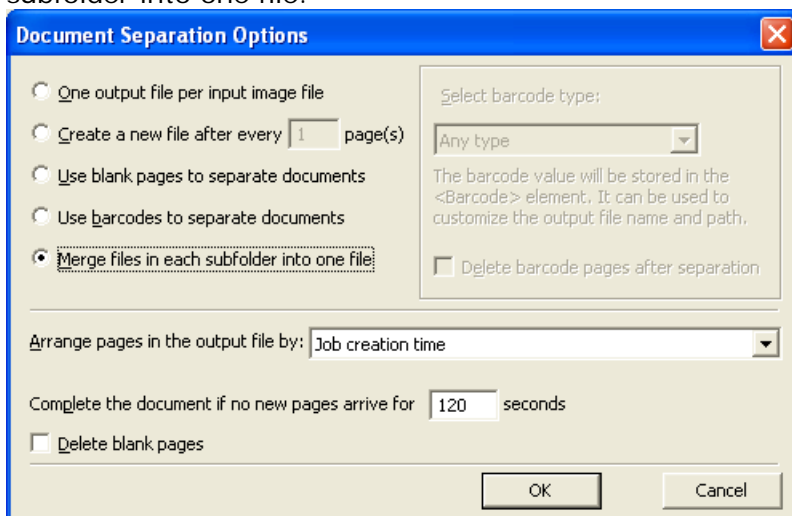
Exceptions folder also collects:

- images that were rejected by the server in accordance with the automatic quality control settings,
- images that correspond to jobs deleted by the administrator in the Remote Administration Console,
- images rejected by the user on a Verification Station.

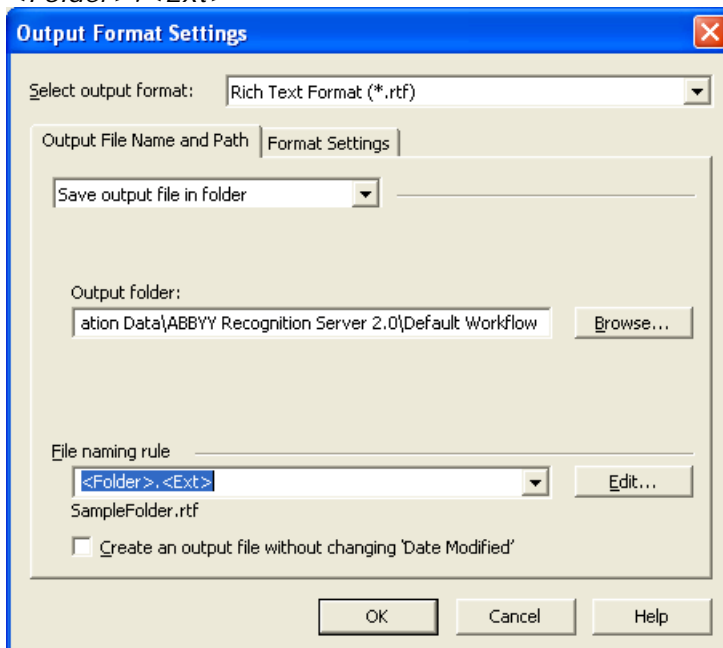
My scanner creates an image file for each page of the document and puts pages related to one document in a separate folder. Can ABBYY Recognition Server assemble pages from each folder into one file and assign the folder name to the resulting document?

Yes, Recognition Server supports this scenario. Do the following:

1. In the Document Separation Options dialog box, select "Merge files in each subfolder into one file."



2. In the Output Format Settings dialog box, set the file naming rule to `<Folder>.<Ext>`



How to override the Workflow settings by using an XML ticket?

XML tickets allow you to process the images with parameters that differ from the settings of the workflow. For example, you can use an XML ticket to change the recognition language or output format for a particular document.

The XML ticket must be placed into the Input folder prior to the images specified in the ticket.

Below is an example of an XML ticket that instructs Recognition Server to convert two files, *SampleImage1.jpg* and *SampleImage2.jpg*, to a single PDF file and publish it to the folder *C:\Documents and Settings\All Users\Application Data\ABBYY Recognition Server 2.0\Default Workflow\Output Folder*:

```
<XmlTicket>
<InputFile Name = "SampleImage1.jpg"/>
<InputFile Name = "SampleImage2.jpg"/>
<ExportParams DocumentSeparationMethod="MergeIntoSingleFile">
<ExportFormat OutputFileFormat="PDF" OutputFlowType="SharedFolder">
<OutputLocation>C:\Documents and Settings\All Users\Application Data\ABBYY Recognition
Server 2.0\Default Workflow\Output Folder</OutputLocation>
</ExportFormat>
</ExportParams>
</XmlTicket>
```

To test the operation of the above XML ticket:

1. Copy the above ticket in a text file.
2. Save the file with an *.xml extension.
3. Copy the XML file in the Input folder first.
4. Take two JPEG images named *SampleImage1.jpg* and *SampleImage2.jpg* and drop them in the Input folder after you have placed the XML ticket there.
5. Open the folder *C:\Documents and Settings\All Users\Application Data\ABBYY Recognition Server 2.0\Default Workflow\Output Folder* and find the resulting 2-page PDF file *SampleImage1.pdf* there.

When I'm upgrading to a new release/version, how do I keep my Recognition Server configuration?

If you are installing a new minor release of Recognition Server in the same folder in which the previous release was installed (by default, the installation folder is *%programfiles%\ABBYY Recognition Server X.X*), the configuration of the previous release will be imported automatically.

If you are installing a major new version (e.g. if you are upgrading Recognition Server 1.0 to Recognition Server 2.0), you can import the configuration from the previous version.

To import the configuration:

1. In the Recognition Server Properties dialog box, click the Import Settings button.
2. In the Open dialog box, specify the path to the Configuration.xml file, which is located in the ABBYY Recognition Server installation folder.

The Configuration.xml is not removed when you uninstall ABBYY Recognition Server. Therefore, you can import the configuration of the previous version into the new version of ABBYY Recognition Server even after you have uninstalled the previous version.

Can I move the settings of a workflow or a server configuration if I want to re-install the program on another PC?

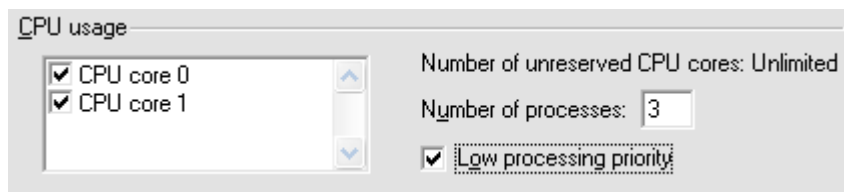
You can easily move Recognition Server settings or individual workflows from one Recognition Server to another by exporting them to an XML file.

To export and to import Recognition Server settings, use the Export Settings... and Import Settings... buttons in the Recognition Server Properties dialog box of the Remote Administration Console.

To export and import one or several workflows, use the Save Settings and Load Settings items on the shortcut menu of the Workflows node in the Remote Administration Console.

What is a “process” mentioned in the Processing Station properties? Do I need to set higher or lower numbers of processes?

The number of processes is the number of OCR and document conversion processes that run in parallel on the Processing Station.



Usually each process gets from the queue one file at a time. For example, if a Processing Station runs 3 processes, it will process 3 files from the queue in parallel. The processes on the Station are completely independent of one another: if one process has finished recognizing the file, it returns the result to the Server Manager and immediately gets the next file from the queue, while the other processes may be still processing other files at this time.

By default, the number of processes on each Processing Station is set to $N+1$, where N is the number of CPU cores on the station. This value is optimal for processing A4 pages that contain mostly text.

You may find it useful to change the default value in the following cases:

- When processing many very small images, significant time is spent on copying image files from the Server Manager to the Processing Stations and back. During this time, the CPUs of the station are idle. It makes sense to increase the number of processes on the station to provide better loading of the CPUs.
- When processing very large files, each of them may require a lot of RAM on the Processing Station. If the jobs fail with "Not enough memory" error message, try reducing the number of processes on the station. Then fewer files will be processed concurrently and less memory will be occupied.
- If you use a HyperThreading CPU, it is recommended to set the value of this parameter to $2N+1$, where N is the number of physical CPU cores.

Can I switch to another license if my current recognition Server license has not expired yet?

Recognition Server allows you to have several activated licenses in the Remote Administration Console and switch from one license to another manually when needed. The license currently used by Recognition Server is marked as "Current."

If the current license expires, Recognition Server will automatically switch to the next available license in the list. You can change the order of licenses in the list by using the "Move Up" and "Move Down" buttons.

See the ABBYY Recognition Server Help file for instructions on how to add, activate, and switch licenses.

Can I Install Recognition Server on any disk drive in my PC or do I have to use C:\?

The InstallShield Wizard lets you choose a disk drive and an installation folder for ABBYY Recognition Server during the installation process.

You can install ABBYY Recognition Server on any hard disk drive that has sufficient free space (see the System Requirements section of the Administrator's Guide).

Troubleshooting

I get an error message when trying to add a Processing Station

If you get an error message when trying to connect a Processing Station, follow the steps below:

- Verify that the current license allows connecting one more Processing Station.
- Make sure that the workstation you are trying to connect has the ABBYY Recognition Server Processing Station component installed. Make sure that the Processing Station service is started in *Control Panel > Administration Tools > Services* snap-in. Without this service running, the workstation will not be recognized as a valid Processing Station.
- Make sure that the Server Manager PC and the Processing Station PC are in the same domain or in the same workgroup.
- Make sure that on the Server Manager PC and on the Processing Station PC the required ports are opened:
 - If the Named Pipes protocol is used (default option), the 445 port must be opened. Make sure that the computer where the Processing Station is installed can be accessed from the computer where the Server Manager is installed, and vice versa. If not, make sure that the option "File and Printer Sharing for Microsoft Networks" is selected in the Local Area Connection Properties dialog box (Start>Control Panel>Network Connections>Local Area Connections>Properties) on both computers.
 - If TCP/IP is used, make sure that the ports you have specified in the registry are opened on both computers.
- The Windows firewall may be blocking the work of the services. In this case, add the services to the list of exceptions and allow them to be run:
 - On the computer where the Server Manager is installed, open *Start>Control Panel>Network Connections>Local Area Connections>Properties>Advanced>Windows Firewall Settings>Exceptions>Add Program>Browse* and select the file *OCRServer.exe*.
 - On the computer where the Processing Station is installed, open *Start>Control Panel>Network Connections>Local Area Connections>Properties>Advanced>Windows Firewall Settings>Exceptions>Add Program>Browse* and select the file *OCRStation.exe*.

- Open *Control Panel > Administration Tools > Services* snap-in and make sure that the Server Manager and the Processing Stations services are run under the same user account. In the case of a domain-based network, this must be a domain user account. In the case of a workgroup network, this user must be the Administrator or a member of the Power Users group and must have a non-empty password.

I get an error message when trying to add the server in the Remote Administration Console installed on a different computer

If you get an error message when trying to connect to the Recognition Server from a Remote Administration Console installed on a different PC, follow the steps below:

- Make sure that the Server Manager PC and the Remote Administration Console PC are in the same domain or in the same workgroup.
- Make sure that the Server Manager service is started in *Control Panel > Administration Tools > Services* snap-in.
- Make sure that on the Server Manager PC and on the Remote Administration Console PC the required ports are opened:
 - If the Named Pipes protocol is used (default option), the 445 port must be opened. Make sure that the computer where the Remote Administration Console is installed can be accessed from the computer where the Server Manager is installed, and vice versa. If not, make sure that the option "File and Printer Sharing for Microsoft Networks" is selected in the Local Area Connection Properties dialog box (Start>Control Panel>Network Connections>Local Area Connections>Properties) on both computers.
 - If TCP/IP is used, make sure that the ports you have specified in the registry are opened on both computers.
- In the case of a workgroup network, make sure that the user who runs the Remote Administration Console is the Administrator or a member of the Power Users group and has a non-empty password. Make sure that an account with the same username and password as those of the user who runs the Verification Station (or the Remote Administration Console) exists on the computer on which the Server Manager is installed. If the account does not exist, create it.

I get an error message when trying to connect to the server from a Verification Station installed on a different computer

If you get an error message when trying to connect to the server from a Verification Station installed on a different PC, follow the steps below:

- Make sure that the server location is specified properly in the Station Properties dialog box
- Make sure that the Server Manager service is started in *Control Panel > Administration Tools > Services* snap-in.
- Make sure that the current license allows connecting one more Verification Station.
- Make sure that the Server Manager PC and the Verification Station PC are in the same domain or in the same workgroup.
- Make sure that on the Server Manager PC and on the Verification Station PC the required ports are opened:
 - If the Named Pipes protocol is used (default option), the 445 port must be opened. Make sure that the computer where the Verification Station is installed can be accessed from the computer where the Server Manager is installed, and vice versa. If not, make sure that the option "File and Printer Sharing for Microsoft Networks" is selected in the Local Area Connection

Properties dialog box (Start>Control Panel>Network Connections>Local Area Connections>Properties) on both computers.

- If TCP/IP is used, make sure that the ports you have specified in the registry are opened on both computers.
- In the case of a workgroup network, make sure that the user who runs the Verification Station is the Administrator or a member of the Power Users group and has a non-empty password. Make sure that an account with the same username and password as those of the user who runs the Verification Station exists on the computer on which the Server Manager is installed. If the account does not exist, create it.
- If the connection with the Server Manager cannot be established with "No workflows found" message, this means you do not have the permissions to verify pages from any of the Recognition Server workflows. You need the verification permissions for at least one workflow in the Remote Administration Console.

Pages do not arrive at the Verification Station

1. On the Actions menu of the Verification Station, select the Station Properties item. The Station Properties dialog box will open.
2. Make sure that the correct server name is entered in the Server location field. If the Server Manager is installed on the same computer, the server location must be "localhost" or "127.0.0.1". Click the Test Connection button to check the connection with the Server Manager.
 - If the server location is correct but the connection with the Server Manager cannot be established and the message "Unable to perform RPC call. The RPC server is unavailable" is displayed, the administrator should make sure that the Server Manager is installed at the specified location, its service is running, and the computer is accessible from the LAN (for detailed information, see the Troubleshooting section of the Administrator's Guide).
 - If the server location is correct but the connection with the Server Manager cannot be established and the message "Unable to perform RPC call. Access is denied" is displayed, the administrator should check the authorization settings for the connection between the Server Manager and the Verification Station (for detailed information, see the Troubleshooting section of the Administrator's Guide).
 - If the server location is correct but the connection with the Server Manager cannot be established and the message "No workflows found" is displayed, you do not have the permissions to verify pages from any of the Recognition Server workflows. You need the verification permissions for at least one workflow. Permissions are granted by the administrator in the Remote Administration Console.
3. Make sure that the required workflow is present on the list of workflows and is checked. If the workflow is not on the list, then either verification is not enabled for this workflow, or you do not have the permissions to verify pages from this workflow. Ask the administrator to enable verification for this workflow or grant you the verification permissions in the Remote Administration Console.

Note: The list of workflows may be disabled if the administrator has prohibited your user account from selecting workflows on the Verification Station.

4. Check if there are unverified pages in the selected workflows.

The message “Authentication failed: wrong login or password” appears when I start the Verification Station

This message indicates that the administrator has restricted access to all the Recognition Server workflows, and you do not have the permissions to verify any of them. Ask the administrator to add your username to the list of verifiers and grant you the verification permissions in the Remote Administration Console.

The Verification Station hangs at startup

If the address of a non-existent computer is specified in the registry as the server location, the Verification Station may hang at startup. To prevent this, in the registry remove the following values:

HKEY_LOCAL_MACHINE\Software\ABBYY\RecognitionServer\2.0\DefaultServerLocation

HKEY_CURRENT_USER\Software\ABBYY\RecognitionServer\2.0\VerificationStation\ServerLocation

Then restart the Verification Station.

Why are images being deleted from the Input folder?

When image files are dropped into the Input folder, Recognition Server immediately imports them to its temporary folder and starts processing the images placed in the temporary folder. Once the images are processed, the resulting files are sent to the output destination specified in the job settings, or (if there were issues during processing) to the Exceptions folder.

Therefore, when images are deleted from the Input folder, it means that they are being processed and should soon appear in either the Output or the Exceptions folder. The administrator can track the status of each document in the Jobs node of the Remote Administration Console.

How to know why everything is being put into the Exceptions folder?

For all jobs that are rejected and placed into the Exceptions folder, Recognition Server logs the reasons for rejection. The error messages for a rejected job can be viewed:

- in the Job log node of the Remote Administration Console, by double-clicking on the Failed job;
- in the XML result file which is published to the Exceptions folder together with the rejected image. The XML result file has the Error section in which the error message is written (for example, *<Error>Recognition quality is too low.</Error>*).

I am trying to set up an e-mail notification. Why do I not receive it?

The e-mail notifications require integration with Microsoft Exchange Server.

To set up e-mail notifications, check “Notify the administrator if a failure occurs” option in the Recognition Server properties dialog box and then configure your mail client. For detailed instructions, refer to the “How to Configure Your E-mail Client” article in the Help file or consult the Administrator’s Guide.

Why can’t I start the workflow?

If a workflow remains in “Starting” mode and Recognition Server does not allow you to stop or re-start it, open the Server log node and check for an error message explaining why the

workflow cannot be started. The most probable reason is that one of the folders (Input folder, Output folder, or Exceptions folder) cannot be accessed by Recognition Server.

The workflow cannot access the external FTP server

If the workflow fails to get images from a folder located on the FTP server, make sure that the user account under which the Server Manager service is started has the rights to access the external network. For more information on how to restart services under another account, see "Restarting services under a user account" article in the Help file.

The workflow does not start with the error message "Some of the working folders are inaccessible"

- Make sure that the folder exists.
- Make sure that the user account under which the Server Manager's service is running has read/write permissions to this folder. For more information on how to restart services under another account, see "Restarting services under a user account" article in the Help file.
- If the path contains a network drive (for example, X:\ Folder), change it to the complete path to the folder, e.g. \\Computer\...\Folder.

When processing images, a "Disk space is too low" warning appears on the computer where the Server Manager is running

The Server Manager stores all the files queued for processing in its temporary files folder, the default path to which is *<Installation folder>\Bin\RecognitionServer2Temp*. If there is not enough disk space on the drive where the program's installation folder is located, you can change the path to the temporary folder and select another hard disk. The path can be changed in the Recognition Server Properties dialog box.

How can I retrieve an image document that is being processed by ABBYY Recognition Server?

You may want to retrieve an image file before ABBYY Recognition Server has finished processing it (for example, if a document is taking too long to process, or if a network connection error has occurred).

The image can be retrieved from the Images subfolder of the Server Manager temporary files folder. The path to the Server Manager temporary files folder can be viewed and changed in the Recognition Server Properties dialog box. The default path is *<Installation folder>\Bin\RecognitionServer2Temp*.

The image is stored in this temporary files folder starting from the moment when it is taken from the Input folder and until it is published to the Output folder. The Job ID is attached to the beginning of the image file name.

Digits in brackets are appended to the names of output files

Job IDs may be appended to filenames in order to avoid a conflict of filenames in the Output folder. To prevent this conflict, you must ensure that the names of output files are unique. For example, you can set up the program to automatically add date and time to output file names in the Output Format Settings dialog box.

I have been already waiting for a long time to get my files out. What can I do to a) get their status, b) speed up the processing, c) cancel the job?

a) The status of jobs in the processing queue can be viewed in the Jobs node of the Remote Administration Console.

b) Recognition Server processes queued jobs in accordance with their priorities. Jobs of the same priority are processed according to their creation time. You can increase the priority of jobs having Waiting status (i.e. which the program has not yet started to process). To increase a job's priority, double-click on the job in the Jobs node and change the job priority in the Job Properties dialog box.

c) To cancel a job, select the job in the Jobs node and press *Delete* button, or select *Delete* item from the job context menu. To empty a jobs queue, select *Delete All* item on the context menu of the Jobs node.

Why does the file disappear from the Input folder but does not appear in the Output folder?

Open the Jobs node of the Remote Administration Console and check the status of the job:

- "Waiting" status means that the file is not yet being processed. This can happen if there are other files in the queue that are being processed by Recognition Server ahead of your file (either they were imported by Recognition Server earlier than your file, or they have a higher priority).

If there are no jobs ahead, and the first job in the queue has Waiting status, that means the Processing Station cannot pick up the file. Check the status of the Processing Station. If it is not running, check for an error message in the Server log.

- "Processing" status means that the file is currently being processed. Processing can take a long time if the file contains multiple pages, was poorly scanned, or if a wrong OCR language is being used to process it. To avoid this, you can set a time-out for job cancellation on the Quality Control tab of the Workflow Properties dialog box. If this option is selected, Recognition Server will automatically reject files that have been processed for too long.
- "Queued for Verification" status means that the job is waiting to be verified on a Verification Station. It will not be published to the Output folder until it is verified. In this case, run a Verification Station and verify the necessary pages from the job.
- "Processed_Paused" status means that it cannot be published to the output destination. If this is the case, open the Server log and check for an error message explaining why the job cannot be published.

Why is the license counter incremented by several pages when I'm processing a one-page image?

The counter is incremented by 1 when processing an A4 page or smaller. When processing a page which is n times larger than A4, the counter will be incremented by n .

So, most probably the size of the image you are processing is too large. Open the image in an image editor and check if the image dimensions are larger than the A4 page dimensions (210 mm x 297 mm, or 8.3 in x 11.7 in).

**The license in the USB key is not recognized by Recognition Server.
The Server Manager is installed on Windows 2003 and its service is
running under a user account**

This is a known issue of the current SafeNet iKey driver version, which may be solved by using an older version of the driver. Please contact ABBYY technical support service in your region for getting the older version of the driver and the instructions on how to install it on Windows 2003 OS.

**Image files disappear from the Input folder, but I don't see any new
jobs in the console**

A possible reason is that the Administration Console wasn't refreshed after the files had been imported. Press F5 or click the *Refresh* button in the Jobs node to refresh the list of jobs.