

ABBYY FlexiCapture

System Administrator's Guide

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Introducing ABBYY FlexiCapture

ABBYY FlexiCapture is a highly scalable platform for intelligent data and document capture which can be successfully used to extract data from unstructured as well as structured paper documents, scans, e-mail messages, and other sources for subsequent use in document management systems. The four basic data extraction operations in ABBYY FlexiCapture include classification, optical recognition, verification, and export to ERP, ECM or BPM systems.

ABBYY FlexiCapture is capable of handling the full range of data processing needs, from small-scale projects to distributed industrial capture of large volumes of data, providing high levels of security and reliability expected from enterprise-grade software solutions.

The basic document processing scenario is as follows:

1. Documents are placed in the automatic scanner feeder and scanning begins. Images can also be imported from email or a mobile device, etc.
2. Scanned document images are submitted for recognition, at which point the software automatically identifies documents, including multipage documents, locates meaningful fields, extracts data and loads check rules.
3. After the recognition has been completed the extracted data undergoes an automatic check rules. If necessary, the process of visual check for data and rule errors is launched.
4. Recognized and verified data along with electronic copies of documents are saved to a database, an information system, or a file.

ABBYY FlexiCapture architecture

ABBYY FlexiCapture is a set of applications that comprises document processing stations and servers.

Server components:

1. **Application Server** is a web service in Internet Information Services (IIS) which functions as the main gateway for all HTTP/HTTPS traffic in the system . This component provides user authentication and authorization functionality and enables communication between the server and client components.
2. **License Server** is a service that stores information about the current license and allowed uses of the system.
3. **Processing Server** is service that manages the Processing Stations. This component enables distributed processing.
4. **Database** stores the processing settings, information about the users, information about the documents that are being processed, and statistics for the documents that have been processed.
5. **File Storage** stores the images of the documents that are being processed and the data captured from these documents.

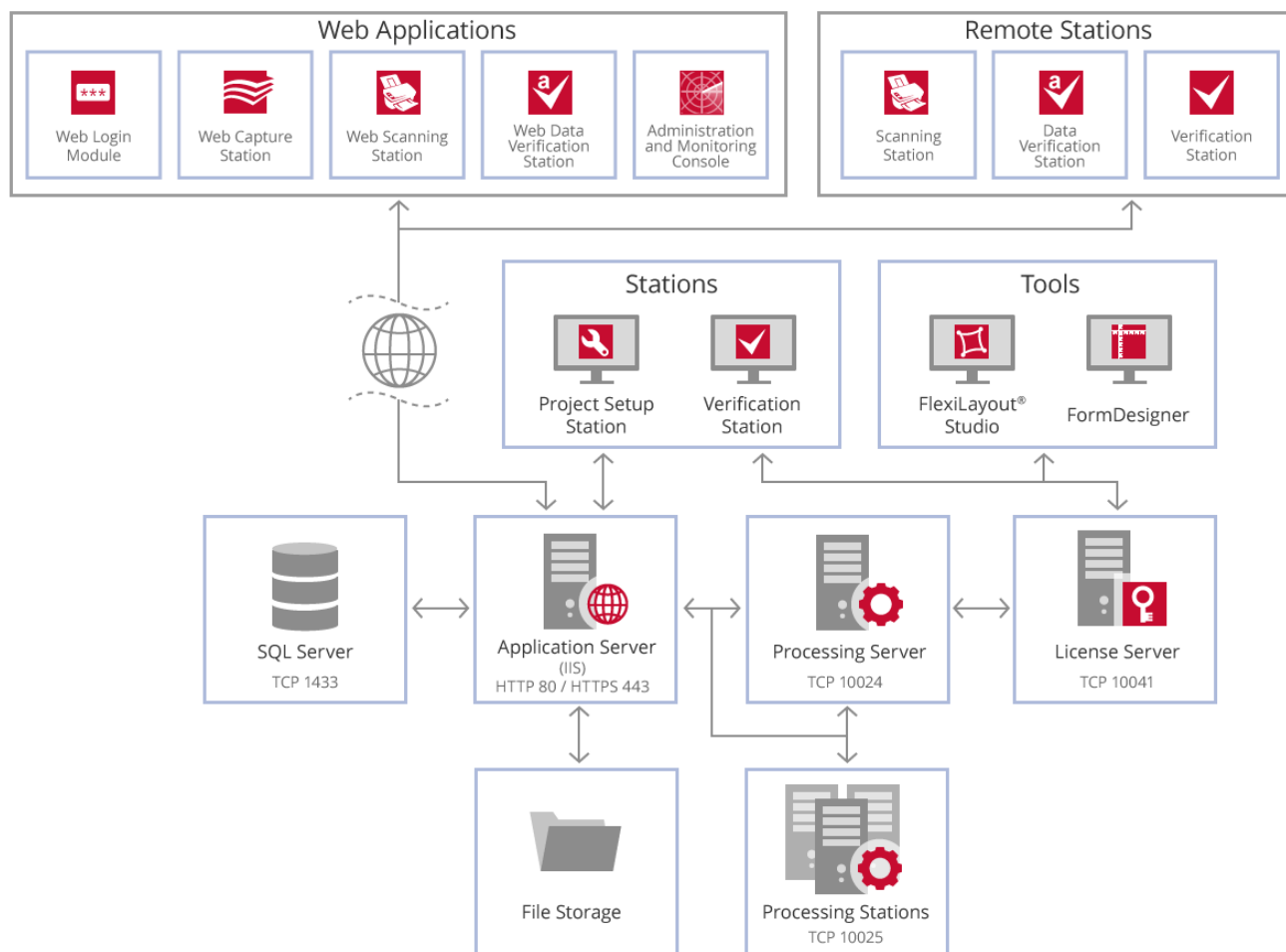
Each server component can be installed on a separate computer, allowing variable scalability and individual reliability and security settings.

Client components:

1. **Administration and Monitoring Console** is a web application that is used for setting up ABBYY FlexiCapture and monitoring its operation.
2. **Project Setup Station** is used for setting up document processing.
3. **Processing Stations:**
 - **Automated Processing Stations** import and process images, perform optical recognition, run user scripts, export extracted data to the user's storage system, and perform a number of service operations.
 - **Manual Processing Stations (Scanning Station and Verification Station)** is a set of applications for obtaining document images, feeding them to ABBYY FlexiCapture, and verifying extracted data. They can be installed as separate PC applications, as thin browser-based clients, or as mobile apps.

Component interaction

The flow chart below illustrates interaction among the ABBYY FlexiCapture components.



For details, see: [Overview of interactions between ABBYY FlexiCapture components.](#)

By default, the following ports and protocols are used:

- **Application Server** - 80 (if HTTP is used) or 443 (if HTTPS is used)

- **License Server** - 3020
- **Processing Server** - 10024
- **Processing Stations** - 10025

See also: [How to change the ports used by ABBYY FlexiCapture](#).

Express Installation and Setup

Important! This section describes installing and setting up ABBYY FlexiCapture on a stand-alone computer for evaluation and demonstration purposes. [Distributed installation](#) is recommended for industrial document and data capture.

System requirements

CPU	2.4 GHz or faster 4-core CPU
Operating System	• Windows 7 SP1 • Windows 8.1 • Windows 10 • Windows Server 2008 SP2 + Desktop Experience • Windows Server 2008 R2 SP1 + Desktop Experience • Windows Server 2012 + Desktop Experience • Windows Server 2012 R2 + Desktop Experience • Windows Server 2016 + Desktop Experience  Note: To use a localized version of ABBYY FlexiCapture, make sure your operating system supports the corresponding GUI language.
RAM	8 GB
Disk space	20 GB for installation and temporary files + 10 GB for the Database and File Storage
System and software components	1. Internet Information Services (IIS) 7 or later 2. Microsoft .NET Framework 4.5 or later (4.6 if you use Windows 10)  Note: Windows 2012R2 already includes .Net Framework 4.5.1 but you will need to install ASP.NET 4.5. You can look up the version of your .Net Framework in the registry. Please visit this Microsoft web page for detailed instructions. 3. Microsoft SQL Server 2008 SP4, 2008 R2 SP3, 2012 SP2, 2014 SP1, 2016 4. Visual C++ 2015 Redistributable

Other requirements	A scanner with TWAIN, WIA or ISIS support
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Installation

Important! Before installing and setting up ABBYY FlexiCapture, be sure to [disable UAC \(User Account Control\)](#). Alternatively, you can install Application Server using the built-in administrator account.

To install and set up the server components of ABBYY FlexiCapture, you must first install Internet Information Services (IIS), Microsoft .NET Framework, and Microsoft SQL Server.

Internet Information Services (IIS) and Microsoft .NET Framework are installed via the Server Manager console (**Start** → **All programs** → **Administrative Tools** → **Server Manager**):

1. In **Server Manager**, click **Add roles and features**.
2. In the **Server Roles** list, select **Web Server (IIS)**.

If IIS is already installed on your computer, make sure that the following IIS components are selected:

Web Management Tools

- IIS 6 Management Compatibility
 - IIS Scripting Tools
 - IIS 6 WMI Compatibility
 - IIS Metabase and IIS 6 configuration compatibility
- IIS Management Console

World Wide Web Services

- Application Development Features
 - .NET Extensibility
 - ASP.NET
 - ISAPI Extensions
 - ISAPI Filters
- Common HTTP Features
 - Default Document
 - HTTP Errors
 - HTTP Redirection
 - Static Content
- Security
 - Basic Authentication
 - Request Filtering
 - Windows Authentication

 **Note:** You can additionally install any other IIS components that you need or install IIS in its entirety.

In the **Features** list, select **.NET Framework 4.5 Features** and make sure that the following components are selected:

- .NET Framework (includes .NET 2.0 and 3.0)
- .NET Framework 4.5 Advanced Services
 - ASP.NET 4.5
 - WCF Services
 - TCP Port Sharing

Microsoft SQL Server can be installed from the ABBYY FlexiCapture 12 setup package:

1. Run **Autorun.exe**.
2. Click **2. Distributed Installation** → **1. Install External Components** → **Microsoft SQL Server 2014 Express**.

3. When installing Microsoft SQL Server, specify the following:

- **Named instance:** e.g., SQLEXPRESS;
- **Authentication Mode:** Mixed Mode (SQL Server authentication and Windows authentication);
- The password for the SQL Server system administrator (sa) account and SQL Server administrators.

Installing servers

To install ABBYY FlexiCapture servers:

1. On the **Autorun** menu, click **2. Distributed Installation** → **2. Install Servers** and follow the instructions of the install wizard.
2. In the **Custom Setup** dialog box, select the following components:
 - Processing Server
 - Protection Server
 - Application Server
 - Web Stations

Finally, specify a destination folder.

Once the setup is finished, the following will be launched automatically:

- the License Manage utility, where you can activate your serial number.
- the Administration and Monitoring Console, where you can set up Application Server (see the [Setup](#) section).

 **Note:** You can also launch the License Manager and the Administration and Monitoring Console manually by clicking **Start** → **All Programs** → **ABBYY FlexiCapture 12 Servers**.

Installing stations

To install ABBYY FlexiCapture stations:

1. On the **Autorun** menu, click **2. Distributed Installation** → **2. Install Workstations** and follow the instructions of the setup wizard.
2. In the **Custom Setup** dialog box, select the components you want to install (by default, all of the components are selected) and specify a destination folder.
3. In the **Protection Server Location** dialog box, keep the default value (127.0.0.1).
4. In the **User account dialog box**, select this account for the processing service: **Default account (NT AUTHORITY\Network Service)**.

Once ABBYY FlexiCapture is installed, it must be set up for document and data capture.

Setup

To set up ABBYY FlexiCapture:

1. Open the Administration and Monitoring Console under a user account that has administrative privileges. Use one of the following two methods:

- Click **Start** → **All programs** → **ABBYY FlexiCapture 12 Servers** → **Administration and Monitoring Console**
or
- Click this link: <http://localhost/FlexiCapture12/Monitoring/#Settings/DbConn>

Click **Settings** → **Application Server** and then click the **Create new database** button. In the window that opens, specify the following:

Server instance name	(local)\sqlexpress Note: If SQL Server is not installed locally, the server instance name will look like this: <computer_name>\sqlexpress
Database name	FCDemoDataBase
Authentication settings	Database Server Authentication
User name and Password	The name and password of the database administrator that were specified when installing Microsoft SQL Server (see the Installation section)
Use external file storage	Select this option and specify the path to a file storage location for example: C:\FileStorage

Click **OK**. Once the database is created, you will be issued a temporary password, which is the word "password." Please open the log-in page (<http://localhost/FlexiCapture12/Login>) and change this password.

 **Note:** For detailed instructions on creating a new database, see the [Creating a database](#) section.

2. Set up the Processing Server:

- Launch the Processing Server Monitor (click **Start** → **All Programs** → **ABBYY FlexiCapture 12 Servers** → **Processing Server**);
- On the **Actions** menu, click **Add Server** → **Local Host**.
- Make sure that the Processing Server is running (it should have  next to it). Otherwise, click **Actions** → **Start**.

 **Note:** For detailed instructions on setting up the Processing Server, see the [Configuring the Processing Server](#) section.

- To add Processing Stations: selecting the **Stations** item in the **ABBYY FlexiCapture 12 Servers** tree, select **<Server_Name>**, and then click **Actions** → **Add Stations....** In the window that opens, click **By name...** and type "localhost" to add the locally installed Processing Station. Start the Processing Station (**Actions** → **Start**).

3. Upload a project to the server:

1. Launch the Project Setup Station (click **Start** → **All Programs** → **ABBYY FlexiCapture 12 Stations** → **Project Setup Station**).
2. Open a local project (click **File** → **Open Project...**).

 **Note:** You can select any of the sample projects stored in this folder: %public%\ABBYY\FlexiCapture\12.0\Samples.

3. Upload the project to the server (click **File** → **Upload Project to Server...**). Enter the address of the Application Server in the following format: <http://localhost>.

 **Note:** If the Project Setup Station and the Application Server are installed on different computers, the server address will look like this: http://<server_name>.

4. Select **Use server authentication** and enter the name and password of the database administrator.

 **Note:** If you are planning to demonstrate how images can be imported from Hot Folders, enable Hot Folder processing in the Administration and Monitoring Console (click **Settings** → **Projects**).

ABBYY FlexiCapture 12 is now ready for demonstration.

If you need more information on setting up ABBYY FlexiCapture 12 or if you encounter any problems when completing the steps listed on this page, please refer to the [Deploying ABBYY FlexiCapture](#) section.

Deploying ABBYY FlexiCapture

[Standalone and Distributed Editions](#)

[ABBYY FlexiCapture Standalone](#)

[ABBYY FlexiCapture Distributed](#)

Standalone and Distributed Editions

ABBYY FlexiCapture is available in two editions, standalone and distributed.

ABBYY FlexiCapture 12 Standalone is installed on one computer and is intended for processing small volumes of documents by two or three operators who work in shifts. This edition does not support complex batch routing schemes.

ABBYY FlexiCapture 12 Distributed is installed on multiple computers and is intended for processing large volumes of documents in enterprise environments. This edition is highly scalable, offers centralized control console, and supports complex routing schemes, where documents are distributed among operators in charge of different types of batches or documents.

There is also an option of installing ABBYY FlexiCapture 12 Distributed with basic settings on one computer or virtual machine for evaluation and demonstration purposes.

ABBYY FlexiCapture productivity

ABBYY FlexiCapture productivity is expressed as the number of pages or documents processed within a certain time period. The major factors affecting productivity are:

1. The size of page images.

 **Note:** Images size depends on paper size, scanning resolution, and scanning mode (i.e. whether the image has been scanned in black-and-white, grayscale, or color).

2. The number of automated processing stations.
3. The number of operators involved in document processing.

 **Note:** There are two main types of operators — scanning operators and verification operators. A scanning operator scans, checks, and processes images, while a verification operator verifies and corrects captured data.

Depending on your processing needs, select the optimal configuration for your system:

Pages* / 24 hours			Scanning operators	Verification operators	Data transfer rate	CPU cores
Black-and-white	Grayscale	Color				
20,000	5,000	1,000	3 or fewer	3 or fewer	-	8
1,000,000	500,000	300,000	300	100	1 Gb/sec	80
3,000,000	2,000,000	1,000,000.	1000	300	10 Gb/sec	160

* A4 pages scanned at 300 dpi.

 **Note:** The performance indicators can vary depending on the processing settings and hardware environment. It is recommended to execute tests in order to identify bottlenecks.

ABBYY FlexiCapture Standalone

ABBYY FlexiCapture Standalone is intended for processing documents on one computer. The program is set up and monitored by an administrator, while documents are scanned and captured data are verified by operators. Document recognition is carried out automatically.

System Requirements

CPU	2 GHz or faster
Operating system	• Windows 7 SP1 • Windows 8.1 • Windows 10  Note: To use a localized version of ABBYY FlexiCapture, make sure your operating system supports the corresponding GUI language.
RAM	at least 2 GB
Disk space	4 GB (including 2 GB for installation)
Other requirements	1. Microsoft .NET Framework 4.5 or later  Note: Windows 2012R2 already includes .Net Framework 4.5.1 but you will need

to install ASP.NET 4.5. You can look up the version of your .Net Framework in the registry. Please visit this [Microsoft web page](#) for detailed instructions.

2. Microsoft Office (version 2007 or later) or LibreOffice (version 4.0 or later)
3. A scanner with TWAIN, WIA or ISIS support

Installation

1. On the **Autorun** menu, select **Standalone Installation** and follow the instructions of the setup wizard.
2. In the **Setup Type** dialog box, select one of the available installation modes:
 - **Administrator Station** – The Administrator Station, FormDesigner, and FlexiLayout Studio will be installed. Select this option if you need to set up ABBYY FlexiCapture to process a specific kind of document.
 - **Operator Station** – Only the Operator Station will be installed. Select this option to start processing documents as an operator.
 - **Administrator and Operator Stations** (selected by default) – The Administrator Station, the Operator Station, FormDesigner, and FlexiLayout Studio will be installed. Select this option if you need to set up to set up ABBYY FlexiCapture to process a specific kind of document and start processing documents as an operator.
3. Select a destination folder.
4. Click **Next** and wait for the installation to complete.

Installing multiple workstations with a single Licensing Server

All the stations installed in the system communicate with the Licensing Server. The address of the Licensing Server is stored in the LicensingSettings.xml file, which can be found in the folder where you installed the product. The address of the server is specified in the ServerAddress tag of the MainNetworkLicenseServer attribute.

If you have one license and several operator stations, specify the address of the computer with the license on each operator station. To enable a station to access the new Licensing Server, simply change the name of the computer on which the Licensing Server is installed and restart the station.

Creating and opening projects

After you install the program, the License Manager utility will be started, prompting you to activate your serial number.

 **Note:** You can also start the License Manager manually by clicking **Start** → **All Programs** → **ABBYY FlexiCapture 12**.

To start ABBYY FlexiCapture:

- Click **Start** → **All Programs** → **ABBYY FlexiCapture 12** → **Administrator Station** to start the program in administrator mode.

- Click **Start** → **All Programs** → **ABBYY FlexiCapture 12.** → **Operator Station** to start the program in operator mode.

To create or open a project, perform one of the following three actions on the Administrator Station:

- Create a new project (click **File** → **New Project...**). Create or import at least one Document Definition (click **Project** → **Document Definitions**).
- Open a sample project from %Public%\ABBYY\FlexiCapture\12.0\Samples).
- Open a project created in an earlier version of ABBYY FlexiCapture.

Make sure that your project has at least one correct and added Document Definition for which export settings have been specified.

ABBYY FlexiCapture Distributed

ABBYY FlexiCapture Distributed is intended for deployment in enterprise environments.

System Requirements

Servers

CPU	Application Server: 2 GHz or faster with 2 cores Other servers: 2 GHz or faster
Operating system	• Windows Server 2008 SP2 • Windows Server 2008 R2 SP1 • Windows Server 2012 • Windows Server 2012 R2 • Windows Server 2016  Note: To use a localized version of ABBYY FlexiCapture, make sure your operating system supports the corresponding GUI language.
RAM	At least 2 GB for each component  Note: An additional 4 GB RAM is required if Database Server is installed.
Disk space	1. Application Server: 500 MB for installation 2. Processing Server: 400 MB for installation 3. Licensing Server: 100 MB for installation 4. 2 GB for SQL Server database 5. Additional space is required for the file storage
Browser	• Internet Explorer 11

(to open Administration and Monitoring Console)	 Note: To ensure that Internet Explorer 11 works correctly, install .NET Framework 4.5 on the computer with the Application Server or add the address of an application server to the list of websites that are opened in compatibility mode. • Mozilla Firefox 50 or later (32-bit) • Google Chrome 55 or later (32-bit)
Other requirements	1. The computer where the server is installed must be connected to your domain 2. Video card and display with a resolution of 1024×768 3. Internet Information Services 7 or higher 4. Microsoft .NET Framework 4.5 or higher (4.6 if you use Windows 10) 5. Microsoft SQL Server 2008 SP4, 2008 R2 SP3, 2012 SP2, 2014 SP1, 2016 6. Visual C++ 2015 Redistributable

Stations

CPU	2 GHz or faster
Operating System	• Windows 7 SP1 • Windows 8.1 • Windows 10 • Windows Server 2008 SP2 + Desktop Experience • Windows Server 2008 R2 SP1 + Desktop Experience • Windows Server 2012 + Desktop Experience • Windows Server 2012 R2 + Desktop Experience • Windows Server 2016 + Desktop Experience  Note: To use a localized version of ABBYY FlexiCapture, make sure your operating system supports the corresponding GUI language.
RAM	Project Setup Station, Verification Station, Data Verification Station: 2 GB Processing Station: 512 MB for each CPU core, but at least 1 GB Scanning Station: 1 GB
Disk space	Scanning Station: 1 GB (including 200 MB for installation and sufficient disk space for scanned images)

	Other stations: 4 GB (including 2 GB for installation)
Other requirements	1. A scanner with TWAIN, WIA or ISIS support 2. Video card and display with a resolution of 1024×768 3. The computer where the station is installed must be connected to your domain 4. Microsoft .NET Framework 4.5 or later 5. Microsoft Office (version 2007 or later) or LibreOffice (version 4.0 or later)

HTML 5 Web Stations (new)

CPU	1.6 GHz or faster
Operating System	• Windows 7 SP1 • Windows 8/8.1 • Windows 10 • Windows Server 2008 R2 SP1 + Desktop Experience • Windows Server 2012 + Desktop Experience • Windows Server 2012 R2 + Desktop Experience • Windows Server 2016 + Desktop Experience  Note: To use a localized version of ABBYY FlexiCapture, make sure your operating system supports the corresponding GUI language.
RAM	1 GB
Disk space	• Sufficient space to install a browser • At least 100 MB for program operation • An additional 60 MB is required to install the ABBYY Scanning plugin for the Web Scanning Station.
Browser	• Microsoft Internet Explorer 11 Browser security settings: Internet Explorer medium-high protection level. Detailed required settings for Internet Explorer: 1. Run ActiveX controls and plugins = Enable 2. Script ActiveX controls marked safe for scripting = Enable 3. Active scripting = Enable

	 Note: To ensure that Internet Explorer 11 works correctly, install .NET Framework 4.5 on the computer with the Application Server or add the address of an application server to the list of websites that are opened in compatibility mode.  Note: The Metro-style version of Internet Explorer 10 that comes with Windows 8 is not supported. • Mozilla Firefox 50 or later (32-bit) Security settings for Mozilla Firefox: 1. Java scripting = Enable 2. Firefox will remember history (Options → Privacy) • Google Chrome 55 or later (32-bit) Security settings for Google Chrome: 1. JavaScript = Allow all sites 2. plugins = Run automatically  Note: All plugins are disabled by default. To enable a plugin, open chrome://plugins/ in the browser and select the Always allowed option for the desired plugin.
Other requirements	1. Video card and display with a resolution of 1024×768 2. For Web Scanning Station: a. A scanner supporting the TWAIN interface. WIA scanners can be accessed from the station but they may not operate properly b. ABBYY Scanning plugin (see below)

SilverLight Web Stations (previous version)

CPU	1.6 GHz or faster
Operating System	• Windows 7 SP1 • Windows 8/8.1 • Windows 10 • Windows Server 2008 R2 SP1 + Desktop Experience • Windows Server 2012 + Desktop Experience • Windows Server 2012 R2 + Desktop Experience  Note: To use a localized version of ABBYY FlexiCapture, make sure your operating system supports the corresponding GUI language.

RAM	512 MB
Disk space	• 250 MB to install a browser and a SilverLight • An additional 31 MB is required to install the ABBYY Scanning plugin for the Web Scanning Station and the Web Capture Station.
Browser	• Microsoft Internet Explorer 11 Browser security settings: Internet Explorer medium-high protection level. Detailed required settings for Internet Explorer: 1. Run ActiveX controls and plugins = Enable 2. Script ActiveX controls marked safe for scripting = Enable 3. Active scripting = Enable 4. File Download = Enable (to install Silverlight) 📌Note: To ensure that Internet Explorer 11 works correctly, install .NET Framework 4.5 on the computer with the Application Server or add the address of an application server to the list of websites that are opened in compatibility mode. 📌Note: The Metro-style version of Internet Explorer 10 that comes with Windows 8 is not supported. 📌Note: Internet Explorer 64-bit is only supported under Windows 7/2008+ if Silverlight 5 is installed. • Mozilla Firefox 50 or later (32-bit) Security settings for Mozilla Firefox: 1. Java scripting = Enable 2. Firefox will remember history (Options → Privacy) • Google Chrome 40 or later (32-bit) 📌Note: Google Chrome 45 or later does not support Silverlight. Security settings for Google Chrome: 1. JavaScript = Allow all sites 2. plugins = Run automatically 📌Note: All plugins are disabled by default. To enable a plugin, open chrome://plugins/ in the browser and select the Always allowed option for the desired plugin.
Other requirements	1. Video card and display with a resolution of 1024×768 2. Silverlight 5.1.20913 or later 📌Note: Microsoft Internet Explorer 11 only supports Silverlight when running under Windows 7 SP1, Windows 8.1 or Windows 10.

	3. For Web Scanning Station and Web Capture Station: a. A scanner supporting the TWAIN interface. WIA scanners can be accessed from the station but they may not operate properly b. ABBYY Scanning plugin (see below)
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ABBYY Scanning Plug-In

The table below lists the operating systems on which the ABBYY Scanning plugin can be installed with various permissions:

ABBYY Scanning plugin			
OS	Permissions	UAC	EXE
Windows 7 SP1	Administrator	Recommended	✓
		No	✓
	User	Recommended	✓
		No	✓
Windows Server 2008 R2 SP1	Administrator	Recommended	✓
		No	✓
	User	Recommended	✗
		No	✗
Windows 8.1	Administrator	Recommended	✓
		No	✓
	User	Recommended	✓
		No	✓
Windows Server 2012*	Administrator	Recommended	✓
		No	✓
	User	Recommended	✗
		No	✗
Windows Server 2012 R2	Administrator	Recommended	✓

ABBYY Scanning plugin			
OS	Permissions	UAC	EXE
	User	No	✓
		Recommended	✗
		No	✗
Windows 10	Administrator	Recommended	✓
		No	✓
	User	Recommended	✓
		No	✓

 **Note:** To allow the ABBYY Scanning plugin to be installed on Windows Server 2012, run the executable file Setup.exe as Administrator or change the security policy by setting the value of the registry key HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\Installer DisableMSI to "0".

For detailed instructions on how to install the ABBYY Scanning plugin, see Web Scanning Station Help or Web Capture Station Help.

Remote Verification Station

CPU	2 GHz or faster
Operating System	• Windows 7 SP1 • Windows 8.1 • Windows 10 • Windows Server 2008 SP2 + Desktop Experience • Windows Server 2008 R2 SP1 + Desktop Experience • Windows Server 2012 + Desktop Experience • Windows Server 2012 R2 + Desktop Experience • Windows Server 2016 + Desktop Experience  Note: To use a localized version of ABBYY FlexiCapture, make sure your operating system supports the corresponding GUI language.
RAM	1 GB
Disk space	400 MB

Other requirements	1. Video card and display with a resolution of 1024×768 2. Microsoft .NET Framework 4.5 or later
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ClickOnce Scanning Station

CPU	2 GHz or faster
Operating System	• Windows 7 SP1 • Windows 8.1 • Windows 10 • Windows Server 2008 SP2 + Desktop Experience • Windows Server 2008 R2 SP1 + Desktop Experience • Windows Server 2012 + Desktop Experience • Windows Server 2012 R2 + Desktop Experience • Windows Server 2016 + Desktop Experience  Note: To use a localized version of ABBYY FlexiCapture, make sure your operating system supports the corresponding GUI language.
RAM	1 GB
Disk space	1 GB (including 90 MB for installation and sufficient space for scanned images). The size of downloadable file is 70 MB
Browser	For ClickOnce deployment: • Internet Explorer 11  Note: To ensure that Internet Explorer 11 works correctly, install .NET Framework 4.5 on the computer with the Application Server or add the address of an application server to the list of websites that are opened in compatibility mode.
Other requirements	1. A scanner with TWAIN, WIA or ISIS support 2. Video card and display with a resolution of 1024×768 3. Microsoft .NET Framework 4.5 or later

Virtual Environments

The system has been tested on the following virtual machines:

1. Virtual platforms that imitate physical machines:

- VMWare Workstation (any version)
- Hyper-V (any version)

 **Note:** Hyper-V version corresponds to the version of the operating system. Under Windows Server 2008, Hyper-V 6.0 is used.

 **Note:** Hyper-V virtual machines do not work with USB devices.

- Oracle VirtualBox (any version)
- VMWare ESXi (server included with VMWare vSphere, any version)

2. Virtual platforms imitating workplaces / applications:

- VMWare Horizon 5.2.0
- Citrix XenApp 6.0

3. Cloud services:

- Microsoft Azure
- Amazon Cloud

Preparing to install the Application Server

 **Important!** We recommend either [disabling User Account Control](#) before installing ABBYY FlexiCapture or performing all setup actions using the built-in administrator account.

Net Framework 4.5 and Internet Information Services must be installed on your computer before you can install the Application Server.

 **Note:** Windows 2012 R2 includes .Net Framework 4.5.1 but you will still need to install ASP.NET 4.5. Please visit the Microsoft website for instructions on how to find out which Microsoft .Net Framework versions and updates are installed on your computer.

IIS and .Net Framework are installed via the Control Panel (see the [step-by-step instructions and installation options](#)). In the Add Roles Wizard, select the following components:

Web Management Tools

- IIS 6 Management Compatibility
 - IIS Scripting Tools
 - IIS 6 WMI Compatibility
 - IIS Metabase and IIS 6 configuration compatibility
- IIS Management Console

World Wide Web Services

- Application Development Features
 - .NET Extensibility
 - ASP.NET
 - ISAPI Extensions
 - ISAPI Filters
- Common HTTP Features
 - Default Document
 - HTTP Errors
 - HTTP Redirection
 - Static Content
- Security
 - Basic Authentication
 - Request Filtering
 - Windows Authentication

Other IIS components may be installed if required, e.g. you can install IIS in its entirety.

When you install the ABBYY FlexiCapture servers, the following third-party components will be installed automatically:

1. Microsoft Visual C++ 2015 Runtime

2. Microsoft Core XML Services (MSXML6) – The Application Server requires this component for its operation.

3. Microsoft Report Viewer 2015 Runtime – This component is used by ABBYY FlexiCapture for generating reports.

 **Note:** If [Crystal Reports](#) v. 13.0.11.1467 and above is installed on the computer where the Application Server is installed, you can use this application to create reports in the Administration and Monitoring Console.

4. CodeMeter Runtime – This component is required if you plan to use a license stored on a CodeMeter USB dongle manufactured by Wibu-Systems.

Installing the servers

 **Important!** In enterprise environments, do not install the Processing Station on the same computer where the ABBYY FlexiCapture servers are installed, as this will degrade server performance.

After you have completed the preparation steps, install the ABBYY FlexiCapture servers. To do this, click **Distributed Installation** → **Install Servers** on the **Autorun** menu and follow the instructions of the setup wizard.

By default, all of the servers are installed on one computer:

- **Processing Server** is the server that controls the Processing Stations.
- **Licensing Server** is the server used for storing and managing licenses.
- **Application Server** is the server that controls the operation of the remaining components and, in particular:

- **Web stations**, which allow operators to connect to the server and process documents in the browser window, without installing ABBYY FlexiCapture on their machines.

If required, ABBYY FlexiCapture servers can be installed on different computers. To do this, in the **Setup Type** dialog box clear the boxes next to the servers that you do not want to install on this computer. When installing servers on different computers, note the following:

1. The Licensing Server address should be specified in the format "server" (without \\ or http://), or you can specify its IP address.
2. The Application Server address should be specified in the format "http://server".

 **Important!** To be able to use remote stations over the Internet, make sure that the Application Server is accessible over the Internet.

See also: [Silent installation](#).

Database server

The Application Server requires Microsoft SQL Server for its operation (for a list of supported versions, see the [System requirements](#) section). **Mixed Mode** must be enabled in Microsoft SQL Server ("SQL Server and Windows authentication").

 **Note:** The ABBYY FlexiCapture setup disk includes Microsoft SQL Server 2014 Express, which can be used only for demonstration purposes.

Required **SQL Server Collation**: SQL_Latin1_General_CP1_CI_AS.

Installing stations

To install ABBYY FlexiCapture stations, click **Distributed Installation** → **Install Workstations** on the **Autorun** menu and follow the instructions of the setup wizard.

By default, all the stations are installed on one computer:

1. **Scanning Station** scans documents and sends them to the server for further processing;
2. **Processing Station** automatically recognizes, imports, and exports documents; controlled by the Processing Server;
3. **Project Setup Station** is used to set up projects on the server and local projects;
4. **Data Verification Station** is used to verify uncertainly recognized characters;
5. **Verification Station** is used to verify data, correct document assembly errors, and handle exceptions;
6. **FlexiCapture Studio** is a tool for creating FlexiLayouts;
7. **FormDesigner** is a tool for creating forms.

Just like the servers, the stations can be installed on the same or on different computers.

If required, ABBYY FlexiCapture stations can be installed on different computers. To do this, in the **Setup Type** dialog box clear the boxes next to the stations that you do not want to install on this computer. When installing stations on different computers, note the following:

1. If Processing Station is selected, a dialog box will appear, where you must select the account under which the Processing Station service will run. By default, the service runs under the NETWORK SERVICE user account. If you plan to import/export data on this station from/to a storage location with restricted user permissions, or if this station is not in the domain, you can specify the user that has the appropriate permissions. In this case, the Processing Station service will run under this user.
2. When installing FlexiLayout Studio, FormDesigner, Verification Station or Project Setup Station, provide the name or the IP address of the Licensing Server in the next dialog box that opens (specify the name without "\", for example: MainServer).

See also: [Silent installation](#).

Installing remote stations

Remote stations allow you to connect to ABBYY FlexiCapture servers from computers that are not part of your LAN. Remote stations include Verification Station, Data Verification Station, and Scanning Station.

Remote stations can connect to the Application Server using HTTP/HTTPS.

To install remote stations, click **Distributed Installation** on the **Autorun** menu, click the desired remote station, and follow the instructions of the setup wizard.

 **Important!** If you wish to use remote stations over the Internet, the Application Server must be accessible over the Internet and the Processing Server must be running to enable exchange of information with the Licensing Server. If basic authentication is to be used for remote stations, basic authentication must be allowed in IIS in Default Web Site\FlexiCapture12\Server.

Silent installation

Installing ABBYY FlexiCapture in silent mode

In the case of silent installation, no setup dialog boxes are displayed and the program is installed in the default configuration.

`Setup.exe/qn`

Change "/qn" to "/qb" if you want an installation progress bar to be displayed. No other dialog boxes will be displayed.

Additional command line options

/L<language code> disables the automatic selection of the GUI language and installs the program with the interface language of your choice.

The following language code values can be specified:

1033 English

1049 Russian

/V<command line> passes the command line directly to msixexec.exe. The <command line> string can be replaced with the following commands:

ADDLOCAL= ApplicationServer,WebStations,ProcessingServer,ProtectionServer,

where:

1. ApplicationServer stands for the Application Server
2. WebStations stands for web stations
3. ProcessingServer stands for the Processing Server
4. ProtectionServer stands for the Licensing Server

Example:

```
Setup.exe /qn /L1049 /vADDLOCAL=ApplicationServer,WebStations
```

This set of commands will install the Application Server and web stations and Russian will be used as the GUI language.

Removing ABBYY FlexiCapture servers in silent mode

```
Msiexec /x {product ID}
```

You can find out your product ID in this registry key:

HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Uninstall (the product ID can be found in the key that corresponds to the name of the product). Alternatively, execute this command:

```
wmic product where "Name like '%FlexiCapture%'" get Name, Version, IdentifyingNumber
```

Installing stations using the command line

By default, all the ABBYY FlexiCapture stations will be installed. For the name of the Licensing Server, the setup program will specify the name of the computer from which the stations are being installed (in the case of local installation, *localhost* will be specified). Network Service will be specified as the user of the Processing Station. The interface language will be either English or the language specified in the regional settings of the operating system.

Run the setup.exe file located in the administrative installation folder using the command line options described below.

Advertise installation

For advertise installation, type:

```
Setup.exe /j
```

The program icon will appear in the **Start** menu of the workstation. Clicking this icon automatically installs the pro-gram in the default configuration.

Silent installation

In the case of silent installation, no setup dialog boxes are displayed and the program is installed from the server in the default configuration.

```
Setup.exe /qn
```

Change "/qn" to "/qb" if you want an installation progress bar to be displayed. No other dialog boxes will be displayed.

Additional command line options

/L<language code> disables the automatic selection of the GUI language and installs the program with the interface language of your choice.

The following language code values can be specified:

1033 English

1049 Russian

/V<command line> passes the command line directly to msixec.exe. The <command line> string can be replaced with the following commands:

- INSTALLDIR="<destination>" – the path to the folder where the ABBYY FlexiCapture stations should be installed
- STATIONS=0,1,2,3,4,5,6 – the list of stations to install. The numbers 0 to 6 correspond to the following stations:
 - 0 – Scanning Station
 - 1 – Processing Station
 - 2 – Verification Station
 - 3 – Data Verification Station
 - 4 – Project Setup Station
 - 5 – FlexiLayout Studio
 - 6 – FormDesigner
- ACCOUNTTYPE=Custom, LOGIN=user name, PASSWORD=password.

You can specify an account under which to run the Processing Station service.

Example:

```
Setup.exe /qn /L1049 /v INSTALLDIR="D:\FC12" STATIONS=1,4 ACCOUNTTYPE=Custom LOG-
IN=Domain\UserLogin PASSWORD=PSWD
```

This set of commands will install the Processing Station and the Project Setup Station into the D:\FC12 folder and Russian will be used as the GUI language. The Processing Station service will run under the account Domain\UserLogin and the password will be PSWD.

PROTECTIONSERVER=ServerName – the name of the Licensing Server

Removing ABBYY FlexiCapture stations in silent mode

```
Msiexec /x {product ID}
```

You can find out your product ID in this registry key:

- For a 32-bit system
HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Uninstall

- For a 64-bit system

HKEY_LOCAL_MACHINE\Software\Wow6432Node\Microsoft\Windows\CurrentVersion\Uninstall

The product ID can be found in the key that corresponds to the name of the product). Alternatively, execute this command:

```
wmic product where "Name like '%FlexiCapture%'" get Name, Version, IdentifyingNumber
```

Setup

After you install the server components, the License Manager utility and the Administration and Monitoring Console will be started automatically. In the License Manager, click the **Activate License...** button to activate your serial number). The Administration and Monitoring Console is where you set up ABBYY FlexiCapture.

Note

If you see an error message in the Administration and Monitoring Console, open the IIS Manager console (click **Start** → **Control Panel** → **Administrative Tools** → **Internet Information Services (IIS) Manager**). If the server is stopped, select **Start** on the **Manage Server** menu. In a similar fashion, check that Default Web Site is running.

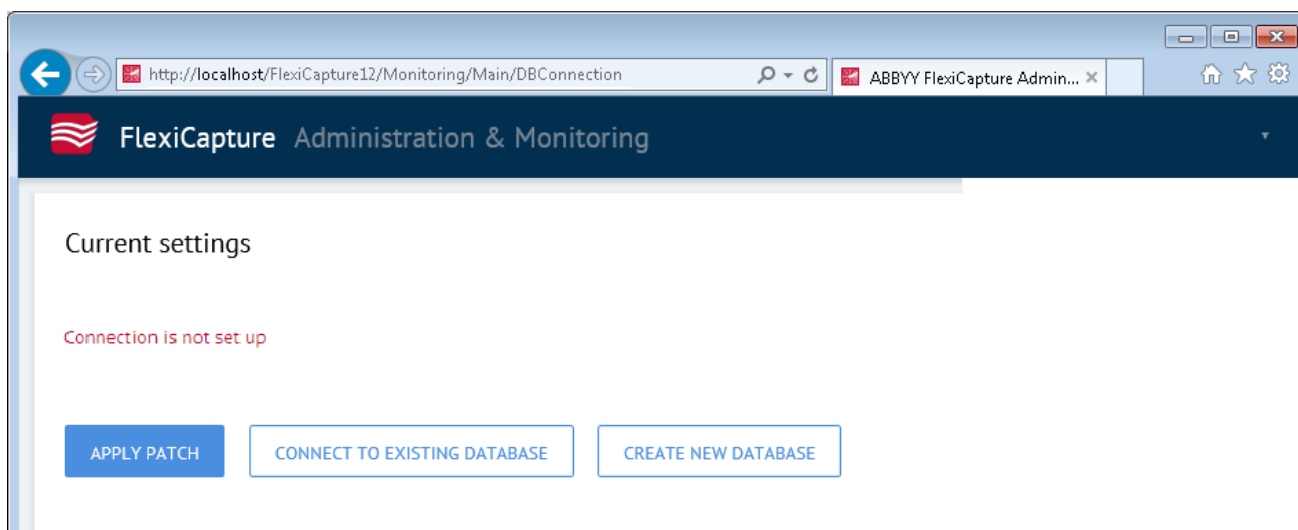
Creating a database

The first thing you need to do is create a database.

Note: Depending on your setup, you may need to create a new database or [connect to an existing database](#).

To create a new database:

1. On the computer where the Application Server is installed, open the Administration and Monitoring Console and click **Service** → **Application Server** to open the page `http://<server_name>/FlexiCapture12/Monitoring/#Settings/DbConn` under the Windows administrator account:



2. Click the **Create New Database** button.

Note

If you are already connected to another database, you will need to close the existing sessions prior to creating a new database. If, for some reason, this is not possible or necessary, add the following key into the web.config file that is located at <IIS Root Directory (the default location is "C:\inetpub\wwwroot")>\<FlexiCapture12\Monitoring>:

```
<appSettings>
<add key="IgnoreCurrentSessions" value="true"/>
</appSettings>
```

In this case, a new database will be created without a warning about existing sessions. In the old database, all sessions are preserved. By default, the key is set to *False* and you will be prompted to close the sessions when creating a new database.

3. The database creation page will open:

On this page, specify the following:

- The name of the Microsoft SQL Server instance in the format <server name>\<instance name>
- A name for the new database. Note the limitations imposed by Microsoft SQL Server on database names (see [this Microsoft website](#) for details)
- A user account that has DBA permissions for Microsoft SQL Server

Note

1. If Microsoft SQL Server is installed on a different computer than the Application Server, then Database Server Authentication must be used to connect to the database server.
2. We recommend choosing the TCP/IP protocol rather than Named Pipes to communicate with the database server (the protocol is specified when you configure the Microsoft SQL Server client, which is installed on the computer hosting the Application Server).

- Select the **Use external file storage** option and specify the path to the file store. The file store stores binary data, such as images to be processed, project settings, captured data, etc. The speed of communication between the Application Server and the file store greatly affects the overall performance of ABBYY FlexiCapture. For this reason, we recommend placing the file store on the same disk as the Application Server.

 Note

To achieve maximum performance in enterprise environments, we recommend using a fail-safe disk, RAID configuration, or high-performance external storage solutions. When using a high-performance disk, be sure to place the file store on the same physical disk where you keep the IIS temporary folders.

 **Important!** A file store can only be created when creating a database and cannot be created later while processing documents with ABBYY FlexiCapture. You also won't be able to disconnect the file store you connected when creating the database.

 Note

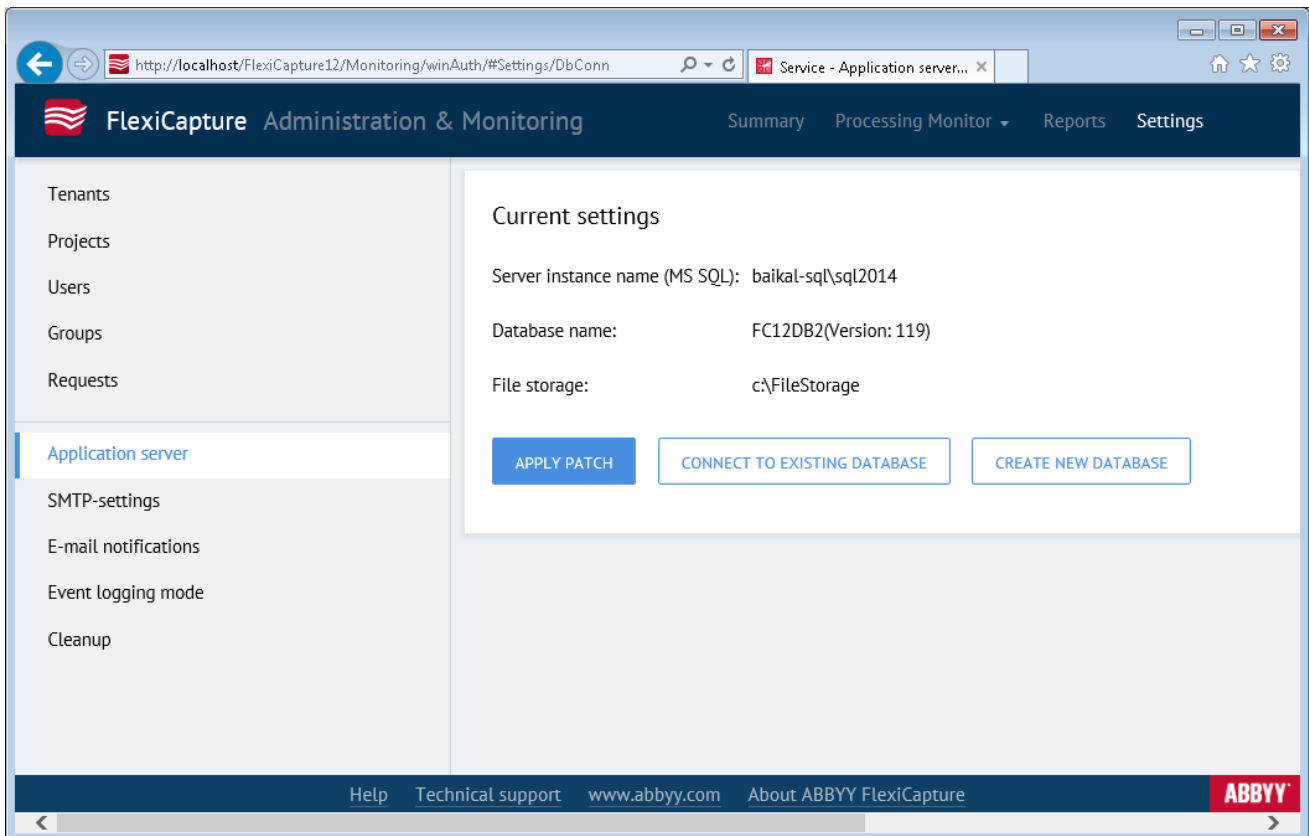
If no file store is used, all project files are stored in the database. Note, however, that this approach is only feasible for small projects with low processing volumes. While storing project files in the database makes it easier to back up and recover your data, the size of the database may become unacceptably large, causing performance degradation.

You must add the file store to the exceptions of your anti-virus software and the Windows search indexing service.

- Use the **Test Connection** button to check the entered values. If the test is successful, click **OK**.

 Note

If you encounter authentication problems when testing the connection, check to make sure that **Mixed Authentication Mode** is enabled for Microsoft SQL Server ("SQL Server and Windows authentication").



When you create a database, the following settings will be enforced:

1. If Database Server Authentication is used, the database is created under the user account specified on the **Service** → **Application Server** page of the Administration and Monitoring Console. If Windows authentication is used, the database is created under the user account under which the browser with the **Service** → **Application Server** page is running.

To create a database in Microsoft SQL Server, the user must have the following permissions:
 - a. CREATE DATABASE, CREATE ANY DATABASE or ALTER ANY DATABASE to create a database
 - b. ALTER ANY LOGIN to create a new user
 - c. db_accessadmin and db_securityadmin permissions to the new database to provide db_owner permissions to the user under whose account the Application Server is running. Under this account, first the Description.sql and then the DBInitFill.sql script will be executed. The scripts are located on the computer where the Application Server is installed at <IIS Root Directory (the default location is "C:\inetpub\wwwroot") >\FlexiCapture12\Server. The first script creates a database and the second populates it with data. The Upgrade*.sql files, which can be found in the same folder, are not used when creating a new database.
2. If Microsoft SQL Server is used, the account under which the FlexiCapture 12 Web Services pool is running on the Application Server is added onto the database server (by default, the pool is running under the Network Service user account).
3. db_owner permissions to the FlexiCapture database created in step 1 are assigned to the user account created in step 2 (if Microsoft SQL Server is used). All subsequent interaction with the database will be carried out under the user account created in step 2. The account

used for creating the database in step 1 can be deleted from the database server if necessary.

4. Once the database is created, the user name and the temporary password *password* will be displayed.

! Important! The user will need to change the temporary password on the login page (http://<server_name>/FlexiCapture12/Login). Once the temporary password is changed, the user will be redirected to the Administration and Monitoring Console.

5. The user that creates the database automatically gets administrative privileges. The administrator also has the permissions to change the settings of the Application Server, upload projects, grant access permissions for projects, create new users, and manage their roles and access permissions. The administrator can grant the administrator role to another user and delegate further configuration of the system to that user. The user that creates the database cannot be deprived of the administrator role, neither can that user's account be deleted.

Connecting to an existing database

Instead of [creating a new database](#), the administrator may need to connect to an existing database (e.g. if the connection settings have been changed).

Note: For databases created in earlier versions of ABBYY FlexiCapture, see [Upgrading databases and projects created in an earlier version of the program](#).

To connect to an existing database, do the following:

1. On the computer where the Application Server is installed, open the Administration and Monitoring Console and click **Settings** → **Application Server** to open the page http://<server_name>/FlexiCapture12/Monitoring/#Settings/DbConn under the Windows administrator account.
If the Application Server is already connected to a database, start at step 4.
2. Click **Connect to Existing Database**.
3. In the form that opens, complete the following fields: the name of the Microsoft SQL Server instance, the name of the existing database, the user that administers the database server, the path to the file store (if any).
4. Use the **Test Connection** button to check the entered values. If the test is successful, click **OK**.
5. Now your server is connected to the database. If an **Upgrade** link is displayed on the **Settings** → **Application Server** page next to the database version, then you should upgrade the database before you proceed.
6. If ABBYY FlexiCapture authentication has never been used for this database, to the user under whose account the Administration and Monitoring Console is running will be issued the temporary password *password*.

Processing Server setup

To set up the Processing Server, complete the following steps:

1. Assign the Processing Server role to the user under whose account the Processing Server is running.

By default, the Processing Server is installed on the same computer as the Application Server and is started under the Network Service user account. In this case, the role is assigned to the Processing Server automatically and this step can be skipped.

If the Processing Server role is not assigned automatically, grant the necessary permissions to the Processing Server on the **Settings** → **Users** page of the Administration and Monitoring Console.

If the Processing Server is installed on a computer other than the computer with Application Server and is running under the Network Service user account, the user will be displayed as <Domain>\<Machine Name>\$ in the Administration and Monitoring Console. If the Processing Server service is running under a different user, it assign Processing Server the role to that user.

2. Start the Processing Server Monitor (click **Start** → **All Programs** → **ABBYY FlexiCapture 12 Servers** → **Processing Server**).
3. In the Processing Server Monitor, click **Actions** → **Properties** and in the dialog box that opens, specify the address of the Application Server (e.g. http://ApplicationServer). If the Processing Server and the Application Server are installed on the same computer, the address of the Application Server will be specified automatically.
4. Click  to start the Processing Server.
5. Add Processing Stations. To do this, select **Stations** in the tree and click . In the dialog box that opens, select desired stations based on the names of their computers or click **Browse...** to find stations on the network. After adding a station, you specify its parameters in the **Station Properties** dialog box (click **Actions** → **Properties**). The station will be started automatically (this will take about a minute). If the station requires lengthy setup or you do not want to start the station, clear the **Start automatically** option in the station properties.
To start desired stations manually, select them in the Processing Server Monitor main window and click .

 **Note:** We do not recommended installing the Processing Station on the computer where the FlexiCapture servers are installed as it will degrade server performance.

6. If required, specify processing settings for your project on the Project Setup Station (the settings you specify will apply to batches of the Default type). To specify processing settings, click **Project** → **Project Properties...** and then click the **Workflow** tab. If your project contains various batch types, specify workflow settings for each. To do this, click **Project** → **Batch Types...**, then select a batch type, click **Edit...** and in the dialog box that opens click the **Workflow** tab.

Creating and opening projects

For ABBYY FlexiCapture operators to be able to work on the same project(s) together, the project(s) must be uploaded to the Application Server. To upload a project to the server, the user must have the role of administrator.

To upload a project to the server, open the Project Setup Station and do one of the following:

- Create a new project (click **File** → **New project...**). Create or import at least one Document Definition (click **Project** → **Document Definitions**).
- Open a sample project from %Public%\ABBYY\FlexiCapture\12.0\Samples.

- Open a project created in an [earlier version of ABBYY FlexiCapture](#).
- Create a new project. Make sure that your project has at least one correct and added Document Definition for which export settings have been specified.

Next, upload your project to the Application Server (click **File** → **Upload Project to Server...** and in the dialog box that opens, specify the URL server in the format `http://<server name>` and authentication method).

 **Note:** When uploading a local project to the Application Server, a new project that is identical to the local one is created on the server. The newly created project contains the same Document Definitions, batch types, import sources, and project settings. The working batches with the images are copied to the server. Test batches (they are created for each user) are accessible both from the local and from the server project.

Upgrading from ABBYY FlexiCapture 10 and 11

ABBYY FlexiCapture 12 can be installed on the same computer where ABBYY FlexiCapture 10 or 11 is already installed. You cannot use the setup wizard to upgrade your ABBYY FlexiCapture 10 or 11 to version 12.

You cannot use your ABBYY FlexiCapture 10 and 11 serial numbers to run ABBYY FlexiCapture 12.

You can use ABBYY FlexiCapture and ABBYY FlexiLayout projects and FlexiLayouts created in earlier versions of the program. If you have documents already loaded into the system, we recommend that you first complete the processing of these documents and only then migrate to ABBYY FlexiCapture 12. When you open an ABBYY FlexiCapture and ABBYY FlexiLayout project created in an earlier version of the program, it will be converted to the ABBYY FlexiCapture 12 format. Once a project is converted, it can no longer be opened in the earlier versions.

 **Note:** After you install ABBYY FlexiCapture 12, it will become the default application for all FlexiCapture and FlexiLayout Studio projects (*.fcproj and *.fsp files respectively), even if ABBYY FlexiCapture 11 or 10 is installed on your computer. To open a project in ABBYY FlexiCapture 11 or 10, launch ABBYY FlexiCapture or ABBYY FlexiLayout Studio via the Windows **Start** menu and click **File** → **Open Project...**

Updating projects created in a standalone edition of ABBYY FlexiCapture (*.fcproj)

Projects created in a standalone edition of ABBYY FlexiCapture are stored in the file system. You can open projects created in ABBYY FlexiCapture 10 or 11 (.fcproj) and use them in ABBYY FlexiCapture 12. Please note the following:

1. After you open an .fcproj in ABBYY FlexiCapture 12, you will no longer be able to open it in ABBYY FlexiCapture 10 or 11. If you think you will need to open an .fcproj in ABBYY FlexiCapture 10 or 11 in the future, create a copy of that project before opening it in ABBYY FlexiCapture 12.
2. Once a project is updated, the Document Definitions lose their “published” status. To publish the Document Definitions, on the Administrator Station, select **Project** → **Document Definitions**, then select the Document Definitions to publish and click **Publish**.
3. When you open an ABBYY FlexiCapture 10 or 11 project in ABBYY FlexiCapture 12, you may need to delete all the processing results and analyze all the pages once again. (You may continue using old projects without recognizing the documents again, but some data may be displayed incorrectly. For instance, if there are format errors in an ABBYY FlexiCapture 10 or 11 project, they will not be

displayed in the document window in the same way as such errors are displayed in ABBYY FlexiCapture 12.)

Updating projects and databases created in a distributed edition of ABBYY FlexiCapture

A distributed edition of ABBYY FlexiCapture works with projects that are stored in the database on the Application Server.

There are several ways to migrate from an earlier version to ABBYY FlexiCapture 12:

- [Connecting to a database](#) created in an earlier version of ABBYY FlexiCapture;
- [Moving projects](#) created in an earlier version of ABBYY FlexiCapture to a new database (recommended).

 **Important!** Before upgrading to ABBYY FlexiCapture 12, be sure to complete the processing of any documents that are still being processed by your previous version of ABBYY FlexiCapture, otherwise all these documents will be lost.

Connecting to a database created in an earlier version of ABBYY FlexiCapture

Once ABBYY FlexiCapture 12 servers are installed, you can use the Administration and Monitoring Console to connect to the database and file storage location that were used by your earlier version of ABBYY FlexiCapture. Then update the database to the new version and continue working with it. If you choose this method, you will no longer be able to work with your earlier version of ABBYY FlexiCapture.

 **Note:** After you complete the steps described in this section, you will no longer be able to use your earlier version of ABBYY FlexiCapture. For this reason, we recommend that you back up your old database and file storage location before you processed with these steps. You can then use these back-up copies to restore the operation of your earlier version of ABBYY FlexiCapture if any problems occur.

To connect to the old database:

1. Complete the processing of documents with your earlier version of ABBYY FlexiCapture:
 - a. Complete the processing of all the batches that have already been registered in the system.
 - b. Start the Administration and Monitoring Console.
 - c. In the Administration and Monitoring Console, select **Settings** → **Cleanup** to remove any redundant data.
 - d. Select **Monitoring** → **Sessions** to make sure there are no open sessions. If you see any open sessions, close the clients where this sessions are running.

 **Note:** If, for some reason, you cannot close all of the clients with open sessions, disconnect the Application Server from the database. To achieve this, clear the value of HKEY_LOCAL_MACHINE\SOFTWARE\ABBYY\FlexiCapture\10.0 (or 11.0)\WebServices "DBConnectionString" in the Windows registry and restart the World Wide Web Publishing Service in the services.msc snap-in. Once you complete this step, you will no longer be able to use your earlier version of ABBYY FlexiCapture.

2. Connect to the database of your earlier version of ABBYY FlexiCapture:

- a. Start the Administration and Monitoring Console of ABBYY FlexiCapture 12, select **Settings** → **Application server**, and click the Connect to existing database button.
 - b. Specify the name of the database server, the name of the database, and the path to the file storage location which were used by your earlier version of ABBYY FlexiCapture and click OK. See [Connecting to an existing database](#) for more information about connecting to an existing database.
3. Update the database to the version used by ABBYY FlexiCapture 12:
- a. After you connect to the database of your earlier version of ABBYY FlexiCapture, you will see an **Upgrade** link next to the name of the database on the page **Settings** → **Application server**. Click this link. The database will be updated to the version used by ABBYY FlexiCapture 12. Once you complete this step, you will no longer be able to use the database in earlier versions of ABBYY FlexiCapture.
4. Update the projects on the Application Server of ABBYY FlexiCapture 12:
- a. Start the Project Setup Station of ABBYY FlexiCapture 12 and open all of the projects on the Application Server, one by one. When you open an old project, it will be updated to the version used by ABBYY FlexiCapture 12. Note that once a project is updated, the Document Definitions lose their “published” status. To publish the Document Definitions, on the Project Setup Station, select **Project** → **Document Definitions...**, then select the Document Definitions to publish and click **Publish**.

Moving projects created in an earlier version of ABBYY FlexiCapture to a new database

If you wish to keep your earlier version of ABBYY FlexiCapture and at the same time use its projects in ABBYY FlexiCapture 12, you need to create a new database in ABBYY FlexiCapture 12 and move the required projects to this database.

Proceed as follows:

1. Export the projects created in your earlier version of ABBYY FlexiCapture from the Application Server to the file system:
 - a. On the Project Setup Station of your earlier version of ABBYY FlexiCapture, open the projects on the Application Server, one by one, and use the **Project** → **Export Project** command in the main menu to export the projects to the file system. This will only export the projects, the documents will not be exported. Therefore, be sure to complete the processing of the documents in your earlier version of ABBYY FlexiCapture;
2. Create a new database in ABBYY FlexiCapture 12:
 - a. In the Administration and Monitoring Console of ABBYY FlexiCapture 12, create a new database and specify the path to the new file storage location (see [Creating a database](#) for detailed instructions);
3. Update the projects to the version used by ABBYY FlexiCapture 12 and upload them onto the Application Server:
 - a. On the Project Setup Station of ABBYY FlexiCapture 12, open the exported *.fcproj projects, one by one. When you open an old project, it will be updated to the version used by ABBYY FlexiCapture 12. Note that once a project is updated, the Document Definitions lose their

“published” status. To publish the Document Definitions, on the Project Setup Station, select **Project** → **Document Definitions...**, then select the Document Definitions to publish and click **Publish**.

- b. Once a project has been updated, upload it onto the Application Server by selecting **File** → **Upload Project to Server** in the main menu of the Project Setup Station. For more information about uploading projects to the Application Server, see the [Creating and opening projects](#) section.

Updating ABBYY FlexiLayout Studio 10 or 11 projects (*.fsp)

All FlexiLayout Studio 10 or 11 projects can be opened in FlexiLayout Studio 12. Please note the following:

1. It is impossible to open an .fsp-project in ABBYY FlexiLayout Studio 10 or 11 once it was opened in ABBYY FlexiLayout Studio 12, so you should create a copy of the project before opening it in ABBYY FlexiLayout Studio 12 if you still need to open it in ABBYY FlexiLayout Studio 10 or 11.
2. After opening a FlexiLayout Studio 10 or 11 project in ABBYY FlexiLayout Studio 12 you may need to delete all processing results and analyze all pages once again.
3. Due to changes in FlexiLayout language some compilation errors may occur. In this case you will need to correct errors and re-compile FlexiLayouts.

Using FlexiLayouts (*.afl) created in ABBYY FlexiLayout 10 or 11

FlexiLayouts compiled in ABBYY FlexiLayout 10 or 11 can be loaded into ABBYY FlexiCapture 12.

Sometimes due to changes in FlexiLayout language some compilation errors may occur. In this case open the *.fsp project in ABBYY FlexiLayout Studio 12, correct the errors and re-compile FlexiLayouts. See [Updating ABBYY FlexiLayout Studio 10 or 11 projects \(*.fsp\)](#) for detailed instructions.