

ABBYY® Compreno Products 2.6

Deployment Guide

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About This Document

This ABBYY Compeno Products 2.6 Deployment Guide is intended for system administrators and engineers. It contains instructions for installing, configuring, administering, and performing maintenance operations on the ABBYY Compeno Products, comprising the ABBYY InfoExtractor SDK and ABBYY Smart Classifier.

About the ABBYY Compreno Products

The ABBYY Compreno Products are based on the unique Compreno technology which enables computers to analyze and understand natural language texts written in Russian, English or German. The ABBYY Compreno Products consist of two products:

- **ABBYY InfoExtractor SDK 2.6**
- **ABBYY Smart Classifier 2.6**

ABBYY InfoExtractor SDK

The ABBYY InfoExtractor SDK accurately extracts important business information from unstructured texts, such as contracts, résumés, or documents provided by customers when opening bank accounts. Automated input of unstructured documents into document management systems or ECMs allows companies to optimize their business processes (e.g. speed up the opening of bank accounts for new customers), reduce risks and costs associated with non-compliance, or quickly retrieve relevant documents based on a customers' orders. Thorough understanding of the information available to you and quick access to actionable data will speed up your decision-making processes and make your business more effective.

Available features depend on your license. For details, see [Software Protection Technology and License Activation](#).

ABBYY Smart Classifier

ABBYY Smart Classifier is a solution for classifying text into predefined categories. It is capable of processing unstructured data and can be easily integrated into CMS software, knowledge bases and other enterprise systems.

ABBYY Smart Classifier supports many different languages. When classifying documents in English, Russian and German, ABBYY Smart Classifier uses the ABBYY Compreno technology to analyze the meaning of text and achieve even better results.

A simple and easy-to-use interface allows users without any special training to create and edit custom classification models and classify documents using the ABBYY Smart Classifier Model Editor.

Available features depend on the type of your license. For details, see [Software Protection Technology and License Activation](#).

Architecture

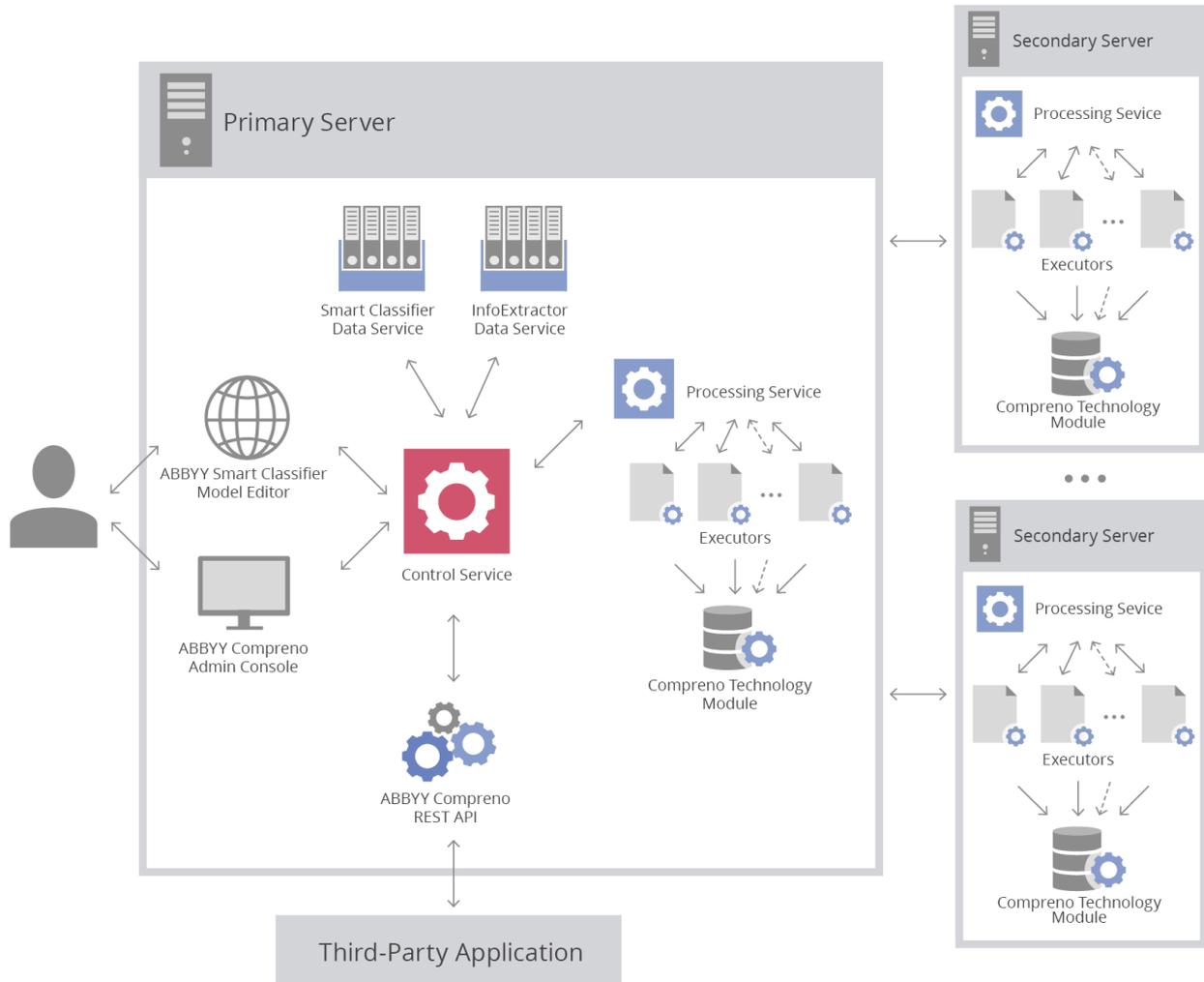
The ABBYY Compeno Products include the following components:

- Control Service
- Processing Service
- ABBYY Compeno Admin Console
- Compeno Technology Module
- InfoExtractor Data Service
- Smart Classifier Data Service
- ABBYY Smart Classifier Model Editor
- ABBYY Compeno REST API

The product can be installed on one Primary Server and on any number of Secondary Servers:

- A **Primary Server** processes documents and distributes tasks among Secondary Servers (if available). If you choose to install the product on a Primary Server, all of the product components will be installed.
- A **Secondary Server** receives tasks from the Primary Server and processes documents. If you choose to install the product on a Secondary Server, only the Processing Service and the Compeno Technology Module are installed.

The architecture of the ABBYY Compeno Products is shown in the drawing below.



Components and features

The purpose and specific functions of each component of the ABBYY Compeno Products are described in the table below.

Component	Purpose	Functions
Control Service	A system service that distributes tasks among the Processing Services.	<ol style="list-style-type: none"> Manages Processing Services: <ul style="list-style-type: none"> Maintains a list of Processing Services and information about task distribution, Manages Compeno Technology Module updates. Manages tasks: <ul style="list-style-type: none"> Maintains a queue of incoming tasks, Distributes tasks among the Processing Services,

Component	Purpose	Functions
		<ul style="list-style-type: none"> • Stores queued tasks and processing results.
Processing Service	A system service that processes documents in tasks assigned by the Control Service.	<p>Receives tasks from the Control Service and delegates them to executors.</p> <p>Executors are processes that process documents or parts of documents. By default, the number of Executors is equal to the number of logical cores on the computer running them.</p> <p>Users can change the number of Executors in the ABBYY Compreno Admin Console.</p>
ABBYY Compreno Admin Console	An administrative tool for managing ABBYY InfoExtractor SDK and ABBYY Smart Classifier.	<ol style="list-style-type: none"> 1. Enables users to change the settings of ABBYY Compreno Products components. 2. Provides functionality for managing user accounts. 3. Provides access to the event log, where users can view records of events that occurred in ABBYY Compreno Products components. 4. Enables users to manage licenses.
Compreno Technology Module	A software component that contains information extraction rules and classification algorithms.	<ol style="list-style-type: none"> 1. Enables the ABBYY InfoExtractor SDK to extract information from texts. <p>By default, the installation includes a basic Compreno Technology Module that is capable of extracting the following information:</p> <ul style="list-style-type: none"> • Basic real-world entities • Organizations • Location facts • Geographical objects • Basic facts and events

Component	Purpose	Functions
		<ul style="list-style-type: none"> • Specific moments and time periods • Ownership facts and purchase/sale events • Linguistic information <p>Specialized Compreno Technology Modules can be developed to expand the range of extractable entities and facts.</p> <p>2. Enables ABBYY Smart Classifier to classify documents.</p>
<p>ABBYY Compreno REST API</p>	<p>An API that allows integrating information extraction and classification features into software.</p>	<p>Enables interaction between the user or a third-party application and the ABBYY InfoExtractor SDK and ABBYY Smart Classifier.</p>
<p>Smart Classifier Data Service</p>	<p>A system service that enables working with classification models.</p>	<p>1. Stores classification models and provides Processing Services with access to the classification models.</p> <p>2. Manages the model training process.</p>
<p>InfoExtractor Data Service</p>	<p>A system service that enables working with semantic and ontology user dictionaries and optimizes the algorithm that calculates confidence scores for extracted data.</p>	<p>Stores semantic and ontology user dictionaries and a file containing statistics for calculating confidence scores when extracting individual RDF graph attributes. Provides Processing Services with access to the user dictionaries and the statistics file.</p>
<p>ABBYY Smart Classifier Model Editor</p>	<p>A web application for creating, training, and deploying classification models.</p>	<p>Enables users to create, train, and assess classification models using training and control sets of documents.</p>

Installing and Removing the Product

This section provides instructions for installing, removing, and modifying the ABBYY Compeno Products.

Installing the product

From this section you will learn how to:

- [Prepare your system for installing the product.](#)
- [Install the product on a Primary or on a Secondary Server in interactive mode.](#)
- [Do a health check on your Primary](#) or [Secondary Server.](#)

Preparing for installation

Before installing the ABBYY Compeno Products, please perform the following:

1. Select the [type of installation](#) and hardware configuration that best meets your document processing needs (see [Performance and scalability](#)).
2. Make sure your system meets the software and hardware requirements listed in the [System requirements](#).
- 3.* Specify the necessary network settings (see [Network settings](#)).
- 4.* Create accounts under which the ABBYY Compeno Products components will be run (see [Component accounts](#)).

* *Optional step.*

Installation types

Depending on how you plan to use the ABBYY Compeno Products, choose one of the two types of installation:

- **Basic installation**

This installation type is recommended for trial purposes, for using the ABBYY Compeno Products in production environments, and for developing integrated solutions where ABBYY InfoExtractor and ABBYY Smart Classifier is used. In the case of basic installation, the product must be installed only on a [Primary Server](#).

- **Distributed installation**

This installation type is recommended for production environments and allows you to scale up the system to meet your growing processing needs. In the case of distributed installation, the product is installed on a [Primary Server](#) and on one or more [Secondary Servers](#).

The choice of installation types depends on your hardware configuration and performance requirements. Please refer to the [System Configuration and Performance](#) section for guidelines.

System requirements

Primary/Secondary Server requirements

A Primary or Secondary Server computer must meet the following minimal requirements:

- 64-bit 4-core CPU with a clock speed of 2 GHz or faster
 - ! **Note:** *To achieve maximum performance, we recommend upgrading your hardware accordingly (see [System Configuration and Performance](#)).*
- 8 GB RAM
 - ! **Note:** *To achieve maximum performance, we recommend adding an extra 2 GB RAM for each CPU core.*
- Hard-disk space:
 - 3.5 GB for program installation
 - 2 GB for program operation
 - ! **Note:** *The use of an SSD is recommended for storing user data in the [working folder](#) on the Primary Server.*
 - ! **Note:** *More HDD space may be required when processing large amounts of data.*
 - ! **Note:** *More HDD space may be required by the Smart Classifier Data Service component when creating large models.*

The following software should be installed on your computer:

- Operating system:
 - Microsoft® Windows® 7 (x64) Service Pack 1
 - Microsoft® Windows® 8 (x64)
 - Microsoft® Windows® 8.1 (x64)
 - Microsoft® Windows® 10 (x64)
 - Microsoft® Windows Server® 2008 R2
 - Microsoft® Windows Server® 2012
 - Microsoft® Windows Server® 2012 R2
- Microsoft Internet Information Services (IIS) 7.0 or later (for Primary Server)
- Microsoft .NET Framework 4.6.1 or later (for Primary Server; included with the product)

- MS XML 6.0 (included with the product)

Requirements for Admin Console and users' computers

Hardware requirements:

- Video card and monitor supporting a resolution of at least 1280×1024 (1366×768 for 16:9 monitors)
- Keyboard and mouse or any other pointing device

Software requirements:

- Recommended browsers to access the sites:
 - Internet Explorer 11.0 or later
 - Google Chrome 40.0 or later
 - Firefox 36.0 or later
 - Microsoft Edge 20.0 or later

Network settings

The table below lists the default ports that are used by the ABBYY Compeno Products components. When you install the ABBYY Compeno Products, Windows firewall exceptions are created that allow the use of these ports. If you are using some other firewall software or hardware, make sure that it is set up as specified in the table below. You can change any of these ports when installing the program.

Component	Port	Data direction	Protocol	Remote address
Control Service	53450	Incoming	TCP	The IP addresses of the computers on which the Processing Services are installed
Processing Service	53451	Incoming	TCP	The IP addresses of the computers on which the Processing Services or the Control Service are installed
Executors	53456 ... 53656	Incoming	TCP	The IP addresses of the computers on which the Processing Services

Component	Port	Data direction	Protocol	Remote address
				or the Control Service are installed
Monitoring Service	53454	Incoming	TCP	The IP addresses of the computers on which the Processing Services or the Control Service are installed
InfoExtractor Data Service	53453	Incoming	TCP	The IP addresses of the computers on which the Processing Services or the Control Service are installed
Smart Classifier Data Service	53452	Incoming	TCP	The IP addresses of the computers on which the Processing Services or the Control Service are installed
ABBYY Compreno REST API	83	Incoming	TCP	The IP addresses of computers from which requests to the REST API will be sent
ABBYY Smart Classifier Model Editor	83	Incoming	TCP	The IP addresses of the computers that require access to the ABBYY Smart Classifier Model Editor

Component accounts

ABBYY Compeno Products components can be run under the default accounts or under limited accounts.

Use	Description	Additional accounts	Security
Using the default accounts	The system components run under the accounts listed in the table below .	Not required	Standard security level
Running all of the system components under limited accounts	If you need to implement this option, please send a request to the ABBYY technical support service (see Technical Support).	Required	Maximum security level

The table below lists the accounts under which the components will run by default.

Component	Type	Account	Change of account
Control Service	Windows service	Local System	Possible after installation. Select Control Panel -> Administrative Tools -> Services
Processing Service	Windows service	Local System	
InfoExtractor Data Service	Windows service	Local System	
Smart Classifier Data Service	Windows service	Local System	
ABBYY Compeno REST API	IIS Application (Application Pool)	ApplicationPoolIdentity	Possible after installation. Select Control Panel -> Administrative Tools -> IIS Manager
ABBYY Smart Classifier Model Editor	IIS Application (Application Pool)	ApplicationPoolIdentity	

When installing the ABBYY Compeno Products, you need to select a destination folder and a working folder.

The **working folder** stores:

- temporary files (because they cannot be stored in system TEMP folders for security reasons)
- Compeno Technology Module
- network settings
- user data

As all of your useful data are stored in a working folder, you can easily preserve them when updating to a newer version of ABBYY Compeno Products.

You can select a destination folder and a working folder before installing the product. When you install the product, the accounts of the services and web applications will be granted writing permissions for these folders.

Installation modes

The ABBYY Compeno Products can be installed in one of the two modes:

- In interactive mode, using a setup wizard. This mode is useful when installing the product on one computer or for trial purposes.
- In silent mode, using the command line. This mode is useful when installing the product on multiple computers or when installing it as part of another product.

Interactive mode

The setup wizard will display a series of screens with detailed instructions for each installation step. Use the **Back** and **Next** buttons to navigate the screens. To quit the setup wizard at any stage, click **Cancel**.

Installing the ABBYY Compeno Products on a Primary Server

To install the ABBYY Compeno Products on a [Primary Server](#):

1. Create a new folder at the root of a local disk, e.g. C:\ABBYY.
2. Unpack the ZIP archive containing the ABBYY Compeno Products setup files into the folder you created in step 1.
3. Double-click the **Setup.exe** file to start the setup wizard.
4. Select a language for the setup program (you can choose between Russian and English).
5. Enter the serial number of your license and click **Next**.

6. Read the End-User License Agreement carefully. If you agree to be bound by the terms of the EULA, select **I accept the terms of the license agreement** for the ABBYY InfoExtractor SDK and ABBYY Smart Classifier and click **Next**.

7. Select this server role: **Primary Server**.

8. Specify a folder into which the ABBYY Compreno Products should be installed, chaining the default path if required, and click **Next**.

Note: *The destination folder can be located on any local disk.*

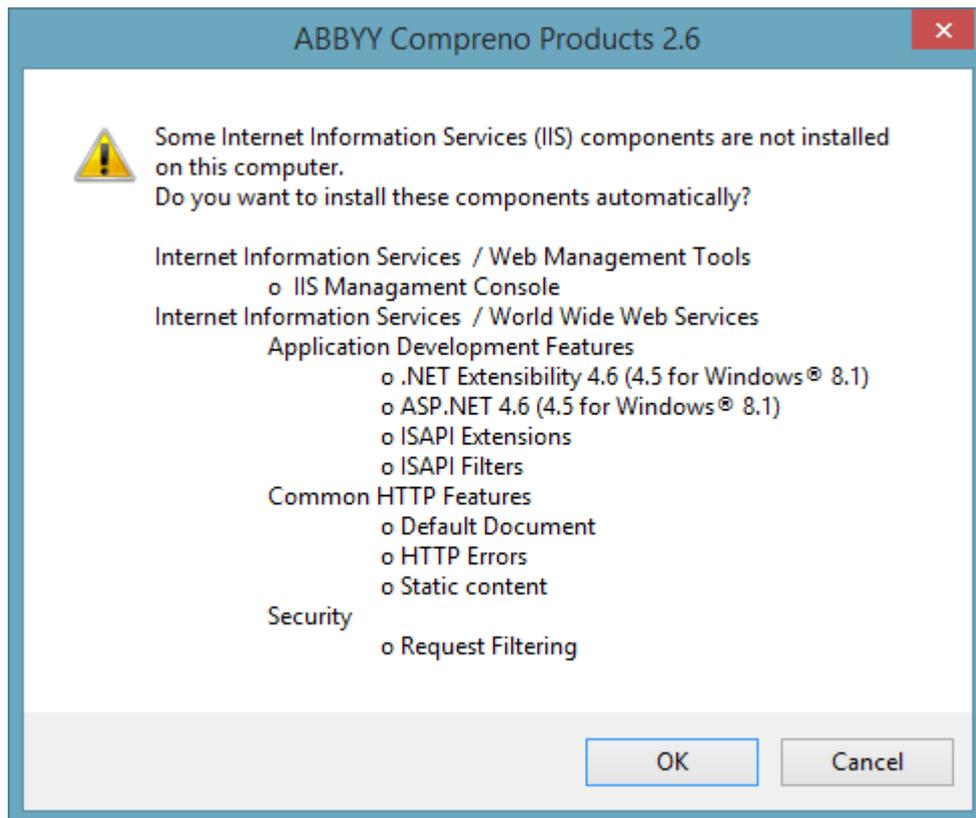
9. Specify a [working folder](#), changing the default path if required, and click **Next**.

Note: *The working folder can be located on any local disk.*

10. Wait for the setup wizard to check for installed system components. If all of the required components have been detected, go to step [11](#).

If some of the required components (e.g. IIS, .NET) are not found, an alert will be displayed. In this case you can either:

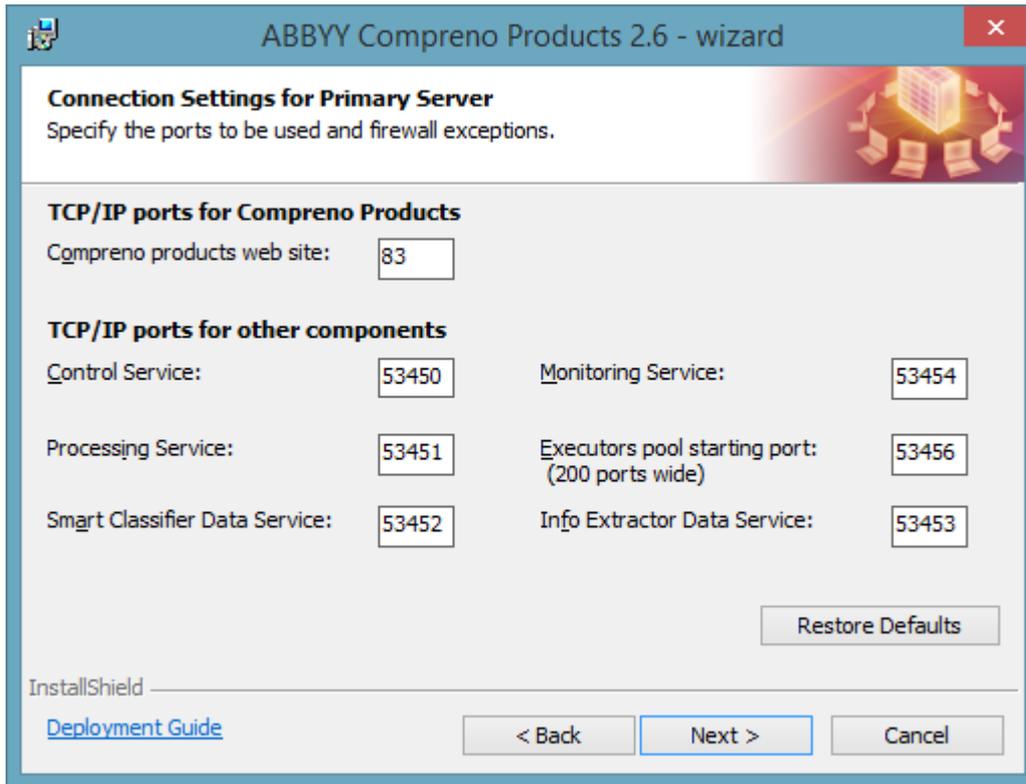
- Click **OK** to leave it to the setup wizard to install the missing components automatically, or
- Click **Cancel** to interrupt the installation.



11. Windows firewall exceptions will be created for the ABBYY Compreno Products services. For each component, specify a TCP/IP port to be used by the Control Service to connect to other components or keep the default values. In the event of port conflict, an alert will be displayed. Change the port number to continue.

If you want to restore the default ports, click the **Restore defaults** button.

Click **Next** to continue with the installation.



12. Select a user account or user group to be used for administering the ABBYY Compreno Products:

- **Domain account** - use this type of account if there is a domain in your network (you can select a user group if required).
- **Built-in account** - use this type of account if there is no domain in your network (you can also use this type of account if you wish to administer the system in a domain without using a domain account).

Click **Next** to continue with the installation.

Note: Use the ABBYY Compreno Admin Console to administer the system (see [Setup and Administration](#)).

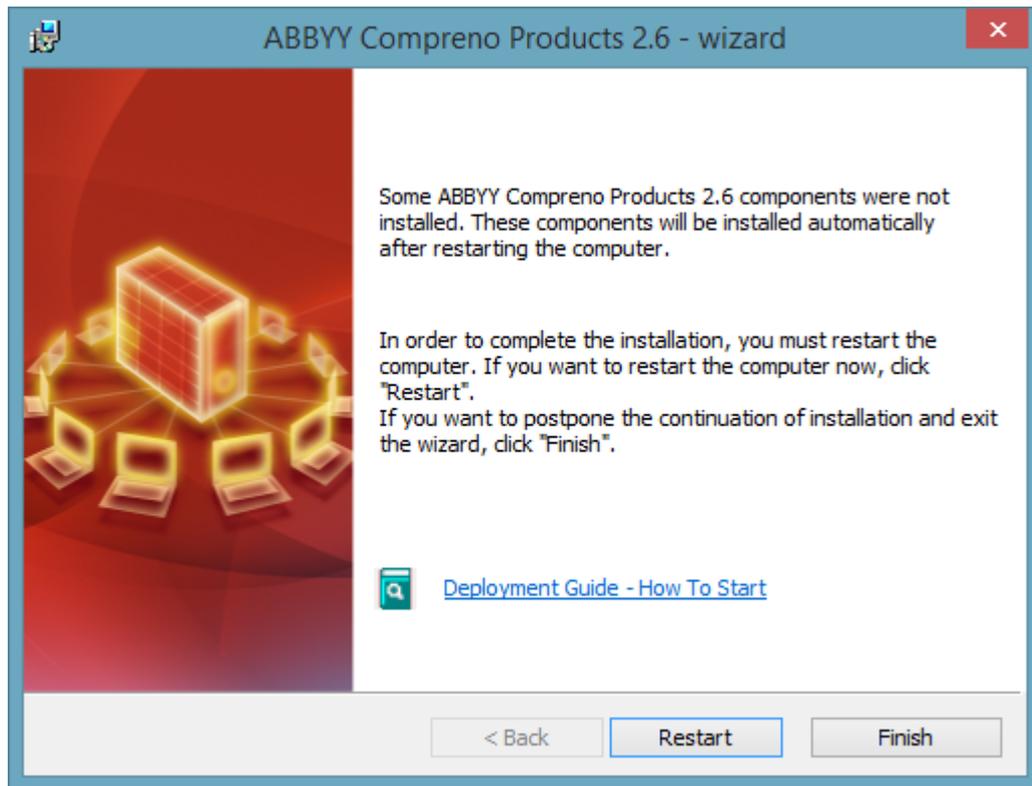


13. A dialog box will be displayed saying the program is ready to be installed. If you choose the **Place an ABBYY Smart Classifier Model Editor icon on the desktop** option, site icons will be placed on your desktop (this option is not available in Windows 8).

Click **Install** to start the installation. Note that installation will take some time.

If missing [system components](#) are installed, you will need to reboot your computer. The following options are available:

- Click **Restart** to reboot your computer immediately. Once your computer is rebooted, the installation of ABBYY Compreno Products will resume automatically.
- Click **Finish** if you want to reboot your computer later. In this case, the setup wizard will close. After you reboot your computer, the installation of ABBYY Compreno Products will resume automatically.



14. After the ABBYY Compreno Products are installed, select the **Launch the ABBYY Compreno Admin Console** option to perform the initial setup of the ABBYY InfoExtractor SDK and ABBYY Smart Classifier and click **Finish**.

As a result, the following components will be installed on the Primary Server:

- Control Service
- Processing Service
- ABBYY Compreno Admin Console
- ABBYY Compreno Technology Module
- InfoExtractor Data Service
- Smart Classifier Data Service
- ABBYY Smart Classifier Model Editor
- ABBYY Compreno REST API

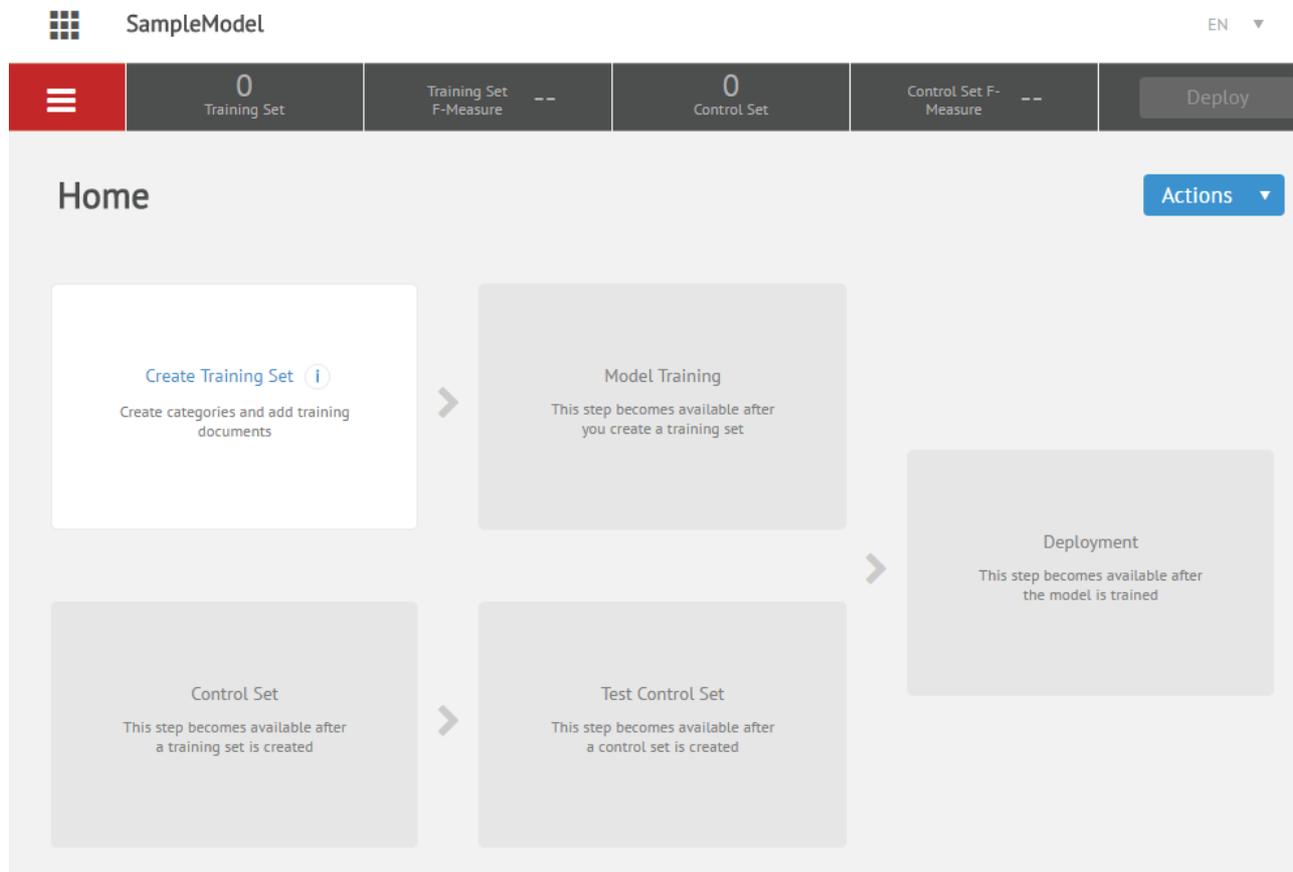
If the Primary Server is in a domain and the ABBYY Compreno Products are installed by a user who is the administrator of the domain, an SRV record will be registered on the DNS server pointing to the address of the Control Service. When installing the ABBYY Compreno Products on Secondary Servers, this SRV record will be used to look up the Primary Server.

Performing a health check on a Primary Server

To perform a health check on ABBYY Smart Classifier:

1. Click **Start > ABBYY Compreno Products > ABBYY Smart Classifier Model Editor**.

- When the site opens, click the **New Project** tile, enter some project settings and click **Save**.
- If the classifier was installed correctly, a page will open listing the steps that you need to perform in order to create a classification model. Click the  icon where available to see the tips for the respective step.



Note: For instructions on working with the ABBYY Smart Classifier Model Editor, see the *ABBYY Smart Classifier 2.6 User's Guide (Start > ABBYY Compreno Products > Documentation > UserGuide_English_ASC)*.

For instructions on using the ABBYY Compreno REST API to integrate ABBYY Smart Classifier with third-party applications, see the *ABBYY Compreno Products 2.6 Integration Guide (Start > ABBYY Compreno Products > Documentation > IntegrationGuide_English)*.

Installing the ABBYY Compreno Products on a Secondary Server

To install the ABBYY Compreno Products on a [Secondary Server](#):

- Create a new folder at the root of a local disk, e.g. C:\ABBYY.
- Unpack the ZIP archive containing the ABBYY Compreno Products setup files into the folder you created in step 1.
- Double-click the **Setup.exe** file to start the setup wizard.
- Select a language for the setup program (you can choose between Russian and English).

5. Enter the serial number of your license and click **Next**.
6. Read the End-User License Agreement carefully. If you agree to be bound by the terms of the EULA, select **I accept the terms of the license agreement** for the ABBYY InfoExtractor SDK and ABBYY Smart Classifier and click **Next**.
7. Select this server role: **Secondary Server**.
8. Specify a folder into which ABBYY Compreno Products should be installed, changing the default path if required, and click **Next**.

Note: *The destination folder can be located on any local disk.*

9. Specify a working folder that will be used to store:
 - temporary files (because they cannot be stored in system TEMP folders for security reasons)
 - ABBYY Compreno Technology Module

Change the default path if required and click **Next**.

Note: *The working folder can be located on any local disk.*

10. Windows firewall exceptions will be created for the ABBYY Compreno Products services. For each component, specify a TCP/IP port to be used by the Control Service to connect to other components or keep the default values. In the event of port conflict, an alert will be displayed. Change the port number to continue.
11. When setting up connection with the Primary Server, the following scenarios are possible:
 - The ABBYY Compreno Products were installed on the Primary Server by the administrator of the domain and an SRV record was registered on the DNS server pointing to the IP address (or name) and port of the Control Server.

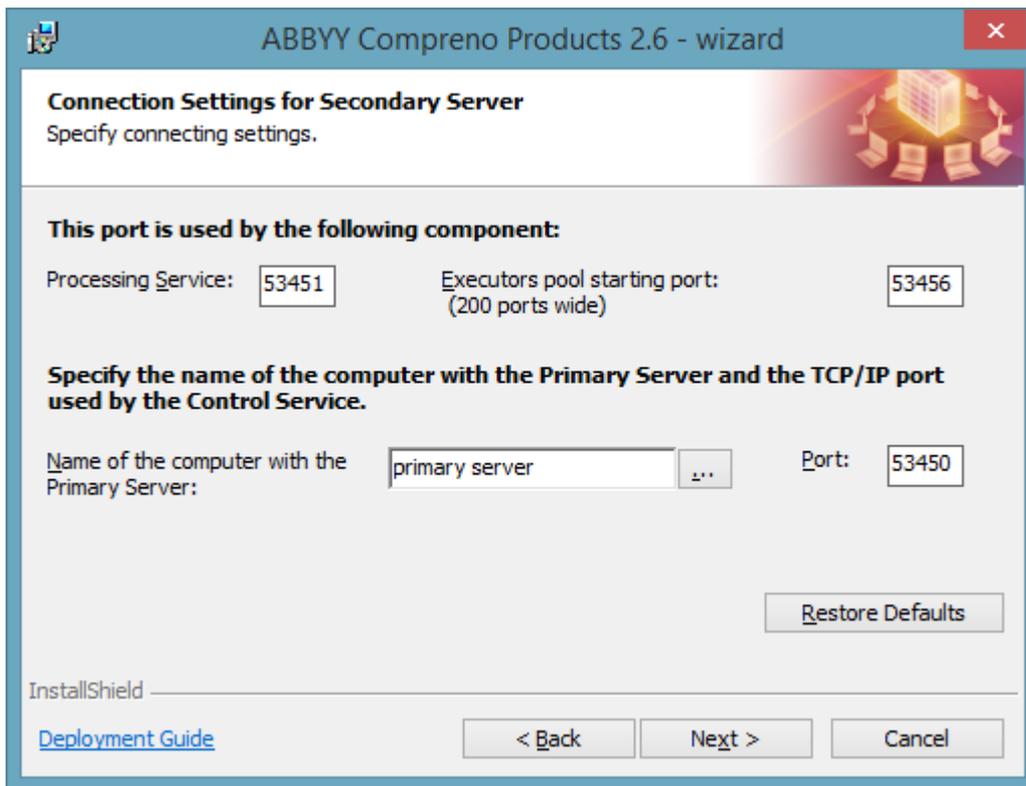
When installing the ABBYY Compreno Products on a Secondary Server, the setup program will ask for the SRV record from the DNS server. If the SRV record is received, it will be automatically entered into the control settings. If this is the case, go to step 11 to continue with the installation.

- No SRV record pointing to the IP address (or name) and port of the Control Server is detected.

Enter or select the name of the Primary Server computer and specify the TCP/IP port used by the Control Service.

If you want to restore the default ports, click the **Restore defaults** button.

Click **Next** to continue with the installation.



12. A wizard window will be displayed saying the program is ready to be installed. Click **Install** to start the installation. Note that installation will take some time.
13. After the ABBYY Compreno Products are installed, click **Finish**. As a result, the following components will be installed on the Secondary Server:
 - Processing Service
 - ABBYY Compreno Technology Module

Performing a health check on a Secondary Server

To perform a health check on a Secondary Server, complete the following steps on the Primary Server:

1. Click **Start > ABBYY Compreno Products > ABBYY Compreno Admin Console**.
2. Click the **Processing Services tab**. If the Secondary Server performs as it should, the  icon will be displayed next to its name.

Changing server role

To change the role of a server:

1. Remove the product from the server (see [Removing the product](#)).
2. Reinstall the product selecting the desired server role during installation (see [Installing the ABBYY Compreno Products on a Primary Server](#), [Installing the ABBYY Compreno Products on a Secondary Server](#)).

Silent mode

You can install the ABBYY Compeno Products in silent mode using the command line. To do this, unpack the ZIP archive with the ABBYY Compeno Products installation files to a folder on your hard disk and then run the **setup.exe** file in the command line. You can use the following command-line arguments:

- /q** Runs the installation in silent mode.
- /qb** Runs the installation and displays a dialog box with a progress bar and the **Cancel** button.
- /v** Indicates the beginning of the list of installation options.
- /Help?** Opens the help file on the page with the list of [silent installation options](#).

The installation program will check for any components of the ABBYY Compeno Products that have already been installed and install the required components (see [System requirements](#) for details). If you install the ABBYY Compeno Products on a computer that is not connected to the Internet, you will need to activate a license manually (see [Activating a license](#) for details).

Command examples

setup.exe /qb Mode=Install /v IAcceptLicenseTerms LicenseSerialNumber=CPRT-02XX-XXXX-XXXX-XXXX-3687

This command installs the Primary Server into the `%ProgramFiles(x86)%\ABBYY Compeno Products\2.6\` folder. The components will use the default TCP/IP ports.

setup.exe /qb /v IAcceptLicenseTerms LicenseSerialNumber=CPRT-02XX-XXXX-XXXX-XXXX-3687 InstallPath="D:\ABBYY_Compeno_Products" WorkingFolderPath="D:\ABBYY_Compeno_Products\Working Folder" ControlServicePort=53300 WebSitePort=85 ProcessingServicePort=53350

This command installs the Primary Server into the `D:\ABBYY_Compeno_Products` folder. The working folder will be located at: `D:\ABBYY_Compeno_Products\Working Folder`. The Control Service will use port `53300` to communicate with the other components, the Processing Service will use port `53350`, and REST API requests will use port `85`.

setup.exe /qb /v IAcceptLicenseTerms LicenseSerialNumber=CPRT-02XX-XXXX-XXXX-XXXX-3687 ServerRole=SecondaryServer ControlServicePort=53300 MasterServerName=testserver.abbyy.com

This command installs a Secondary Server into the *%ProgramFiles(x86)%\ABBYY Compreno Products\2.6* folder. The Secondary Server will connect to the Primary Server on the computer *testserver.abbyy.com*. The Control Service will use port 53300 to communicate with the other components.

setup.exe /qb Mode=Uninstall /v Product=ASC KeepUserData

This command uninstalls the ABBYY Smart Classifier Primary Server but does not delete any data in the working folder.

Changing installed components

You may need to remove some of the installed components and install other components in one of the following cases:

- You installed the ABBYY InfoExtractor SDK and now need to install ABBYY Smart Classifier (either instead of or in addition to the installed component).
- You installed ABBYY Smart Classifier and now need to install the ABBYY InfoExtractor SDK (either instead of or in addition to the installed component).
- You installed the ABBYY InfoExtractor SDK and ABBYY Smart Classifier and now want to keep only one component installed.

To change the installed components:

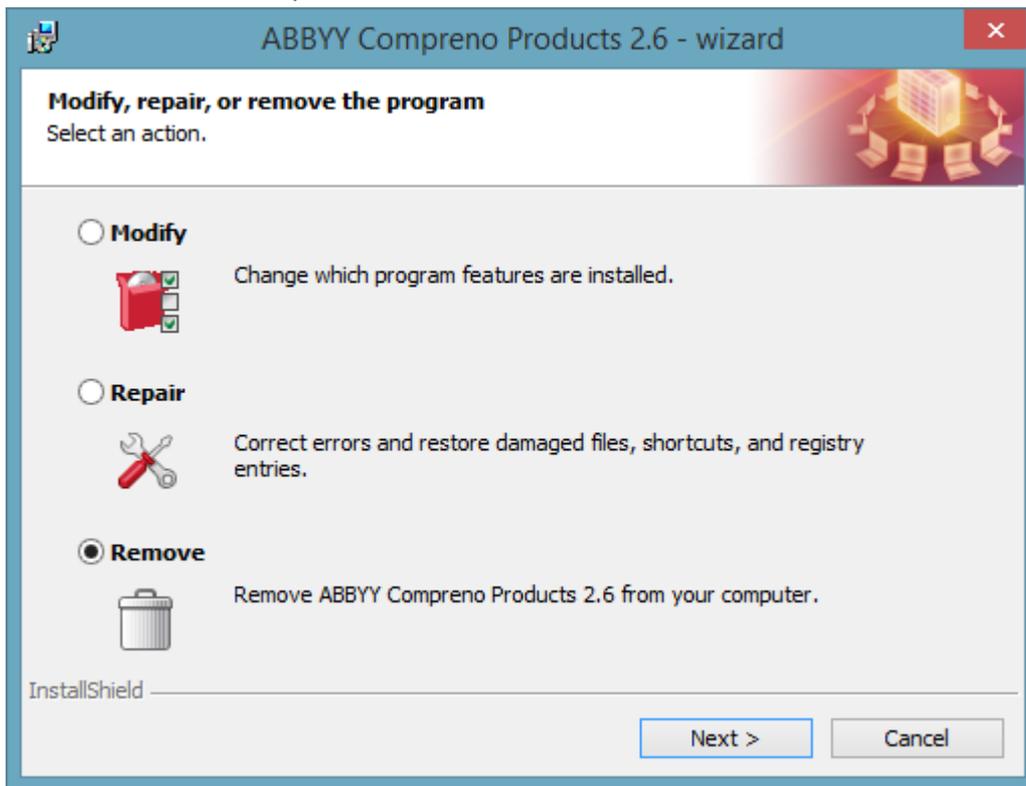
1. Open the folder where you [unpacked the ZIP archive](#) with the ABBYY Compreno Products setup files.
2. Double-click the **Setup.exe** file to start the setup wizard.
3. In the **Modify, repair, or remove the program** dialog box, select **Modify** and click **Next**.
4. Select **Install and remove products** and click **Next**.
5. Enter the serial number of your license for the new set of products. If the new license does not support the functionality of the current product, this product will be removed when installing the new product. To confirm the removal of the unsupported product and to continue installing the new product, click **Next**. To cancel the removal or installation, click **Cancel**.
6. Windows firewall exceptions will be created for the ABBYY Compreno Products services. For each component, specify a TCP/IP port to be used by the Control Service/Processing Service to connect to other components or keep the default values and click **Next**.
7. Specify a user account or group account to be used for administering the ABBYY Compreno Products and click **Next**.
8. A dialog box will open saying that the components you selected are ready to be installed. Click **Install** to start the installation.

9. Once the required components are installed, click **Finish** to close the setup wizard.

Removing the product

To remove ABBYY Compeno Products from your computer:

1. Open the folder where you [unpacked the ZIP archive](#) with the ABBYY Compeno Products setup files.
2. Double-click the **Setup.exe** file to start the setup wizard.
3. In the **Modify, repair, or remove the program** dialog box, select **Remove** and follow the instructions of the setup wizard.



4. In the next dialog box, you will be asked if you want to remove the product completely or if you want to preserve the user data for future use (e.g. if you choose to install a newer version).

Click **Yes** if you want to preserve the user data.

Click **No** if you want to remove the product completely, including the user data.

5. Click **Remove** to start the removal process.

While product removal is still in progress, you have the option of canceling it by clicking **Cancel**.

6. Once the product is removed from your system click **Finish** to close the setup wizard.

Software Protection Technology and License Activation

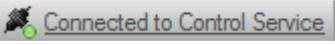
Before you can start using any of the product components, you need to activate your license. The sole purpose of the license activation mechanism is to control the number of running copies of the product.

Activating a license

After you install the ABBYY Compro Products, your license will be activated automatically. To make sure that your license has been activated, open the ABBYY Compro Admin Console, click the **Licenses** tab, and check that  is displayed next to your license.

If your license has not been activated automatically, activate it manually.

No personal information about users, your computer and its settings, and any data or software on your computer will be transferred to ABBYY during activation. The activation process will only take a few minutes. To activate the ABBYY Compro Products, complete the following steps:

1. Start the ABBYY Compro Admin Console by clicking **Start > ABBYY Compro Products > ABBYY Compro Admin Console**.
2. Make sure the Control Service is connected (the  notification should be displayed at the bottom of the screen when you click the **General** tab).
3. Open the **Licensing** tab.
4. Click the **Activate...** button.
5. In the dialog box that opens:
 - If you have received a license file, select **Load license file** and specify the path to the file.
 - Enter your serial number and follow the instructions of the Activation Wizard.

Note: *The Primary Server can be reinstalled on the same computer an unlimited number of times. However, if certain changes are made to the computer's configuration, you may have to activate your license again, and the number of activations/deactivations you can perform may be limited by your license.*

There are several ways to activate a license:

- **Over the Internet**

This activation type is performed automatically and only takes a few seconds. An active Internet connection is required.

- **By e-mail/by e-mail from another computer**

If this activation type is selected, the program will prompt you to send to ABBYY an automatically generated e-mail message containing activation information.

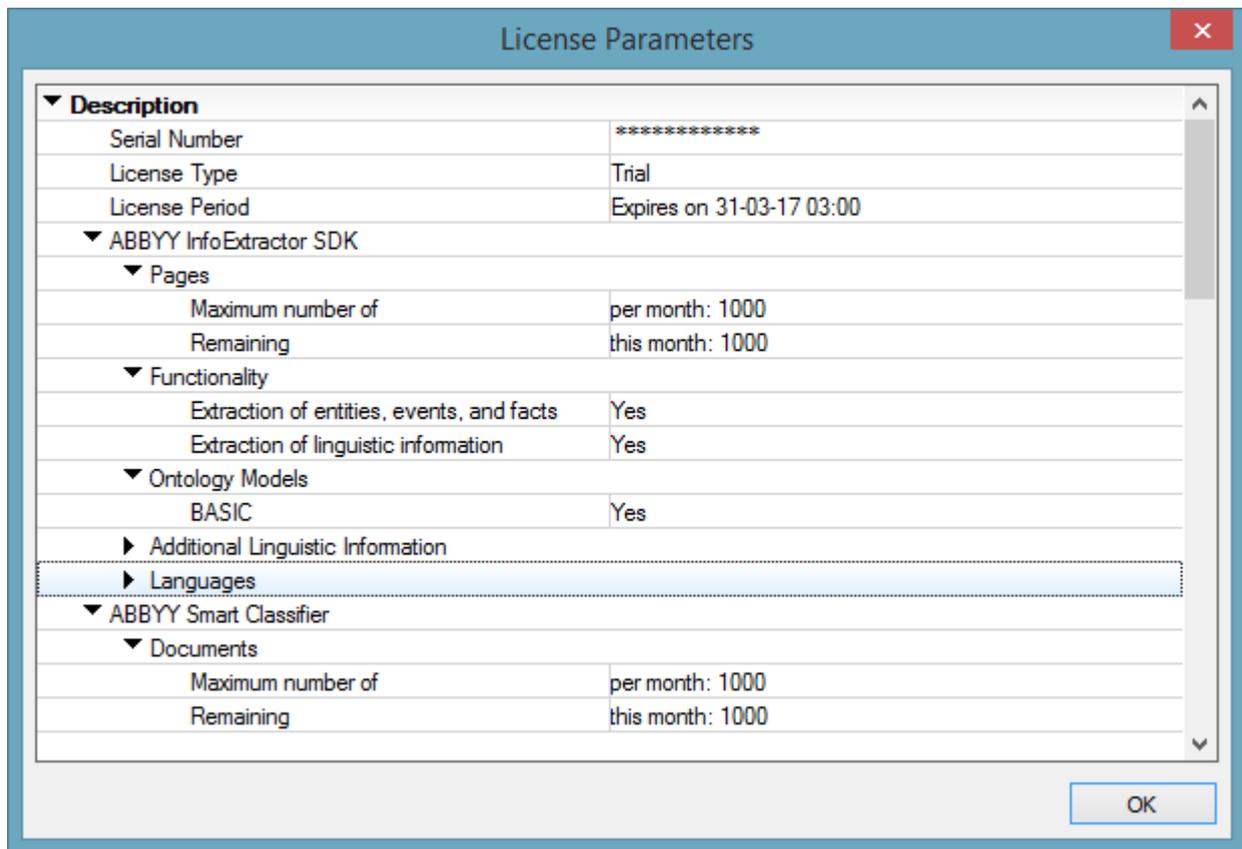
! Important! To insure a quick automated response, DO NOT change the subject and content of the generated message.

Save the license file you received from ABBYY on your computer. In the case of e-mail activation, enter the path to the activation file in the corresponding field of the activation wizard.

Once the activation is complete, the program is ready for use.

You can activate more than one license in the ABBYY Compeno Admin Console. However, the ABBYY Compeno Products functionality available to you depends on the currently used license. To select a license, click it in the list of activated licenses and then click **Make current**.

To view the parameters of your license in the ABBYY Compeno Admin Console, click the **Licensing** tab and then click the **License Parameters** button.



If a feature (e.g. PDF file processing) is not listed in the parameters of your current license, it will not be available. A license may impose the following limitations on the ABBYY Compeno Products:

- **License type** indicates your legal user status (Trial or Developer).
- **License period** indicates the date when the license expires. Upon license expiration you will no longer be able to use the ABBYY Compeno Products.

- **CPU cores** shows the maximum number of processor cores that may be used for tasks.
- **Virtual machine support** allows running the ABBYY Compeno Products on a virtual machine.
- **Support for PDF and other image formats** allows the use of the built-in OCR module for processing PDF and image files.

For the ABBYY InfoExtractor SDK:

- **Pages** indicates the total number of pages you can process and the number of pages remaining until the time period indicated in this parameter expires.
- **Language** indicates the language of text you can analyze (Russian and/or English and/or German).
- **Functionality** indicates which types of information you can extract.
- **Ontology models** lists the ontology models available for extracting entities and facts.
- **Additional Linguistic Information** displays the list of available tags for marking linguistic information in text analysis results.

For ABBYY Smart Classifier:

- **Documents** shows how many documents you still can process and the total number of documents that you are licensed to classify. To process more documents, you need to purchase a license update.
- **Classification languages** displays the languages for which classification models can be created.
- **Working with models via REST API** allows the use of REST API methods for creating, training, assessing, and deploying classification models.
- **Access to source text** allows accessing the source text of documents classified by using REST API.

The activated licenses are displayed on the **Licensing** tab.

Updating a license

You need to purchase a license update in order to add support for new features, extend the license period, reset the page counter, or change other license parameters.

To update your license:

1. Click **Start > ABBYY Compeno Products > ABBYY Compeno Admin Console**.
2. Make sure that you are connected to the Control Service (on the General tab, you should see at the bottom of the screen).
3. Open the **Licensing** tab.
4. Select the license that should be updated.
5. Click the **Update** button.

6. The following methods are available:

- **Over the Internet.** The update process is automatic and takes only a few seconds. This method requires an active Internet connection.
- **By e-mail / By e-mail from another computer.** An e-mail message will be generated, containing the information that is required to update your license.

! Important! *To ensure a prompt reply from the ABBYY server, DO NOT alter the subject and body of the e-mail message.*

In reply, you will receive a license file from the ABBYY server. Save this license file to disk and then specify the path to the file in the Activation Wizard.

- If you received an activation file earlier, select **Load license file** and specify the path to the file.

Once the license is updated, the ABBYY Compro Products are ready to use.

Deactivating a license

If you need to move the Control Service component to a different computer, you must deactivate your license before uninstalling the component. You don't have to deactivate your license to move other components. To deactivate your license:

1. Start the ABBYY Compro Admin Console by clicking **Start > ABBYY Compro Products > ABBYY Compro Admin Console**. Make sure the Control Server is connected (the  **Connected to Control Service** notification should be displayed in the bottom part of the **General** tab).
2. Open the **Licensing** tab and select the license that should be deactivated.
3. Click the **Deactivate...** button.
4. Follow the instructions in the **License Deactivation Wizard**.

A license can only be deactivated over the internet. The deactivation process is automatic and only takes a few seconds. After the deactivation process completes, you will be able to activate your license on another computer.

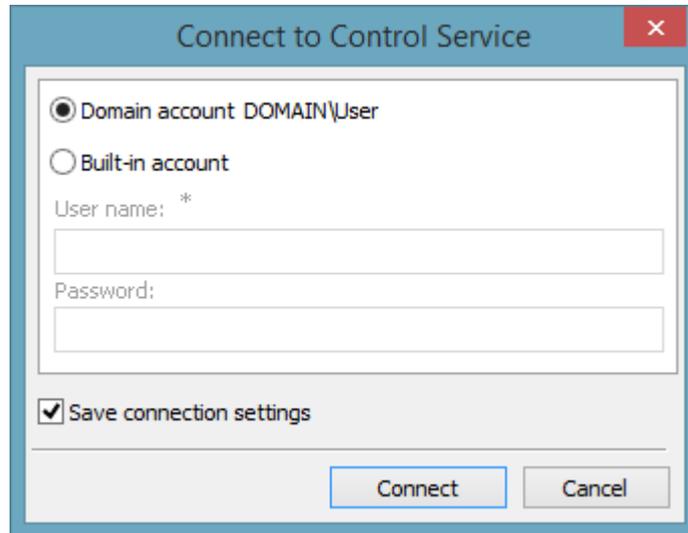
! Note: *The number of activations / deactivations may be limited by your license.*

Using the ABBYY Compreno Admin Console

To administer the ABBYY Compreno Products, use the ABBYY Compreno Admin Console, which is installed when you install the product on a Primary Server.

The ABBYY Compreno Admin Console must be connected to the Control Service.

When you start the ABBYY Compreno Admin Console, the following dialog box is displayed:



1. If the Primary Server is a computer in an Active Directory domain, the current domain account will be selected by default. If the Primary Server is a computer outside an Active Directory domain, the **Built-in account** option will be selected, in which case you need to enter the user name and password you specified when installing the program.
2. If the **Save connection settings** option is enabled, the specified settings will be saved and used the next time you use the ABBYY Compreno Admin Console.

If this option is disabled, the connection settings saved previously will be used.

3. Click **Connect**.

The  **Connected to Control Service** notification will be displayed at the bottom of the ABBYY Compreno Admin Console when the Control Service is connected.

The ABBYY Compreno Admin Console enables the administrator to:

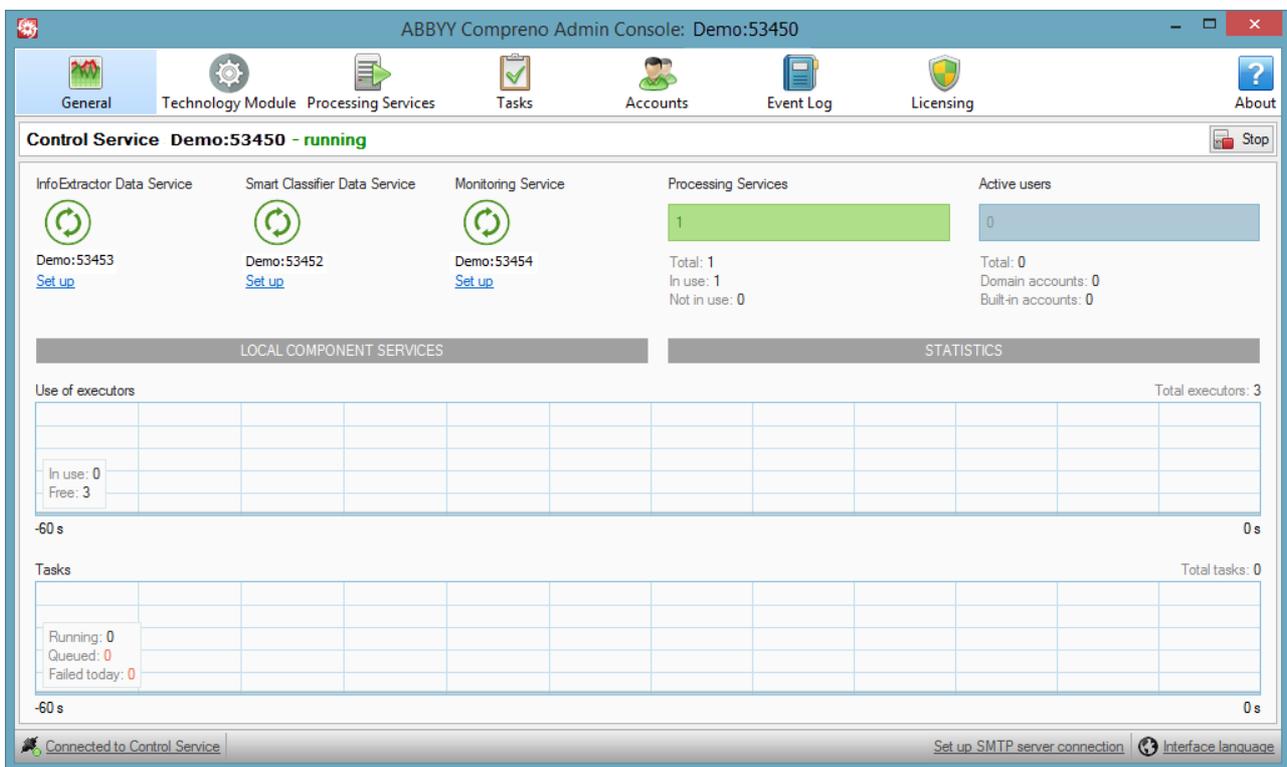
- Get summary information about the status of the ABBYY Compreno Products and set up available components (see [System monitoring](#) for details).
- Update or change the Compreno Technology Module (see [Using Technology Module](#) for details).
- Manage Processing Service: add new Services, stop and start them, and create schedules (see [Processing Services](#) for details).
- Monitor task statuses (see [Tasks](#) for details).
- Manage user accounts and access permissions (see [User accounts](#) for details).

- View error reports, warnings and service information. Set up e-mail notification about various events (see [Event log and e-mail notifications](#) for details).
- Manage licenses (see [Software Protection Technology and License Activation](#) for details).

System monitoring

The **General** tab displays information about all components of the ABBYY Compeno Products and usage statistics. It enables you to:

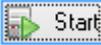
- Start and stop the Control Service and view its status.
- View usage statistics:
 - the number of different types of tasks,
 - Processing Station and executor usage,
 - the number of users.



Starting and stopping the Control Service

The Control Service starts automatically after installation. The status of the Control Service is displayed in the upper part of the **General** tab.

Control Service : Demo:53450 - running

If the Control Service has been stopped, you can start it again by clicking the  button.

Using Compeno Technology Modules

A Compeno Technology Module is a key component of the ABBYY Compeno Products, which contains document classification algorithms and information extraction rules.

A Compeno Technology Module is stored in a file with the *.iem extension.

The ABBYY Compeno Products are shipped with ABBYY_Basic_Tech_Module, which can perform the following tasks:

- Extract the following types of information from text by means of the ABBYY InfoExtractor SDK:
 - Basic real-world entities
 - Basic facts and events
 - Specific moments and time periods
 - Organizations
 - Location facts
 - Geographic features
 - Ownership and sale/purchase facts
 - Linguistic information

The Basic Compeno Technology Module extracts only basic entities and facts. To ensure a certain level of quality of extracted information, you will need to obtain a customized Compeno Technology Module. Custom modules can be installed using the ABBYY Compeno Admin Console.

- Classify documents by means of ABBYY Smart Classifier.

Exactly which module functionality is available to the user is determined by the parameters of the user's current license.

The ABBYY Compeno Products can only use one Compeno Technology Module at a time. The name, creation date and version of the current module is displayed on the **Technology Module** tab of the ABBYY Compeno Admin Console.

Installing the Compeno Technology Module

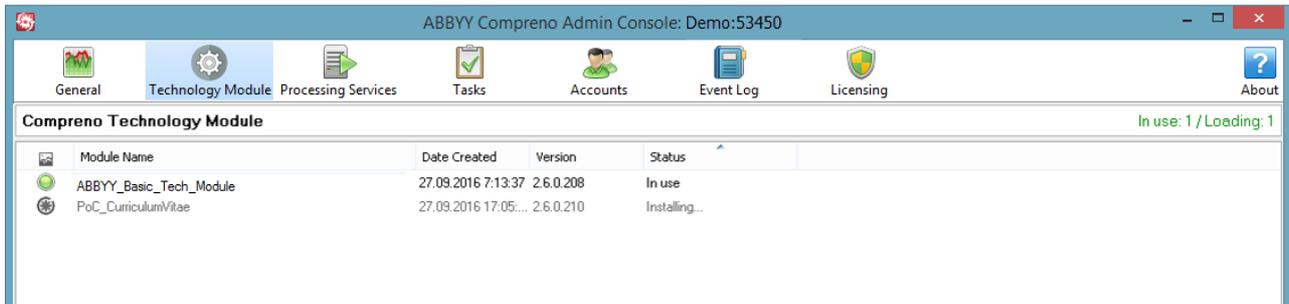
Complete the following steps to install a new Compeno Technology Module:

1. Start the ABBYY Compeno Admin Console by clicking **Start > ABBYY Compeno Products > ABBYY Compeno Admin Console**.
2. Open the **Technology Module** tab.
3. Click the **Change Module** button and specify the path to the new module.

The new Compeno Technology Module will be uploaded to the Primary Server and will then be distributed to the Secondary Services. This process occurs in the background and

the ABBYY Compreno Products will continue to process tasks using the old module while the new one is being installed. As soon as the new Compreno Technology Module is successfully loaded onto all of the Secondary Servers, the program will begin using the new module. The ABBYY Compreno Admin Console displays the status of both modules:

-  indicates the currently active module.
-  indicates a new module that is being installed.



If the installation of a new Compreno Technology Module is interrupted by a lost network connection, it will resume when the connection is re-established. However, if installation on at least one Secondary Service terminates due to an error, the Processing Service running on the Primary Server will cancel the installation on all other Secondary Services.

To cancel the installation of an Compreno Technology Module manually, click the **Cancel** button. The new module will be removed from the list of available modules and the ABBYY Compreno Products will continue using the old module.

Once the new Compreno Technology Module is installed, the old module will be removed from the list of available modules and the new module will be used to process documents.

All operations involving Compreno Technology Modules will be recorded in the event log. See [Event log and e-mail notifications](#) for details.

Processing Services

The Processing Service component is installed on the Primary Server and on Secondary Servers. Processing Services receive tasks from the Control Service and allocate these tasks to executors. Executors are processes that process documents or parts of documents. By default, the number of executors on a Processing Service is equal to the number of CPU cores on the computer. The Control Service can interact with multiple Processing Services. Large information extraction tasks can be distributed among several executors running on different Processing Services.

The **Processing Services** tab contains a list of Processing Services. Each Processing Service in the list will have one of the following icons:

-  indicates a stopped Processing Service.
-  indicates a running Processing Service.

This tab also allows you to:

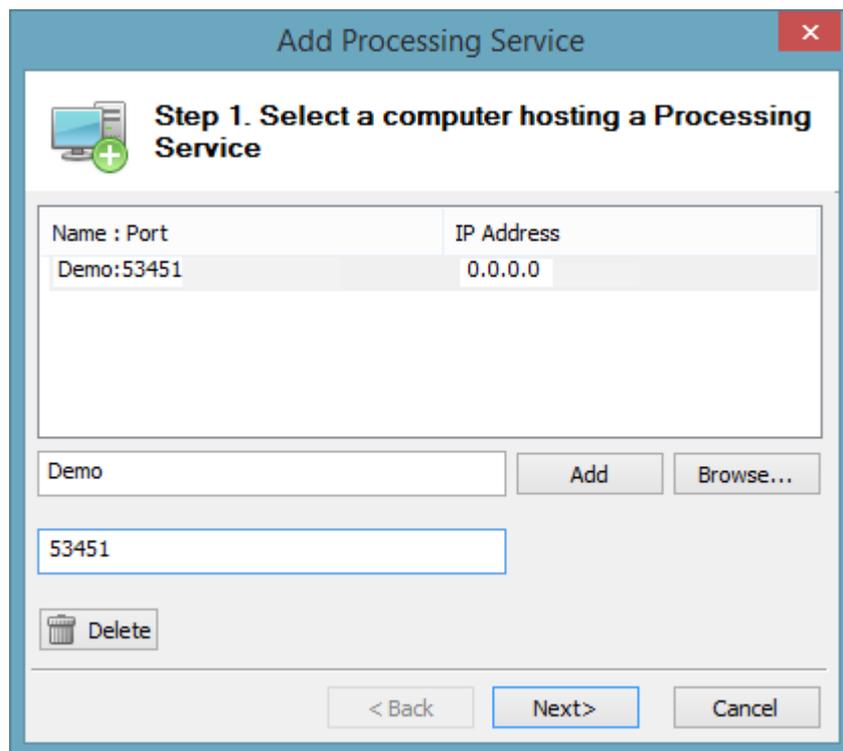
- Add a new Processing Service.
- Stop and start a Processing Service.
- Remove a Processing Service.
- Change Processing Service schedules.

Adding a new Processing Service

This operation is required if the Primary Server is moved to another computer and the Processing Services must be reconnected.

Follow the instructions below to add a new Processing Service:

1. Open the **Processing Services** tab of the ABBYY Compreno Admin Console.
2. Click the **Add** button.
3. Specify the following connection settings for the new Processing Service in the dialog box that opens:
 - the name and IP address of the computer with the Processing Service component,
 - the number of the TCP/IP port used by the Processing Service component.
4. Click **Next**.



5. Specify the priority of the Processing Service’s executors:

- **High**

The Processing Service’s executor processes will run with high priority, i.e. the processor will give priority to commands it receives from the ABBYY Compreno Products.

- **Normal**

The Service’s executor processes will run with low priority.

6. Specify whether the Processing Service should use a schedule:

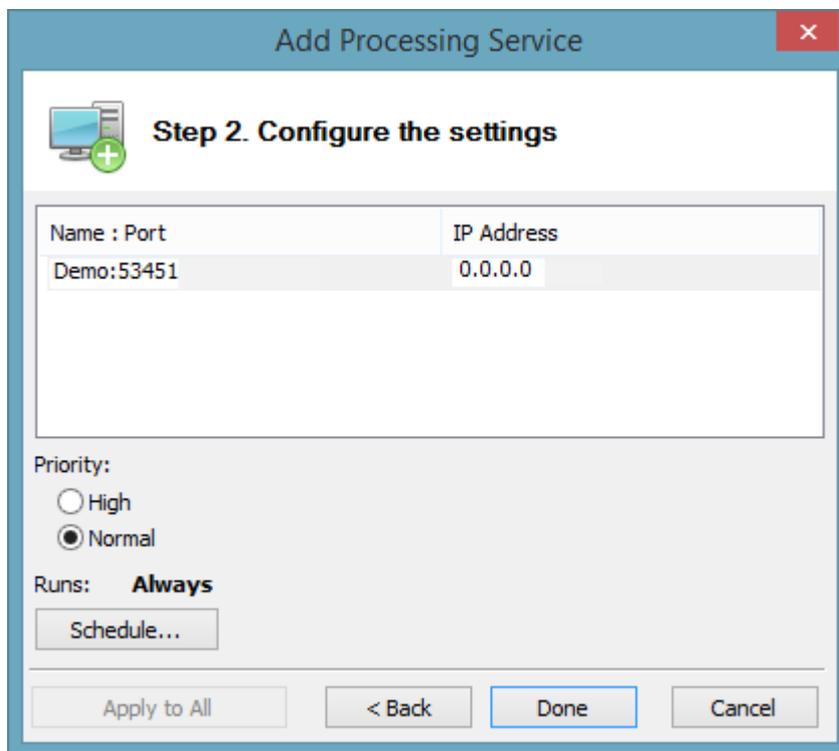
- **Always**

The Processing Service will always be available to accept tasks from the Control Service.

- **On Schedule**

The Processing Service will accept tasks from the Control Server only during the time period specified in its schedule.

Specify a time period.



7. Click **Done**.

The new service will appear in the list of Processing Services.

Starting and stopping Processing Stations

To start or stop a Processing Service, select it in the list and then click the  or  buttons at the bottom of the **Processing Services** tab.

Changing Processing Station settings

Processing Services connect to the Control Service automatically during installation. Follow the instructions below to change their settings:

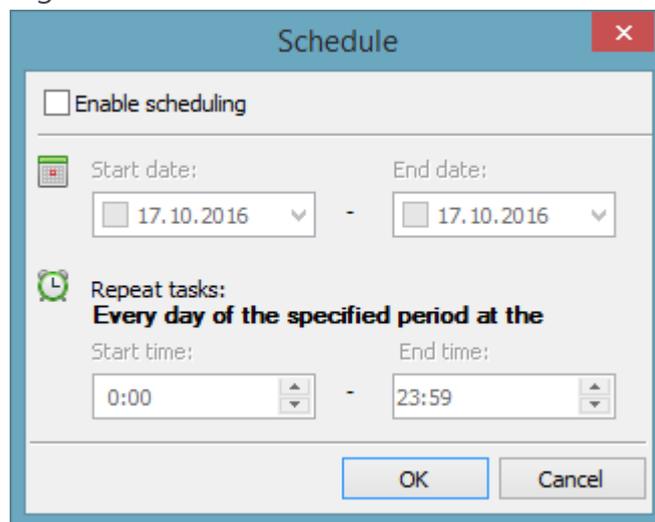
1. Select one or more Processing Services.

2. Click the **Change...** button.
3. In the **Processing Station Settings** dialog box that opens, you can specify:
 - the Processing Service’s priority,
 - whether the Processing Service should run continuously or on a schedule,
 - the number of executors on the Processing Service (the number of executors determines how quickly a Processing Service can process tasks).

To apply your changes to all of the selected Processing Services, click the **Apply to All** button.

Changing Processing Service schedules

To edit the schedule of a Processing Service, right-click the Service in the list and then click **Schedule** on the shortcut menu or click the **Schedule** button in the lower part of the window. In the dialog box that opens, you can specify the processing mode and the date and time when the Processing Service needs to be active.



Removing a Processing Service

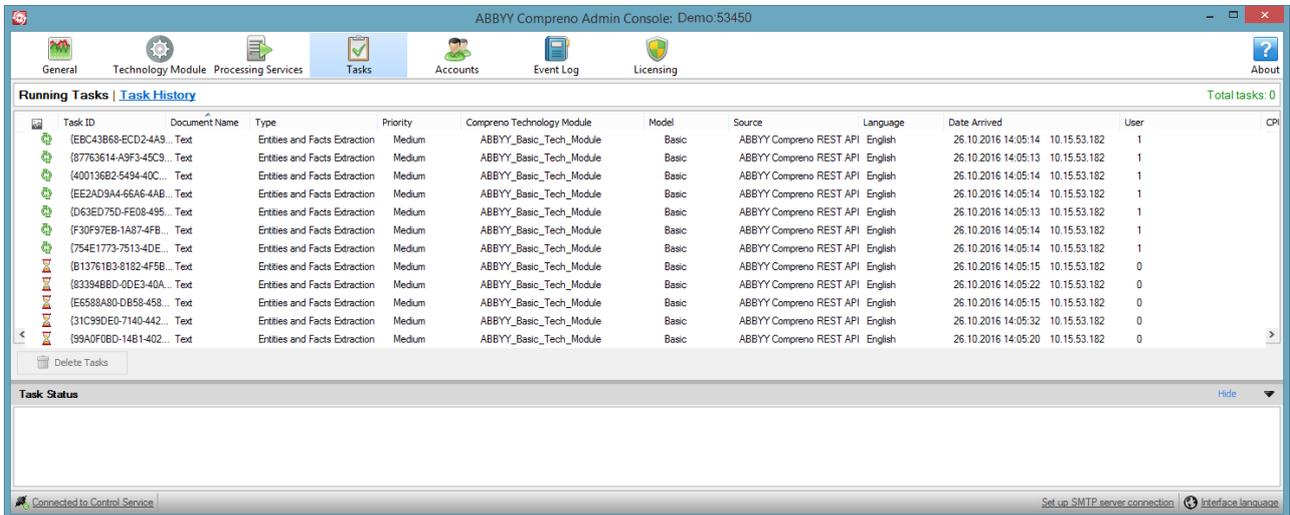
To remove Processing Services from the list of services connected to the Control Service, select them, click the  button at the bottom of the window, and then click **Yes** in the confirmation dialog box. The Processing Service component will not be removed. You can always reconnect a Processing Service if required.

Tasks

Information about all information extraction and classification tasks is available on the **Tasks** tab of the ABBYY Compeno Admin Console. The upper part of the tab contains a list of tasks, the lower part displays the status of the currently selected task. The **Tasks** tab is divided into two sections:

- **Running Tasks** contains tasks that are currently in progress.
- **Task History** contains tasks that have been completed.

Task statuses



Tasks in the **Running Tasks** section of the **Tasks** tab can have one of the following status icons:

indicates that the task is in progress.

indicates that the task is queued.

The bottom part of the tab contains details of the selected task.

Tasks in the **Task History** section can have one of the following status icons:

indicates that the task was completed successfully.

indicates that the task was completed but yielded warnings.

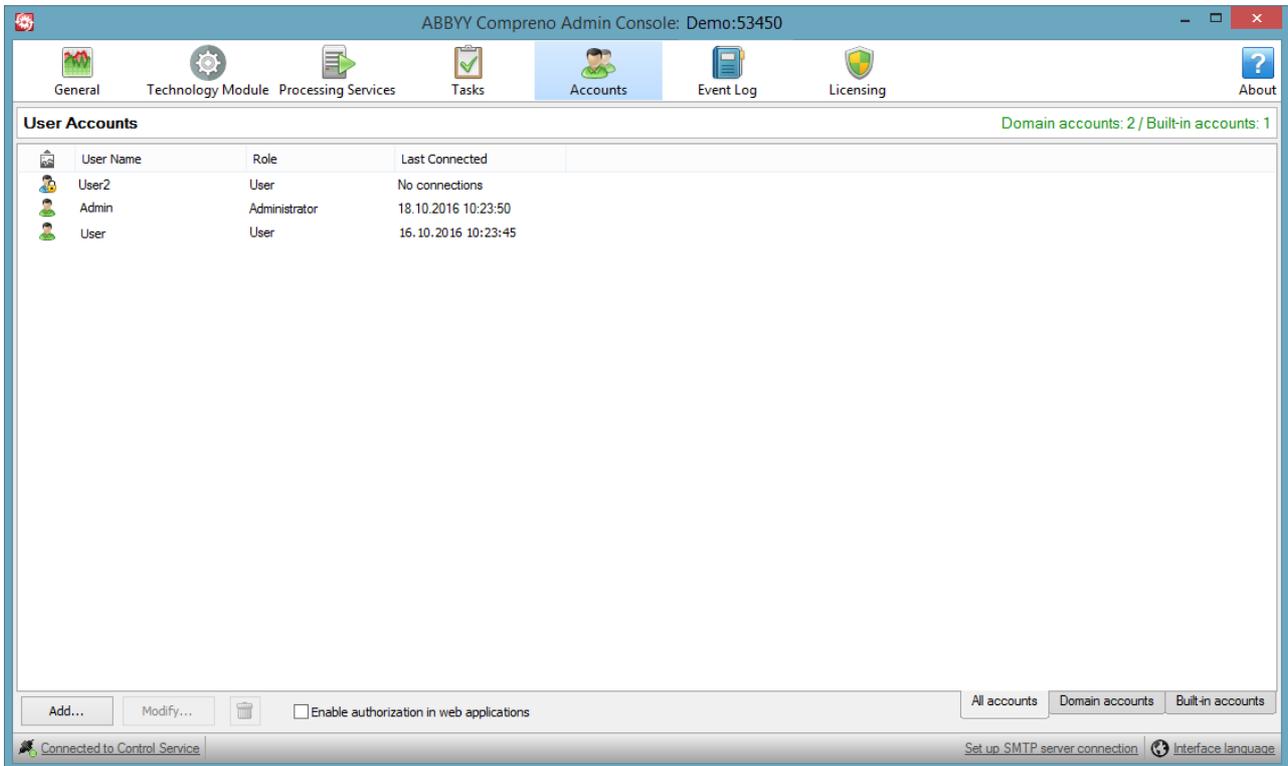
indicates that the task failed.

You can cancel tasks in the **Running Tasks** section of the **Tasks** tab by selecting tasks and clicking the **Delete Tasks** button.

The **Clear History** button in the **Task History** section clears the list of completed tasks.

User accounts

The **Accounts** tab lets you manage user accounts.



There are two types of user accounts:

- **User**

This type of user account has limited permissions, uses the REST API, permits access to the ABBYY InfoExtractor SDK and ABBYY Smart Classifier functionality through web interfaces, and does not have access to the ABBYY Compeno Admin Console.

- **Administrator**

This type of user account has all permissions and permits access to all ABBYY Compeno Products functionality including the ABBYY Compeno Admin Console.

An administrator can perform the following operations on user accounts:

- Create new accounts.
- Edit accounts.
- Delete accounts.

User accounts can be further divided into two types:

- **Domain accounts** use an account from the domain to access ABBYY Compeno Products functionality.
- **Built-in accounts** use logins and passwords generated by an administrator in the ABBYY Compeno Admin Console.

A user account's type is indicated by its icon:

 indicates a built-in account.

 indicates a domain account.

 indicates a domain user group.

An administrator can specify whether users need to log in to use the ABBYY Smart Classifier Model Editor sites and the ABBYY Compeno REST API by enabling or disabling the **Enable authorization in web applications** option.

Adding new domain user accounts

Complete the following steps to add a new user or group account for a domain user:

1. Open the **Accounts** tab of the ABBYY Compeno Admin Console.
2. Click the **Add...** button.
3. Open the **Domain Accounts** tab in the **Add User** dialog box that opens and click the **Find and Add** button.
4. In the dialog box that opens, enter a user or group account and click **OK**.
5. The user or group will be added to the list. If the **Administrator** option is enabled, the new user account will receive administrator privileges and will be able to use the ABBYY Compeno Admin Console.

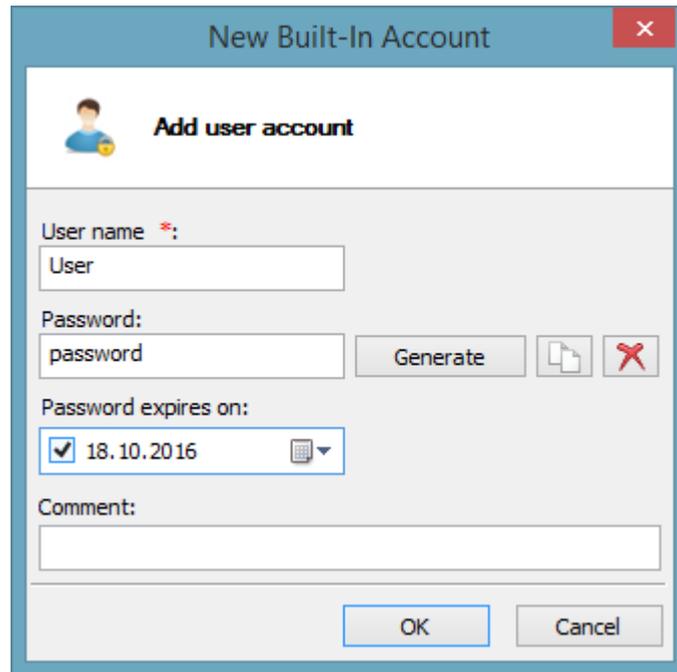
Adding new built-in user accounts

Built-in user accounts are usually created in the following cases:

- A domain is not available.
- Using a domain account to administer the ABBYY Compeno Products is not possible or desirable.

To add a new user:

1. Open the ABBYY Compeno Admin Console and click the **Accounts** tab.
2. Click the **Add...** button.
3. In the **Add User** dialog box, select the **New built-in account** tab and click the **Add** button.
4. In the dialog box that opens, type the name of the new user account, type or generate a password, specify an expiration date if you want the password to expire and click **OK**.



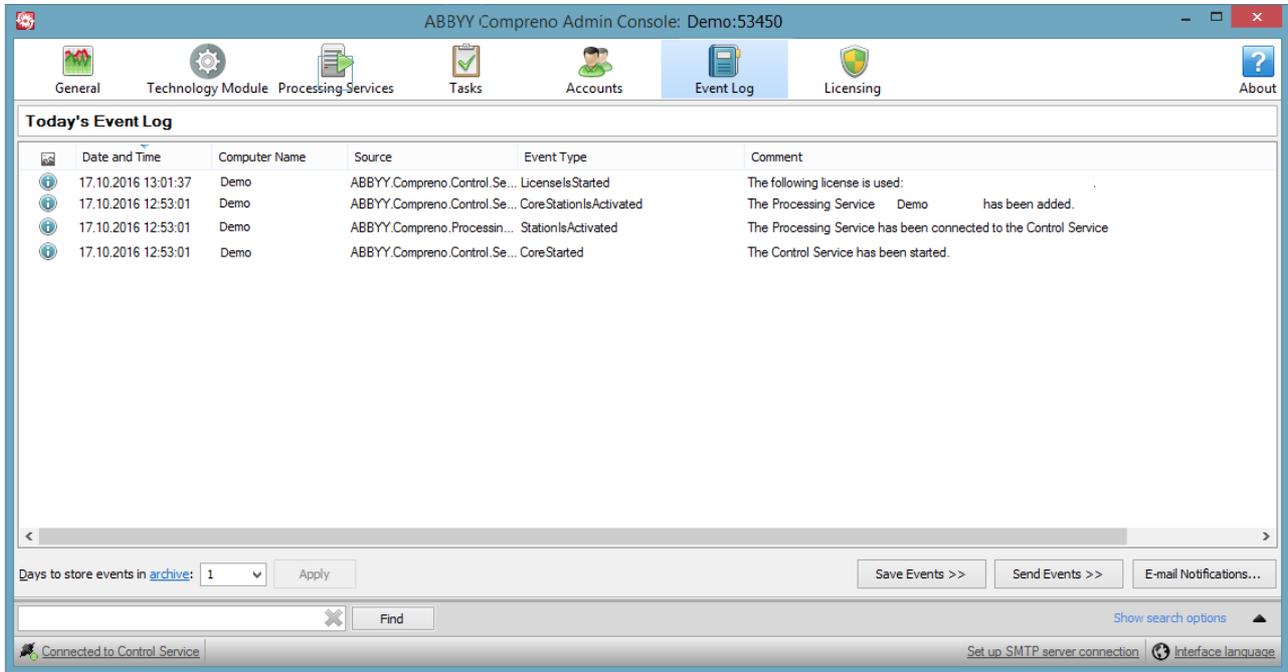
Editing and deleting user accounts

To change the settings of one or more user accounts, select them and click the **Edit...** button. All settings specified when the account was created can be changed.

To delete accounts, select them, click the  button, and confirm the operation in the dialog box that opens.

Event log and e-mail notifications

Viewing events



Any events that have occurred in the ABBYY InfoExtractor SDK and ABBYY Smart Classifier starting from 00:00 are displayed on the **Event Log** tab of the ABBYY Compreno Admin Console. For more information on event logs, see [Storing event archives](#).

There are four types of event log entries, indicated by the following icons:

-  indicates information.
-  indicates warnings about malfunctions.
-  indicates error messages for system failures that have prevented some of the tasks from being performed, and for other serious problems.
-  indicates critical error messages for failures that make the system inoperable (e.g. "There are no available licenses," "There are no Processing Services running").

Let's take a look at a record in the event log.

 17.10.2016 12:53:01 Demo ABBYY.Compreno.Control.Se... CoreStationsActivated The Processing Service Demo has been added.

This record is a notification about the successful installation of a Processing Service on the Demo computer at the specified date and time. The source of the event is the name of the component that registered the event, in this case ABBYY.Compreno.Processing.Service. The type of the event (CoreStationsActivated in this case) does not change regardless of the message's language, so you can filter all records according to their type.

Filtering events

The events in the log can be filtered by type, product, date and time, and comment. Additionally, you can look for a specific event or events using keywords or time period.

Two search modes are available:

- **Simple search**

This search mode allows looking for events using only keywords.

- **Advanced search**

This search mode allows looking for events using keywords, event type, product name, and time period.

Select filtering criteria and then click the **Find** button to perform a search.

The screenshot shows a search interface with the following elements:

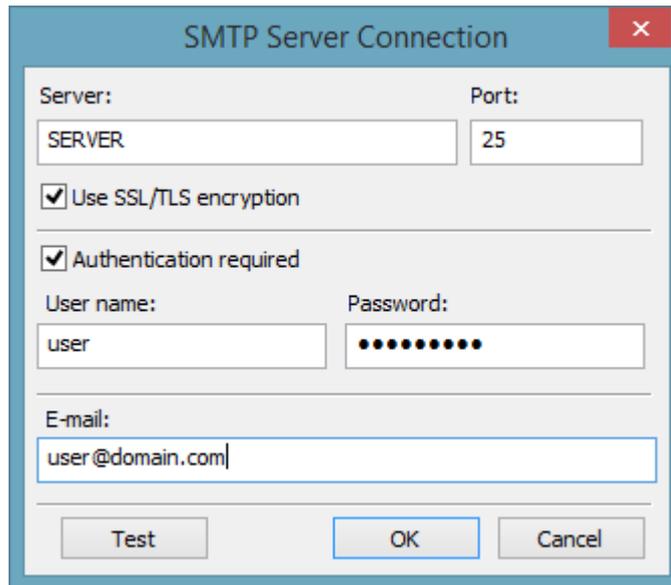
- A search bar at the top with a 'Find' button and a 'Hide search options' link.
- Event type:** A list of checkboxes: Critical error, Error, Warning, Information.
- Time period:** A checkbox for 'Show events only for the selected time period' (unchecked). Below it, 'from' and 'to' time pickers are both set to '10:56'.
- Product:** A list of checkboxes: ABBYY InfoExtractor SDK, ABBYY Smart Classifier.

E-mail notifications

The administrator can set up the system to send e-mail notifications of any malfunction of ABBYY Compro Products. These notifications will help the administrator localize problems and understand their causes.

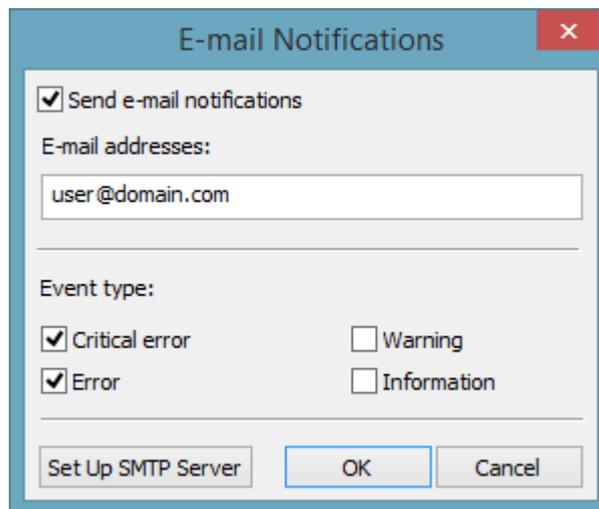
To receive e-mail notifications, configure a mail server:

1. Click [Set up SMTP server connection](#) at the bottom of the ABBYY Compro Admin Console and then click **OK**.
2. Enter the address of the SMTP server you want to use (please use a server that does not require TLS support) and specify a port via which the SMTP server will be accessed (make sure the port is not blocked by a firewall or similar software). If the SMTP server requires authentication, specify a valid user name and password.
3. In the **E-mail** field, specify the your e-mail address.
4. Click **Test** to test the connection settings. A test message will be sent to the e-mail address you provided in the **E-mail** field and then click **OK**.



Next, specify what kinds of events should be reported:

1. Click the **E-mail Notifications** button.
2. Select the **Send e-mail notifications** option.
3. Select the types of events to be reported to the administrator(s) by e-mail.
4. Enter the e-mail addresses of the administrators, separating them with a comma or semi-colon.



Sending diagnostic information to the ABBYY technical support service

From the ABBYY Compreno Admin Console, the administrator can:

- Send diagnostic information about events to the ABBYY technical support service.
- Generate a diagnostic file and attach it to a manually created e-mail message.

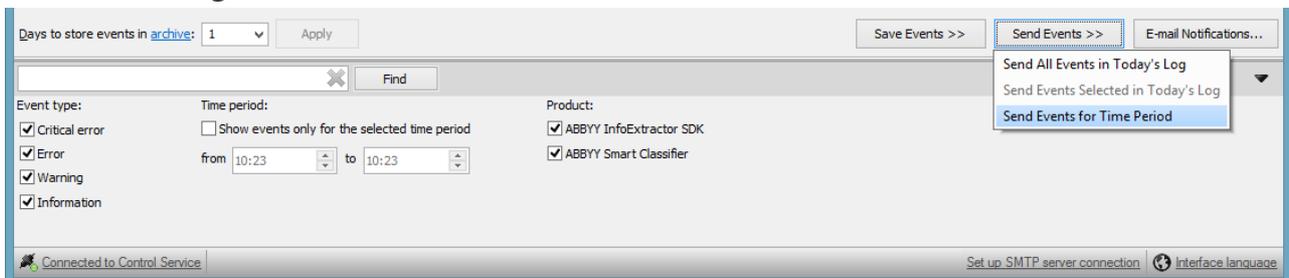
Sending an event archive to the ABBYY technical support service

Before you can send event archives to technical support, you must set up a connection to an SMTP server (see [E-mail notifications](#) for instructions).

The administrator can send to the ABBYY technical support service a ZIP archive containing:

- all of the events that occurred within the period from 00:00 to the time when the log is generated,
- only selected events that occurred within the period from 00:00 to the time when the log is generated,
- only events that occurred during a specific time span within the period from 00:00 to the time when the log is generated.

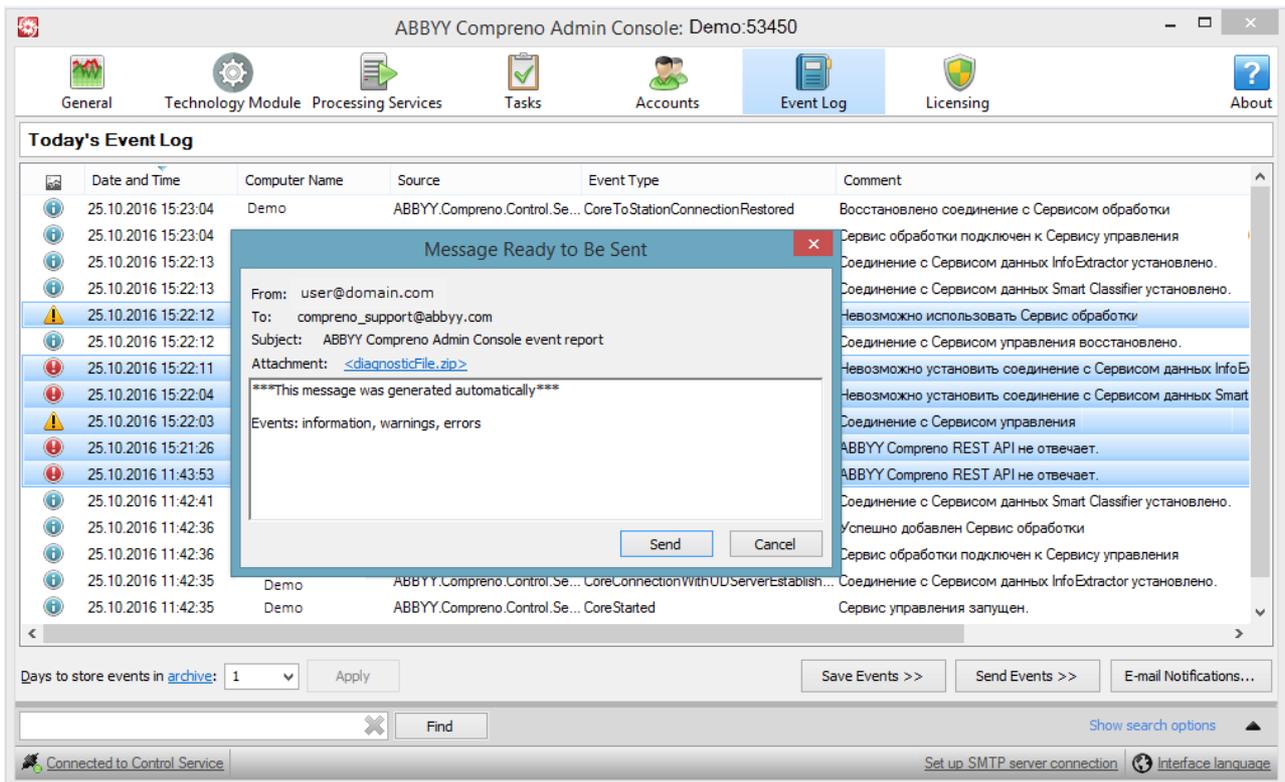
To specify the contents of the ZIP archive, select a desired item from the drop-down list shown in the figure below.



A diagnostic file will be generated containing the parameters relevant to the event. The complete list of possible event parameters is as follows:

- the number of the event,
- the date of the event,
- the type of the event,
- the module where the event occurred,
- the version of the product,
- the serial number license,
- the version of your operating system,
- the address of the computer where the event occurred,
- the identifier of the event type,
- a description of the error,
- the analyzed text (in the event of incorrect information extraction).

To send the archive to ABBYY, click the **Send** button in the window displaying the message.



Generating a diagnostic file

To save event information from the latest log file, click the **Save Events** button, select a desired item from the drop-down list, select a folder where to store the archive, and then specify a name for the ZIP archive file (for more about archives that can be stored in the system for several days, see [Storing event archives](#)).

You can include the following information in an event archive:

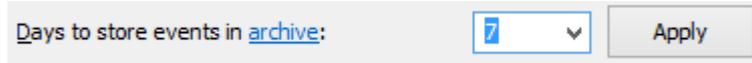
- information about all of the events that occurred within the period from 00:00 to the time when the log is generated,
- information about selected events that occurred within the period from 00:00 to the time when the log is generated,
- information about events that occurred during a specific time span within the period from 00:00 to the time when the log is generated.

An event archive thus generated can then be attached to an e-mail message and sent to the ABBYY technical support service.

Storing event archives

All events occurring in the ABBYY InfoExtractor SDK and ABBYY Smart Classifier are logged. A new log is created every day at 00:00. The latest log file, together with some diagnostic information, is packed into a ZIP archive. The name of this file is based on the date of the last record in the format YYYY-MM-DD. The administrator can specify how long event information should be stored.

The time to store archived events can be either specified manually or selected from a drop-down list. The time starts from the point when an event is recorded in the log file. An archive can be stored for up to 60 days. Click **Apply** for the setting to take effect.

A screenshot of a settings control. It features a label "Days to store events in archive:" followed by a dropdown menu showing the number "7" and a downward arrow. To the right of the dropdown is a button labeled "Apply".

The path to the archive file (if the product was installed in the default destination folder): %ProgramData%\ABBYY\Compreno Products\Logs\Archive
To open the archive folder, click the blue "archive" link.

System Maintenance

This section describes maintenance activities to be performed by the administrator:

- **Preventive** maintenance activities must be performed from time to time to ensure continuous operation of the system.
- **Updates** should be installed when they become available.
- **System recovery** activities may be required if a system failure occurs.

Maintenance operations

The administrator should perform maintenance operations at least once a fortnight.

Maintenance operations include:

- diagnostic analysis of the data collected by the Monitoring Service,
- preventive actions.

Monitoring System overview

The Monitoring Service ensures 99% reliability of the ABBYY Compeno Products, with allowed downtime not exceeding eight hours per month, provided that all of the installation and maintenance requirements are observed.

To ensure reliable operation of the ABBYY Compeno Products, real-time diagnostic and failure prevention tools are provided:

- For each typical failure or malfunction, response and prevention tools are implemented.
- For most failure and malfunctions, sufficient diagnostic information is collected to reproduce and eliminate the underlying error.
- The Monitoring Service allows the user to monitor the operation of the ABBYY Compeno Products and the overall health of the entire system.

How the Monitoring Service works

The Monitoring Service operates as follows (see the flowchart below):

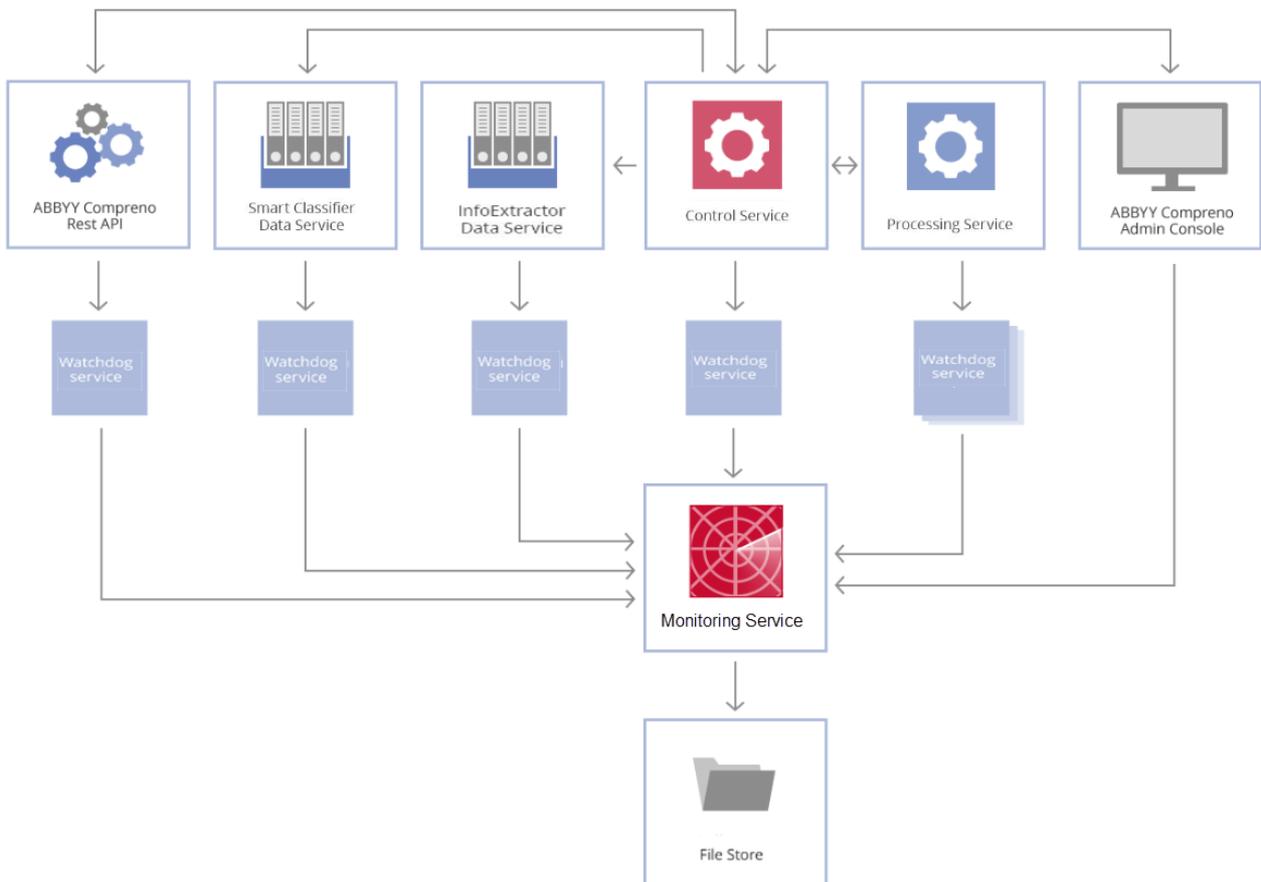
1. The Watchdog service:

- Tracks the status of the components of the ABBYY Compeno Products,
- In the event of a malfunction, restarts the malfunctioning component in an attempt to restore its normal operation,

- Collects diagnostic information from the component of the ABBYY Compreno Products and sends this information to the Monitoring Server (diagnostic information is collected even if the Monitoring Server is disconnected).

Failures and malfunctions detected by the Monitoring System include:

- abnormal process termination
 - process freezes
 - memory threshold exceeded
 - not enough disk space
2. The Monitoring Service saves diagnostic information to a centralized file store.
 3. You can use the ABBYY Compreno Admin Console to set up the Monitoring Service to collect diagnostic information and send e-mail notifications. The console also provides a visual representation of the overall health of the system.



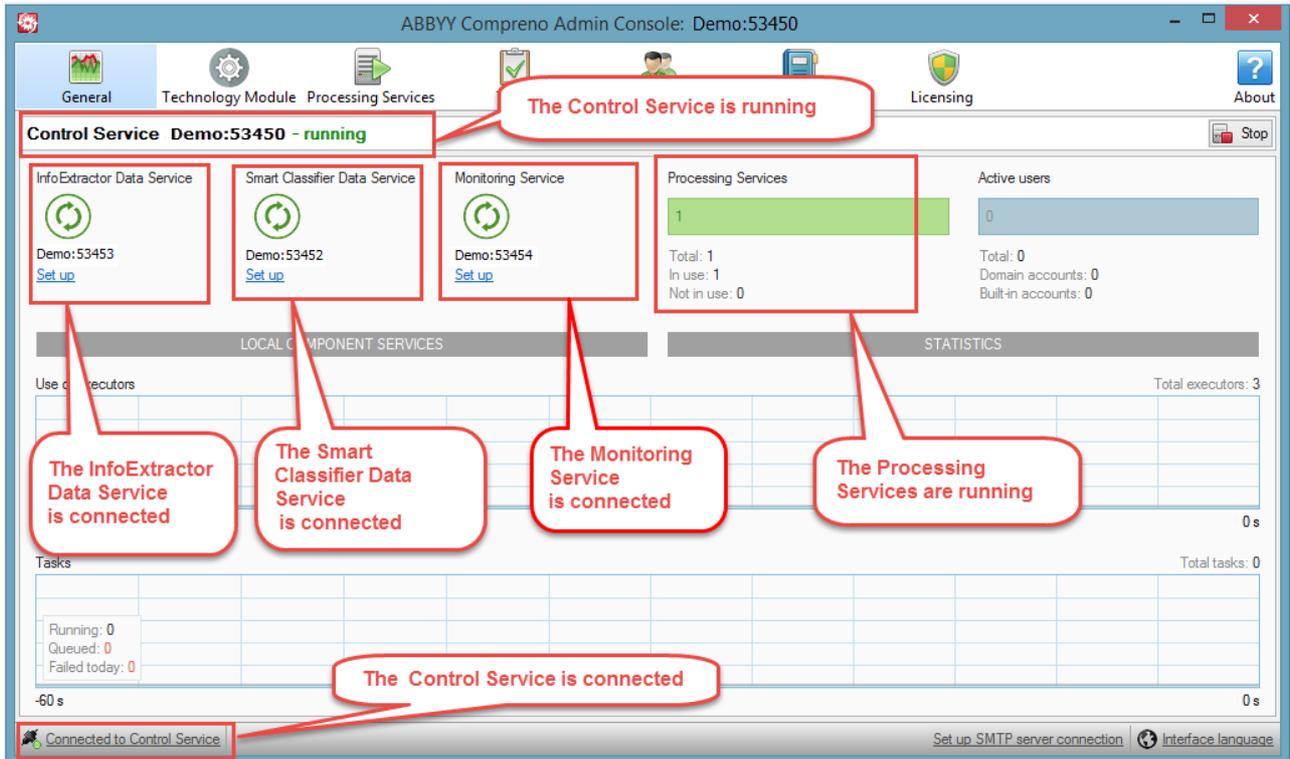
Analyzing Monitoring Service data

The Monitoring Service makes available to the administrator information about the current operational statuses of the system components.

The following statuses should be checked in the following order:

- The Control Service is connected.

- The Control Service is running.
- The InfoExtractor Data Service is connected.
- The Smart Classifier Data Service is connected.
- The Monitoring Server is connected.
- The Processing Stations are running.

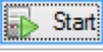
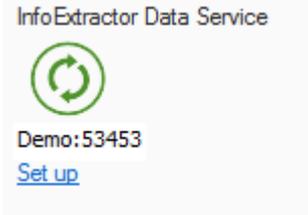
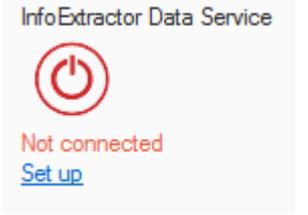


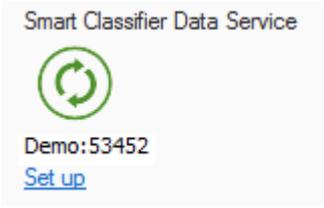
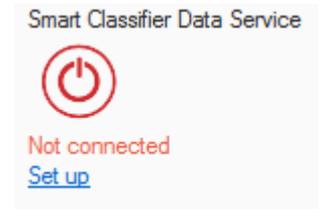
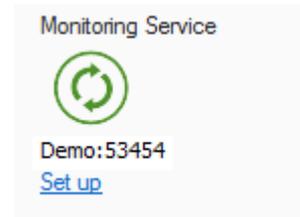
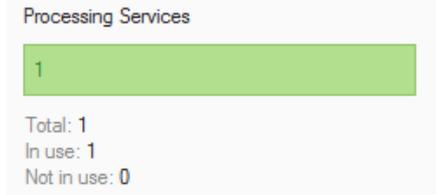
Preventive actions

To ensure the normal operation of the system components, preventive actions should be performed.

The table below lists the possible indicator statuses for each performance check and tells you what actions should be taken to restore the normal operation of the component:

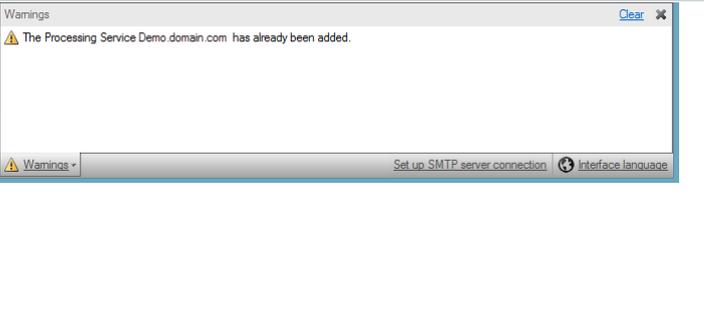
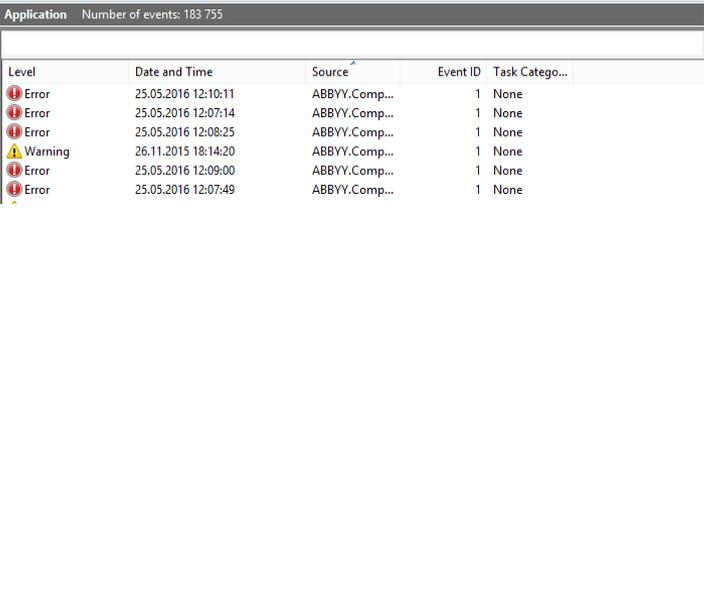
Item to Check	Status	Action
Control Service connection	Connected to Control Service	No action required.
	Control Service disconnected	<ol style="list-style-type: none"> 1. Click Control Service disconnected. 2. In the Connect to Control Service dialog box, enter the

Item to Check	Status	Action
		<p>administrator name and password specified when installing the program or added later in the ABBYY Compreno Admin Console.</p> <p>If you install the Control Service in a domain, the current domain account will be selected by default.</p> <p>If you install the Control Service outside a domain, the Built-in account option will be selected.</p> <p>3. Click Connect.</p> <p>If connection fails, please refer to the next table.</p>
Control Service activity	Control Service Demo:53450 - running	No action required.
	Control Service Demo:53450 - stopped	Click  .
	Control Service Demo:53450 - failed	Check the Event Log tab. See the Viewing events section for details.
InfoExtractor Data Service connection		No action required.
		<ol style="list-style-type: none"> 1. Click Set up. 2. In the dialog box, click Connect.

Item to Check	Status	Action
Smart Classifier Data Service connection		No action required.
		<ol style="list-style-type: none"> 1. Click Set up. 2. In the dialog box, click Connect.
Monitoring Service connection		No action required.
		<ol style="list-style-type: none"> 1. Click Set up. 2. In the dialog box, click Connect.
Processing Service activity		No action required.
		<ol style="list-style-type: none"> 1. Click the Processing Services tab. 2. Select a stopped Processing Service in the list and click .

Use the table below to troubleshoot the problem.

Element	Status	Action																				
<p>Tasks tab > Task History</p>	<p>Running Tasks Task History</p> <table border="1"> <thead> <tr> <th>Task ID</th> <th>Document Name</th> <th>Type</th> <th>Priority</th> <th>Compro Technology Module</th> </tr> </thead> <tbody> <tr> <td>(B092CF60-D154-423...</td> <td>Text</td> <td>Entities and F...</td> <td>Medium</td> <td>ABBYY_Basic_Tech_Module</td> </tr> <tr> <td>(CE0CEB4A-51A5-4D7...</td> <td>Text</td> <td>Entities and F...</td> <td>Medium</td> <td>ABBYY_Basic_Tech_Module</td> </tr> <tr> <td>(4ADC8AFC-52DA-447...</td> <td>Text</td> <td>Entities and F...</td> <td>Medium</td> <td>ABBYY_Basic_Tech_Module</td> </tr> </tbody> </table>	Task ID	Document Name	Type	Priority	Compro Technology Module	(B092CF60-D154-423...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module	(CE0CEB4A-51A5-4D7...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module	(4ADC8AFC-52DA-447...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module	<p>No action required.</p>
Task ID	Document Name	Type	Priority	Compro Technology Module																		
(B092CF60-D154-423...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module																		
(CE0CEB4A-51A5-4D7...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module																		
(4ADC8AFC-52DA-447...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module																		
	<p>Running Tasks Task History</p> <table border="1"> <thead> <tr> <th>Task ID</th> <th>Document Name</th> <th>Type</th> <th>Priority</th> <th>Compro Technology Module</th> </tr> </thead> <tbody> <tr> <td>(E9924B0B-37B9-40D...</td> <td>Text</td> <td>Entities and F...</td> <td>Medium</td> <td>ABBYY_Basic_Tech_Module</td> </tr> <tr> <td>(36659FAC-7ED1-451...</td> <td>Text</td> <td>Entities and F...</td> <td>Medium</td> <td>ABBYY_Basic_Tech_Module</td> </tr> <tr> <td>(CE0CEB4A-51A5-4D7...</td> <td>Text</td> <td>Entities and F...</td> <td>Medium</td> <td>ABBYY_Basic_Tech_Module</td> </tr> </tbody> </table> <p>There are failed tasks in the list.</p>	Task ID	Document Name	Type	Priority	Compro Technology Module	(E9924B0B-37B9-40D...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module	(36659FAC-7ED1-451...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module	(CE0CEB4A-51A5-4D7...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module	<ol style="list-style-type: none"> 1. Select the problem task. 2. The Task Status section at the bottom of the screen will display the cause of the failure. 3. Eliminate the cause. 4. Analyze the text once again.
Task ID	Document Name	Type	Priority	Compro Technology Module																		
(E9924B0B-37B9-40D...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module																		
(36659FAC-7ED1-451...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module																		
(CE0CEB4A-51A5-4D7...	Text	Entities and F...	Medium	ABBYY_Basic_Tech_Module																		
<p>Event Log tab</p>	<p>Today's Event Log</p> <table border="1"> <thead> <tr> <th>Date and Time</th> <th>Computer Name</th> <th>Source</th> <th>Event Type</th> </tr> </thead> <tbody> <tr> <td>26.10.2016 12:25:25</td> <td>Demo</td> <td>ABBYY.Compro.Control.Se...</td> <td>CoreStarted</td> </tr> <tr> <td>26.10.2016 12:25:25</td> <td>Demo</td> <td>ABBYY.Compro.Control.Se...</td> <td>LicensesStarted</td> </tr> <tr> <td>26.10.2016 12:24:01</td> <td>Demo</td> <td>ABBYY.Compro.Control.Se...</td> <td>CoreStopped</td> </tr> <tr> <td>26.10.2016 12:24:01</td> <td>Demo</td> <td>ABBYY.Compro.Control.Se...</td> <td>CurrentLicensesStopped</td> </tr> </tbody> </table> <p>The event log contains only information messages.</p>	Date and Time	Computer Name	Source	Event Type	26.10.2016 12:25:25	Demo	ABBYY.Compro.Control.Se...	CoreStarted	26.10.2016 12:25:25	Demo	ABBYY.Compro.Control.Se...	LicensesStarted	26.10.2016 12:24:01	Demo	ABBYY.Compro.Control.Se...	CoreStopped	26.10.2016 12:24:01	Demo	ABBYY.Compro.Control.Se...	CurrentLicensesStopped	<p>No action required.</p>
Date and Time	Computer Name	Source	Event Type																			
26.10.2016 12:25:25	Demo	ABBYY.Compro.Control.Se...	CoreStarted																			
26.10.2016 12:25:25	Demo	ABBYY.Compro.Control.Se...	LicensesStarted																			
26.10.2016 12:24:01	Demo	ABBYY.Compro.Control.Se...	CoreStopped																			
26.10.2016 12:24:01	Demo	ABBYY.Compro.Control.Se...	CurrentLicensesStopped																			
	<p>Today's Event Log</p> <table border="1"> <thead> <tr> <th>Date and Time</th> <th>Computer Name</th> <th>Source</th> <th>Event Type</th> </tr> </thead> <tbody> <tr> <td>26.10.2016 12:26:20</td> <td>Demo</td> <td>ABBYY.Compro.Monitoring...</td> <td>RestApiNotResponded</td> </tr> <tr> <td>26.10.2016 12:25:28</td> <td>Demo</td> <td>ABBYY.Compro.Control.Se...</td> <td>CoreClassifierServerConne</td> </tr> <tr> <td>26.10.2016 12:25:25</td> <td>Demo</td> <td>ABBYY.Compro.Control.Se...</td> <td>CoreConnectionWithUDSe</td> </tr> </tbody> </table> <p>The event log contains errors and/or warnings.</p>	Date and Time	Computer Name	Source	Event Type	26.10.2016 12:26:20	Demo	ABBYY.Compro.Monitoring...	RestApiNotResponded	26.10.2016 12:25:28	Demo	ABBYY.Compro.Control.Se...	CoreClassifierServerConne	26.10.2016 12:25:25	Demo	ABBYY.Compro.Control.Se...	CoreConnectionWithUDSe	<ol style="list-style-type: none"> 1. The likely cause of the error is indicated in the Comment column. 2. Eliminate the cause (see the System recovery section for details). 				
Date and Time	Computer Name	Source	Event Type																			
26.10.2016 12:26:20	Demo	ABBYY.Compro.Monitoring...	RestApiNotResponded																			
26.10.2016 12:25:28	Demo	ABBYY.Compro.Control.Se...	CoreClassifierServerConne																			
26.10.2016 12:25:25	Demo	ABBYY.Compro.Control.Se...	CoreConnectionWithUDSe																			

Element	Status	Action
<p>The bar at the bottom of the ABBYY Compro Admin Console</p>		<p>Read the warning message.</p>
<p>Windows system log</p> <p>Start > Control Panel > Administrative Tools > Event Viewer</p>		<ol style="list-style-type: none"> Analyze the error messages from ABBYY Compro Products components. See the System recovery section for detailed instructions.

The administrator can set up e-mail notifications to be sent out in emergency situations (see [E-mail notifications](#)). An e-mail notification will contain information that will help you identify the problem and its cause. For detailed instructions on how to restore the normal operation of the system, see [System recovery](#).

Creating backups

You can back up your current ABBYY Compro Products settings and restore them in the event of data loss.

The first backup should be created after the initial ABBYY Compro Products setup. Subsequently, a new backup should be created each time substantial changes are made to the system settings.

It is recommended that backup files be kept on a dedicated storage medium for three months.

To back up your current system settings:

- Make sure that all of the system components are working properly (see [Analyzing Monitoring Service data](#)).

2. Stop the following services:

- ABBYY.Compeno.Control.Server.2.6
- ABBYY.Compeno.Processing.Station.2.6
- ABBYY.Compeno.Custom.Data.Server.2.6
- ABBYY.Compeno.Classification.Models.Server.2.6
- ABBYY.Compeno.WatchdogService.2.6
- ABBYY.Compeno.Licensing.Service.2.6
- ABBYY.Compeno.Monitoring.LogServer.2.6

3. From the **%ProgramData%ABBYY\Compeno Products\2.6** folder, copy the following configuration files on to a dedicated storage medium:

- InfoExtractorServer.xml
- LogServer.xml
- InfoExtractorServerUsers.cfg

4. Start the services in the following order:

- ABBYY.Compeno.Monitoring.LogServer.2.6
- ABBYY.Compeno.Licensing.Service.2.6
- ABBYY.Compeno.WatchdogService.2.6
- ABBYY.Compeno.Classification.Models.Server.2.6
- ABBYY.Compeno.Custom.Data.Server.2.6
- ABBYY.Compeno.Processing.Station.2.6
- ABBYY.Compeno.Control.Server.2.6

5. Make sure that the system is working properly (see [Analyzing Monitoring Service data](#)).

Installing updates

The administrator may need to install updates for:

- the Compeno Technology Module,
- the licenses.

The Compeno Technology Module may need to be updated if:

- a new version of the Basic Compeno Technology Module is installed,
- a bespoke Compeno Technology Module is installed,
- a new version of a bespoke Compeno Technology Module is installed.

For detailed instructions on updating the Compeno Technology Module, see [Installing the Compeno Technology Module](#).

You need to purchase a license update if:

- some additional functionality needs to be added,
- the license has expired,
- the page counter goes down to 0,
- some other license parameters need to be changed.

For detailed instructions on updating licenses, see [Updating a license](#).

System recovery

If the normal operation of the ABBYY Compeno Products is disrupted, please refer to the “Appendix. Possible Errors” section in the ABBYY Compeno Products 2.6 Integration Guide (**Start > ABBYY Compeno Products > Documentation > IntegrationGuide_ English**) for the list of the most common errors and how to solve them. You can also find error descriptions on the **Event Log** tab of the ABBYY Compeno Admin Console.

If the recommended solution fails to solve your problem, please contact ABBYY (see [Technical Support](#)), enclosing a diagnostic file with error details (see [Sending an event file to the ABBYY technical support service](#)).

The technical support staff will need the following information:

- your full name,
- the name of your company,
- your phone, fax, or e-mail address,
- screenshots of the tabs in the Admin Console that are relevant to the error,
- any other information you believe to be helpful.

System Configuration and Performance

When planning the configuration of your system for optimal performance, you need to:

1. Select a hardware configuration that is capable of processing documents at a certain speed.
2. Select a hardware configuration that is capable of processing your existing document collection within a certain time period.
3. Calculate the processing speed for your existing hardware configuration.
4. Calculate the time that your existing hardware will take to process your existing document collection.

For advice on choosing the right configuration or to calculate processing speeds/times, please contact ABBYY (see [Technical Support](#)). The technical support staff will need the following additional information to make a calculation:

Task	Required information
Select hardware configuration to achieve certain processing speed	Main criterion: <ul style="list-style-type: none"> • The type of task to be performed: extracting information from texts or classifying documents • The desired processing speed (the number of documents to be processed per minute) What documents will be processed: <ul style="list-style-type: none"> • Your document types (agreements, payment orders, etc.) • The share of each document type in your collection For each document type: <ul style="list-style-type: none"> • The average number of pages in a document • The average number of characters on a page (e.g. an A4 page contains approximately 2,000 characters, including spaces and punctuation marks) • Your document formats: <ul style="list-style-type: none"> ○ Unformatted text (TXT) ○ Microsoft Word documents (DOCX, RTF, etc.) ○ Document scans (PDF, TIFF, etc.) • The language of your documents
Select hardware configuration to process document collection within certain time period	Main criterion: <ul style="list-style-type: none"> • The type of task to be performed: extracting information from text or classifying documents • The time period within which your document collection should be processed What documents will be processed:

Task	Required information
	<ul style="list-style-type: none"> • Your document types (agreements, payment orders, etc.) • The share of each document type in your collection • The total number of documents <p>For each document type:</p> <ul style="list-style-type: none"> • The average number of pages in a document • The average number of characters on a page (e.g. an A4 page contains approximately 2,000 characters, including spaces and punctuation marks) • Your document formats: <ul style="list-style-type: none"> ○ Unformatted text (TXT) ○ Microsoft Word documents (DOCX, RTF, etc.) ○ Document scans (PDF, TIFF, etc.) • The language of your documents
<p>Calculate processing speed for existing hardware configuration</p>	<p>Main criterion:</p> <ul style="list-style-type: none"> • The type of task to be performed: extracting information from text or classifying documents • The total number of servers <p>For each server:</p> <ul style="list-style-type: none"> • Its type (actual computer or virtual machine) • The processor model <p>What documents will be processed:</p> <ul style="list-style-type: none"> • Your document types (agreements, payment orders, etc.) • The share of each document type in your collection <p>For each document type:</p> <ul style="list-style-type: none"> • The average number of pages in a document • The average number of characters on a page (e.g. an A4 page contains approximately 2,000 characters, including spaces and punctuation marks) • Your document formats: <ul style="list-style-type: none"> ○ Unformatted text (TXT) ○ Microsoft Word documents (DOCX, RTF, etc.) ○ Document scans (PDF, TIFF, etc.) • The language of your documents
<p>Calculate time that existing hardware will take to process existing</p>	<p>Main criterion:</p> <ul style="list-style-type: none"> • The type of task to be performed: extracting information from text or classifying documents • The total number of servers

Task	Required information
document collection	<p>For each server:</p> <ul style="list-style-type: none"> • Its type (actual computer or virtual machine) • The processor model <p>What documents will be processed:</p> <ul style="list-style-type: none"> • Your document types (agreements, payment orders, etc.) • The share of each document type in your collection • The total number of documents <p>For each document type:</p> <ul style="list-style-type: none"> • The average number of pages in a document • The average number of characters on a page (e.g. an A4 page contains approximately 2,000 characters, including spaces and punctuation marks) • Your document formats: <ul style="list-style-type: none"> ○ Unformatted text (TXT) ○ Microsoft Word documents (DOCX, RTF, etc.) ○ Document scans (PDF, TIFF, etc.) • The language of your documents

The performance of the Control Service is defined by the following parameters:

- The number of users simultaneously and continuously interacting with the Control Service via the API. The current version of the ABBYY Compreno Products supports up to 50 simultaneous and continuous users.
- The number of tasks handled by the Control Service (i.e. tasks with the **Task completed successfully**, **Task running**, and **Task queued** statuses). The Control Service can handle up to 50,000 tasks.

Horizontal and vertical scaling

The ABBYY Compreno Products architecture requires the use of one Primary Server and several Secondary Servers. The Control Service installed on the Primary Server manages the workload and distributes tasks among the connected Processing Services, resulting in a highly scalable system capable of processing large amounts of documents.

To increase performance, the system can be scaled up and out, i.e. vertically and horizontally. When scaling the system horizontally, the recommended maximum number of Secondary Servers, in any configuration, is 20.

The table below summarizes the results of tests that measure how scaling affects the performance of a system with the ABBYY InfoExtractor SDK is installed. The system includes a Primary Server and several Secondary Servers.

Scaling type	Parameter	Effect
Vertical	Number of physical cores	Linear dependence
	Processor clock speed	Linear dependence
	Hyper-threading	25% increase in performance ⚠ Important! Errors may occur on computers with more than 24 processor cores. See the following page for a solution to this problem: https://support.microsoft.com/en-us/kb/126962
	Virtual Secondary Servers	Performance decreased by approximately 10%
	CPU architecture/ generation	No dependence detected
	RAM	No dependence detected
	HDD	No dependence detected
Horizontal	Number of Secondary Servers	Linear dependence

For an assessment of the results you can get by scaling your system with ABBYY Smart Classifier installed, please contact the ABBYY technical support service (see [Technical Support](#)).

Technical Support

If you have any questions about installing and using the ABBYY Compeno Products, please send us a message using this online form to request technical support:

- ABBYY InfoExtractor SDK
<http://go.abbyy.com/?target=onlinesupport&product=InfoExtractor&lang=en>
- ABBYY Smart Classifier
<http://go.abbyy.com/?target=onlinesupport&product=SmartClassifier&lang=en>

Appendix

Необходимые системные компоненты

The ABBYY Compeno Products require the following software components for correct operation:

- MSXML 6.0
MSXML 6.0 is provided with the product and can be found in \Product\MSXML.
You can install MSXML 6.0 manually or allow the setup wizard to install additional components when installing the ABBYY Compeno Products.
- Microsoft .NET Framework 4.6.1
Microsoft .NET Framework 4.6.1 is provided with the product and can be found in the External Components folder.
This component is only required if you choose to install the product on a Primary Server. You can install Microsoft .NET Framework 4.6.1 manually or allow the setup wizard to install additional components when installing the ABBYY Compeno Products.
- Visual C++ Redistributable for Visual Studio 2015
Visual C++ Redistributable for Visual Studio 2015 is provided together with the product and can be found in External Components folder.
This component is only required if you choose to install the product on a Primary Server running under Windows 7. You can install Visual C++ Redistributable for Visual Studio 2015 manually or allow the setup wizard to install additional components when installing the ABBYY Compeno Products.

Command line installation arguments

* Command-line arguments marked with an asterisk are required. The other arguments are optional.

** Command-line arguments marked with a double asterisk only apply to uninstall operations.

If you do not pass an optional argument, its default value will be used during installation.

Command-line argument	Default value	Description
Mode	Install	Specifies the operation to be performed by the setup program. The following options are available: <ul style="list-style-type: none"> • Install Installs a product. • Uninstall Uninstalls a product. • Modify Changes the settings of installed products. • Repair Repairs installed products.
LogPath	The path to the working folder	The path to the folder where you want to create the installation log.
LicenseSerialNumber* (This parameter is required when you install the ABBYY Compreno Products for the first time)	The serial number used by the previous installation	License serial number.
IAcceptLicenseTerms* (Required for installation operations)		Indicates that you agree to the terms of the End-User License Agreement.
ServerRole	PrimaryServer	The role of the server. There are two possible server roles: <ul style="list-style-type: none"> • PrimaryServer • SecondaryServer

Command-line argument	Default value	Description
InstallPath	%ProgramFiles(x86)% \ABBYY Compeno Products \2.6\	The path to the folder where you want to install the components of the ABBYY Compeno Products.
WorkingFolderPath	%ProgramData% \ABBYY Compeno Products \2.6\	The path to the working folder.
AcceptPreviousUserData		When this parameter is passed, the program will attempt to use the user data left from the previous installation.
ControlServicePort	53450	The TCP/IP port to be used by the Control Service.
InfoExtractorData ServicePort	53453	The TCP/IP port to be used by the InfoExtractor Data Service.
SmartClassifierData ServicePort	53452	The TCP/IP port to be used by the Smart Classifier Data Service.
WebSitePort	83	The TCP/IP port to be used by REST API requests.
MonitoringServicePort	53454	The TCP/IP port to be used by the Monitoring Service.
ProcessingServicePort	53451	The TCP/IP port to be used by the Processing Service.
ExecutorPortRangeBegin	53456	The first port in the range of ports used by the executors (200 ports).
MasterServerName		The name or IP address of the Control Service.
AdminAccountType	BuiltIn	The type of user account to be used for administrating the ABBYY Compeno Products. This argument can have one of two values:

Command-line argument	Default value	Description
		<ul style="list-style-type: none"> • Domain A domain user account will be used. • BuiltIn A built-in user account will be used.
AdminAccountName	<ul style="list-style-type: none"> • <i>admin</i> if a built-in account is used • The name of the current user account if a domain account is used 	The name of the user account to be used for administrating the ABBYY Compro Products.
AdminAccountPassword	admin	The password for the user account that will be used to administer the ABBYY Compro Products (for built-in accounts only).
DontInstallShortcuts		If this argument is passed, a shortcut for opening the ABBYY Smart Classifier Model Editor website will not be placed on the Start menu.
Product** (Used only in uninstalling operations)	AIE,ASC	<p>A list of products to be uninstalled. The following values are available:</p> <ul style="list-style-type: none"> • AIE • ASC • AIE,ASC
KeepUserData** (Only used when removing the Primary Server of a product)		If this argument is passed, user data will not be deleted when the product is uninstalled.