



DocuWare Intelligent Indexing

Instructions for Installing DocuWare Intelligent Indexing

DocuWare GmbH, November 2014

1 Introduction

This document describes how to install DocuWare Intelligent Indexing and all additional components as required. Instructions on configuring Intelligent Indexing and working with Intelligent Indexing are available as separate documents under help.docuware.com.

Due to performance reasons, it is **highly** recommended to install Intelligent Indexing on its own machine and not together with DocuWare.

1.1 System Requirements

Intelligent Indexing can be used in combination with DocuWare from version 6.1. The recommended operating system is Windows Server 2012 R2. Administrator rights and an Internet connection are necessary for the installation described below. You also need a program to unpack ZIP files (for example under <http://www.7-zip.de/>).

1.2 Overview of Required Files

To install Intelligent Indexing you need the Intelligent Indexing setup files, which you received in a ZIP file together with this manual. This contains the following sub-directories:

- The sub-folder *Intelligent Indexing*: contains the program components of Intelligent Indexing,
- The sub-folder *Database*: contains scripts to create the database for Intelligent Indexing,
- The sub-folder *SolR*: contains configuration files for full-text Intelligent Indexing,
- The sub-folder *Test document*: contains a test document which can be used to test whether the installation was successful at the end of installation,
- An Intelligent Indexing connection file *intelligent-indexing-connection.xml* to establish the connection between DocuWare and Intelligent Indexing.

In addition, you require your DocuWare license file, which you can also download from the DocuWare Partner Portal.

1.3 Installation Overview

Intelligent Indexing requires a couple of additional components, which have to be installed and set up first. Installation is therefore divided into the following steps:

- Installation of Microsoft .NET 4.5 framework (chapter 2)
- Installation of Microsoft SQL Server 2014 Express, Microsoft SQL Server Data-Tier Application Framework (April 2014), and creation of the Intelligent Indexing database (chapter 3)
- Installation and configuration of Java SE Runtime Environment 7 or 8, Apache Tomcat 7.0, and Apache SolR 4.9.0 (chapter 4)
- Installation of Microsoft Internet Information Services (IIS) 8.5 (chapter 5)
- Installation of DocuWare Intelligent Indexing (chapter 6)

After installation you should license and test the system (chapter 7), and connect Intelligent Indexing to DocuWare (chapter 8). Chapter 9 offers solutions to possible problems encountered during installation.

1.4 Using Other Components

Only the version specified can be used for the following components.

- DocuWare version 6.1 or later
- Microsoft .NET Framework 4.5

Using a different version to the one specified is not recommended for the following components. In this case the functionality of Intelligent Indexing cannot be guaranteed. Individual installation steps may also differ from the steps described here.

- Windows Server 2012 R2 operating system
- Microsoft SQL Server 2014 Express (using a different database to the Microsoft SQL Server is wholly discouraged.)¹
- Microsoft SQL Server Data-Tier Application Framework (April 2014)
- Java SE Runtime Environment 7 or 8
- Apache Tomcat 7.0
- Apache SolR 4.9.0
- Microsoft Internet Information Services (IIS) 8.5

¹Intelligent Indexing has also been tested successfully with SQL Server Express 2012, but an additional installation step (described in chapter 9) might be necessary.

2 Installing Microsoft .NET Framework 4.5

If you use the recommended operating system Windows Server 2012 R2, .NET Framework 4.5 (hereinafter: .NET Framework) is already part of the operating system and you can skip this chapter and proceed to chapter 3 for installing the database. If the .NET Framework is not yet installed on your computer, or you are not sure, please carry out the following steps:

1. Download the installation file for the .NET Framework under <http://www.microsoft.com/de-de/download/details.aspx?id=30653>
Other Microsoft tools and components possibly recommended on the download page do not need to be installed. Once the download has completed, you will have the file *dotNetFx45_Full_setup.exe*.
2. Run the file and follow the instructions. If you receive a message that the .NET Framework is already installed (see figure 1), at this point you can quit the installation and continue to install the database in chapter 3.

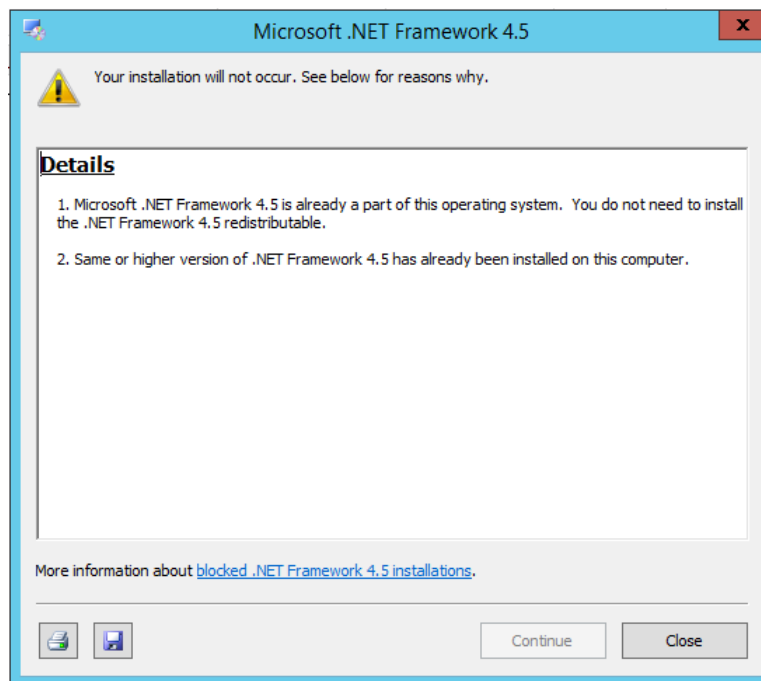


Figure 1: Error message when installing the .NET Framework 4.5, if it is already available.

3. After the installation restart the computer if prompted.

3 Installing Microsoft SQL Server 2014 Express and Configuring it for Intelligent Indexing

If you have already installed Microsoft SQL Server 2014 Express (hereinafter: SQL Server), you can skip the first half of this chapter and continue with chapter 3.2.

3.1 Installing the SQL Server

To install the SQL Server, carry out the following steps.

1. Download the installation file for the SQL Server under <http://www.microsoft.com/de-DE/download/details.aspx?id=42299>
Make sure you have downloaded the file in the correct language – the language of your operating system. After clicking "Download" you will be asked to choose files for download (see figure 2). Select *Express 64BIT\SQLEXPR_x64_XX.exe* for download. Depending on which language you downloaded the file in, the "XX" in the file name stands for "DEU" (German), "ENU" (English), etc. If necessary, enable the website cookies to display the files correctly.

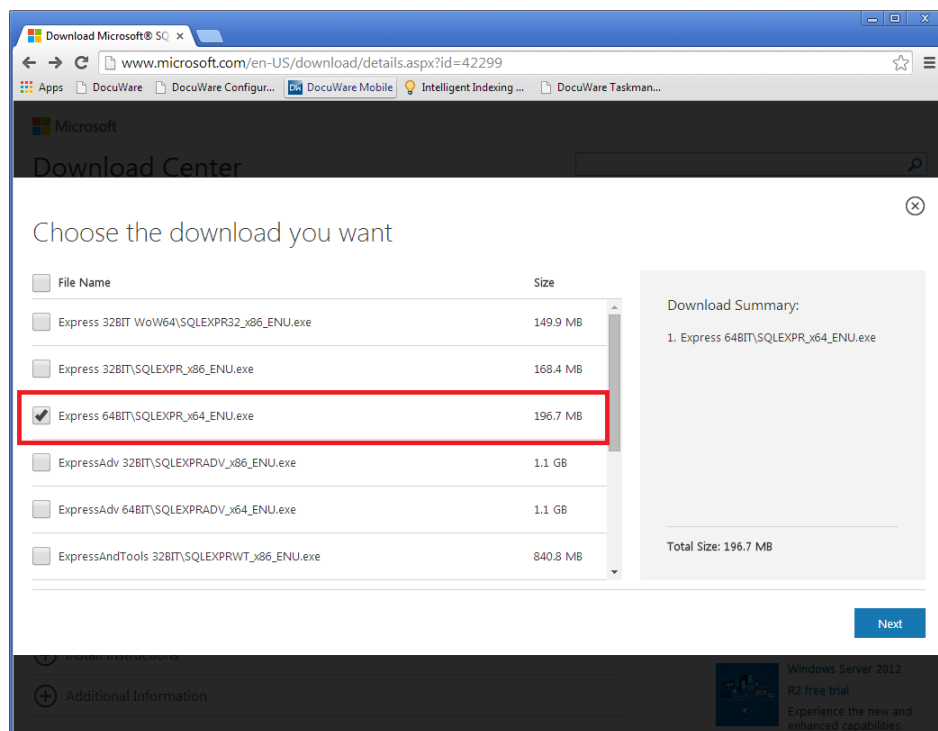


Figure 2: Choosing a file to download from Microsoft SQL Server Express 2014

2. Run the downloaded file. If you are asked for a directory to unpack the files, you can select any one.
3. In the following window, select "New SQL Server stand-alone installation or add features to an existing installation" (see figure 3).

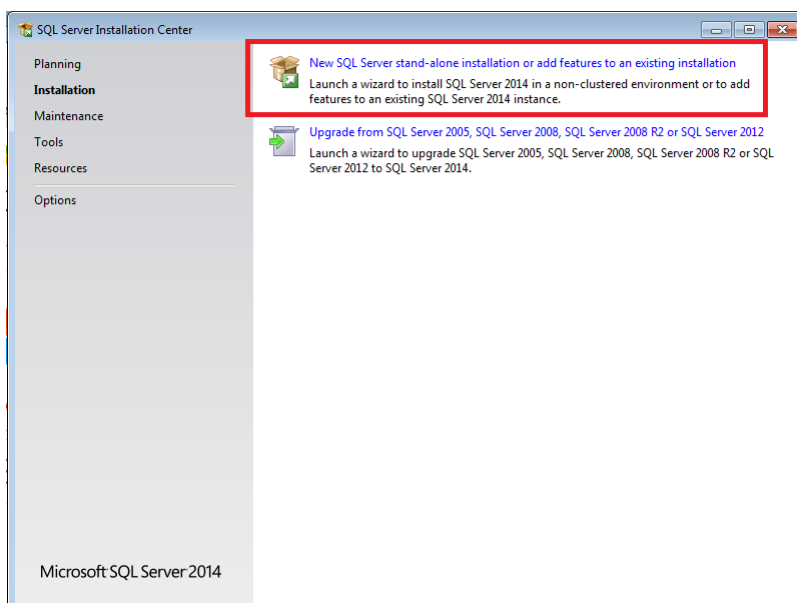


Figure 3: Selection before installing Microsoft SQL Server Express 2014

4. You can define various installation parameters in the following windows. You can generally retain the suggested parameters as far as the windows "Feature Selection", "Instance Configuration", and "Database Engine Configuration".
- In the window "Feature Selection" (see figure 4) you can define the directory where the SQL Server is installed. You should not change the proposed directory. If however you do wish to change it, you must later change an Intelligent Indexing installation file.

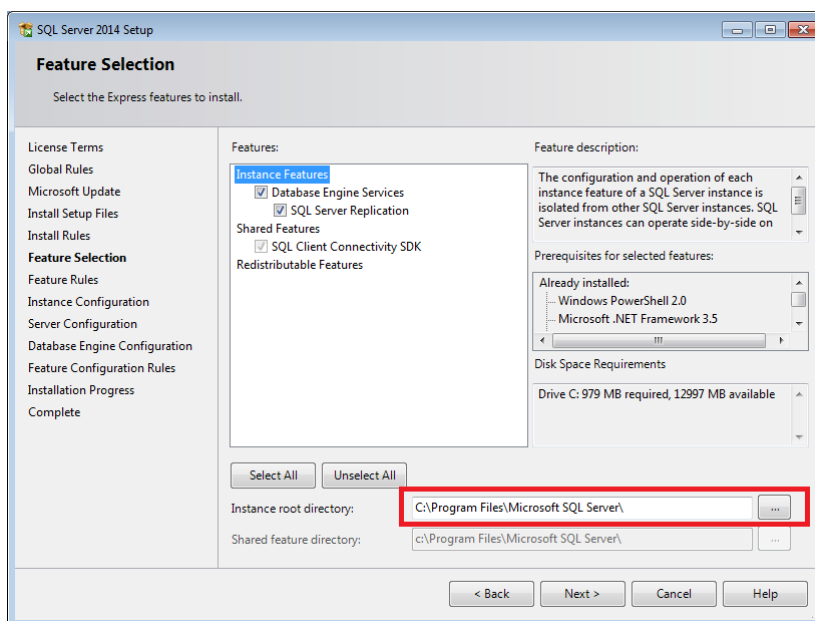


Figure 4: Settings in the window "Feature Selection" for installing Microsoft SQL Server Express 2014

- In the window "Instance configuration" (see figure 5) you can enter a name for the SQL Server instance. You should not change the proposed name. If however you

do wish to change it, you must later change an Intelligent Indexing installation file.

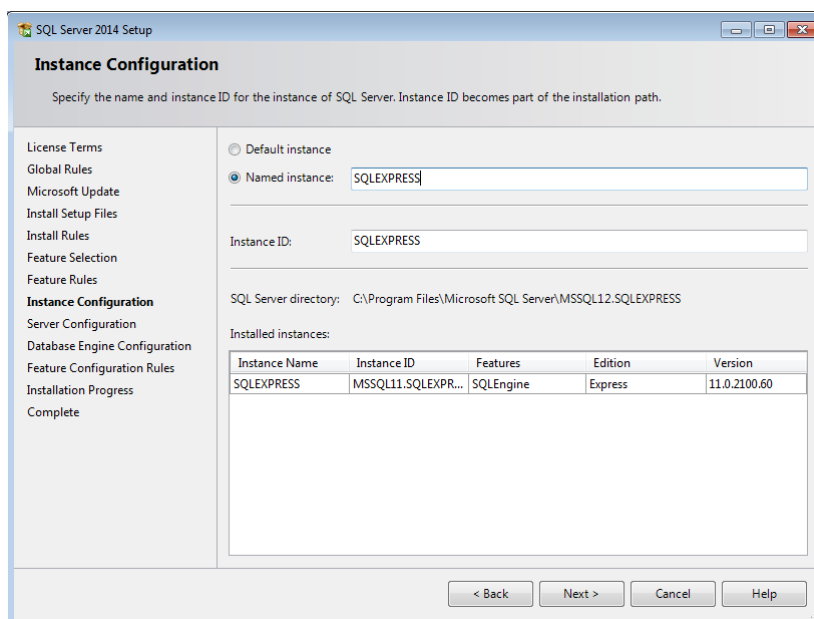


Figure 5: Settings in the window "Instance Configuration" for installing Microsoft SQL Server Express 2014

- In the window "Database Engine Configuration" switch to "Mixed Mode" (SQL Server authentication and Windows authentication) and specify a password for the SQL Server system administrator account (see figure 6). **Note:** You will need the name of the SQL Server system administrator account and the password during installation.

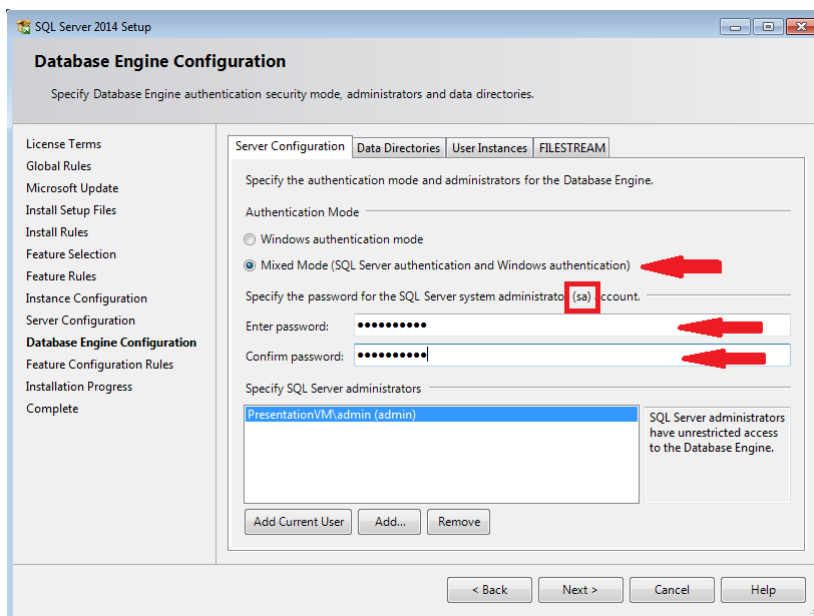


Figure 6: Settings in the window "Database Engine Configuration" for installing Microsoft SQL Server Express 2014

5. After the installation is completed restart the computer if prompted.

3.2 3.2 Preparing the SQL Server for Intelligent Indexing

For the installation sections you need the following information:

- The name and password of the SQL Server system administrator account, which you specified in the first part of this chapter (see figure 6).
- The name of your SQL Server instance, if you changed it in the first part of this chapter (see figure 5).
- The directory where the SQL Server was installed if you changed it in the first part of this chapter (see figure 4).

Now carry out the following steps to create the Intelligent Indexing database in the SQL Server.

1. Download the installation file for the Microsoft SQL Server Data-Tier Application Framework (April 2014) under

<http://www.microsoft.com/de-DE/download/details.aspx?id=42293>

Make sure that the file is downloaded in the correct language, i.e. the language of your operating system. After clicking Download you will be asked to choose files for download (see figure 7). Select *DEU\x64\DACFramework.msi* to download.

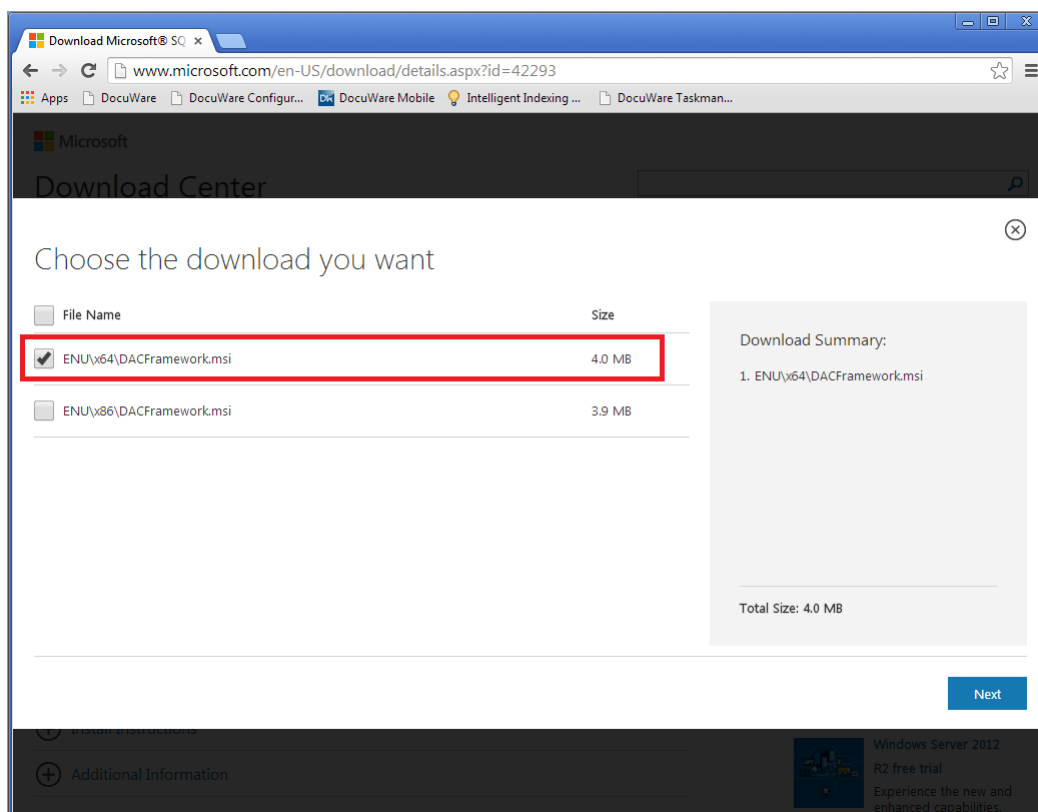


Figure 7: File selection when downloading the Microsoft SQL Server Data-Tier Application Framework (April 2014)

2. Run the downloaded file *DACFramework.msi* and follow the instructions. After the installation restart the computer if prompted.
3. If you individually changed the installation parameters, now in the directory *Database* of the Intelligent Indexing setup files that were provided by DocuWare, open the file *deployDB.bat* to edit it (Right-click – Edit).
 - If you changed the installation directory of the SQL Server in the first part of this chapter (see figure 4), please change the line


```
SET SQLPACKAGE="..."
```

accordingly.

- If you changed the name of your instance of the SQL Server in the first part of this chapter (see figure 5), please change the line

```
SET SERVER=.\...
```

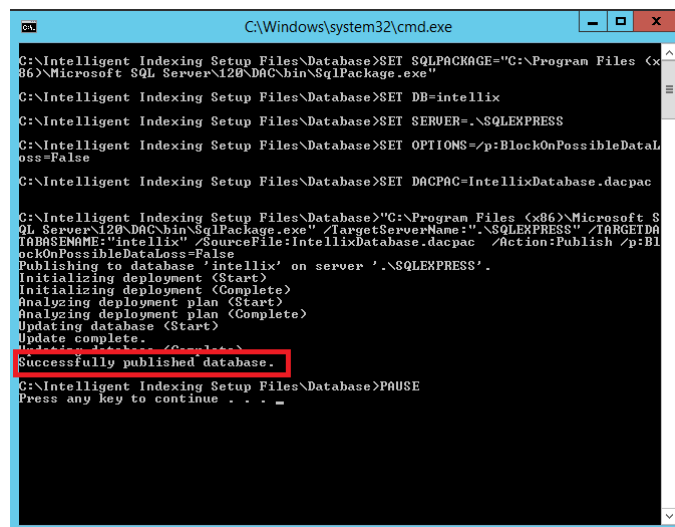
accordingly.

- Save your changes and close the editor.

4. Now run the file *deploy.bat* in the directory *Database* of the Intelligent Indexing setup files as an administrator. A prompt opens and the progress of creation of the Intelligent Indexing database is displayed. After successful completion, you will receive the message "Successfully published database" (see figure 8). Close the prompt by pressing any key.



If you receive an error message, please read the corresponding section in the chapter "Problems".²



```
C:\Windows\system32\cmd.exe
C:\Intelligent Indexing Setup Files\Database>SET SQLPACKAGE="C:\Program Files (x86)\Microsoft SQL Server\120\DAC\bin\SqlPackage.exe"
C:\Intelligent Indexing Setup Files\Database>SET DB=intellix
C:\Intelligent Indexing Setup Files\Database>SET SERVER=.\SQLEXPRESS
C:\Intelligent Indexing Setup Files\Database>SET OPTIONS=/p:BlockOnPossibleDataLoss=False
C:\Intelligent Indexing Setup Files\Database>SET DACPAC=IntellixDatabase.dacpac
C:\Intelligent Indexing Setup Files\Database>"C:\Program Files (x86)\Microsoft SQL Server\120\DAC\bin\SqlPackage.exe" /TargetServerName:".SQLEXPRESS" /TARGETDATABASENAME:"intellix" /SourceFile:IntellixDatabase.dacpac /Action:Publish /p:BlockOnPossibleDataLoss=False
Publishing to database 'intellix' on server '.\SQLEXPRESS'.
Initializing deployment (Start)
Initializing deployment (Complete)
Analyzing deployment plan (Start)
Analyzing deployment plan (Complete)
Updating database (Start)
Update complete.
Successfully published database.
C:\Intelligent Indexing Setup Files\Database>PAUSE
Press any key to continue . . .
```

Figure 8: Message after the Intelligent Indexing database is successfully created

²If you use SQL Server 2012 Express, you should at first check if problem 3 occurs.

4 4 Installing Java SE Runtime Environment 7, Apache Tomcat 7.0, and Apache SolR 4.9.0 and Configuring it for Intelligent Indexing

This chapter describes how to install Java SE Runtime Environment 7 (hereinafter: JRE), Apache Tomcat 7.0 (hereinafter: Tomcat), and Apache SolR 4.9.0 (hereinafter: SolR), and then configure them for Intelligent Indexing. Instead you can also use Java Runtime Environment 8. If you install Intelligent Indexing on the same computer where a DocuWare Fulltext Server is running, you can use the Tomcat and SolR installation of the DocuWare Fulltext Server. In this case, continue with the last part of this chapter (section 4.3).

4.1 Installing JRE

A Java Runtime Environment or a Java Development Kit is required to operate Tomcat. If you have already installed one of these two components, you can skip this section and continue with section 4.2. You only need to know in which directory the Java Runtime Environment or the Java Development Kit are installed. If you are not sure whether a Java Runtime Environment or a Java Development Kit is installed, please check in the list of installed programs (Control Panel – Programs – Programs and Features, see figure 9).

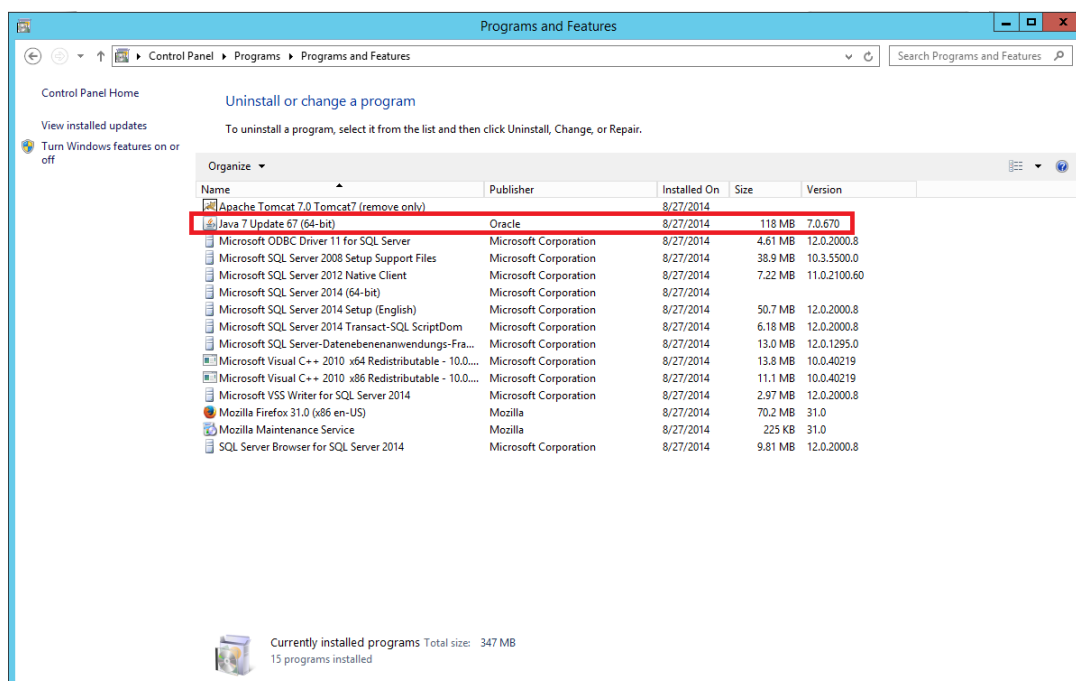


Figure 9: List of installed programs (including Java Runtime Environment)

To install JRE, please carry out the following steps.

1. In your browser open the page
<http://www.oracle.com/technetwork/java/javase/downloads/jre7-downloads-1880261.html>
2. Accept the license agreement and download the file *jre-7uXX-windows-x64.exe* (see figure 10).

Java SE Runtime Environment 7 Downloads

Do you want to run Java™ programs, or do you want to develop Java programs? If you want to run Java programs, but not develop them, download the Java Runtime Environment, or JRE™.

If you want to develop applications for Java, download the Java Development Kit, or JDK™. The JDK includes the JRE, so you do not have to download both separately.

[JRE MD5 Checksum](#)

Java SE Runtime Environment 7u67

You must accept the [Oracle Binary Code License Agreement for Java SE](#) to download this software.

Accept License Agreement Decline License Agreement

Product / File Description	File Size	Download
Linux x86	31.56 MB	jre-7u67-linux-i586.rpm
Linux x86	46.18 MB	jre-7u67-linux-i586.tar.gz
Linux x64	32.07 MB	jre-7u67-linux-x64.rpm
Linux x64	44.83 MB	jre-7u67-linux-x64.tar.gz
Mac OS X x64	48.54 MB	jre-7u67-macosx-x64.dmg
Mac OS X x64	44.51 MB	jre-7u67-macosx-x64.tar.gz
Solaris x86	52.14 MB	jre-7u67-solaris-i586.tar.gz
Solaris x64	16.13 MB	jre-7u67-solaris-x64.tar.gz
Solaris SPARC	54.94 MB	jre-7u67-solaris-sparc.tar.gz
Solaris SPARC 64-bit	18.14 MB	jre-7u67-solaris-sparcv9.tar.gz
Windows x86 Online	0.88 MB	jre-7u67-windows-i586-iftw.exe
Windows x86 Offline	28.06 MB	jre-7u67-windows-i586.exe
Windows x86	20.89 MB	jre-7u67-windows-i586.tar.gz
Windows x64	29.58 MB	jre-7u67-windows-x64.exe
Windows x64	47.06 MB	jre-7u67-windows-x64.tar.gz

Figure 10: Download page for Java Runtime Environment 7

3. Run the downloaded file and follow the instructions on the screen.
4. After the installation is completed restart the computer if prompted.

4.2 Installing Tomcat

To install Tomcat, carry out the following steps.

1. Download the 32-bit/64-bit Windows Service Installer from <http://tomcat.apache.org/download-70.cgi> (see figure 11).

Apache Tomcat

Tomcat 7 Downloads

Welcome to the Tomcat 7.x download page. This page provides download links for obtaining the latest version of Tomcat 7.0.x as well as links to the archives of older releases.

Quick Navigation

[KEYS](#) | [7.0.55](#) | [Browse](#) | [Archives](#)

Release Integrity

You **must** verify the integrity of the downloaded files. We provide OpenPGP signatures for every release file. This signature should be matched against the [KEYS](#) file which contains the OpenPGP keys of 1 an MD5 checksum for every release file. After you download the file, you should calculate a checksum for your download, and make sure it is the same as ours.

Mirrors

You are currently using <http://apache.cs.uu.nl/dist/>. If you encounter a problem with this mirror, please select another mirror. If all mirrors are failing, there are *backup mirrors* (at the end of the mirrors)

Other mirrors: <http://apache.mirror.1000mbps.com/>

7.0.55

Please see the [README](#) file for packaging information. It explains what every distribution contains.

Binary Distributions

- Core:
 - [zip \(pgp, md5\)](#)
 - [tar.gz \(pgp, md5\)](#)
 - [32-bit Windows zip \(pgp, md5\)](#)
 - [64-bit Windows zip \(pgp, md5\)](#)
 - [64-bit Itanium Windows zip \(pgp, md5\)](#)
 - [32-bit/64-bit Windows Service installer \(pgp, md5\)](#)
- Full documentation:
 - [tar.gz \(pgp, md5\)](#)

Figure 11: Download page for Apache Tomcat 7.0

2. Run the downloaded file and follow the instructions. Retain the suggested settings. In the window "Configuration" you can enter an administrator login if you want. In the window "Java Virtual Machine" please enter the directory in which a Java Runtime Environment is installed if it is not automatically detected.
3. After the installation is completed restart the computer if prompted. If you are asked afterward, you can start Tomcat directly after installation is completed.
4. Open the application "Configure Tomcat" either in the Tomcat installation directory (or more simply by using the Windows key, Search programs and files "Configure Tomcat"). In the configuration program, start the Tomcat Server under the tab "General" (see figure 12). You can also change the start behavior here to "Automatic" if you wish.

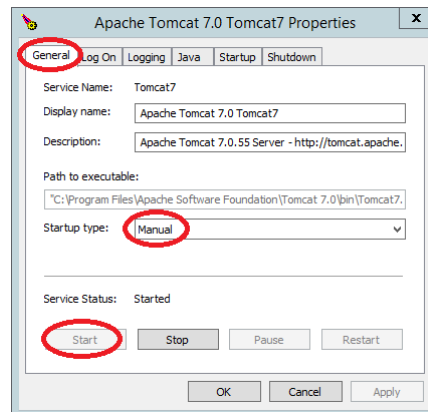


Figure 12: Configuration program for Apache Tomcat 7.0

5. In a browser, open the page <http://localhost:8080> and check that Tomcat is running (see figure 13). If you set a different port to 8080 during installation, change the URL accordingly.

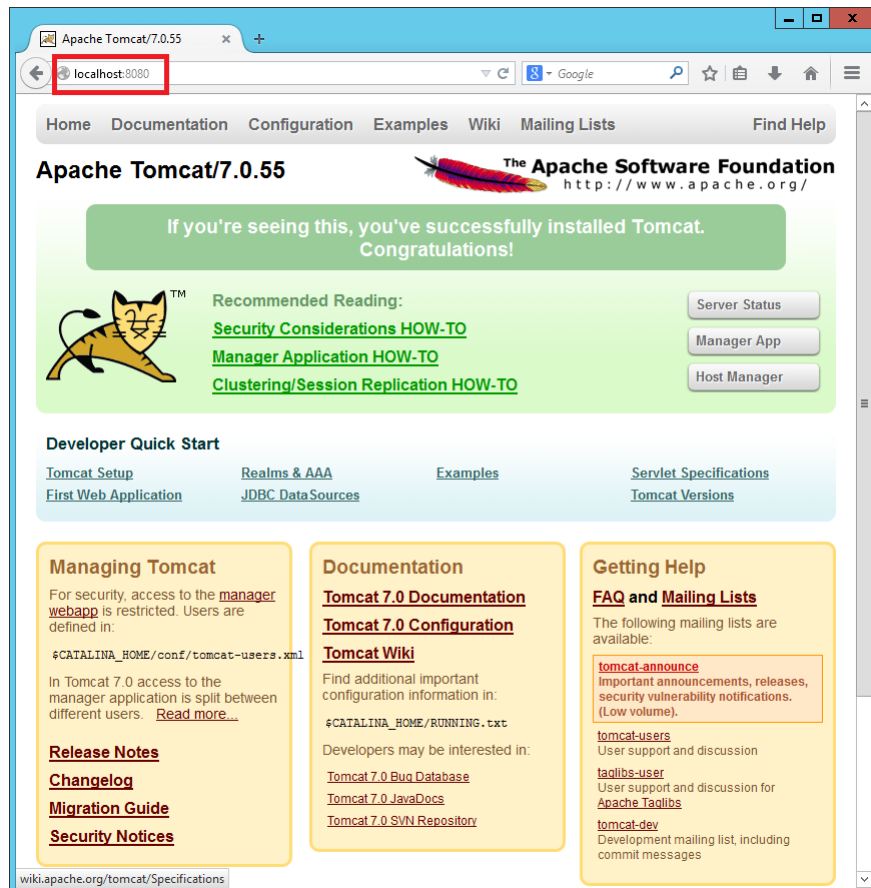


Figure 13: The URL "http://localhost:8080" after Apache Tomcat is successfully installed

4.3 Configuring SolR for Intelligent Indexing

To configure SolR for Intelligent Indexing, proceed as follows.

1. Stop the Tomcat Server.

- If you do **not** use the Tomcat Server installation in the DocuWare Full-Text Server, open the application "Configure Tomcat" again. You can stop Tomcat under the tab "General" (see figure 12).
- If you re-use the Tomcat Server installation in the DocuWare Full-Text Server, you can simply stop the Full-Text Server using the DocuWare Service Control (see figure 14).

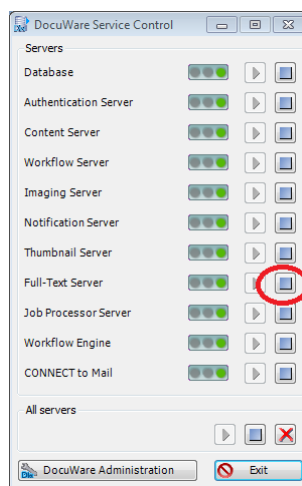


Figure 14: DocuWare Service Control

2. Open the directory *SolR* in the Intelligent Indexing setup files.

- Copy the sub-directory *SolRHome* to any location on your hard disk. Open the file *solr.intellix.xml* in the sub-directory *SolR* of the Intelligent Indexing setup files to edit it (Right-click – Edit). In

```
value=" [1] "
```

(line 2) replace the value "[1]" with the path where you have just copied the sub-directory *SolRHome*, e.g. *C:\SolRHome*. Do not delete the quotation marks.

- Define the directory in which the Apache Tomcat Server is installed. You identify the directory from the sub-directories "conf" and "lib", among other things, located there.
 - If you do **not** use the Tomcat Server installation in DocuWare Full-Text Server, the directory is e.g. *C:\Program Files\Apache Software Foundation\Tomcat 7.0*.
 - If you re-use the Tomcat Server installation in DocuWare Full-Text Server, the directory is *C:\Program Files\DocuWare\Server\Full-Text Server*.

- Copy the file *solr.war* from the sub-directory *SolR* of the Intelligent Indexing setup files to the sub-directory *lib* of the Tomcat installation directory specified in the last step. **Important:** If you re-use the Tomcat Server installation in DocuWare Full-Text Server, it might be necessary to re-copy the file *solr.war* to this location after an upgrade of your DocuWare software.
- Open the file *solr.intellix.xml* in the sub-directory *SolR* of the Intelligent Indexing setup files again to edit it (Right-click – Edit). In

```
docBase=" [0] "
```

(line 1) replace the value "[0]" with the path (including the file name) where you have just copied the file *solr.war*, e.g. with *C:\Program Files\Apache Software Foundation\Tomcat 7.0\lib\solr.war*. Do not delete the quotation marks.

- Save the changes made to the file *solr.intellix.xml* in the steps you have just carried out. Then copy the file to the directory *{Tomcat}\conf\Catalina\localhost*, in which *{Tomcat}* stands for the installation directory of the Tomcat Server.

3. Restart the Tomcat Server (either via the program "Configure Tomcat" or via DocuWare

Service Control).

4. In a browser open the following page to check whether SolR was correctly configured. The page should correspond more or less to figure 15.

- If you do **not** use the Tomcat Server installation in DocuWare Full-Text Server:
`http://localhost:8080/solr.intellix`
- If you use the Tomcat Server installation in DocuWare Full-Text Server:
`http://localhost:9012/solr.intellix`

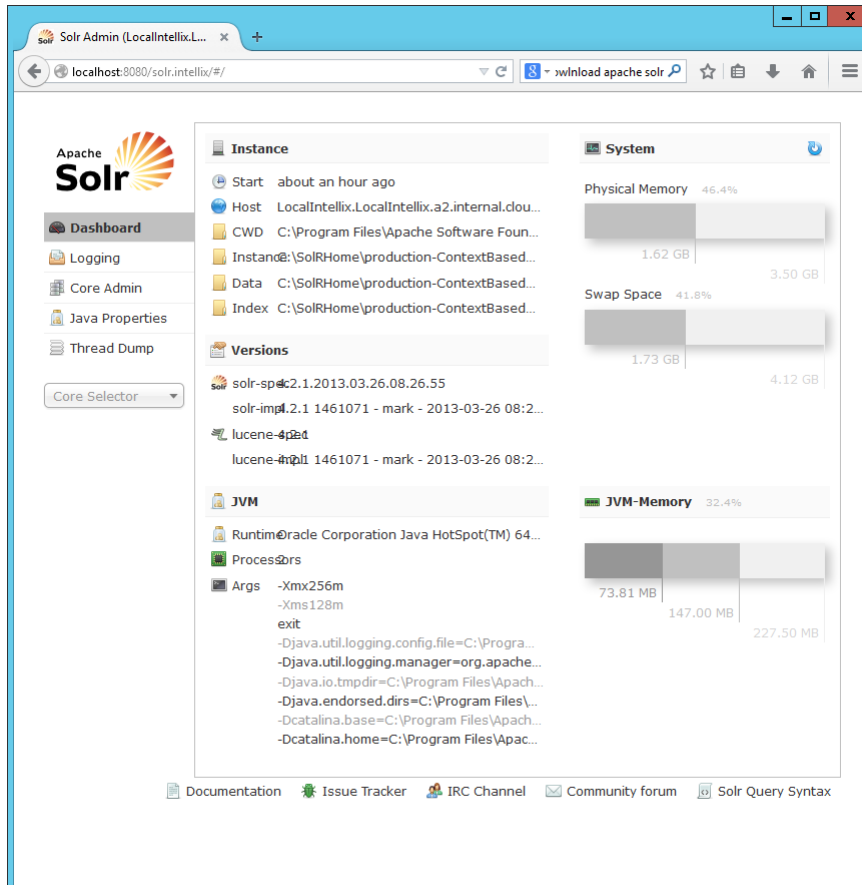


Figure 15: The URL `http://localhost:8080/intellix.solr` after Apache SolR is successfully configured

5 Installing Internet Information Service Express 8.0 and Configuring it for Intelligent Indexing

To install Internet Information Service Express 8.0 (hereinafter: IIS), carry out the following steps.

1. Open the Windows Server 2012 Server Manager, in the menu bar click "Manage", and select "Add Roles or Features" (see figure 16).

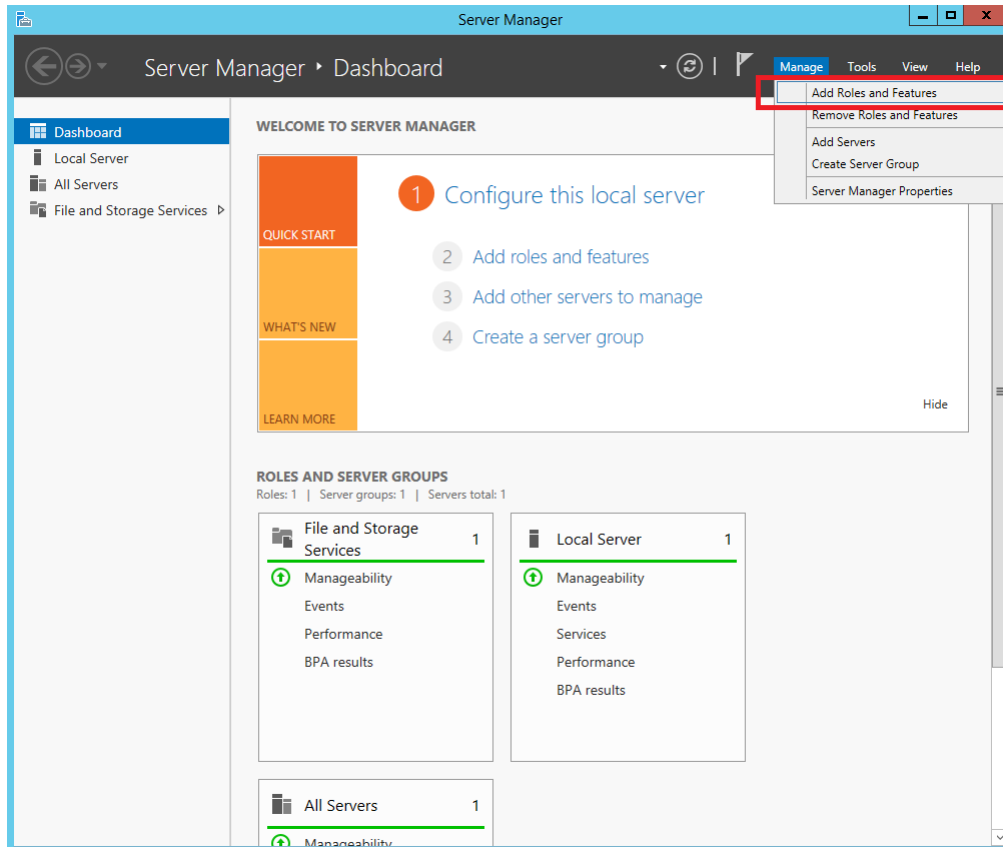


Figure 16: Installing Internet Information Services 8.0, step 1: Starting the installation in Server Explorer

2. In the step "Installation Type" select the option "Role-based or feature-based installation" (see figure 17).

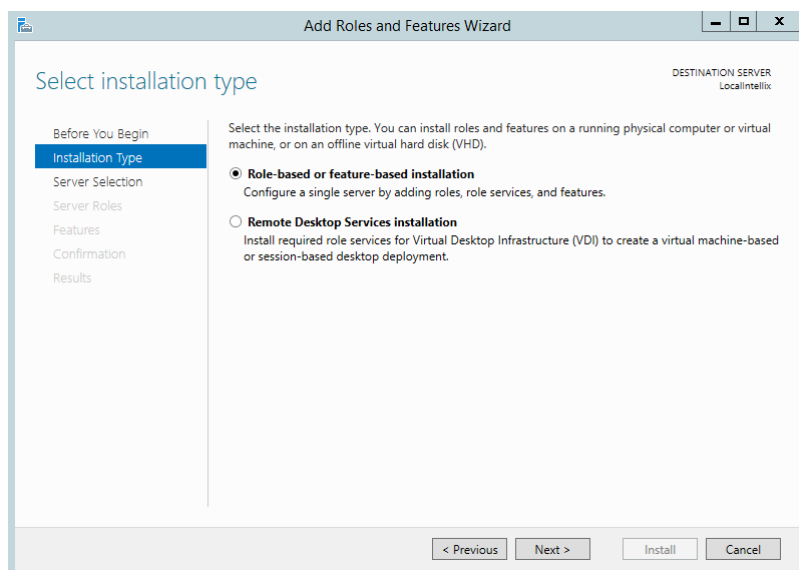


Figure 17: Installing Internet Information Services 8.0, step 2: Selecting the installation method

3. In the step Server selection, select the server on which you would also like to install Intelligent Indexing (see figure 18).

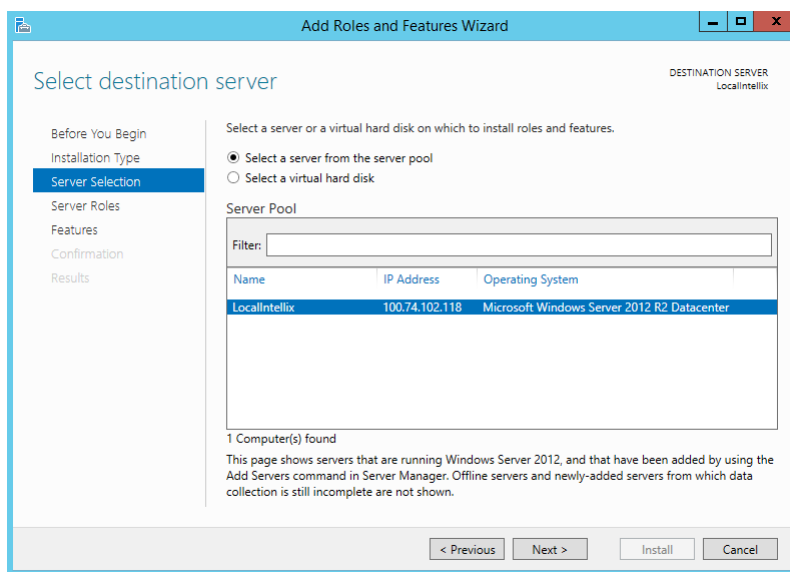


Figure 18: Installing Internet Information Services 8.0, step 3: Selecting the server

4. In the step "Server Roles" select the option "Web Server (IIS)" (see figure 19). Then install the following features (depending on which features are already installed, the selection of features may be split between several windows).
 - *Web Server (IIS) - Web Server - Common HTTP Features*: Default Document, Directory Browsing, HTTP Errors, Static Content
 - *Web Server (IIS) - Web Server - Health and Diagnostics*: HTTP Logging
 - *Web Server (IIS) - Web Server - Performance*: Static Content Compression
 - *Web Server (IIS) - Web Server - Security*: Request Filtering
 - *Web Server (IIS) - Web Server - Application Development*: .NET Extensibility 4.5, ASP, ASP .NET 4.5, ISAPI Extensions, ISAPI Filters

- *Web Server (IIS) - Management Tools*: IIS Management Console
Ensure, that the following feature is **not** selected.
- *Web Server (IIS) - Web Server - Common HTTP Features*: WebDAV Publishing

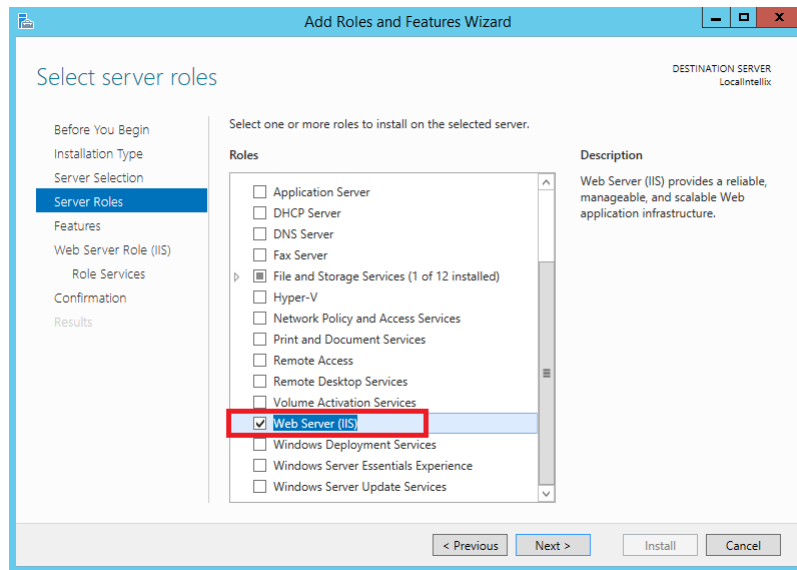


Figure 19: Installing Internet Information Services 8.0, step 4: Selecting the components to be installed

5. After the installation is completed restart the computer if prompted.

6 Installing Intelligent Indexing

To install Intelligent Indexing open the folder Intelligent Indexing within the *Intelligent Indexing* setup files and proceed as follows.

1. Copy the file *clientaccesspolicy.xml* to the directory `C:\inetpub\wwwroot\`.
(The location of this directory may vary depending on the installation of the Internet Information Services.)
2. Open the sub-folder *Intelligent Indexing Service*. Open the file *web.config* it contains for editing (for example in Notepad).
 - a) Search for (Ctrl+F) the xml element "connectionStrings". Within this you will only find a child element beginning with

```
<add name='IntellixDatabaseEntities'...
```


Search it for the attributes

```
Server=.\SQLEXPRESS
```



```
User ID=sa
```


and

```
Password=1Q2w3e4r5t
```


Change these attributes. Here enter the name of your SQL Server instance, and the name and password of your SQL Server administrator account, as you defined it in chapter 3.1. Save your changes.
 - b) Search for (Ctrl+F) "DocuWare.Platform.Storage.FileStorage". You will find one row

```
<value>
```

```
class=DocuWare.Platform.Storage.FileStorage;
```

```
root=c:\IntellixStorage
```

```
</value>
```


Here enter under "root" a storage location where Intelligent Indexing data can be stored in the file system. Make sure the storage location actually exists in your file system. **Note:** Intelligent Indexing will store a majority of its data at this storage location. Make sure you indicate a storage location with sufficient free storage space (approximate value: 1 GB of hard disk space per 10,000 stored documents) and that the access time is as fast as possible.
 - c) Copy the subfolder *packages* to this storage location. Be sure to copy the complete subfolder and not only its content.
 - d) Search for (Ctrl+F) "solr.intellix". You will find the line

```
<value>http://localhost:XXXX/solr.intellix/</value>
```


Instead of "XXXX" enter the port that you set when installing Tomcat (chapter 4.2). The default value during installation is 8080.
 - e) This step is necessary, if Intelligent Indexing will work in an environment without internet connection. Search for (Ctrl+F) "UseBundleCDN". You will find a line

```
<add value="true" key="UseBundleCDN"/>
```

 Replace it by

```
<add value="true" key="UseLocalCDN"/>
```
 - f) Save your changes and close the file editor.
3. Now copy the complete sub-directory Intelligent Indexing Service (including the changed file *web.config*) to any location on your hard disk.
4. Open Internet Information Services Manager, which you installed in the previous chapter,

(using the Windows key and then typing "IIS Manager").

- If you don't want to run Intelligent Indexing in its own application pool, you can skip this step. If you are running several applications with specific parameters in your IIS, you should create a new application pool for Intelligent Indexing. Therefore, right-click on application pools and create a new application pool with the settings depicted in 20.

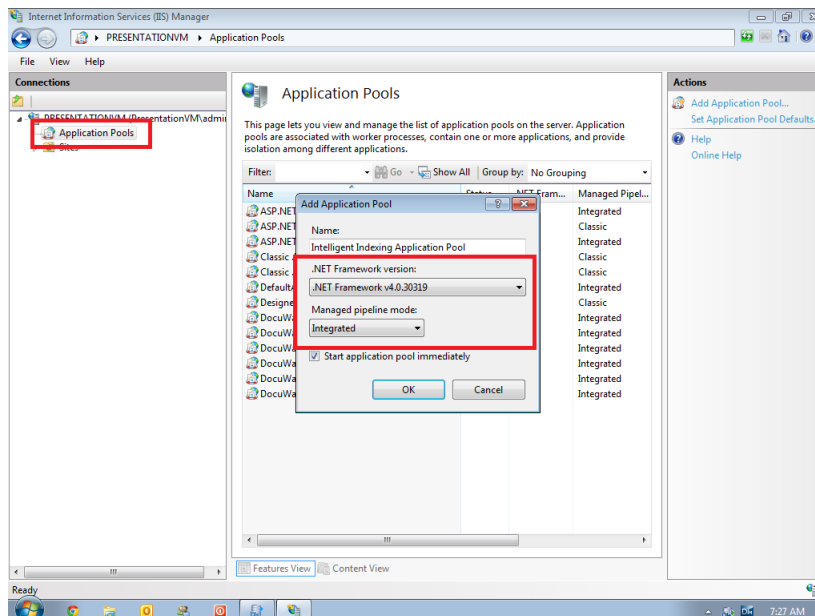


Figure 20: Creating an application pool in IIS Manager

- On the left side of IIS Manager, click "Application Pool", mark the application pool you want to use for Intelligent Indexing, and click "Advanced Settings" on the right. Set the startmode of the application pool to "Always Running" (see figure 21). If you are using an older version of IIS Manager, it might not be possible to setup a startmode. In this case you can skip this step, but the performance of Intelligent Indexing will decline.

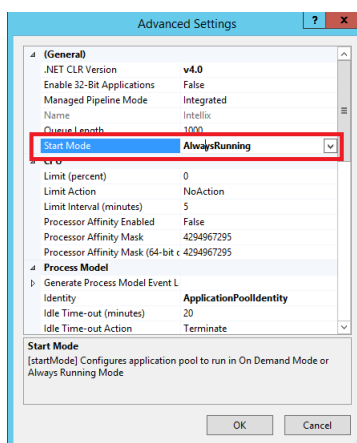


Figure 21: Setting up the startmode for the application pool

- Navigate on the left to "Default Web Site" (see figure 22).

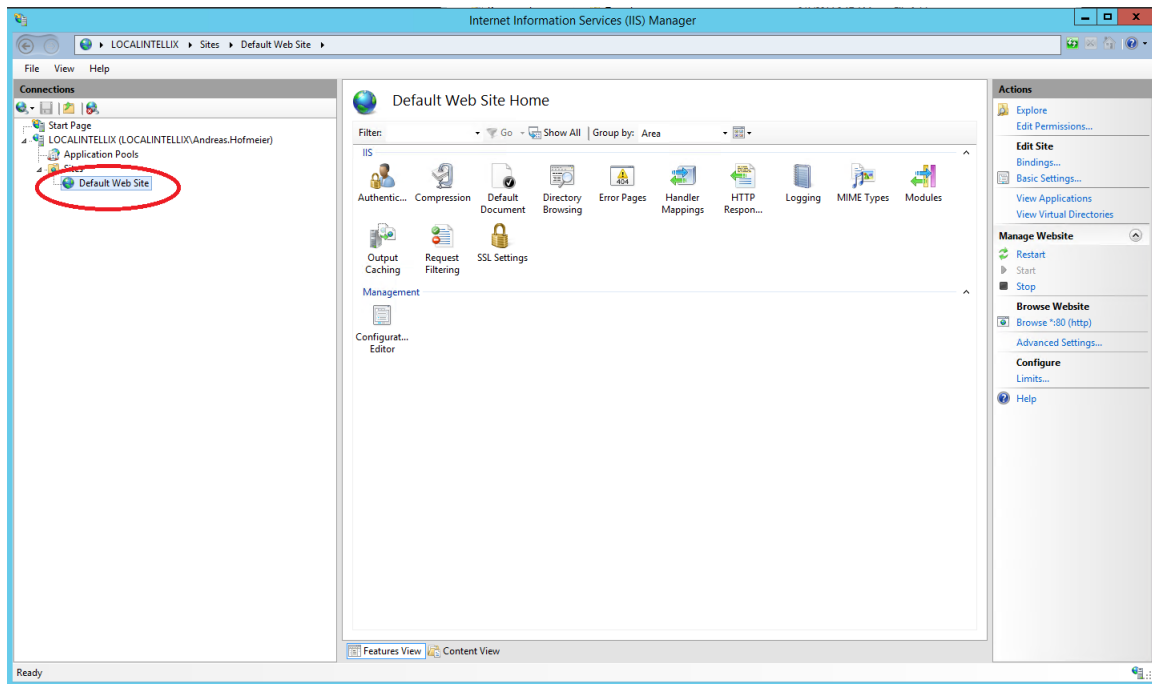


Figure 22: Setting up Intelligent Indexing in IIS Manager Default Web Site

8. Open the context menu by right-clicking on "Default Web Site" and select "Add Application". In the dialog that opens, under "Alias" enter the value "IntelligentIndexing". Do not use any spaces here as this value becomes part of a URL. As the "Physical path", choose the directory *Intelligent Indexing Service*, at the location where you have just copied it (see figure 23). If you created a new application pool for Intelligent Indexing, you need to select it here. Confirm your input with "OK".

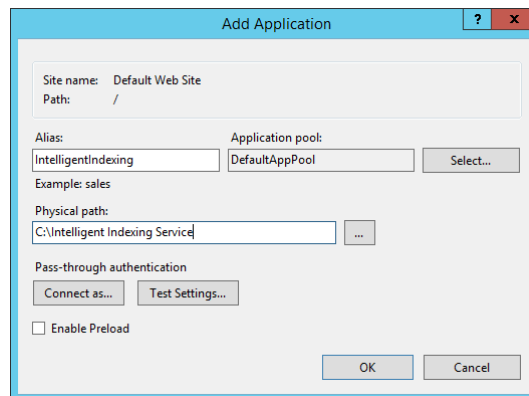


Figure 23: Setting up Intelligent Indexing in IIS Manager Settings when adding Intelligent Indexing

9. On the left side, mark the application you have created and click "advanced Settings" on the right side. Activate "Preload" (siehe Abbildung 24). If you are using an older version of IIS Manager, it might not be possible to activate preload. In this case you can skip this step, but the performance of Intelligent Indexing will decline.

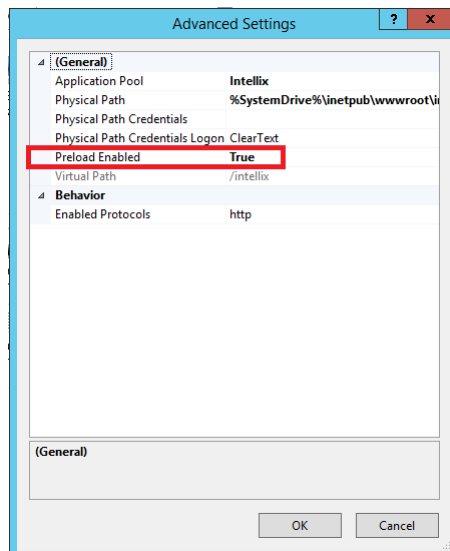


Figure 24: Aktivieren von Preload für Intelligent Indexing

10. On the left click "Default Web Site", and then on the right under "Manage Website" click "Restart".
11. Close the Internet Information Services Manager.

7 Testing and Licensing the Installation

7.1 Mandatory Part

You must carry out the following steps in a browser. Wherever possible use the browser Google Chrome or Mozilla Firefox. Proceed as follows to test that all installation steps were successful and to license your installation of Intelligent Indexing.

1. In a browser, open the page

`http://localhost/IntelligentIndexing/Html/`

If in chapter 6 you registered Intelligent Indexing under a name other than "IntelligentIndexing" in IIS, then please change the URL accordingly. You should then see a login screen as in figure 25.



If you see a page other than that in figure 25, please read the corresponding section in the chapter "Problems".

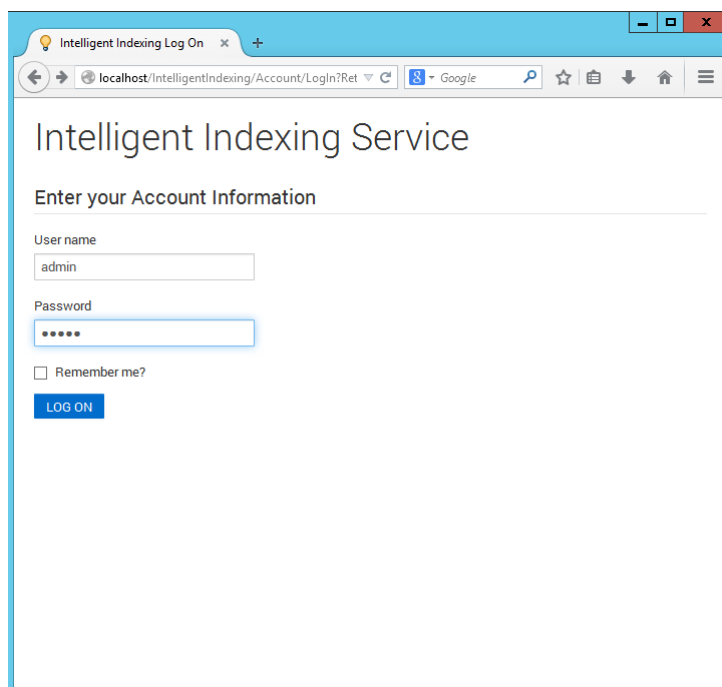


Figure 25: Login screen for the Intelligent Indexing test interface

2. Log in to the test interface of Intelligent Indexing using the user name "admin" and the password "admin". You should now see an empty list of "Modelspaces" (see figure 26).



If the login does not work, please read the corresponding section in the chapter "Problems".



If the login seems to work, but in the Intelligent Indexing testing UI some menu items seem to be missing, please read the corresponding section in the chapter "Problems".

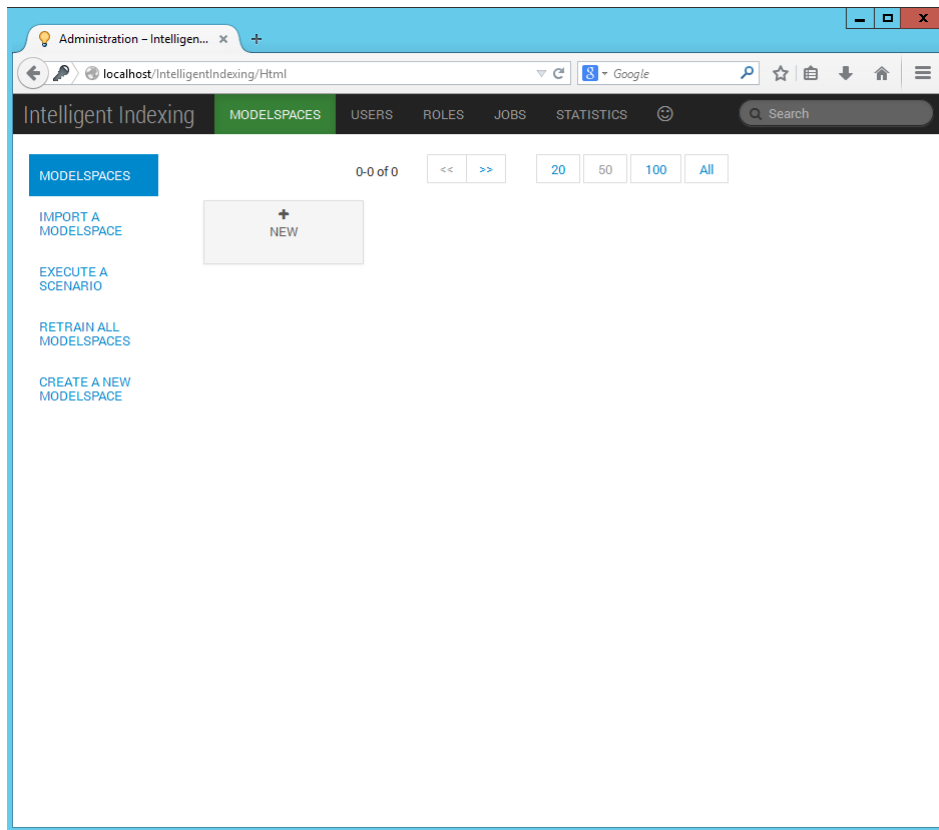


Figure 26: Test interface of Intelligent Indexing after logging in for the first time

3. At this point you can change the password of the user "admin", if you want to do so. Click "USERS", select the user "admin" and click "PASSWORD". Assign a new password.
4. Click "LICENSING" and upload the Intelligent Indexing license file (see figure 27). You will receive a message notifying you that your installation of Intelligent Indexing was successfully licensed.

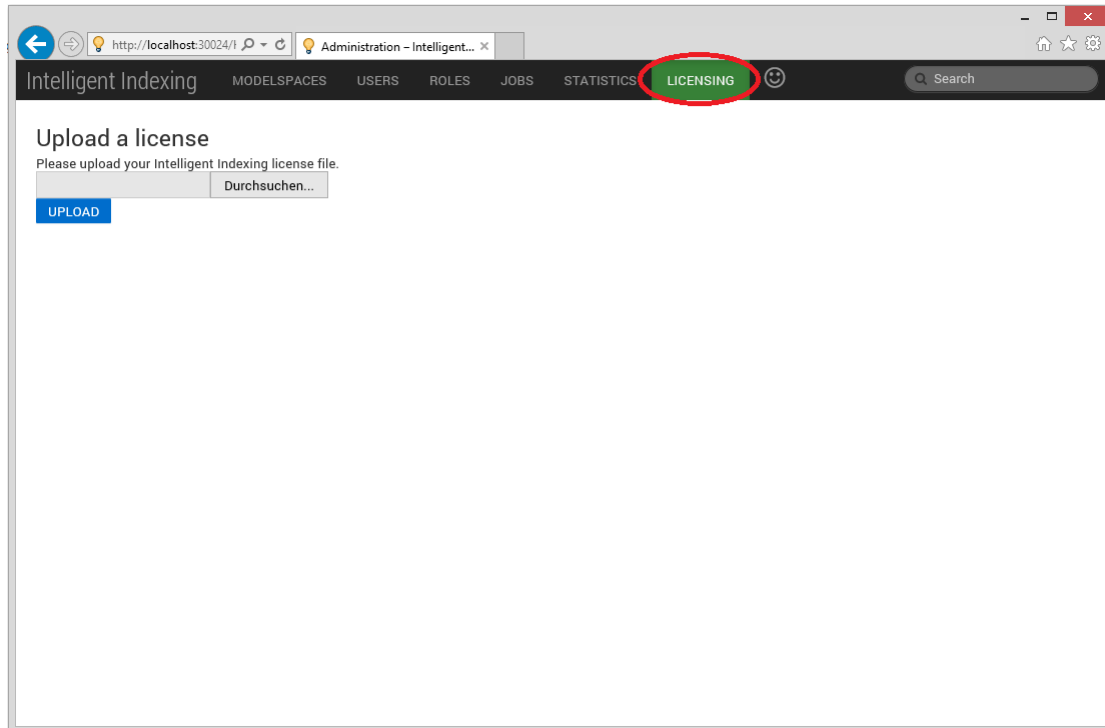


Figure 27: Test interface of Intelligent Indexing for licensing

7.2 Optional Part

You do not necessarily need to execute this part of the testing chapter. Its purpose is to localize and resolve problems, if Intelligent Indexing does not work as expected. It is thus recommended to first execute the next chapter 8. Therein, your installation of DocuWare is connected to Intelligent Indexing. Return to this section, if Intelligent Indexing does not work.

1. Open the folder *Intelligent Indexing Service* at the place you moved it to in step 3 of chapter 6. Assign write permissions to user IIS_IUSRS on the subfolder *App_Data*. You can remove these rights at the end of this chapter, if you want to.
2. Execute steps 1 and 2 of the above section 7.1.
3. Create a new modelspace by clicking "MODELSPACES" and then "+ NEW". You can assign any name to the modelspace. You do not need to change the setting for a parent modelspace. After successfully creating the modelspace, an overview page for the modelspace is displayed (see figure 28).

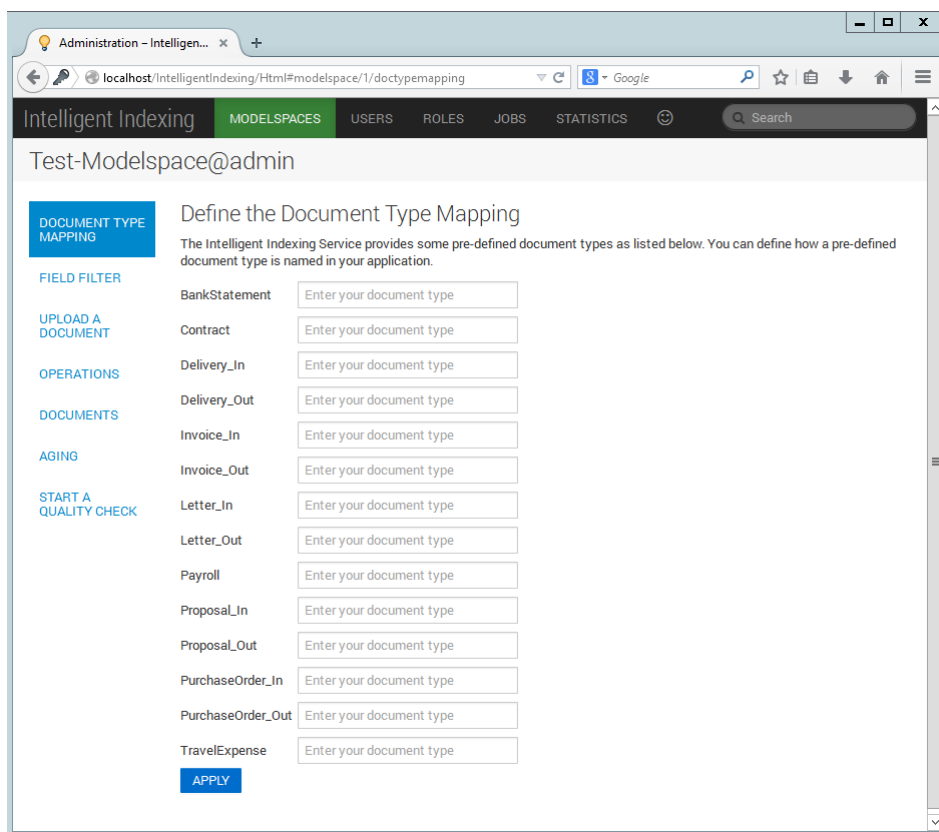


Figure 28: Test interface of Intelligent Indexing after creating a modelspace

4. Now click on the left on "Documents". You will see an empty list of documents. Click the button "+ UPLOAD A DOCUMENT" to upload the test document, which is located in the Intelligent Indexing setup files in the sub-folder *Test document*. After a brief moment you should receive a message that the document was successfully uploaded, and a link appears "Open document ...". Intelligent Indexing will perform some initializations when it is started for the first time. It can therefore take considerably longer to upload the document than it will later for other documents.



If you see an error message that a folder cannot be found or opened, please read the corresponding section in the chapter "Problems".

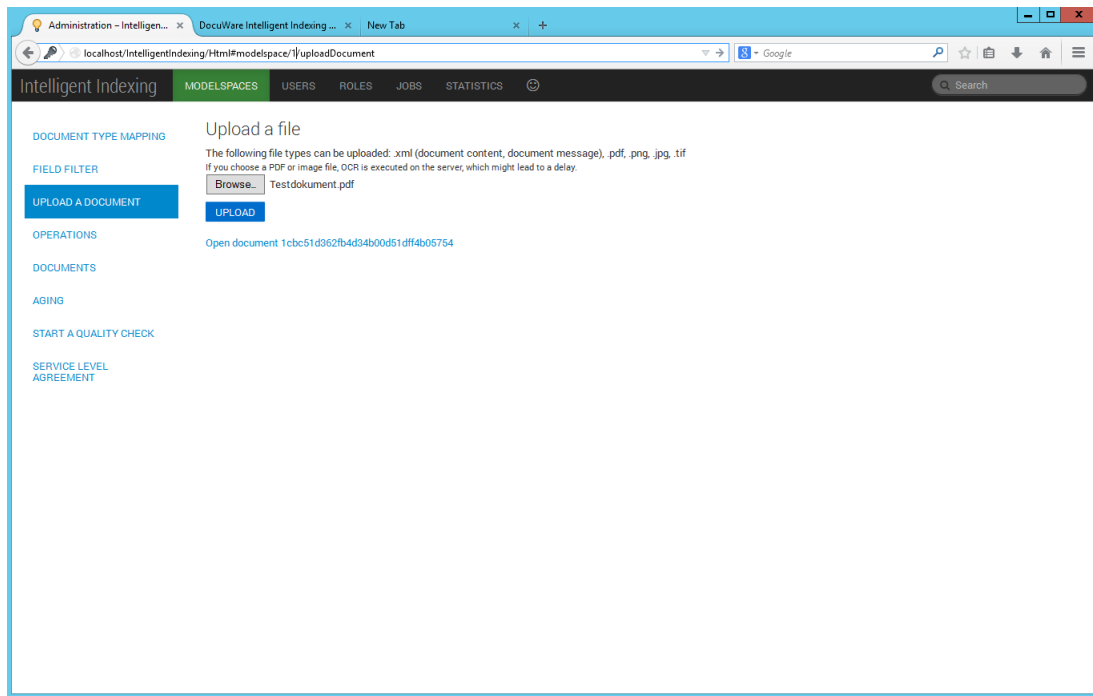


Figure 29: Test interface of Intelligent Indexing after uploading a document

5. Click the link "Open document ...". You will see a view of the document on the right, and a couple of input fields for index data on the left (30). Now click in the top left on the button "E" for "Extract".



If, instead of figure 30, you just see a "shattered" layout, please read the corresponding section in the chapter "Problems".

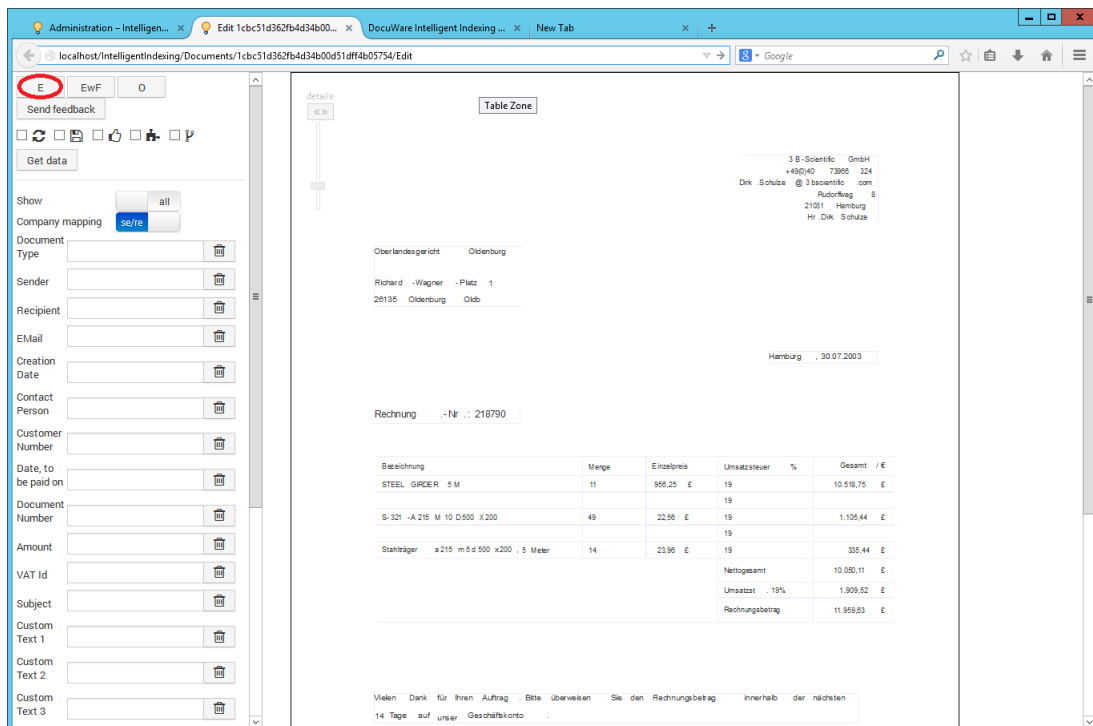


Figure 30: Test interface of Intelligent Indexing: Document view

6. Intelligent Indexing has now filled a couple of the index fields on the left with values (see figure 31). Now click the button "Send Feedback". You should shortly see a message on the top right that Intelligent Indexing has received your feedback.



If Intelligent Indexing does not supply any index data after waiting a long time, please read the corresponding section in the chapter "Problems".



If you do not see a message that Intelligent Indexing received your feedback or you see an error message (error 405) please read the corresponding section in chapter "Problems".

Figure 31: Test interface of Intelligent Indexing after extracting index data

If you succeeded in carrying out the test as described, you have successfully installed Intelligent Indexing.

8 Connecting Intelligent Indexing and DocuWare

To connect Intelligent Indexing and DocuWare proceed as follows.

- Open the file *intelligent-indexing-connection.xml* within the *Intelligent Indexing* setup files for editing (right-click - edit).
- In line 3, replace the value [0] by the name of the server, on which you installed Intelligent Indexing. If you did not register Intelligent Indexing under the default website in step 8 in chapter 6, modify the path accordingly.
- In line 5, replace the password by the password you assigned in step 3 in chapter 7.
- Open DocuWare Administration and create a new connection to Intelligent Indexing under DocuWare System - Data Connections - Intelligent Indexing Connections (right-click), by uploading the file *intelligent-indexing-connection.xml*, that you modified in the previous step (see figure 32). Note, that it might be necessary to change the connection from https to http in the same line.

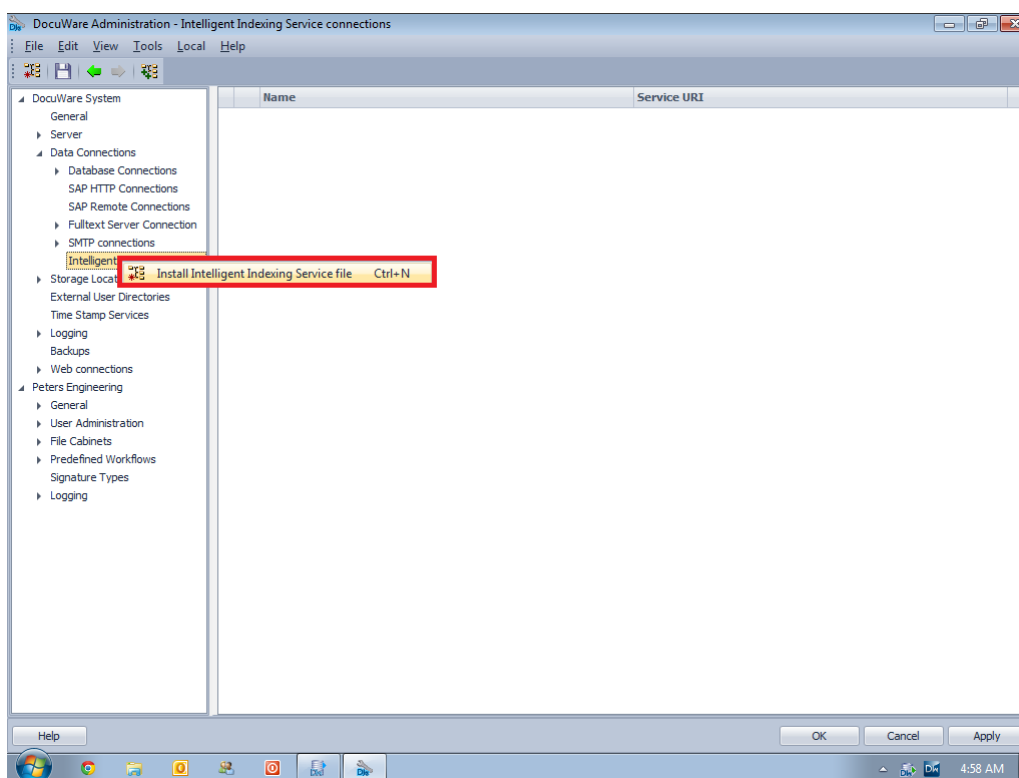


Figure 32: Creating a connection between Intelligent Indexing and DocuWare

9 Problems and Solutions

This chapter describes some problems and possible causes and suggested solutions. If you have already successfully tested your installation of Intelligent Indexing, as described in the previous chapter, you can ignore this chapter.

9.1 When preparing the SQL Server, running the file *deploy.bat* aborts with an error message

Problem 1: When running the file *deploy.bat* the creation of the database for Intelligent Indexing is canceled with the error message "The system cannot find the path specified."

Solution: You may not have changed, or have incorrectly changed, the line

```
SET SQLPACKAGE="..."
```

Check the path specified in the line and correct it. Check especially whether the path contains the correct installation directory for Microsoft SQL Server Express 2014 (go back to step 3 in chapter 3.2 and figure 4). If you are working in a 32-bit environment, remove "(x86)" from the path.

Problem 2: When running the file *deploy.bat* the creation of the database for Intelligent Indexing is canceled with the error message "Could not deploy package. Unable to connect to target server."

Solution: You may not have changed the line

```
SET SERVER=.\...
```

or have changed it incorrectly. Check the name specified within the line for the SQL Server instance and correct it. Check especially whether the path corresponds to the instance name given when you installed Microsoft SQL Server Express 2014 (go back to step 3 in chapter 3.2 and figure 4).

Problem 3: When running the file "deploy.bat" database creation for Intelligent Indexing is canceled with an exception (e.g. *TypeInitializerException* or *IOException*). This problem mostly occurs if you use a database other than the recommended SQL Server 2014 Express.

Solution:

- Check whether you have correctly installed Microsoft SQL Server Data-Tier Application Framework (April 2014).
- For Microsoft SQL Server Data-Tier Application Framework (April 2014) to work correctly, two other components are necessary, which are not set up with some installations of the SQL Server Express. Under <http://www.microsoft.com/de-de/download/details.aspx?id=42295> download the Microsoft SQL Server system CLR types and Microsoft SQL Server Transact SQL ScriptDom (*SQLSysCLRTypes.msi* and *SQLDOM.msi*), and install both.

[Back to preparing the database for Intelligent Indexing.](#)

9.2 8.2 Cannot call up the page <http://localhost/IntelligentIndexing/Html>

Problem 1: You call up the page <http://localhost/IntelligentIndexing/Html>. However you do not see the login screen as shown in figure 25. Instead you receive an error message that this page does not exist (Http Error 404 – Not Found).

Solution:

- Firstly rule out typing errors when entering the URL.
- Check the website name that you specified when registering Intelligent Indexing in the IIS (go back to step 8 in chapter 6 and figure 23). The URL contains exactly the name that you entered here in the field "Alias". If you entered the value "II" for example, instead of "IntelligentIndexing", then you must modify the URL to `http://localhost/II/Html`.
- Check whether you actually registered Intelligent Indexing in IIS directly under the default website (go back to step 8 in chapter 6 – right-click "Default Web Site"). If, for example, you registered it under the website *Default Web Site/DocuWare* (by right-clicking DocuWare), you must change the URL to `http://localhost/DocuWare/IntelligentIndexing/Html` accordingly.

Problem 2: You call up the page `http://localhost/IntelligentIndexing/Html`. However you do not see the login screen as shown in figure 25. Instead you receive an error message "Server error in the application" (see figure 33).

Solution: You have not installed Microsoft .NET Framework 4.5. Either you have not installed Microsoft .NET Framework at all, or you installed an earlier version. Carry out the steps in chapter 2.

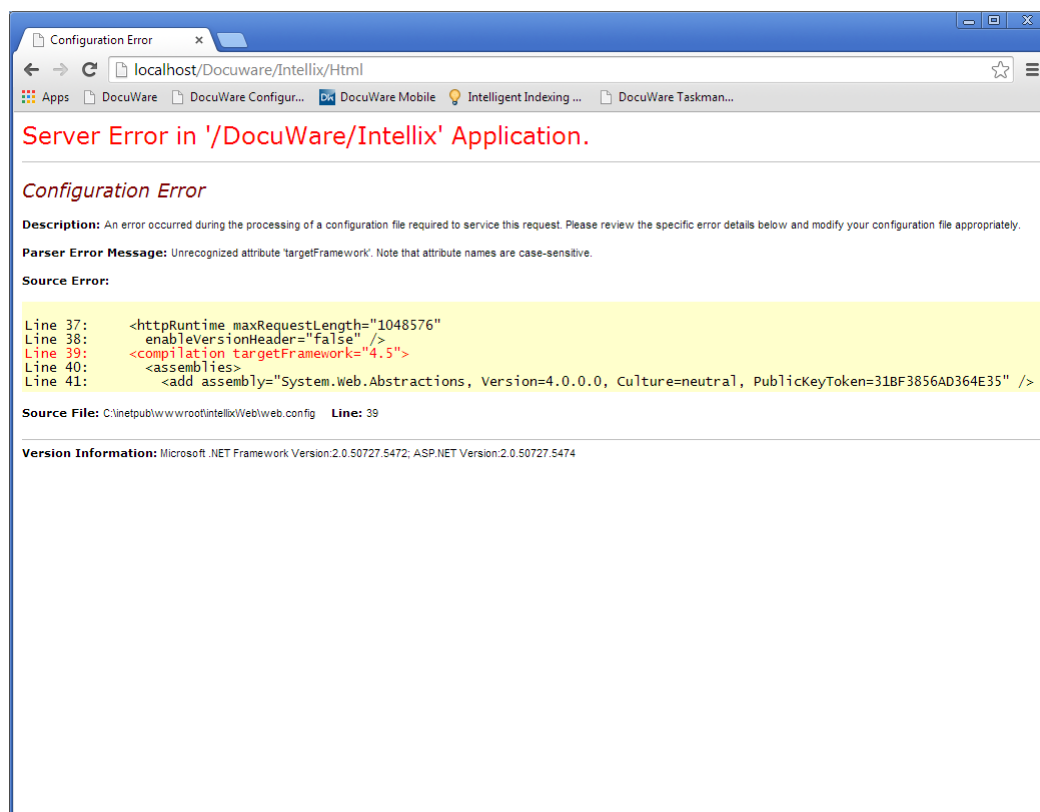


Figure 33: Error message when Microsoft .NET Framework 4.5 is missing

Problem 3: You call up the page `http://localhost/IntelligentIndexing/Html`. However you do not see the login screen as shown in figure 25. Instead you see an empty page in the browser.

Solution: Check whether you selected all the necessary features when you installed the IIS (go back to step 4 in chapter 5). You need the following features:

- *Web Server (IIS) - Web Server - Common HTTP Features:* Default Document, Directory

Browsing, HTTP Errors, Static Content

- *Web Server (IIS) - Web Server - Health and Diagnostics*: HTTP Logging
- *Web Server (IIS) - Web Server - Performance*: Static Content Compression
- *Web Server (IIS) - Web Server - Security*: Request Filtering
- *Web Server (IIS) - Web Server - Application Development*: .NET Extensibility 4.5, ASP, ASP .NET 4.5, ISAPI Extensions, ISAPI Filters
- *Web Server (IIS) - Management Tools*: IIS Management Console

Problem 4: You call up the page `http://localhost/IntelligentIndexing/Html`. However you do not see the login screen as shown in figure 25. Instead you see another website comprising a list with various hyperlinks (see figure 34).

Solution: You have forgotten the "Html" at the end of the URL.

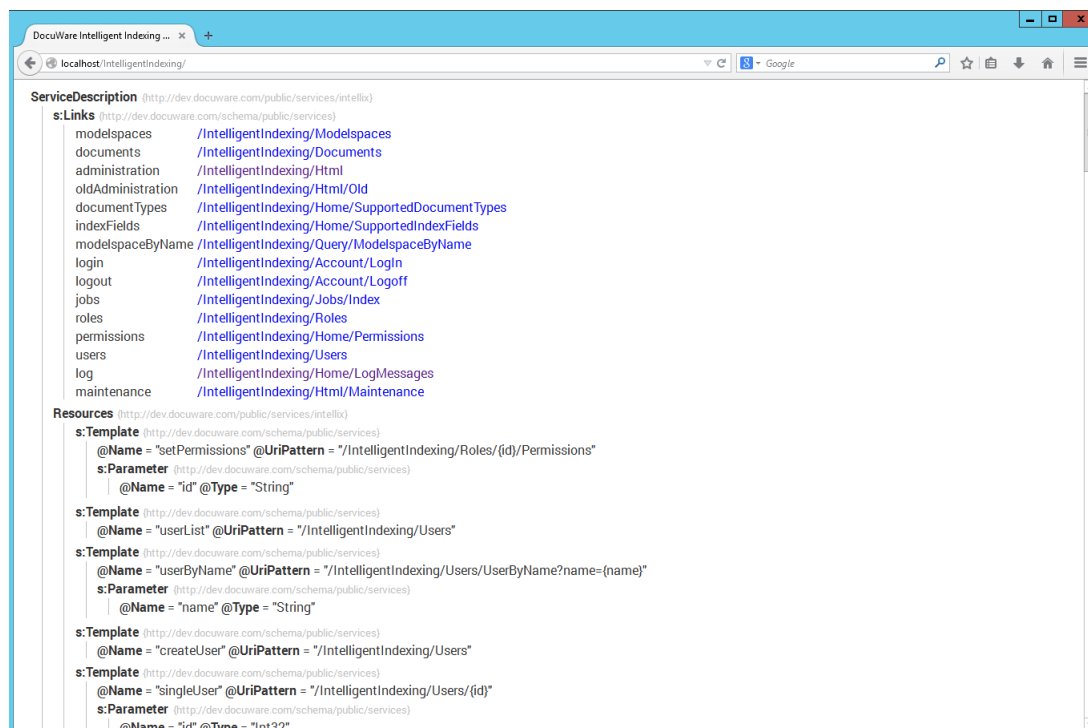


Figure 34: Intelligent Indexing index page

[Back to testing the Intelligent Indexing installation.](#)

9.3 Login to the Intelligent Indexing test interface does not work

Problem: When logging in to the Intelligent Indexing test interface you receive the message "Login failed. The user name or password provided is incorrect."

Solution:

- Start by checking that the user name ("admin") and password ("admin") do not contain any typing errors.
- Make sure that the SQL Server is running. To do so, check in Task Manager (tab "Services") whether the service MSSQL\$SQLEXPRESS is present and started (see figure 35). If the service is not present, the installation of the SQL Server is possibly corrupt or failed. Check whether you correctly carried out all steps in chapter 3.1. If the service is present but not started, start it.

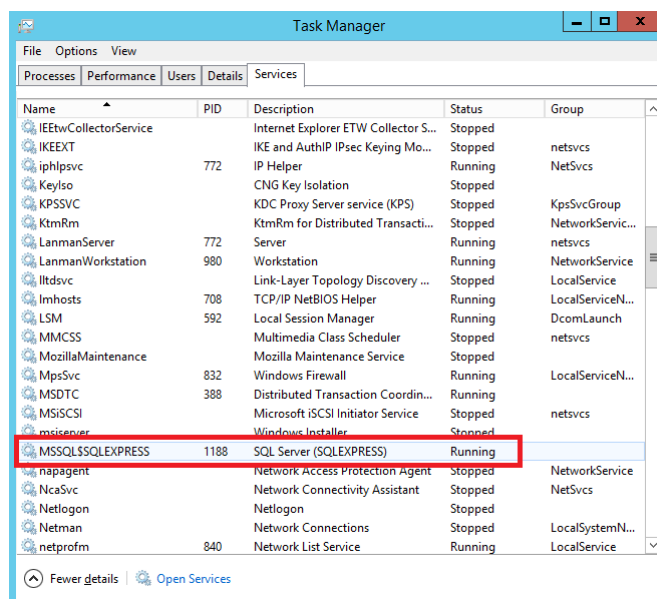


Figure 35: View in the Task Manager with the database service started

- If you were able to check that SQL Express started based on the previously suggested solutions, then it is possible that preparing the SQL Server for the Intelligent Indexing service failed. Check whether you correctly carried out all steps in chapter 3.2, especially whether the file *deploy.bat* was in fact successfully run in step 4 (go back to the message about data being successfully imported in figure 8).

[Back to testing the Intelligent Indexing installation.](#)

9.4 Intelligent Indexing testing UI only partially loaded

Problem: After logging in, the Intelligent Indexing testing UI is missing several menu items (compared to figure 26).

Solution: There seems to be a problem loading UI libraries for the Intelligent Indexing testing UI from the internet. Execute step 2e in section 6 or check if you executed it correctly.

[Back to testing the Intelligent Indexing installation.](#)

9.5 Uploading the test document does not work.

Problem: Uploading the test document does not work. You see an error message that a folder cannot be found or opened

Lösung: Ensure, that you correctly executed step 1 of chapter 7.2.

[Back to testing the Intelligent Indexing installation.](#)

9.6 The test document display does not work.

Problem: The test document display does not work. All you can see is a "shattered" layout.

Solution: If you are using Internet Explorer from version 11, please open the page in another browser (e.g. Google Chrome or Mozilla Firefox). To do this, simply copy the URL and open it in another browser. After logging in again (user name: admin, password: admin) the page should be displayed correctly.

[Back to testing the Intelligent Indexing installation.](#)

9.7 Extracting the index data does not work.

Problem: Extracting the index data does not work. Even after waiting for a long time no index data is displayed in the Intelligent Indexing test interface. If you open the page <http://localhost/IntelligentIndexing/Home/LogMessages>, you will see, among other things, an error message with the text "An error occurred when serving GET ...". (see figure 36).

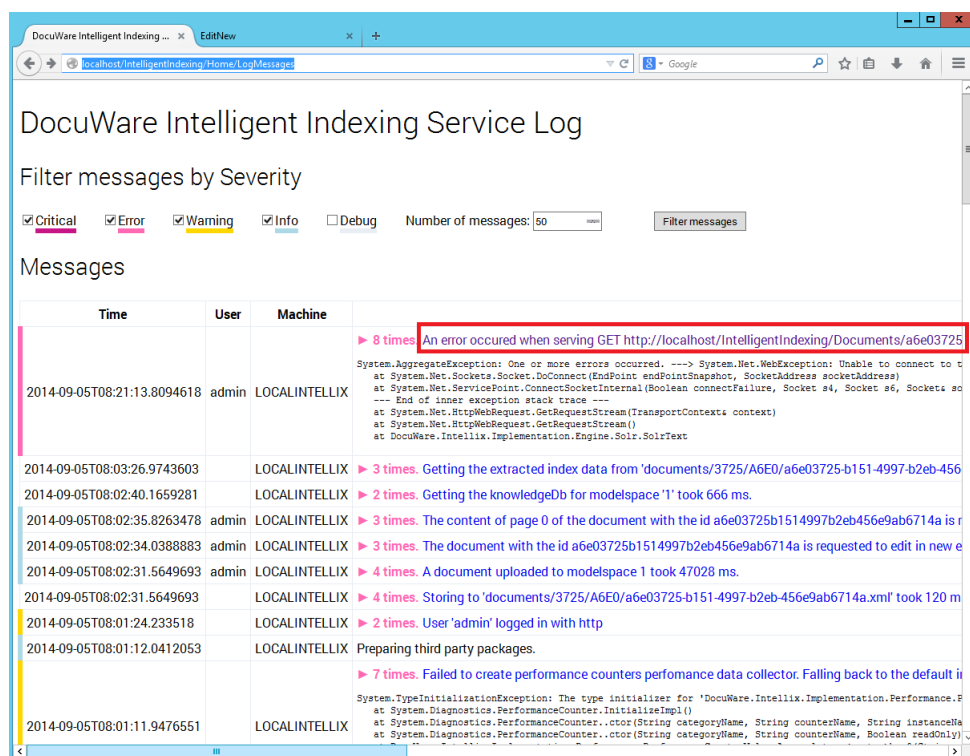


Figure 36: View of Intelligent Indexing log messages for incorrect SolR

Lösung: There is a problem with SolR or Tomcat. Firstly check whether Tomcat is started (go back to step 4 in chapter 4.2). If this is not the case, start it. However, if Tomcat is already running, there is a problem with SolR. Please check whether you carried out all steps exactly as indicated in chapter 4.3.

[Back to testing the Intelligent Indexing installation.](#)

9.8 Problems with Feedback of Index Data

Problem: You do not see a message that Intelligent Indexing received your feedback or you see an error message (error 405).

Lösung: Ensure, that you uninstalled WebDAV Publishing as recommended in step 4 of chapter 5.

[Back to testing the Intelligent Indexing installation.](#)

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