

Installation Instructions for Text Analytics

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Changes to this document

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1. Introduction

This document provides instructions on how to install *Text analytics* (TA) under Microsoft Windows to work with *IUCLID 6 Server*. The document covers the installation of TA, and the configuration of IUCLID 6 Server.

From an integration point of view, it is of note that the communication between the applications IUCLID 6 Server and TA is performed at the level of Web Services (HTTP), and at the database level (JDBC). For the former, a specific IUCLID Web Services URL is provided to the TA application. The latter requires database views within the IUCLID 6 schema that the TA database user queries to obtain the necessary data. The URL is provided, and the views are created automatically by an installer.

The installation consists of the following groups of tasks to be carried out in order:

1. Ensure that a suitable JDK is available for the Wildfly server used by *Text analytics*;
2. Ensure that *IUCLID 6 Server* is running under Microsoft Windows and points to an Oracle database. Configure *IUCLID 6 Server* to work with *Text analytics*;
3. Prepare an Oracle user for TA;
4. Run the installer of TA;
5. Restart IUCLID 6;
6. Log in to the web-based interface of TA to check the installation and to configure it.

2. Software requirements

An installation of TA requires the following.

Table 1: Software required and its version.

Product	Type / Version	Comment
IUCLID 6 Server	Version 7	This is the IUCLID format that was released in May 2023. Instance-Based Security (IBS) is supported.
OS	MS Windows: The OS should be up to date.	The MS Windows installer must be run using a local administrator account.
Database	Oracle	TA has been tested with version 19c.
Java	JDK 11	Instructions are provided on how to set up Zulu 11 for Windows

3. Configure Java JDK

Consider any existing Java installations or requirements for the target system, and then follow the instructions below that relate to system environment variables.

JAVA_HOME

The *Wildfly* server that comes with TA requires Java 11. The jdk that is delivered with IUCLID 6 Server v6.27.x contains Java 8, so it cannot be used for *Wildfly*. By default, the *Wildfly* server reads JAVA_HOME. If JAVA_HOME is already defined and it must be a version other than Java 11, point *Wildfly* to the full path of an installation of Java 11 in the settings file indicated below.

```
<TA>\apps\wildfly-19.1.0.Final\bin\standalone.conf.bat
```

Add the line:

```
set JAVA_HOME="<full path to Java 11>"
```

Example of the line, added as line number 36:

```
set JAVA_HOME="C:\openjdk\zulu11.62.17-ca-fx-jdk11.0.18-win_x64"
```

A suitable instance of JAVA 11 can be downloaded from:

<https://www.azul.com/downloads/?package=jdk>

ES_JAVA_HOME

This must point to the JDK that is delivered with TA for *elasticsearch* in the folder:

```
<TA>\apps\elasticsearch-7.17.5\jdk
```

LS_JAVA_HOME

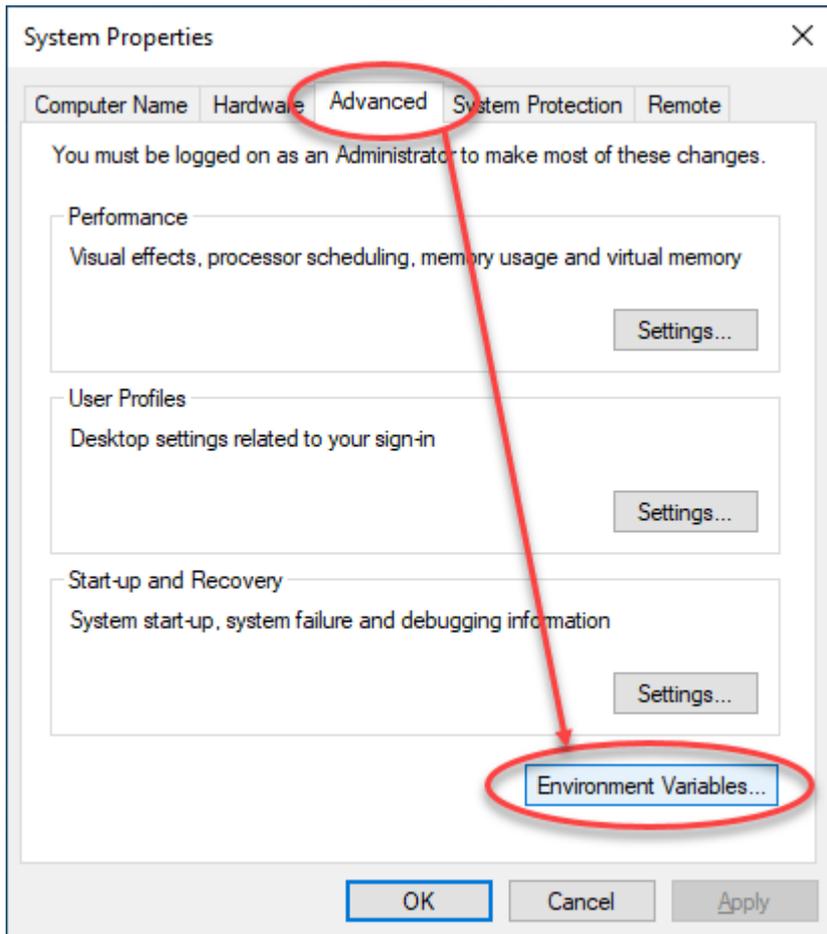
This must point to the JDK that is delivered with TA for *logstash* in the folder:

```
<TA>\apps\logstash-7.17.5\jdk
```

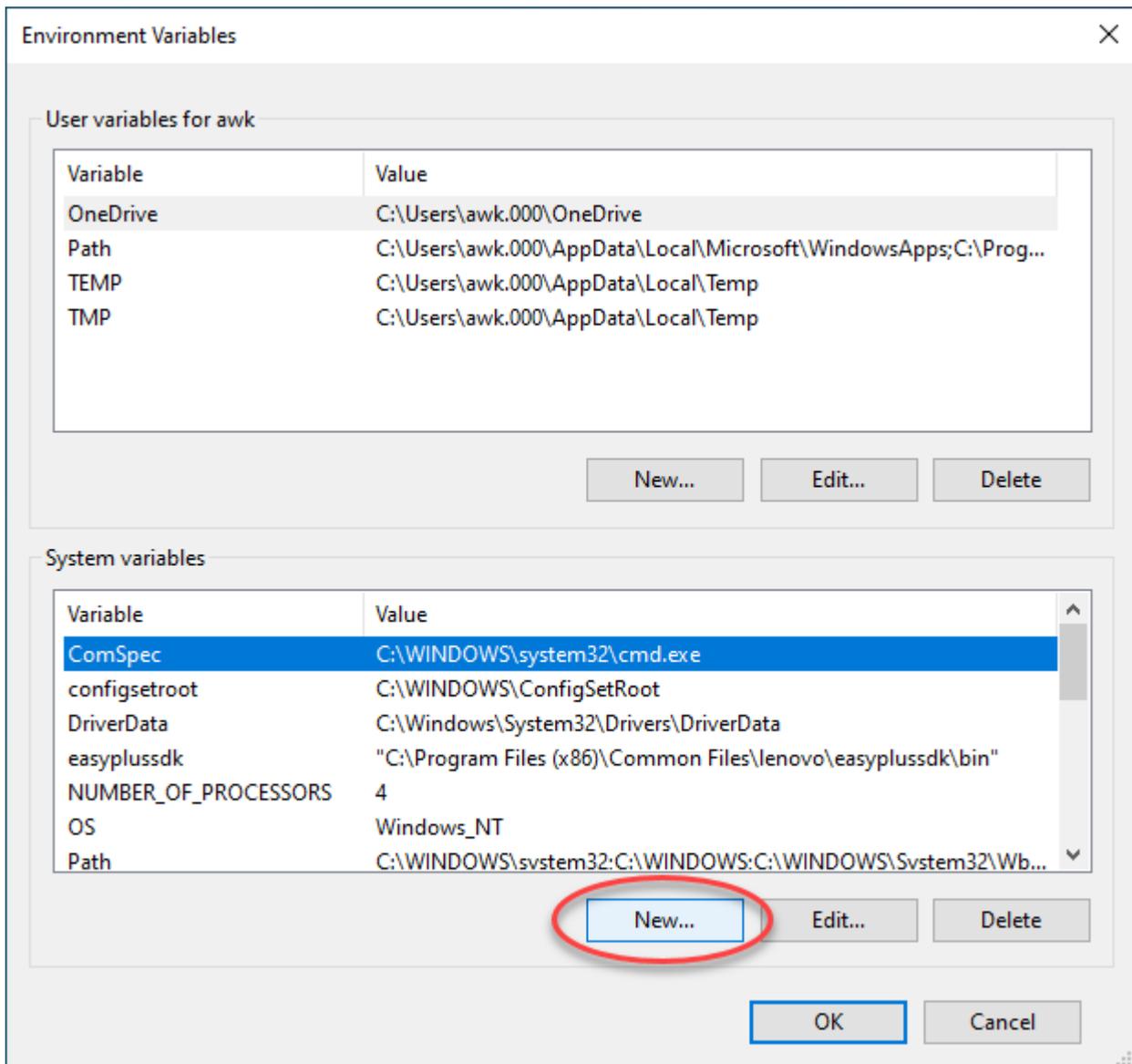
There are various ways to set up environment variables. What follows is an example of how to set up the values indicated above. To set the environment variables in Windows, open:

Control Panel > System > Advanced system settings > Advanced > Environment Variables

Figure 1: Environment variables are set in Windows from System Properties



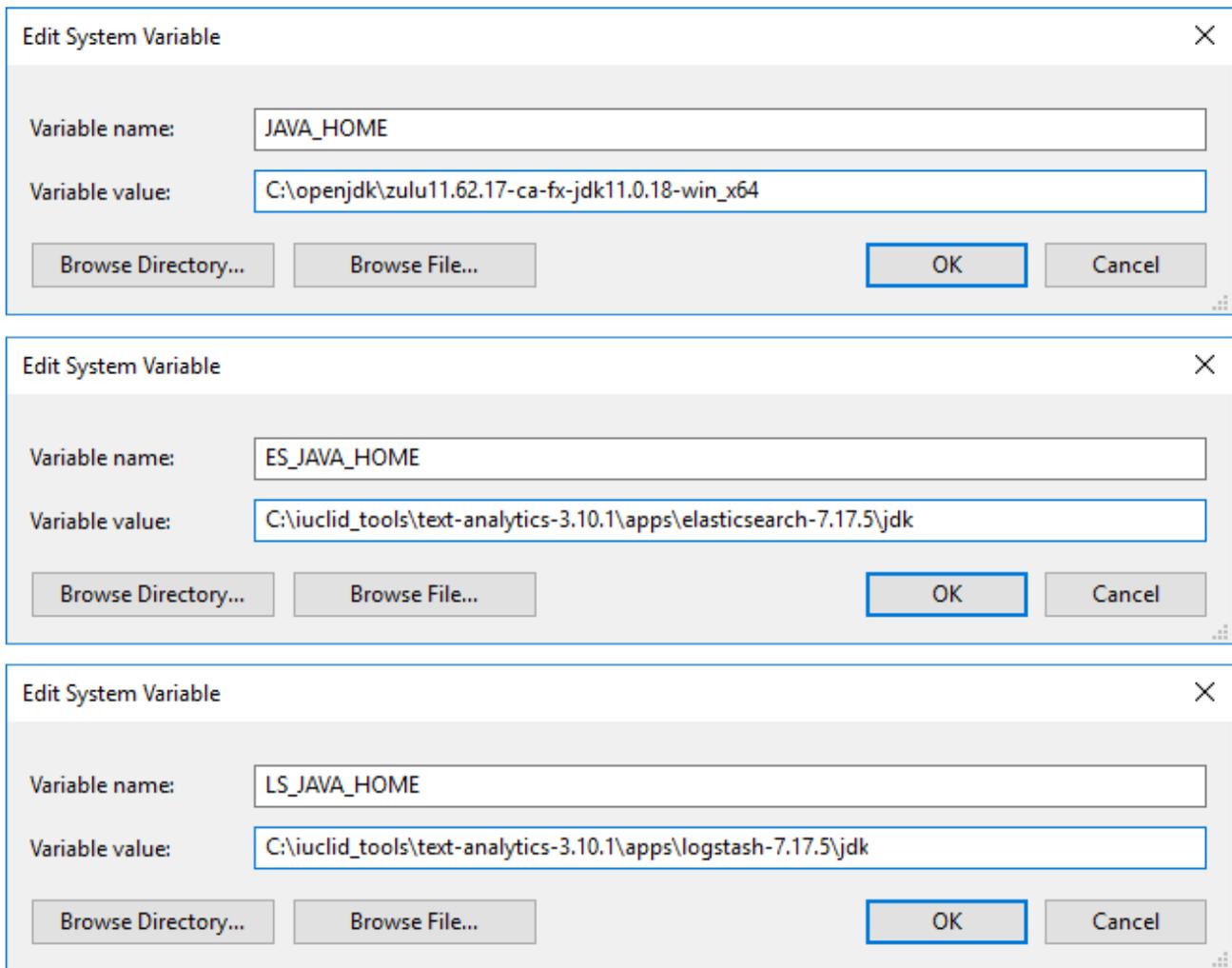
Under *System variables*, click on *New*.

Figure 2: Create a system environment variable

If JAVA_HOME is already defined and it needs to be a version other than Java 11, do not change the value, but point *Wildfly* to the full path of an installation of Java 11, as described above.

If you want the *Wildfly* server to read the environment variable JAVA_HOME, if necessary, create JAVA_HOME and then set its value to the absolute path of the directory that contains the JDK 11 that was installed in the previous step.

Repeat the setting process for ES_JAVA_HOME and LS_JAVA_HOME, pointing them at the folders for jdk that are delivered with TA. Examples are given below.

Figure 3: Examples of setting the system variables JAVA_HOME, ES_JAVA_HOME and LS_JAVA_HOME

This can be checked using the command `set` on the command line.

```
C:\> set
```

The output is shown below, with the variables indicated by red arrows.

Figure 4: Checking the environment variables using the command set

```

Administrator: Command Prompt

C:\>set
ALLUSERSPROFILE=C:\ProgramData
APPDATA=C:\Users\ \AppData\Roaming
CLIENTNAME=
CommonProgramFiles=C:\Program Files\Common Files
CommonProgramFiles(x86)=C:\Program Files (x86)\Common Files
CommonProgramW6432=C:\Program Files\Common Files
COMPUTERNAME=
ComSpec=C:\Windows\system32\cmd.exe
ES_JAVA_HOME=C:\iucld_tools\text-analytics-3.10.1\apps\elasticsearch-7.17.5\jdk
HOMEDRIVE=C:
HOMEPATH=\Users\
JAVA_HOME=C:\openjdk\zulu11.62.17-ca-fx-jdk11.0.18-win_x64
LOCALAPPDATA=C:\Users\ \AppData\Local
LOGONSERVER=\\
LS_JAVA_HOME=C:\iucld_tools\text-analytics-3.10.1\apps\logstash-7.17.5\jdk
NUMBER_OF_PROCESSORS=16
OS=Windows_NT
Path=C:\oracle-xe\binhomeXE\bin;C:\oraclexe\app\oracle\product\11.2.0\server\bin;C:

```

Remember that if you are running the installer from the Windows command line using CMD, CMD must be restarted for changes in environment variables to take effect.

4. Configuration of IUCLID 6 Server

The following configuration applies to the installation of IUCLID 6 Server to which TA connects. Instance based security (IBS) is supported.

4.1. Users and Roles

Users log in to TA using credentials defined in IUCLID. TA does not have its own user management interface. TA requires that the instance of IUCLID to which it connects contains the following three Roles:

APP_Agency_TA_Simple: Allows simple searches;

APP_Agency_TA_Regexp: Allows simple and regular expression searches;

APP_Agency_TA_Admin: Allows the administration of the application.

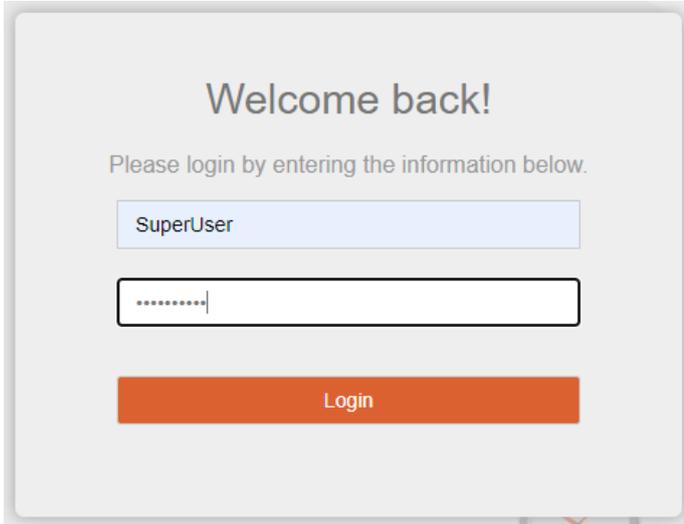
To log in to TA, a User must have at least one of these roles. Search results include only dossiers to which a IUCLID User has at least read-only access.

When defining Users and Roles, consider what overall access is required for Users of TA. The User named SuperUser is automatically given all the Roles in an instance of IUCLID, so once you have created the Roles, there is no need to manually add them to it. SuperUser is convenient for testing, but for daily work, it is more secure to use a User that has a lower level of access. This can be an existing User, or a User created especially for TA.

For a full description of user management in IUCLID, see the functionalities manual that is available in its graphical user interface and on the IUCLID website [here](#).

Log in to the web interface as a User that has the rights to perform user management, for example as *SuperUser*.

Figure 5: Log in to the web interface of IUCLID as SuperUser

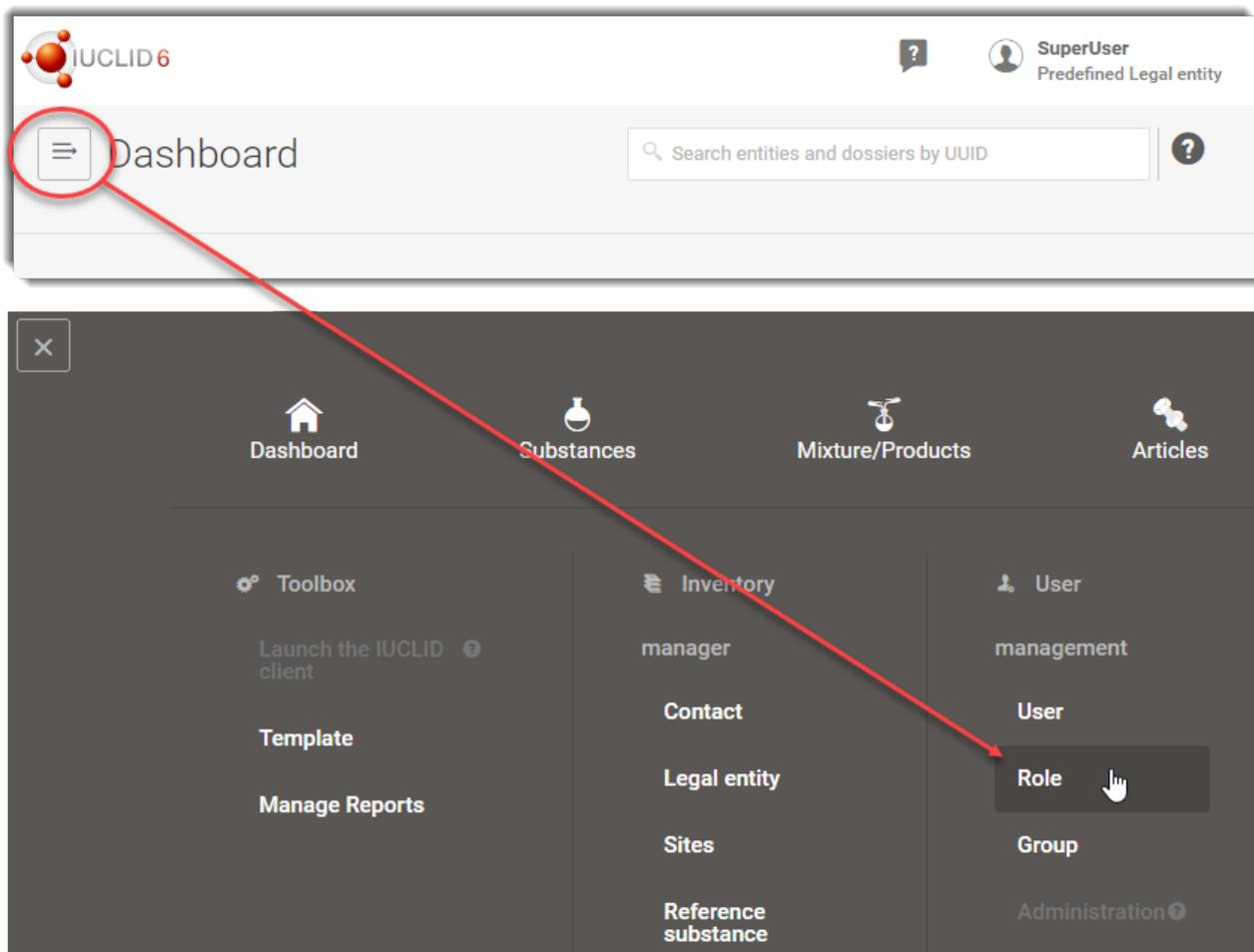


The screenshot shows a login form with the following elements:

- Header: "Welcome back!"
- Instruction: "Please login by entering the information below."
- Username field: A light blue input box containing the text "SuperUser".
- Password field: A white input box with a black border containing masked characters ".....".
- Login button: An orange rectangular button with the text "Login" in white.

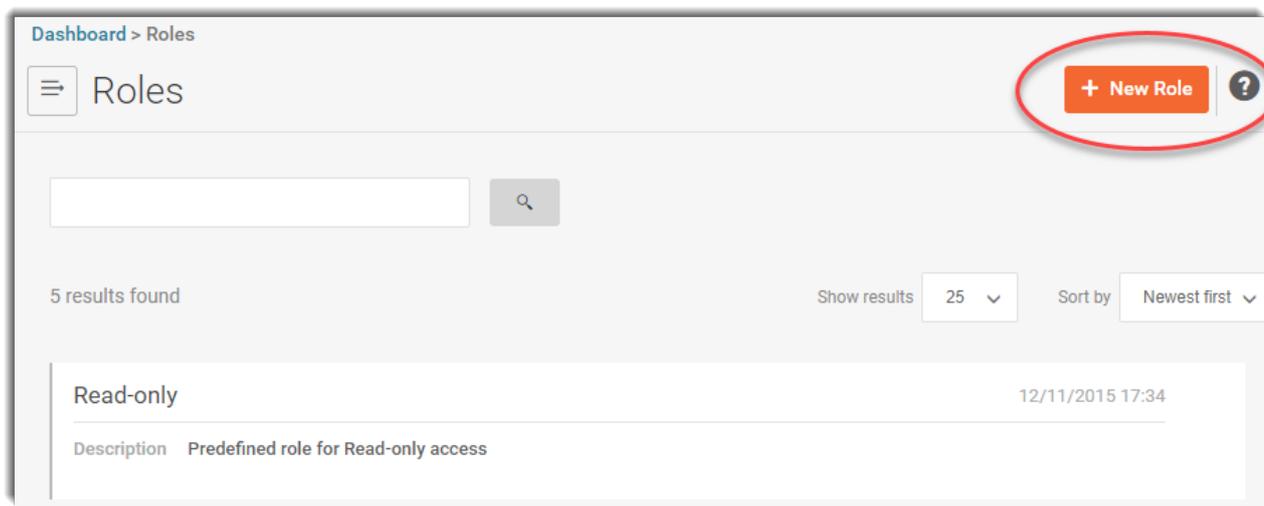
Ensure that the Users who will access TA exist, and that their data access is correct. The next step is to create TA's Roles, and to assign them to Users. Open the main menu from the three-bar icon at the upper left of the interface. Under *User management*, select *Role*, as shown below.

Figure 6: Open Role under User management



To create a Role, select the button + *New Role*, indicated below.

Figure 7: Create a Role



Name the Role as one of the following:

APP_Agency_TA_Simple

APP_Agency_TA_Regexp

APP_Agency_TA_Admin

Figure 8: Name a Role

Dashboard > Roles > Create role

☰ ◀ Create role

Role information

Role name*

APP_Agency_TA_Simple

Role description

For Text Analytics

18/2000

Click on **Save**. Underneath the Role information there are settings that allow access to various functionalities and types of data. These settings can be set in the TA Roles, but this is not necessary if the access has already been provided by some other Role. It is simplest to keep the TA Roles dedicated to the TA.

The next step is to give the Role to a User or Users. This can be done at any time by editing the User or the Role, but it is convenient to do it now so long as the User already exists.

Scroll down to *Assigned users*. Note how SuperUser already has the Role and it cannot be removed because the dustbin icon is inactive. Click on *New item*, ringed in red below

Figure 9: SuperUser is given every Role by default.

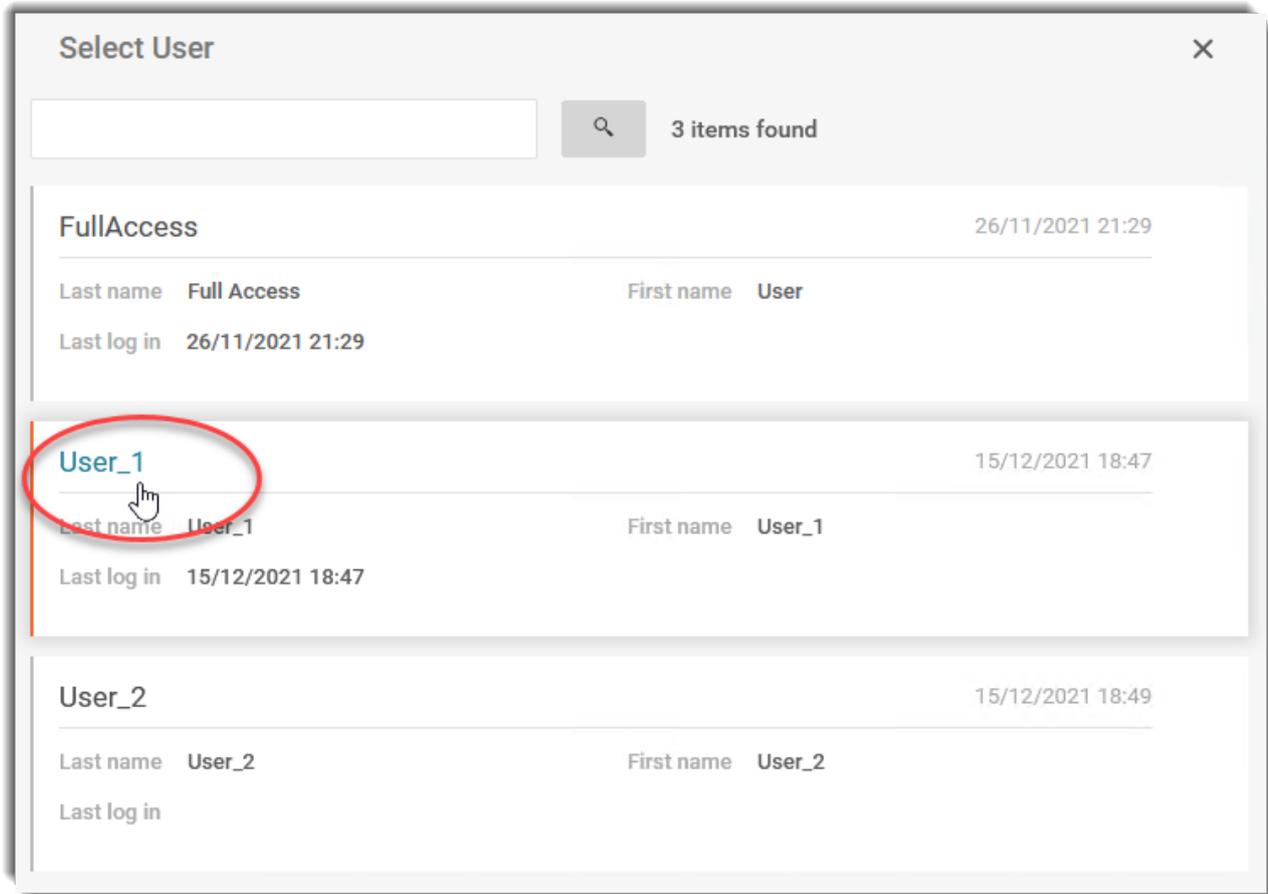
Assigned users

+ New item

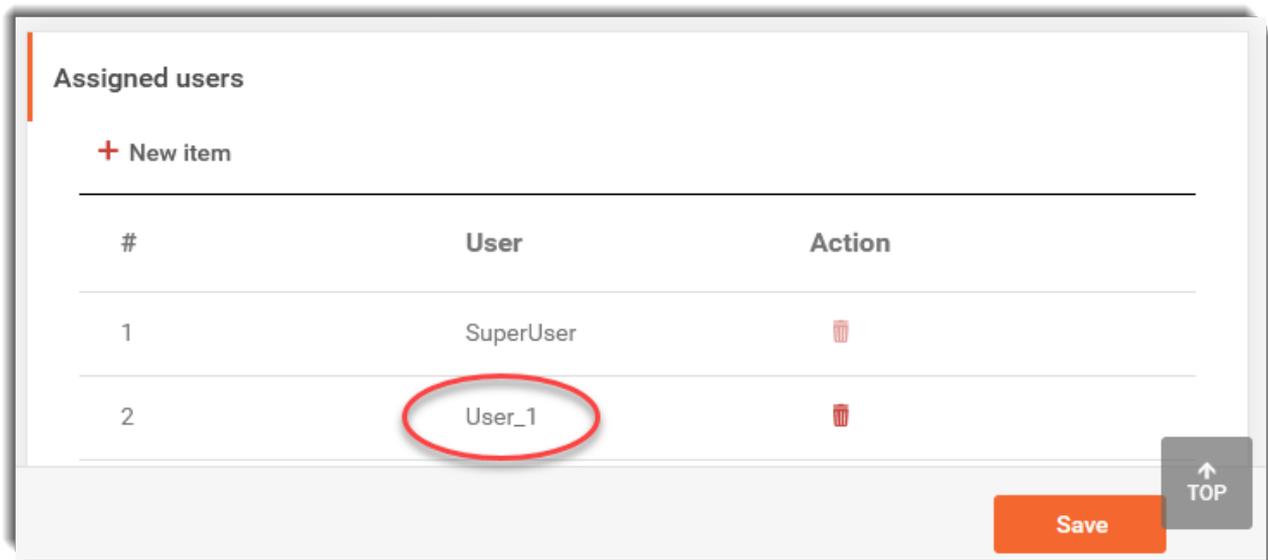
#	User	Action
1	SuperUser	

If you cannot see the required User on the list, search for it using the standard search functionality. Select the User by clicking on it.

Figure 10: Select a User



Note the Role has been added to the User.

Figure 11: A User with a Role

Now create the other TA Roles.

4.2. Securing Cross-Origin Resource Sharing (CORS) in IUCLID

This applies for IUCLID 6 version 6.27.1 and later. Text Analytics uses the authentication mechanism of IUCLID. For security reasons, by default in IUCLID, Cross-Origin Resource Sharing (CORS) is limited to the host `localhost` and the ports at which IUCLID listens, which by default for HTTP is 8080. For the log in process to work for Text Analytics, its URL must be added to a whitelist in the configuration of IUCLID. This is done in a parameter in the settings file `domain.xml` which has the path indicated below.

```
<IUCLID 6 installation
folder>\payara5\glassfish\domains\domain1\config\domain.xml
```

The parameter is:

```
eu.echa.iuclid6.idp.cors.allowed.origin.patterns
```

The default value is:

```
http://localhost:${HTTP_LISTENER_PORT},https://localhost:${HTTPS_LISTENER_PORT},http://127.0.0.1:${HTTP_LISTENER_PORT}
```

In the example shown later in this manual, the URL of Text Analytics can be:

```
http://100.65.8.153:28080
```

```
http://localhost:28080
```

```
https://100.65.8.153:28434
```

```
https://localhost:28434
```

For this example, the line in `domain.xml` would be:

```
<system-property
name="eu.echa.iuclid6.idp.cors.allowed.origin.patterns"
```

```
value="http://localhost:${HTTP_LISTENER_PORT},https://localhost:${HTTPS_LISTENER_PORT},http://127.0.0.1:${HTTP_LISTENER_PORT},http://100.65.8.153:28080,http://localhost:28080,https://100.65.8.153:28434,https://localhost:28434"></system-property>
```

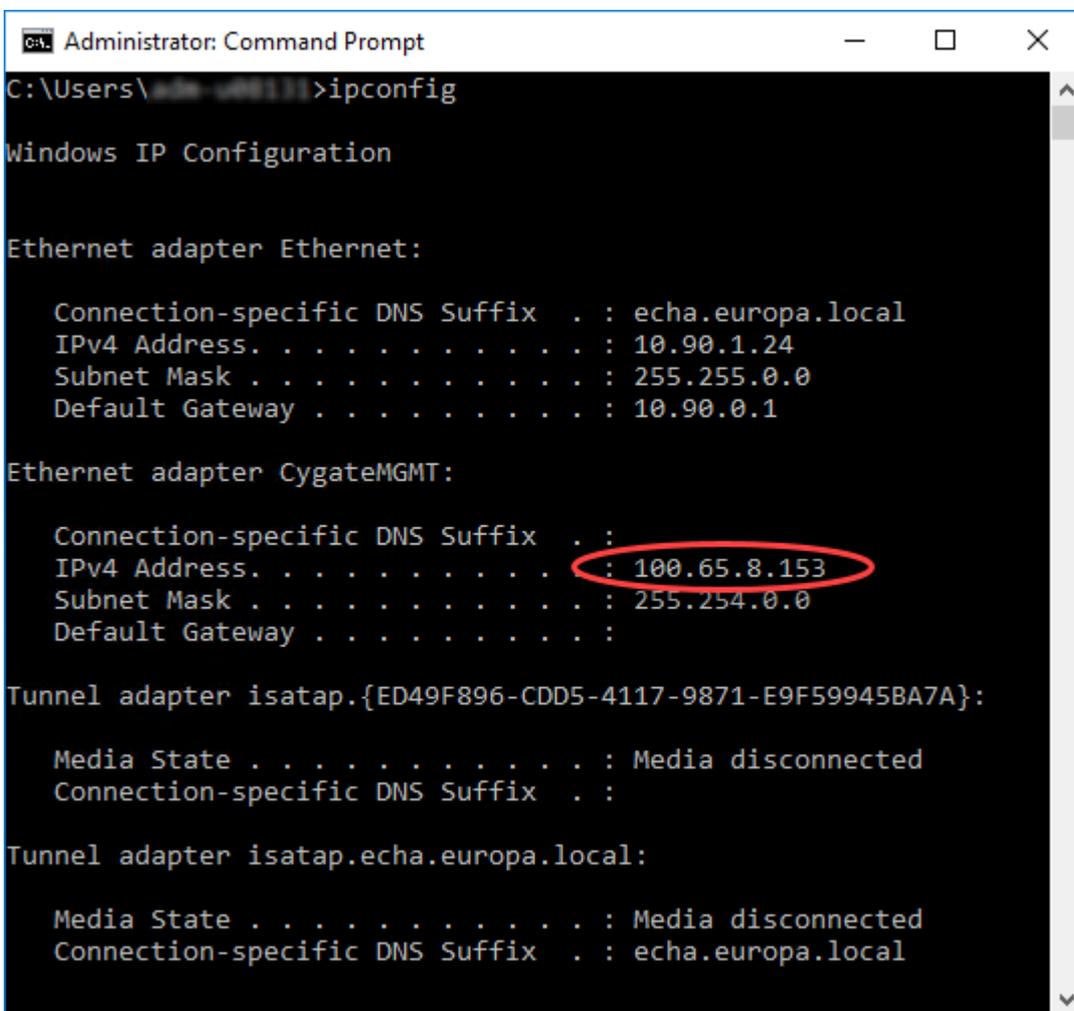
If SSL is in use, add the appropriate URL for the protocol https. In the example presented later in this manual, the value is:

<https://100.65.8.153:28443>

After making a change to `domain.xml`, IUCLID must be restarted for the change to take effect.

If Text Analytics and IUCLID are run on the same host, the host can be set to `localhost`, but it is better to use the IP address in numeric format. This can be found using the command `ipconfig` in a terminal, as shown below:

Figure 12: Find the IP address of the host for Text Analytics



```
Administrator: Command Prompt
C:\Users\...>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : echa.europa.local
    IPv4 Address. . . . . : 10.90.1.24
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . : 10.90.0.1

Ethernet adapter CygateMGMT:

    Connection-specific DNS Suffix  . :
    IPv4 Address. . . . . : 100.65.8.153
    Subnet Mask . . . . . : 255.254.0.0
    Default Gateway . . . . . :

Tunnel adapter isatap.{ED49F896-CDD5-4117-9871-E9F59945BA7A}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Tunnel adapter isatap.echa.europa.local:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : echa.europa.local
```

4.3. Database of IUCLID 6 Server

The installation of IUCLID 6 Server is described in a separate document which is available on the IUCLID website [here](#).

In addition to the privileges the database user requires for IUCLID 6 Server, the user must be able to create database views. This can be applied to a user by the following SQL statement.

```
SQL> grant create view to <user>;
```

For example, for a user named *iuclid6user*:

```
SQL> grant create view to iuclid6user;
```

5. Database of TA

TA requires an Oracle database. The database tables of TA are created when the application first starts up. Before doing that, it is necessary to create the TA database and a user. Make a note of the name of the database, the user name, and the user password, which will later be entered into the installation wizard.

```
SQL> create tablespace <tablespace> datafile '<file>.dbf' size
    <size> autoextend on next <extensionsize> maxsize
    <maxsize>;
```

```
SQL> create user <user> identified by <password>;
```

```
SQL> grant connect to <user>;
```

```
SQL> grant resource to <user>;
```

```
SQL> grant create session to <user> identified by <password>;
```

```
SQL> grant create table to <user>;
```

```
SQL> grant create view to <user>;
```

```
SQL> grant create sequence to <user>;
```

```
SQL> grant create job to <user>;
```

```
SQL> grant create procedure to <user>;
```

```
SQL> grant create trigger to <user>;
```

```
SQL> alter user <user> quota unlimited on <tablespace>;
```

Example

```
SQL> create tablespace ta_tablespace datafile ' ta_tablespace.dbf' size
    500M autoextend on next 50M maxsize 1G;
```

```
SQL> create user ta_user identified by ta_password;
```

```
SQL> grant connect to ta_user;
```

```
SQL> grant resource to ta_user;
```

```
SQL> grant create session to ta_user identified by ta_password;
```

```
SQL> grant create table to ta_user;
```

```
SQL> grant create view to ta_user;
SQL> grant create sequence to ta_user;
SQL> grant create job to ta_user;
SQL> grant create procedure to ta_user;
SQL> grant create trigger to ta_user;
SQL> alter user ta_user quota unlimited on ta_tablespace;
```

6. Graphical installer

Before running the installer, obtain the following information:

- 1) Location of the folder in which TA will be installed;
- 2) The port on which the graphical interface of TA will be accessible. Any free port can be used;
- 3) The database URL, name, and credentials for TA;
- 4) Location of the installation folder of IUCLID 6 Server;
- 5) The URL of the IUCLID 6 Server application;
- 6) The database URL, name, and credentials for IUCLID 6 Server;

An installation of TA consists of:

- 1) The application files, which include the application server *Wildfly*;
- 2) The IUCLID plugin, which is a jar file that is copied into the installation of IUCLID.

The installer of TA can automatically install the plugin into the installation of IUCLID 6 Server, but it must have access to its file system. Otherwise, the plugin must be installed manually.

Before running the installer ensure that the SHA256 checksum is the same for the exe file as that published on the IUCLID website at:

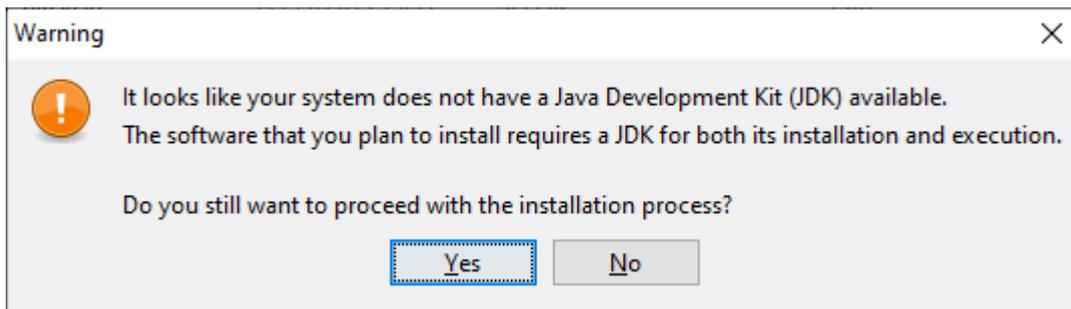
<https://iuclid6.echa.europa.eu/verification-of-downloads>

Before running the installer ensure that at least ten percent of the total storage space is available on the target drive. When the percentage of available space on the whole drive drops below a threshold, TA does not function normally.

Run the following executable as a local administrator.

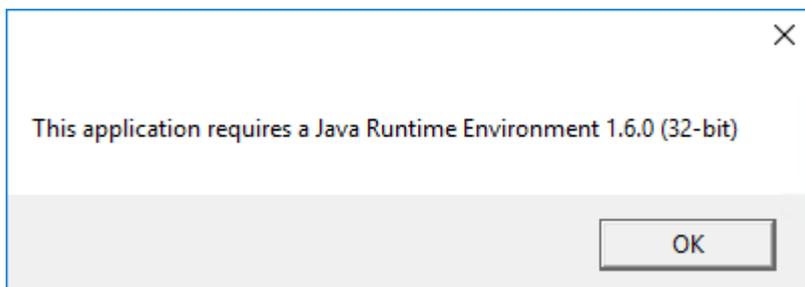
text-analytics-<version>.exe

If the path to an installation of JDK has not been defined correctly in the environment variable PATH, the following warning will be given.

Figure 13: Warning shown if JDK is not in PATH

If the warning is shown, select *No*, then add the path of JDK to PATH, as described above, and then re-run the installation. It is advisable to also check the value of JAVA_HOME.

In some circumstances the following message may be shown.

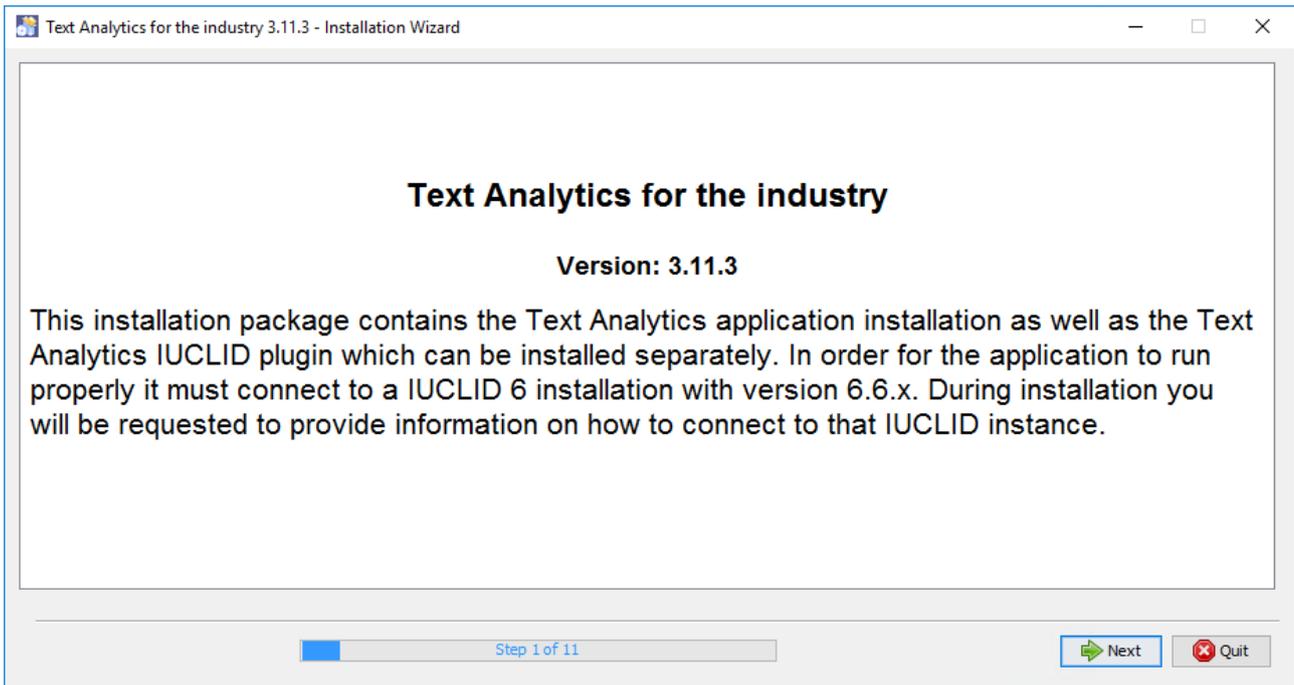
Figure 14: Message about JRE

If you see the message above, as a workaround, start the installer from an administrator console (cmd) using the command:

```
$ java -jar text-analytics-<version>.exe
```

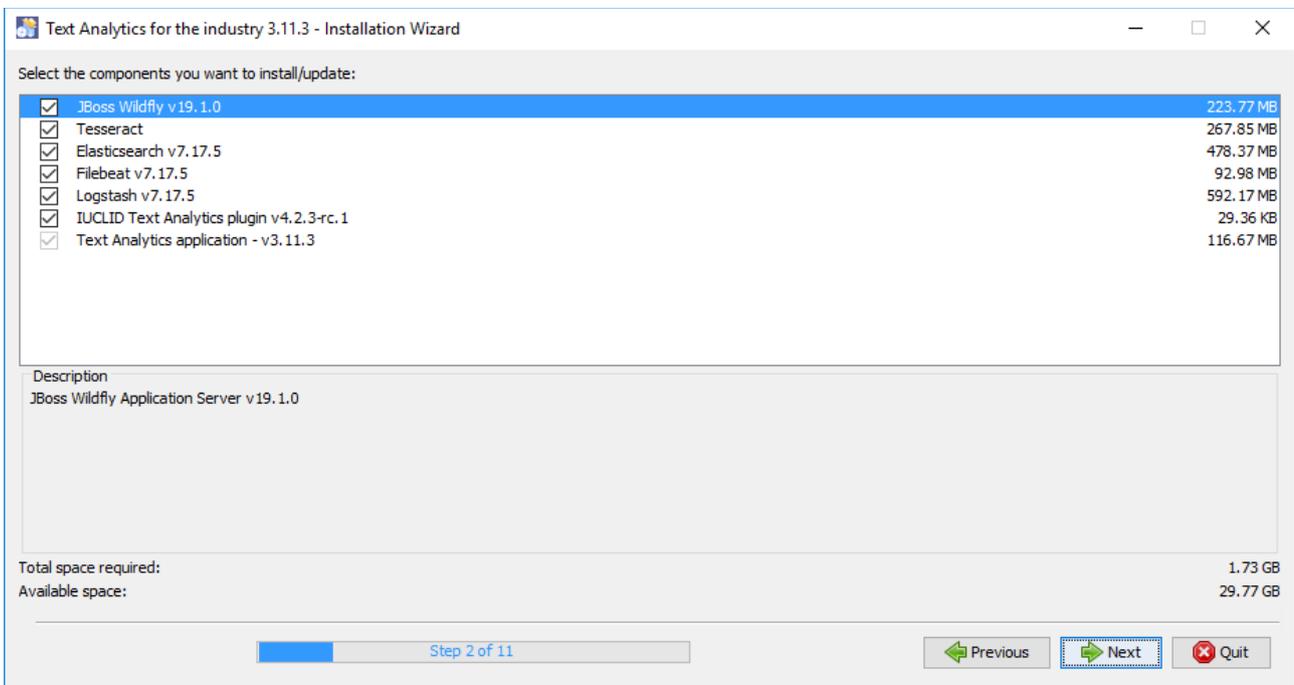
Read the information presented by the Installer and the descriptions in this manual carefully for each page.

Figure 15: Installer step 1 - Information



The first screen displays information about the version of TA; and the required version of IUCLID. Note that required version of IUCLID 6 indicated in this screen is incorrect. TA v3.11.3 is compatible with IUCLID 6 v7.

Figure 16: Installer step 2 - Select components to install

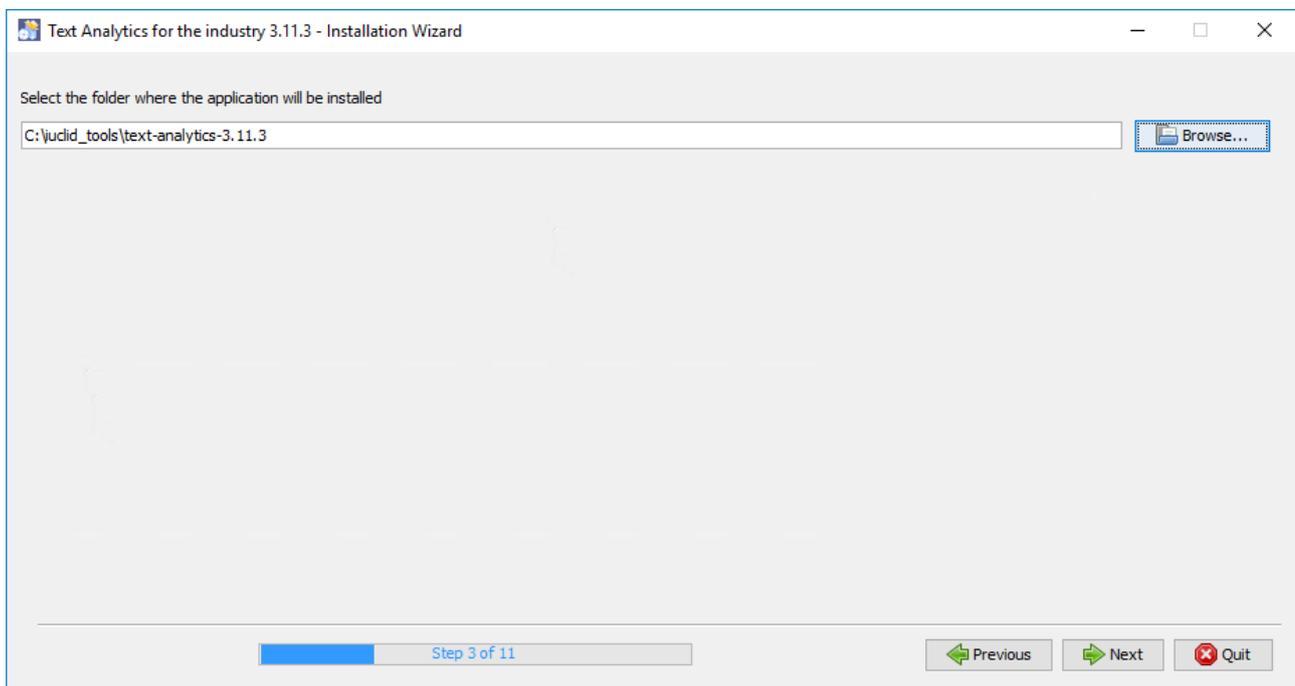


In the second step, select the components to be installed. For a fresh installation of TA run on the same machine as IUCLID 6 Server, all the boxes should be ticked. The installer copies the plugin of TA into the file system of IUCLID 6 Server. If the installer cannot access that file system, there are two options.

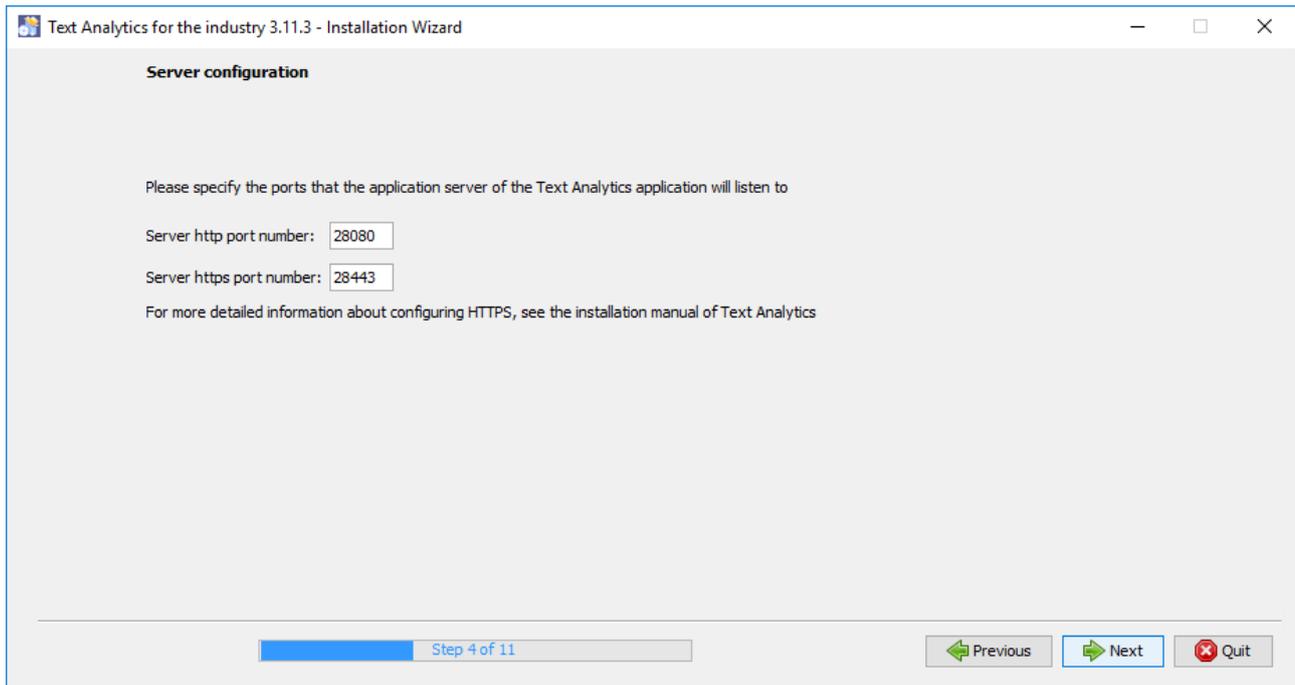
- 1) Run the installer twice, once to install the application files, and then separately on the IUCLID 6 Server machine to install the plugin;
- 2) In step 7 of the installer, where it asks for the installation folder of IUCLID, choose a local folder instead, and then move the plugin from the local folder to IUCLID 6 Server manually.

Note the disk space requirements stated at the foot of the page.

Figure 17: Installer step 3 - Enter the installation directory for the TA



Step 3 asks for the directory where TA will be installed.

Figure 18: Installer step 4 - Enter the port for TA

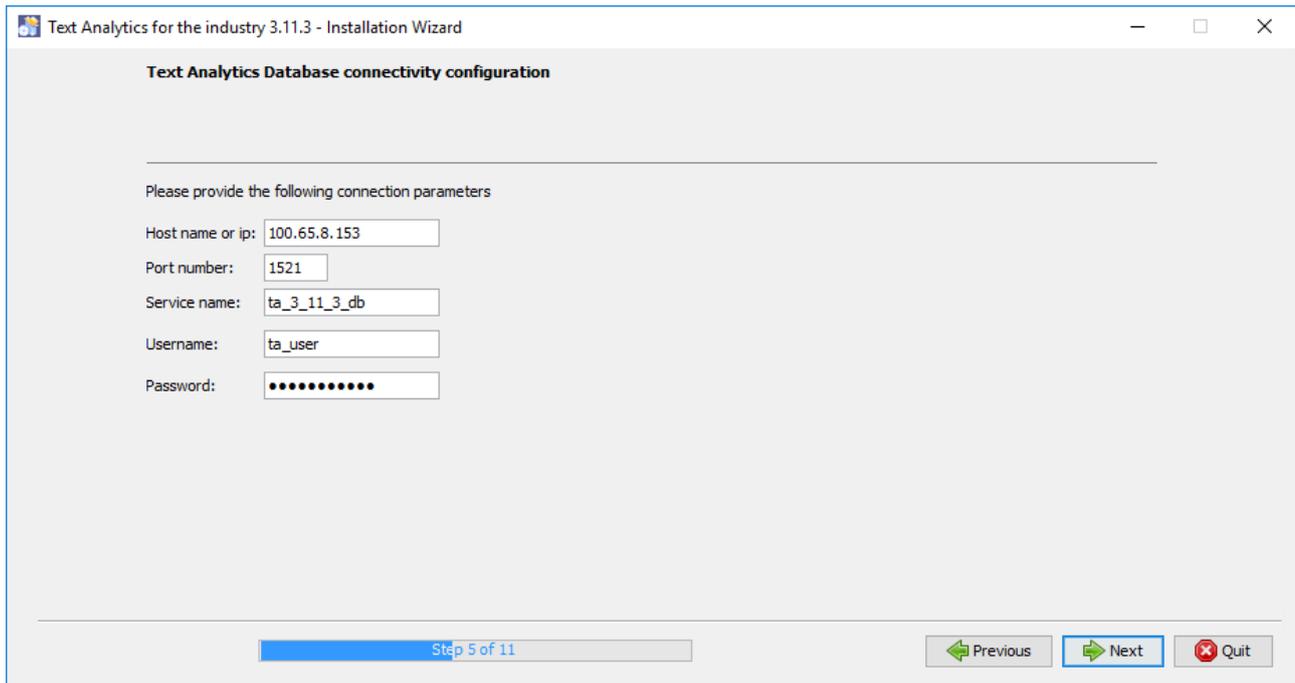
Step 4 prompts for the port number(s) of the TA application. Enter a value for a port that you know is a free. To check whether a port is free, the following command can be used.

Windows command line:

```
C:\>netstat -an | find ":<port number>"
```

The port is free if the output is empty.

In the example, the ports are set to 28080 for HTTP and 28443 for HTTPS.

Figure 19: Installer step 5 – Enter details for the database of TA

In step 5 enter the details of the database for TA. For a pluggable database, the service name is the database name. Dependent on the database, the *Service name* can also be a *SID*. The default host name or IP address shown above is for localhost. This is valid only if the Oracle database and TA are run on the same machine. If that is not the case, change the hostname to be that for the host of Oracle, and ensure that the connection is allowed through any firewall that may be in place.

Please note that the Oracle database schema and credentials must have been created before moving to the next step. On clicking on *Next*, the installer checks the connection to the database before proceeding to the next step. If it cannot connect to the database, it gives an error message.

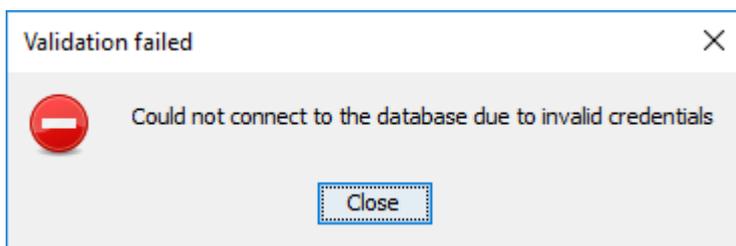
Figure 20: Cannot connect to an Oracle database

Figure 21: Installer step 6 - IUCLID connectivity configuration

IUCLID Configuration

Instance-based Security

Please provide information about the IUCLID installation that the Text Analytics application is going to connect to

IUCLID server address:
(NOTE: please include the http(s):// prefix)

IUCLID Database configuration

Please provide the following connection parameters

Host name or ip:

Port number:

Service name:

Username:

Password:

Step 6 of 11

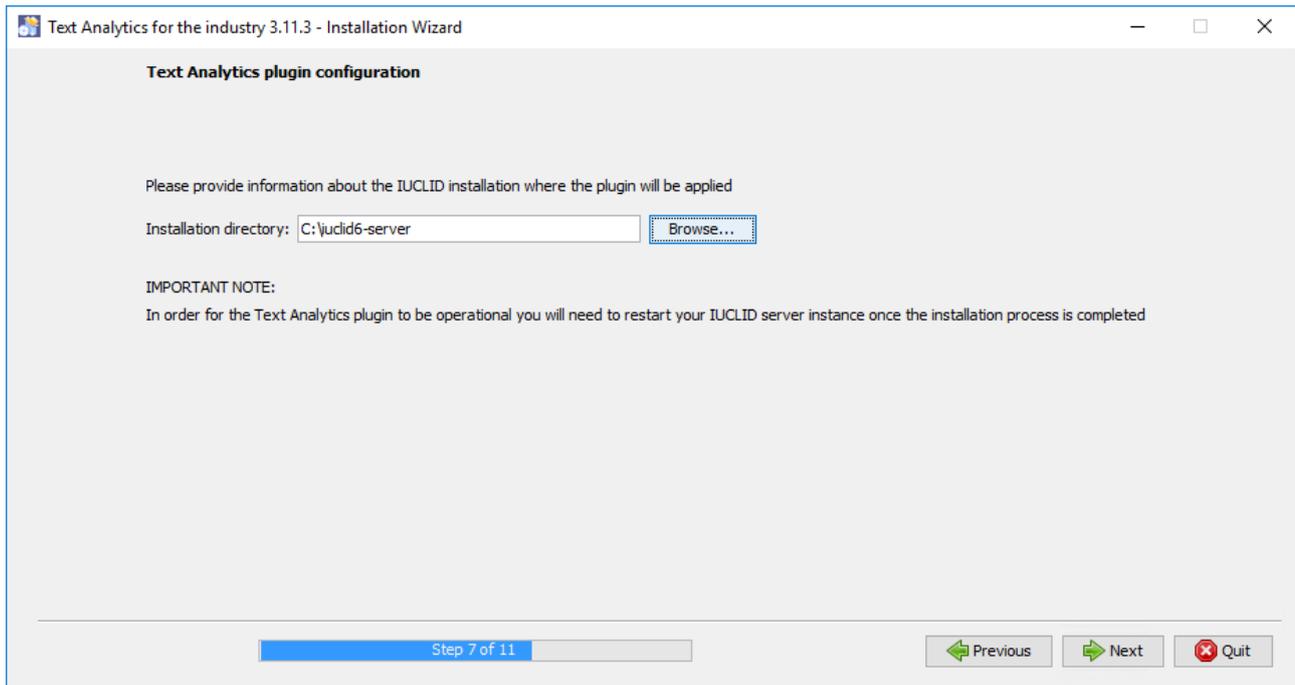
Previous Next Quit

Step 6 prompts for the IUCLID connectivity information. If TA is to be accessed remotely, both TA and the instance of IUCLID must be accessible from the remote machine. Therefore, the default IP address of 127.0.0.1 (localhost) shown in the screenshot above should be changed to the actual IP address or hostname. Also, the firewall rules must allow access to that host at the port indicated. For example:

```
http://<the-host-of-iuclid>:28080
```

If the hostname for IUCLID is set incorrectly in TA, or a firewall is blocking access to IUCLID, it may be possible to log in to TA remotely, but the interface does not load.

If *Instance Based Security* is to be used in IUCLID, tick the box at the top of the page.

Figure 22: Installer step 7 – Location of IUCLID 6 Server to where the plugin will be installed

Step 7 is shown only if the plugin were ticked on page 2. Enter the installation directory of IUCLID 6 Server. After clicking on *Next*, the installer checks whether the value entered is a valid installation directory of IUCLID 6 Server. If it is not, the followed message is shown.

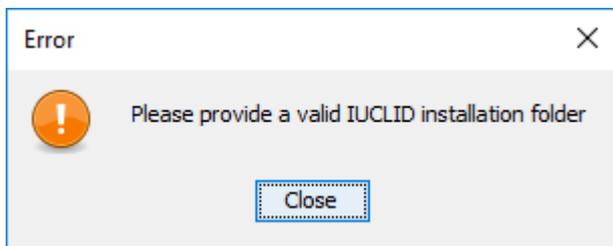
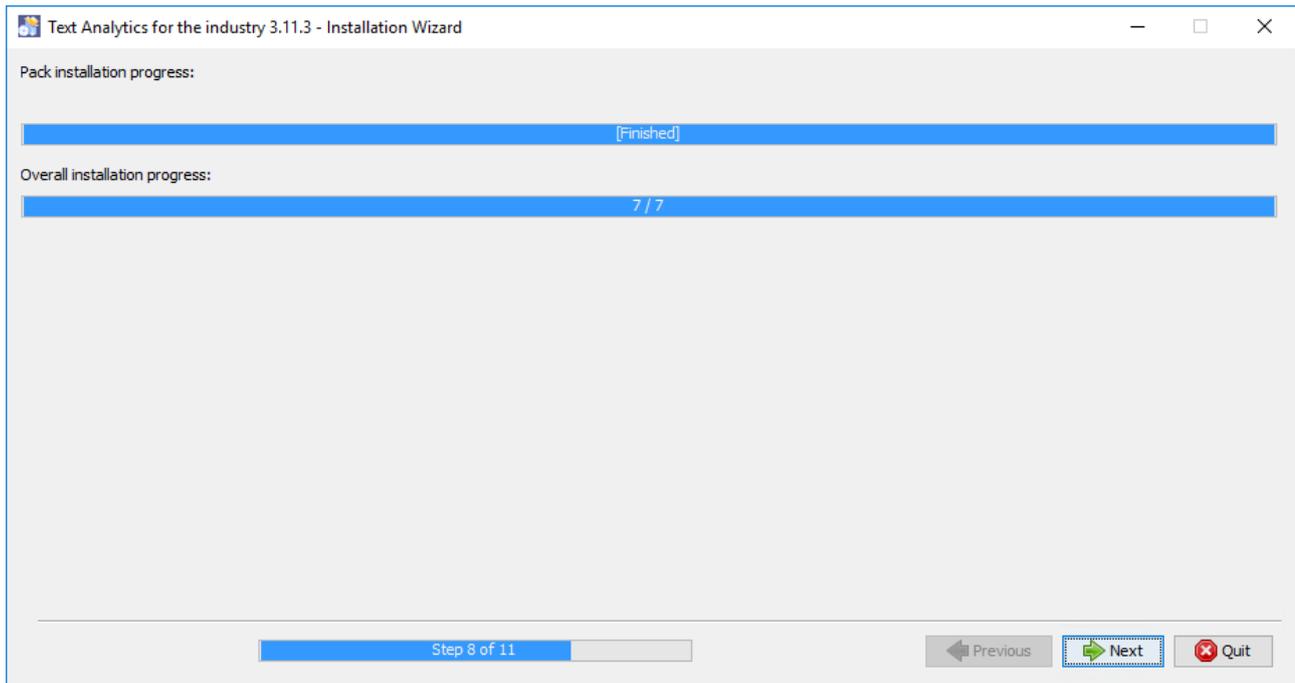
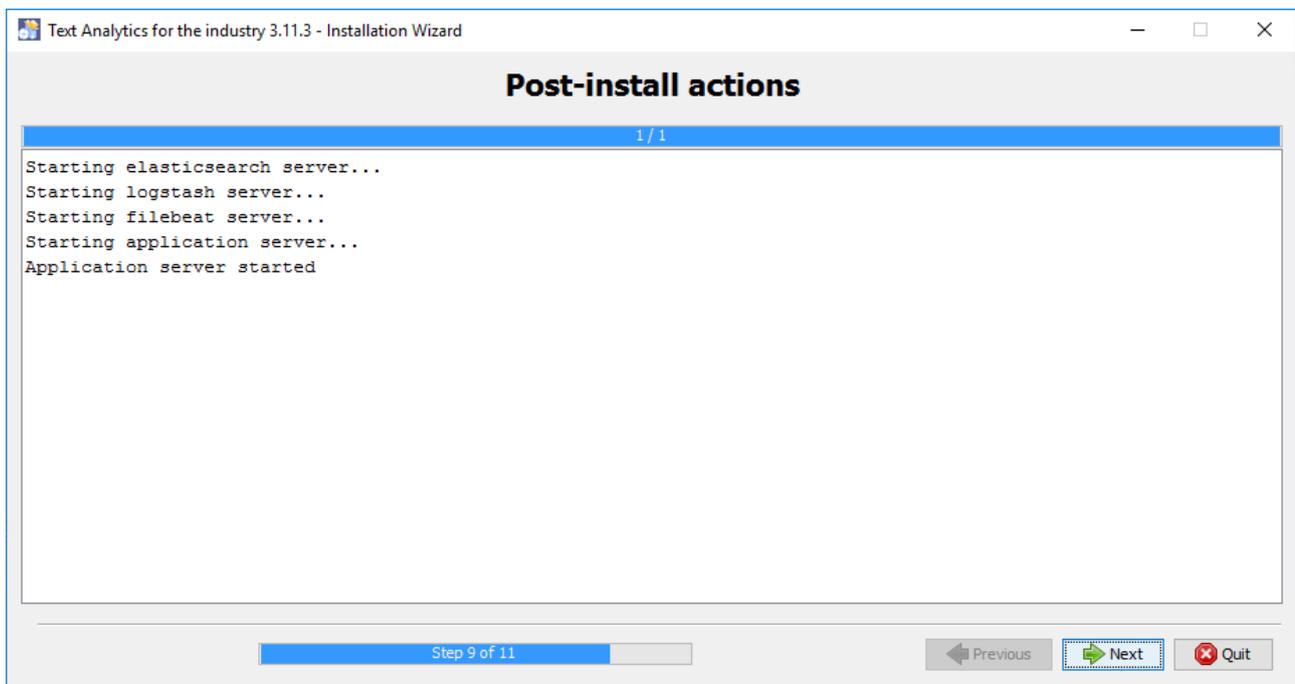


Figure 23: Installer step 8 - Progress of the installation

At this point the wizard has gathered all data required for the installation and the remaining steps inform about the installation process. Step 8 displays the progress of the copying of the selected components.

Figure 24: Installer step 9 - Post-installation tasks

Step 9 performs post-installation actions such as application server start-up, and application deployment.

Figure 25: Windows open for Wildfly, Elasticsearch, Logstash and Filebeat

```

C:\Windows\system32\cmd.exe - elasticsearch.bat
[2023-02-09T13:32:22,525][INFO ][o.e.x.s.c.f.PersistentCache][csr node] persistent cache index loaded

C:\Windows\system32\cmd.exe - logstash.bat -f first-pipeline.conf --config.reload.automatic
[2023-02-09T13:32:22,525][INFO ][logstash.runner] Using Java VM version 11.0.18
[2023-02-09T13:32:22,525][WARN ][logstash.runner] es_version field won't be used to determine the document_type {:es_version=>7}

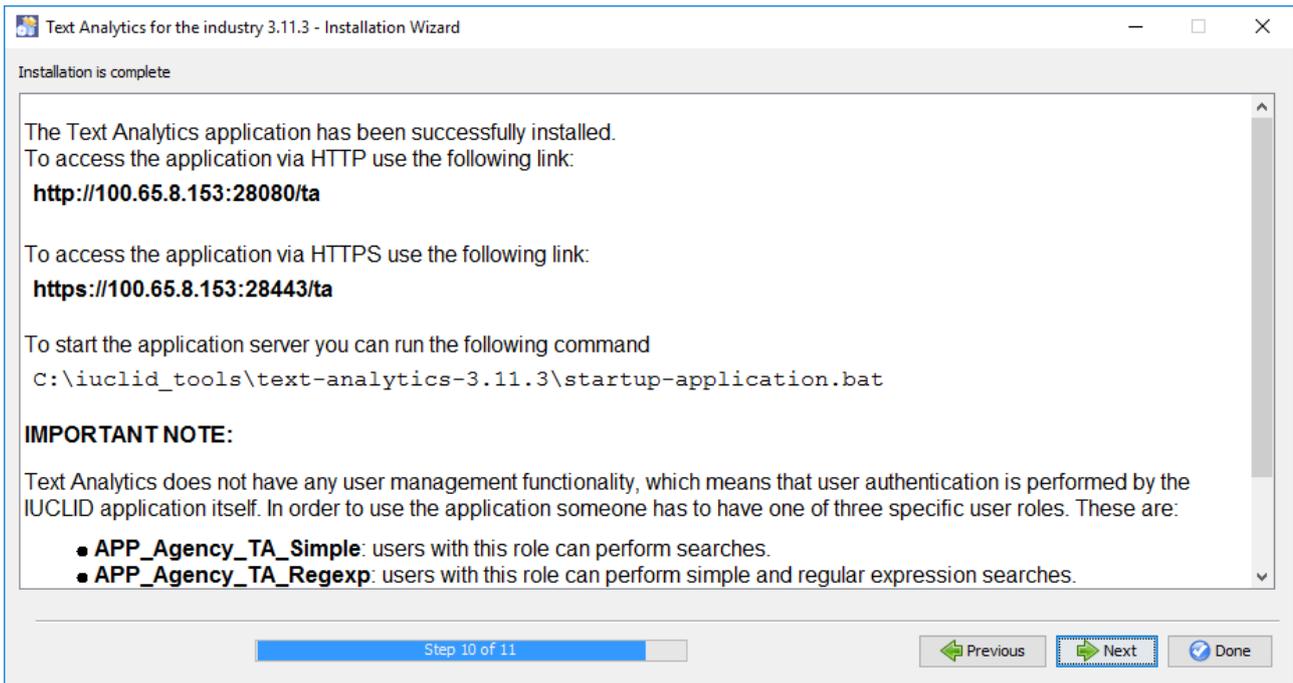
C:\Windows\system32\cmd.exe - standalone.bat -c standalone-ta-industry.xml -b 0.0.0.0 -Djboss.http.port=28080 -Djboss.https.port=28443 -Djboss.manag...
Calling "C:\iuclicd_tools\text-analytics-3.10.1\apps\wildfly-19.1.0.Final\bin\standalone.conf.bat"
Setting JAVA property to "C:\openjdk\zulu11.62.17-ca-fx-jdk11.0.18-win_x64\bin\java"
=====
JBoss Bootstrap Environment
JBoss Home: C:\iuclicd_tools\text-analytics-3.10.1\apps\wildfly-19.1.0.Final
JAVA: "C:\openjdk\zulu11.62.17-ca-fx-jdk11.0.18-win_x64\bin\java"
=====
JAVA_OPTS: "-Dprogram.name=standalone.bat -Xms256M -Xmx3072M -XX:MetaspaceSize=256M -XX:MaxMetaspaceSize=512m -Djava.net.preferIPv4Stack=true -Djboss.modules.system.pkgs=org.jboss.byteman -Dta.conf.dir=C:\iuclicd_tools\text-analytics-3.10.1\conf.d --add-exports=java.base/sun.nio.ch=ALL-UNNAMED --add-exports=jdk.unsupported/sun.misc=ALL-UNNAMED --add-exports=jdk.unsupported/sun.reflect=ALL-UNNAMED"
=====
13:32:04,892 INFO [org.jboss.modules] (main) JBoss Modules version 1.10.0.Final
13:32:07,534 INFO [org.jboss.msc] (main) JBoss MSC version 1.4.11.Final
13:32:07,548 INFO [org.jboss.threads] (main) JBoss Threads version 2.3.3.Final
13:32:07,713 INFO [org.jboss.as] (MSC service thread 1-2) WFLYSRV0049: WildFly Full 19.1.0.Final (WildFly Core 11.1.1.Final) starting
13:32:08,394 WARN [org.jboss.as.controller] (Controller Boot Thread) WFLYCTL0456: System property "java.io.tmpdir" is already set in the <system-properties> section of the configuration file. The value set in the command line will be overridden by that value.
13:32:08,679 INFO [org.wildfly.security] (ServerService Thread Pool -- 28) ELY00001: WildFly Elytron version 1.11.4.Final
13:32:11,223 INFO [org.jboss.as.controller.management-deprecated] (Controller Boot Thread) WFLYCTL0028: Attribute 'security-realm' in the resource at address '/core-service=management/management-interface=http-interface' is deprecated, and may be removed in a future version. See the attribute description in the output of the read-resource-description operation to learn more about the deprecation.

```

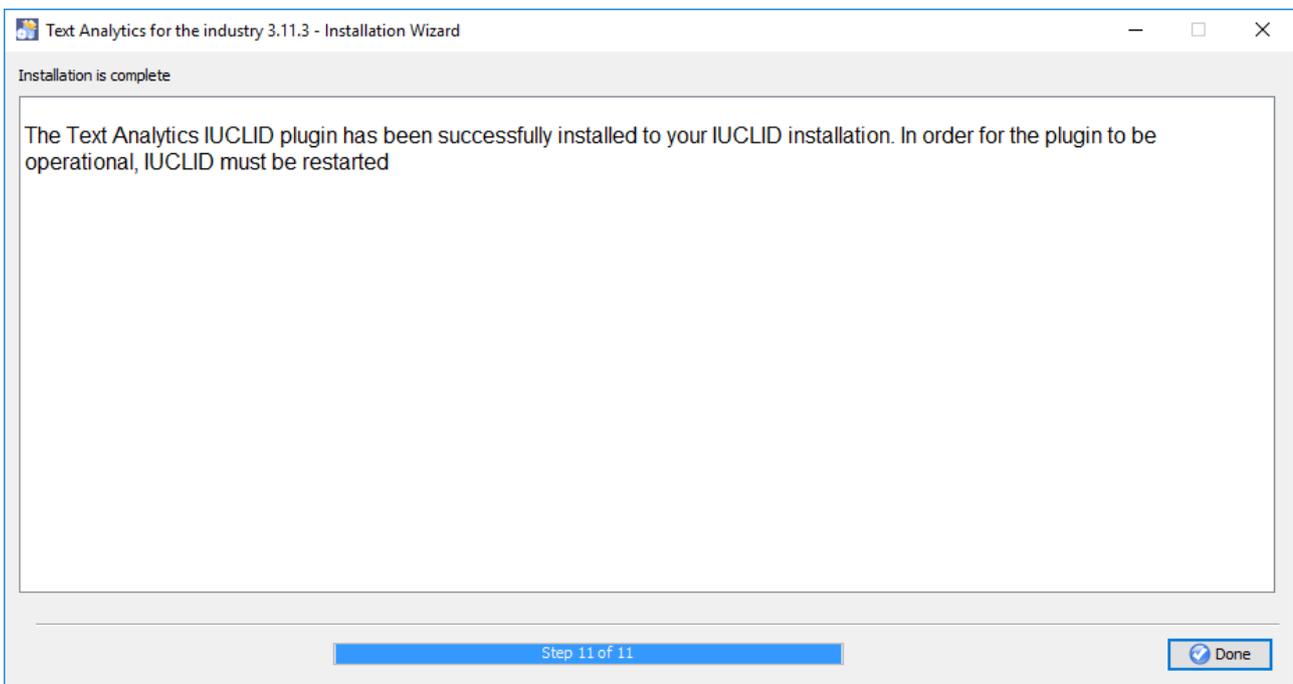
When TA starts, CMD windows open, as shown above. These must be left open if TA is to keep running. Closing a window shuts down the respective application, and therefore TA cannot function. The output shown at the front in the figure above is the server log which is located at:

<installation directory>\apps\wildfly-19.1.0.Final\standalone\logserver.log

Errors that appear in that log can be ignored at this stage. They are important only after IUCLID has been started and TA indexing has begun.

Figure 26: Installer step 10 - Post-installation report

The final step of the installer presents information about the installation just performed. It states the URL used to access the application as well as the script that should be run to start the application server. Make a note of the network address of the interface of TA.

Figure 27: The final step of the Installer

Finally, there is a reminder to restart IUCLID. To close the installer, click on *Done*. At the end of the installation, TA is left running.

Warning

Clicking in any of the CMD windows so that it becomes the focus in Windows, can cause it to enter *Select* mode, which freezes TA. To unfreeze a window, click in the window and then press the *Enter* key. For more information, see section 10 *Warning about logging in, and unresponsive behaviour*.

7. Post-installation

If the installation has worked properly, close the installer, and then re-start IUCLID 6 Server to allow it to recognise the newly installed plugin for TA. Start the interface of TA by pointing a web browser to the address given on the final page of the installer. The example given in this manual is:

<http://100.65.8.153:28080/ta>

If the browser and TA run on the same machine, the following also works:

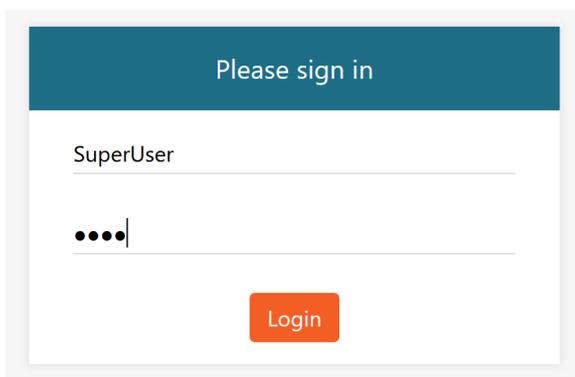
<http://localhost:28080/ta>

Alternatively, especially for remote access, there may be a hostname, for example:

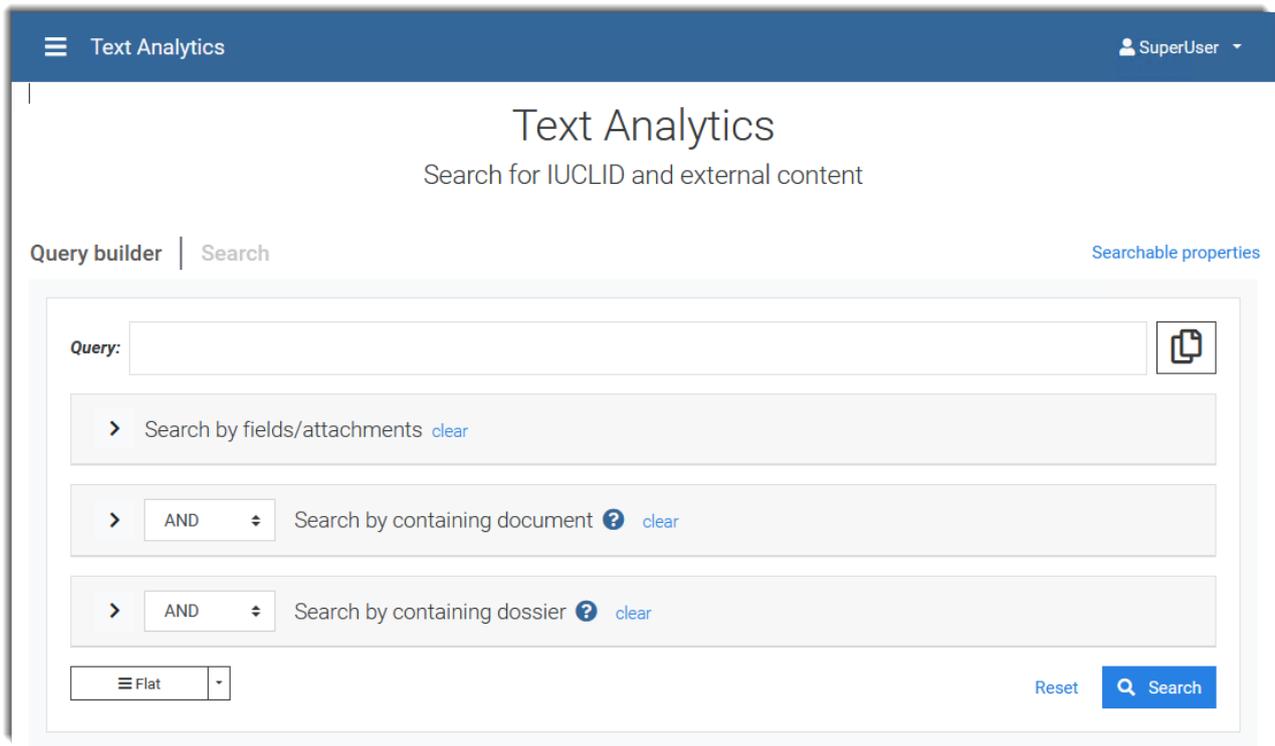
<http://the-host-of-ta:28080/ta>

Log in as a IUCLID User that has the correct access rights. For initial setup SuperUser is convenient.

Figure 28: Log in as a IUCLID User

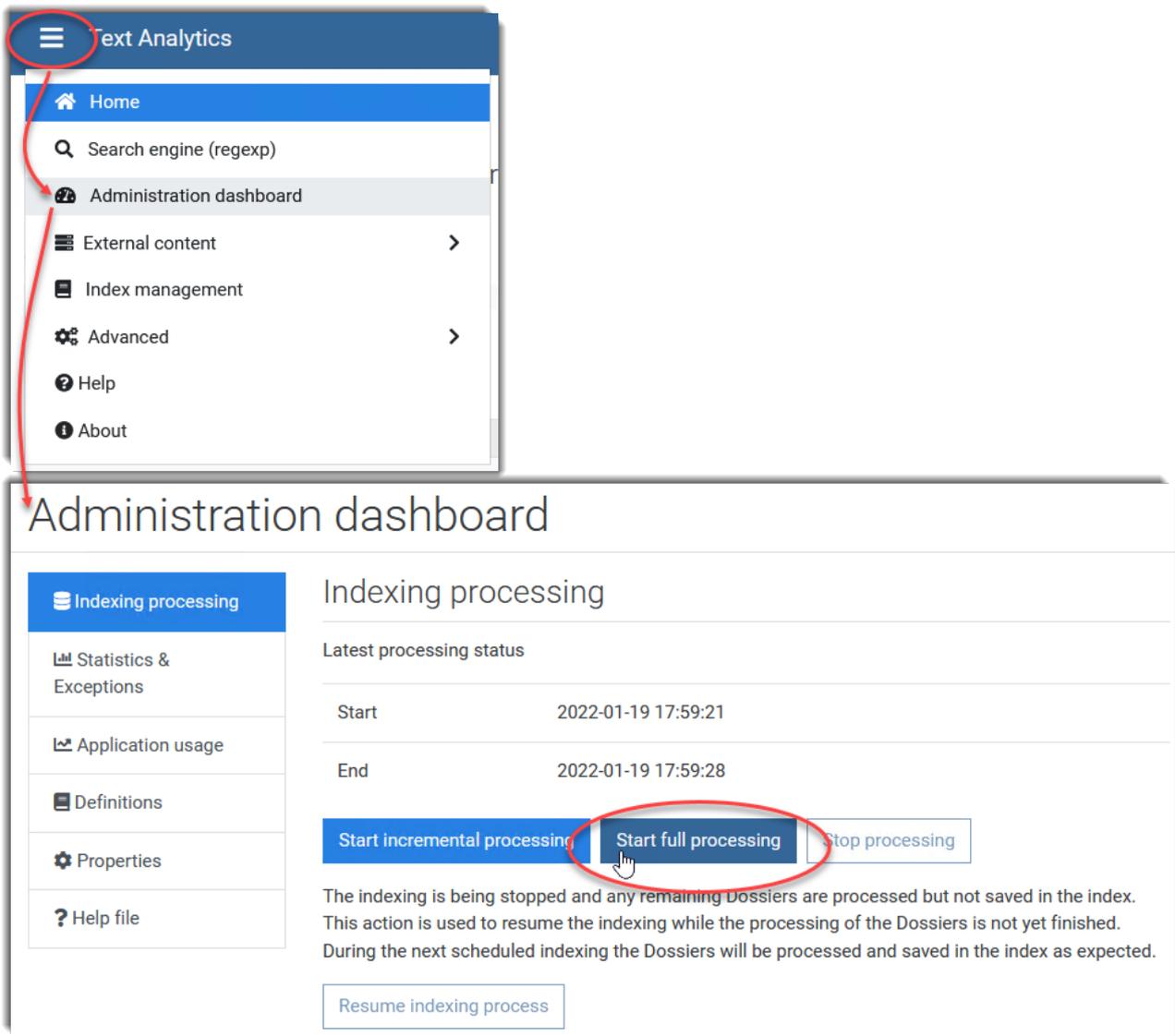


On logging in, the Query builder is shown.

Figure 29: The interface of TA - Query builder

The screenshot shows the 'Text Analytics' query builder interface. At the top, there is a blue header with a menu icon, the text 'Text Analytics', and a user profile 'SuperUser'. Below the header, the main title 'Text Analytics' is centered, followed by the subtitle 'Search for IUCLID and external content'. The interface is divided into two tabs: 'Query builder' (selected) and 'Search'. A link for 'Searchable properties' is located on the right. The 'Query builder' section contains a 'Query:' input field with a copy icon. Below it are three search criteria rows, each with a right-pointing arrow, a dropdown menu set to 'AND', and a search description: 'Search by fields/attachments clear', 'Search by containing document ? clear', and 'Search by containing dossier ? clear'. At the bottom left, there is a 'Flat' dropdown menu. At the bottom right, there are 'Reset' and 'Search' buttons.

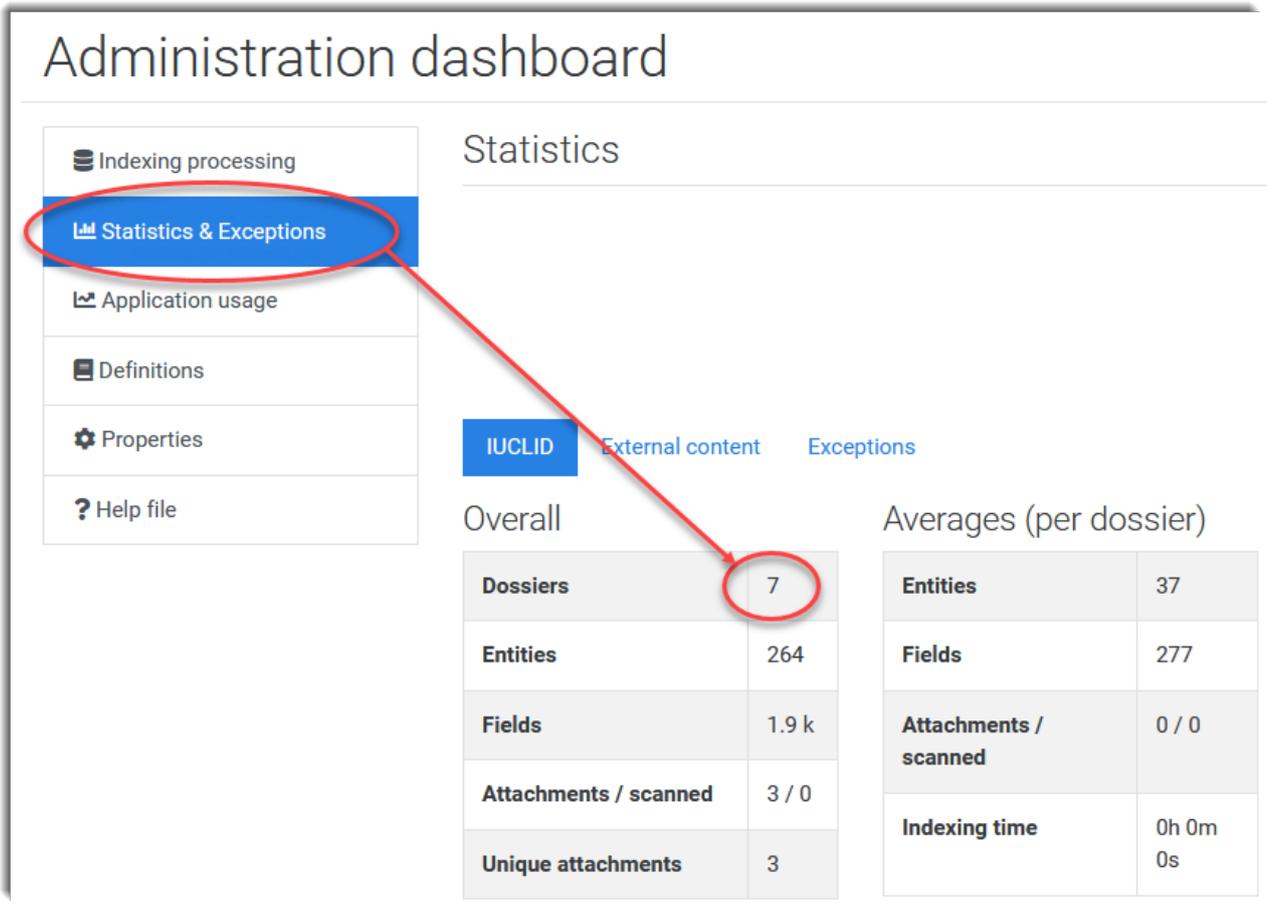
Before searches can be done, the data must be indexed. This is controlled from the *Administration dashboard* which is accessed from the menu under the three-bar icon at the top left.

Figure 30: Start the indexing, on the Administration dashboard

After installation you may want to select *Start full processing*, which indexes all the data.

The progress of the indexing can be monitored from *Statistics and Exceptions*. Check that the number of IUCLID dossiers corresponds to the number in IUCLID, as outlined below.

Figure 31: Check the number of dossiers



Individual runs of the indexing can be monitored from *Per IUCLID processing*. An example is shown below in which there have been three runs of the indexing on 19/01/2022. All the dossiers were indexed successfully.

Figure 32: Check an individual run of the indexing

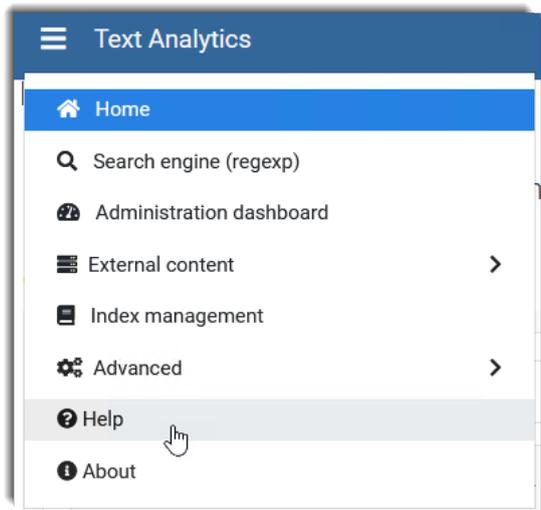
Per IUCLID processing

19/01/2022	Start time	19/01/2022 at 17:10:08
19/01/2022	End time	19/01/2022 at 17:10:25
19/01/2022	Indexing time	0h 0m 16s
	Dossiers to be indexed	7
	Dossiers maintained	0
	Failed dossiers	0
	Succeeded dossiers	7
	Not processed dossiers	0

7.1. User manual

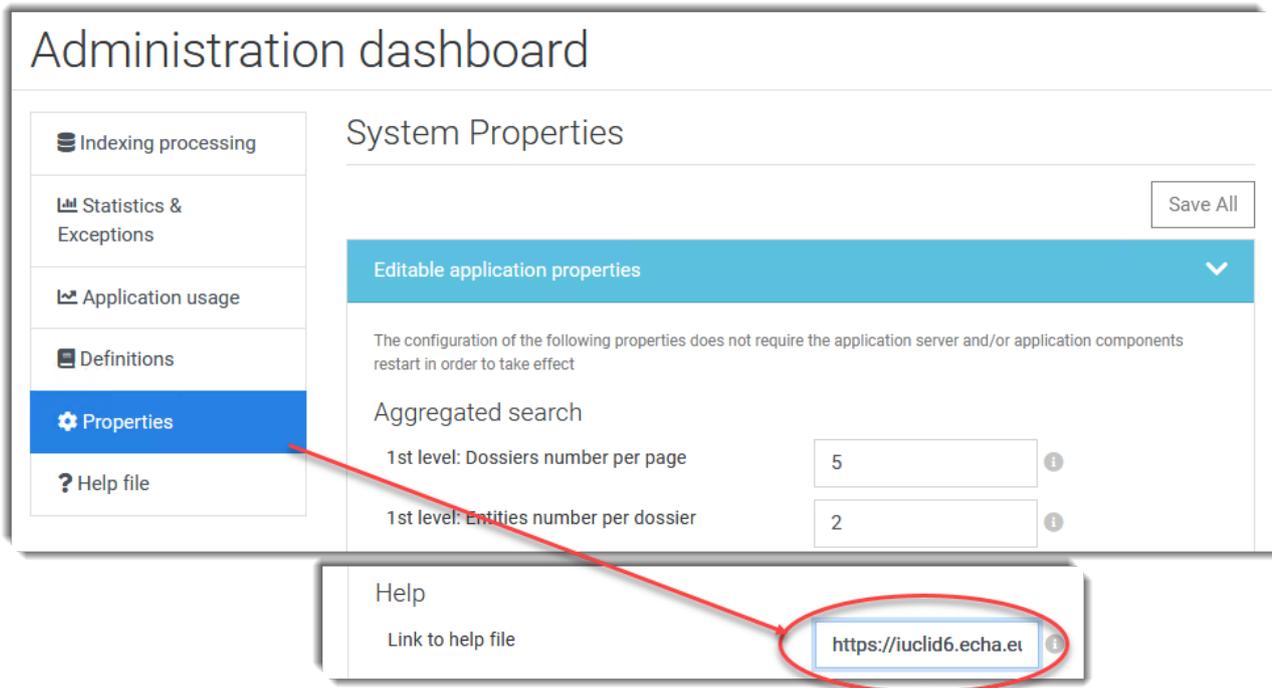
The user manual should be accessible as a PDF file from the menu shown below.

Figure 33: User manual



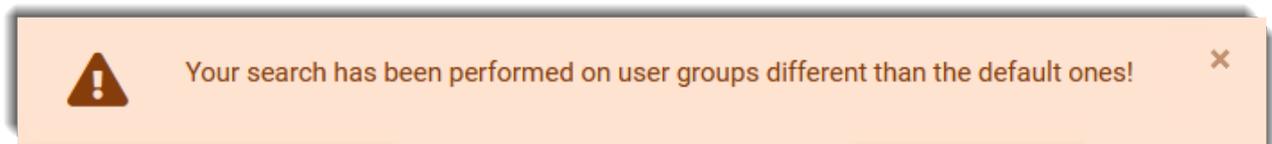
To make this link point to the latest manual on the IUCLID website, set the property *Link to help file* to be the following URL:

https://iuclid6.echa.europa.eu/documents/1387205/3284511/text_analytics_user_manual_industry_en.pdf

Figure 34: Setting a property – URL of the user manual

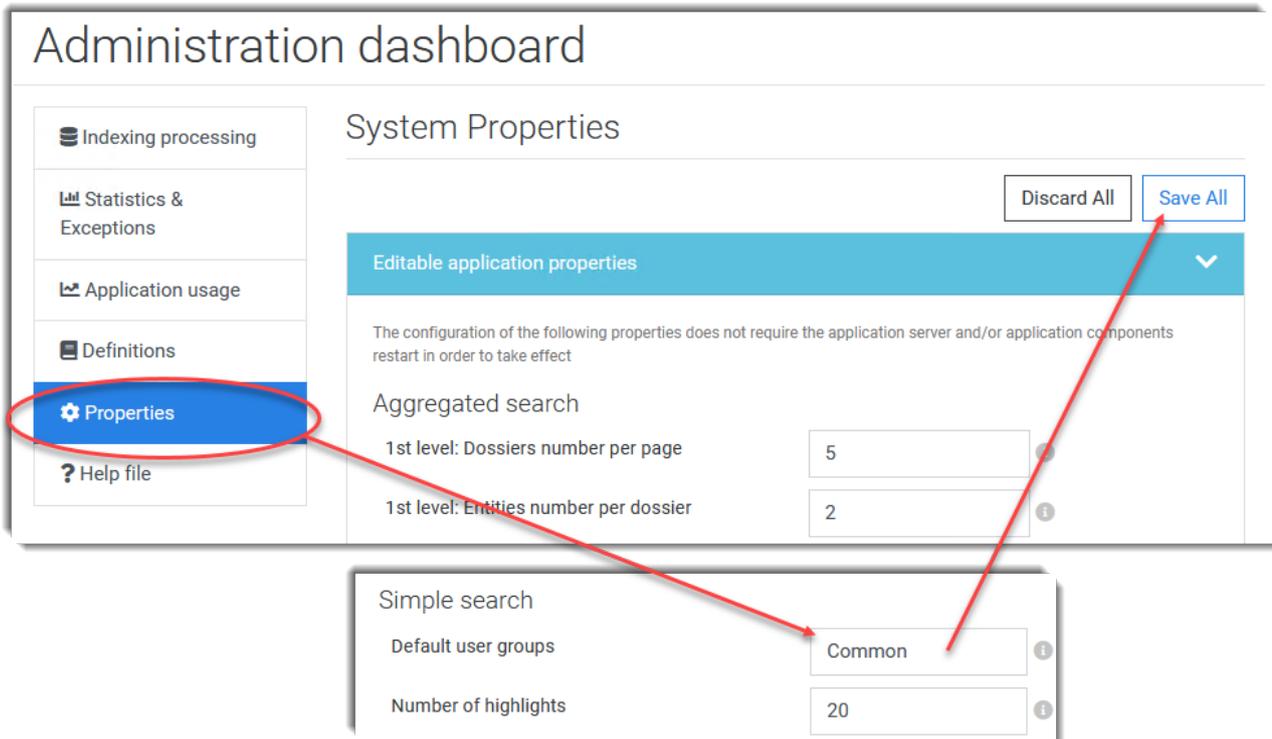
7.2. The default security group

On running a query there can be a warning about IUCLID security groups, even if Instance Based Security is not in use. An example is shown below.

Figure 35: Warning about IUCLID security groups

To avoid this warning set the value of the property *Default user groups* to be a valid IUCLID security group. If Instance Based Security is not in use, enter the value *Common*. This is a placeholder value that can be ignored elsewhere.

Remember to click on *Save All* after changing a value. It is located at the top of the page.

Figure 36: Set default user groups

8. Starting and stopping TA

To stop TA, close the console window for Wildfly, and then the others.

A script for starting TA is provided in the installation folder.

```
startup-server.bat
```

9. Changing the configuration set by the installer

The values set using the installer can be changed at a later stage by editing the files described below and then restarting TA.

9.1. Memory allocation for Elasticsearch

By default, the memory allocated to Elasticsearch is calculated based on the total memory of the machine. If it is too high, a limit can be set by setting the Java parameters `Xms.` and `Xmx.` The values should be the same. For more information, see the documentation on the website for [Elasticsearch](#). The configuration is done in the following file:

```
<TA>\apps\elasticsearch-7.17.5\config\jvm.options
```

For example:

```
-Xms4g
-Xmx4g
```

9.2. Set the ports for TA and remote access

This script `startup-server.bat` which is in the installation folder of TA starts TA using the command `start`. The parameters of the command are described in the table below.

Table 2: Parameters in the startup script for TA

Parameter	Purpose
-c	The settings file for Wildfly. The default is <code><TA installation folder>\apps\wildfly-19.1.0.Final\standalone\configuration\standalone-ta-industry.xml</code>
-b	The binding IP address for Wildfly. The default value of 0.0.0.0 means that TA can be accessed remotely from any IP address.
-Djboss.http.port	The port at which TA is accessible over HTTP
-Djboss.https.port	The port at which TA is accessible over HTTPS
-Djboss.management.http.port	The management port of Wildfly

For the example values shown in the installer, the command would be:

```
start standalone.bat -c standalone-ta-industry.xml -b 0.0.0.0
-Djboss.http.port=28080 -Djboss.https.port=28443 -
Djboss.management.http.port=9990
```

9.3. URL of IUCLID 6 Server

The URL of IUCLID 6 Server is set in the file indicated below in the section *IUCLID Extension Framework REST URL*:

`<TA installation folder>\conf.d\ta_properties.xml`

Examples of the entries

```
<!--IUCLID Extension Framework REST URL-->
<iucefRestUrl editable="true" group="iuclid" industry="true"
restart="false">http://127.0.0.1:21080/iuclid6-ext/api/ext/v1/</iucefRestUrl>
<iuclidJnlpUrl editable="true" group="iuclid" industry="true"
restart="false">http://127.0.0.1:21080/webstart/launch.jnlp?uid=%s&snaps
hot=%s</iuclidJnlpUrl>
<iuclidWebUrl editable="true" group="iuclid" industry="true"
restart="false">http://127.0.0.1:21080/iuclid6-web?key=%s/%s</iuclidWebUrl>
<iuclidTokenServiceUrl editable="true" group="iuclid" industry="true"
restart="false">http://127.0.0.1:21080/iuclid6-idp-
ws/service/token</iuclidTokenServiceUrl>
```

```
<iuclidRedeemHttpsUrl editable="true" group="iuclid" industry="true"
restart="false">http://127.0.0.1:21080/iuclid6-idp-
ws/service/token</iuclidRedeemHttpsUrl>
```

9.4. Database connections

The database connections are configured in the following file in the XML element `<datasources>`.

```
<TA installation folder>\apps\wildfly-19.1.0.Final\standalone\configurati
on\standalone-ta-industry.xml
```

Example for TA

```

        <datasource jndi-name="java:/applicationDS" pool-
name="applicationDS" enabled="true">
            <connection-
url>jdbc:oracle:thin:@127.0.0.1:1521/ta_3_11_3_db</connection-url>
            <driver>oracle19</driver>
            <security>
                <user-name>ta_user</user-name>
                <password>ta_password</password>
            </security>
        </datasource>
```

Example for IUCLID

```

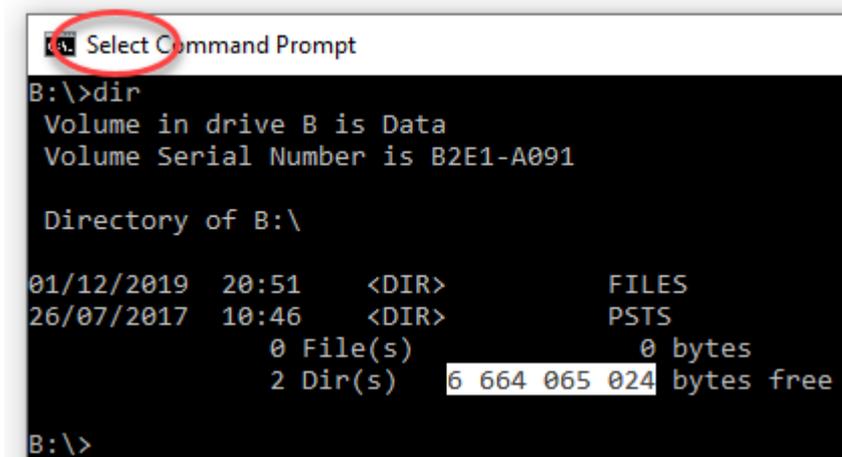
        <datasource jndi-name="java:/iuclidDS" pool-
name="iuclidDS" enabled="true">
            <connection-
url>jdbc:oracle:thin:@127.0.0.1:1521/iuclid6db</connection-url>
            <driver>oracle19</driver>
            <security>
                <user-name>iuclid6user</user-name>
                <password>iuclid6password</password>
            </security>
        </datasource>
```

10. Warning about logging in, and unresponsive behaviour

If log in does not work, or TA becomes unresponsive, try the following:

1. Check whether any of the CMD windows for TA are in *Select* mode. This mode prevents output from being written to the console, and therefore under certain circumstances freezes the

application. To check the mode of the CMD window, look in the top left of the window for the word *Select*, as shown below.



```

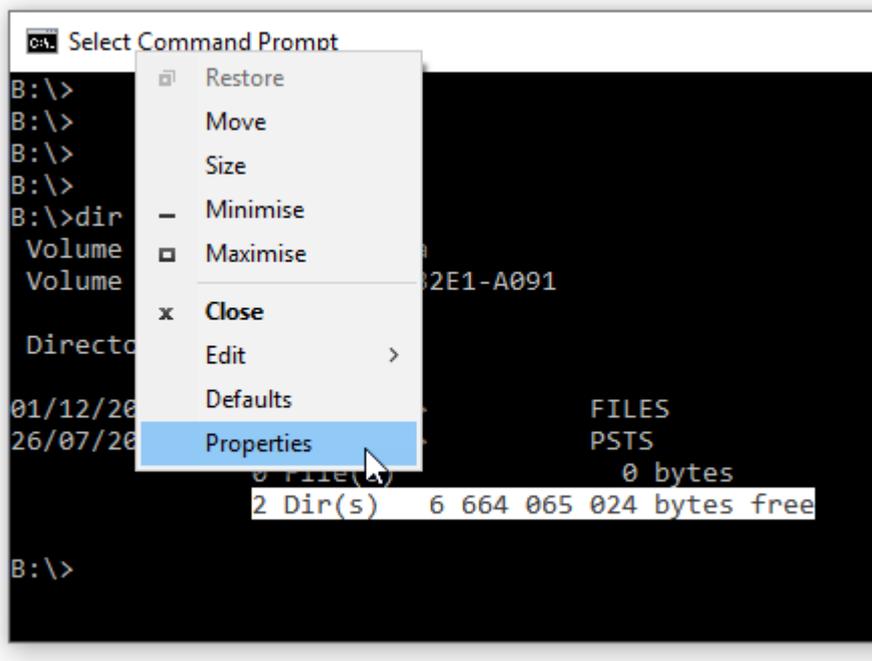
Select Command Prompt
B:\>dir
Volume in drive B is Data
Volume Serial Number is B2E1-A091

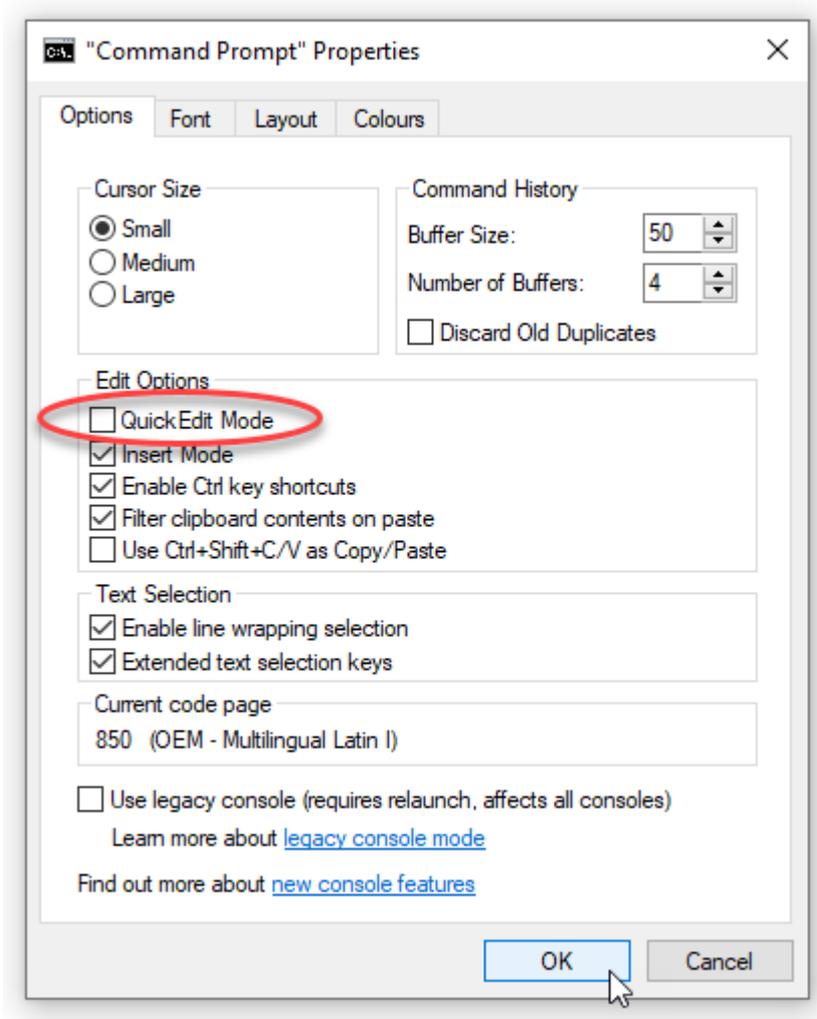
Directory of B:\

01/12/2019  20:51    <DIR>          FILES
26/07/2017  10:46    <DIR>          PSTS
             0 File(s)          0 bytes
             2 Dir(s)    6 664 065 024 bytes free

B:\>
```

Select mode is entered when any text in the window has been selected. To exit *Select* mode, click in the window and then press the *Enter* key. If the output shown in the screen suddenly starts to change, then it has probably just become unfrozen, and TA will start to work again. To prevent *Select* mode from being entered, untick the box for *QuickEdit* in the properties of the CMD window. These are accessed by right-clicking in the title bar of the window, as shown below.





2. Delete the cached data in the web browser, and then reload the log in page using Ctrl F5. If that does not work, restart TA, and clear the browser cache again.
3. Check that the plugin is installed in IUCLID, and that IUCLID has been restarted after TA was installed. Wait for IUCLID to start fully. The plugin is the file indicated below. The version number in the file name is not necessarily the same as the version of TA:


```
<iuclid installation directory>
\glassfish4\glassfish\domains\domain1\iuclid6\
csr-analytics-iuclid6-plugin-4.2.3-rc.1.jar
```
4. Check in IUCLID that the Roles are set up correctly.
5. Restart IUCLID.

If the problem is still not clear, check the logs stated below.

1. Wildfly

```
<TA installation folder>\apps\wildfly-19.1.0.Final\standalone\log\server.log
```

2. Elasticsearch

<TA installation folder>\apps\elasticsearch-7.17.5\logs

3. IUCLID

<IUCLID installation folder>\payara5\glassfish\domains\domain1\logs

If the logs do not show anything that solves the problem, create a ticket at the ECHA Helpdesk. Provide a detailed description of what you did, along with screenshots, and the logs mentioned above.