

Installation Instructions for IUCLID Data Extractor

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07/07/2023	Updated for IUCLID Data Extractor v1.11.3. Added more detail in section 3.3 on how to configure IUCLID/DE for CORS.
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18/02/2021	Updated for IUCLID Data Extractor v1.5.1. Added a more detailed example on how to set up an Oracle database.
19/08/2020	Updated for IUCLID Data Extractor v1.4.0.
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18/12/2019	First officially released version. IUCLID Data Extractor v1.2.0.

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1. Introduction

IUCLID Data Extractor is an advanced tool that extracts data from IUCLID in accordance with a set of user-defined rules. It is installed separately from, but connected to, an instance of IUCLID 6 Server or IUCLID 6 Desktop. IUCLID Data Extractor has its own web-based user interface, separate from that of IUCLID, but modelled on the IUCLID data structure. A java installer is provided, that works on MS Windows and Linux. IUCLID Data Extractor has its own database that can be either the embedded H2 database supplied with it, or an Oracle database. It is possible to install IUCLID Data Extractor such that the IUCLID from which it extracts data is running on either the same machine as itself, or on a separate one.

2. Prerequisites

Before starting the installation of IUCLID Data Extractor, check the following.

Table 1: Prerequisites for the installation

Product	Version or Type	Comment
IUCLID 6	Desktop or Server version 7	IUCLID must be in multi-user mode. Instance-Based Security (IBS) is not supported.
OS	MS Windows	The MS Windows installer must be run using a local administrator account. The OS should be up to date.
Database	Embedded (H2) or Oracle or PostgreSQL	DE has been tested and shown to work with Oracle XE 11g and PostgreSQL 13.
Java	JDK 8	Instructions are provided on how to use the OpenJDK 8 that comes with IUCLID 6.

3. IUCLID 6 configuration

The following configuration applies to the installation of IUCLID 6 to which IUCLID Data Extractor connects. IUCLID must be in multi-user mode. Instance based security (IBS) is not supported.

3.1. Multi-user mode

For IUCLID 6 Server, the default is multi-user mode, so no change should be required. For IUCLID 6 Desktop, the default is single-user mode. If you do not need to enter credentials when logging in to IUCLID 6 Desktop, it is in single-user mode, and must be changed as follows. Edit the following file:

```
<IUCLID 6 installation folder>
\payara5\glassfish\domains\domain1\config\server.settings.properties
```

Set the parameter *single_user_installation* to false as shown below.

```
environments.size = small
```

```
environments.instance.based.security = false
single_user_installation = false
```

IUCLID must be restarted for the change to take effect. Please be aware that after you change this gaining access to IUCLID requires a login process for each session. After switching IUCLID to multi-user mode, it should be possible to log in as the default admin user using the credentials below.

Username: SuperUser

Password: root

3.2. Users and Roles

Users log in to IUCLID Data Extractor (DE) using credentials defined in IUCLID. DE does not have its own user management interface. DE requires that the instance of IUCLID to which it connects contains the following two Roles:

APP_Agency_IUCLIDDE_Analyst

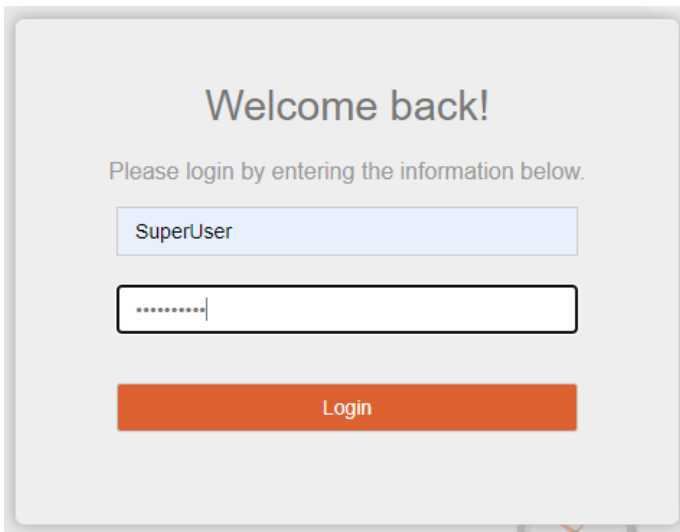
APP_Agency_IUCLIDDE_Administrator

The analyst role provides only data extraction. The administrator can extract and configure the system. To log in to DE, a User must have at least one of these roles. To extract data, a User must have at least read-only access to that data. If an attempt is made to extract data in one go in which the User has partial access to the data, the extraction contains only the data to which the User has access.

At this point it is best to consider what overall access is required for Users of DE, and how to provide it. The User named SuperUser is automatically given all the Roles in the instance of IUCLID so there is no need to manually add DE's Roles. Therefore, SuperUser is convenient for testing, but for daily work, it is more secure to use a User with a lower level of access. This can be an existing User, or a User created especially for DE.

For a full description of user management in IUCLID, see the functionalities manual that is available via the graphical user interface.

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

Figure 1: Log in to the web interface of IUCLID as SuperUser

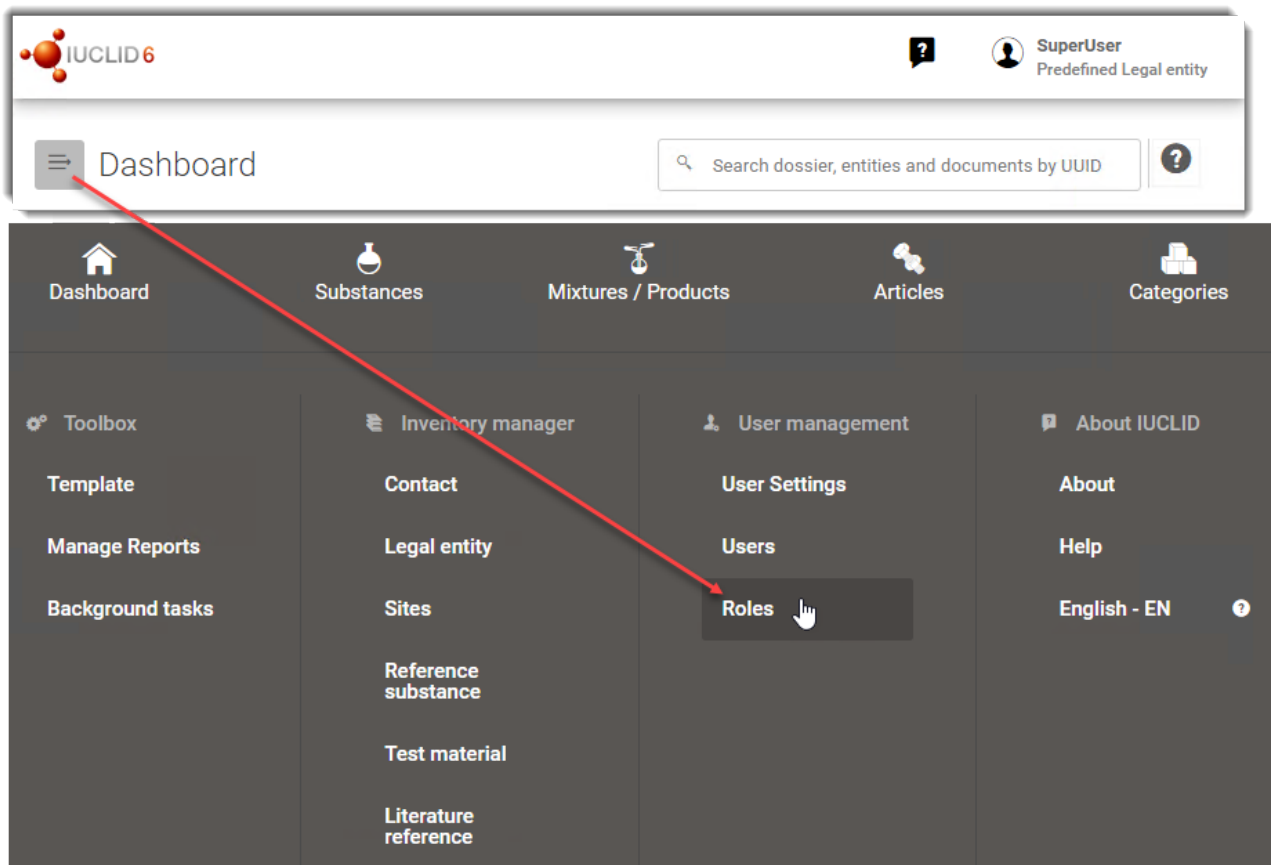
The screenshot shows a login form with the following elements:

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

Consider which IUCLID Users will be used to access DE. By default, SuperUser is automatically granted all the Roles in an instance of IUCLID, and therefore will always be able to access DE. For security reasons, it is not recommended to use SuperUser for ordinary work in IUCLID 6 Server. Therefore, DE should be accessed by other users. These can be existing users, or new ones dedicated to use with DE. Either way, before proceeding, decide which users will have access to DE, and that they have the correct access to data. To access DE, a IUCLID user must have a name that is 20 characters or shorter.

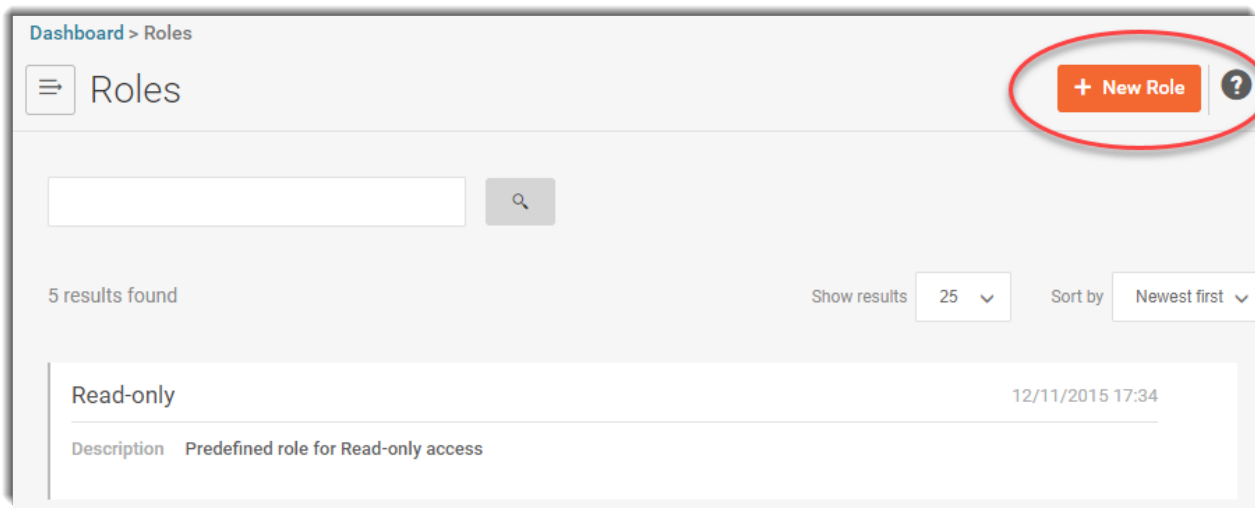
The next step is to create DE's Roles, and to assign them to Users. Open the main menu from the three-bar icon at the upper left of the interface. Under *User management*, select *Role*, as shown below.

Figure 2: Open Role under User management



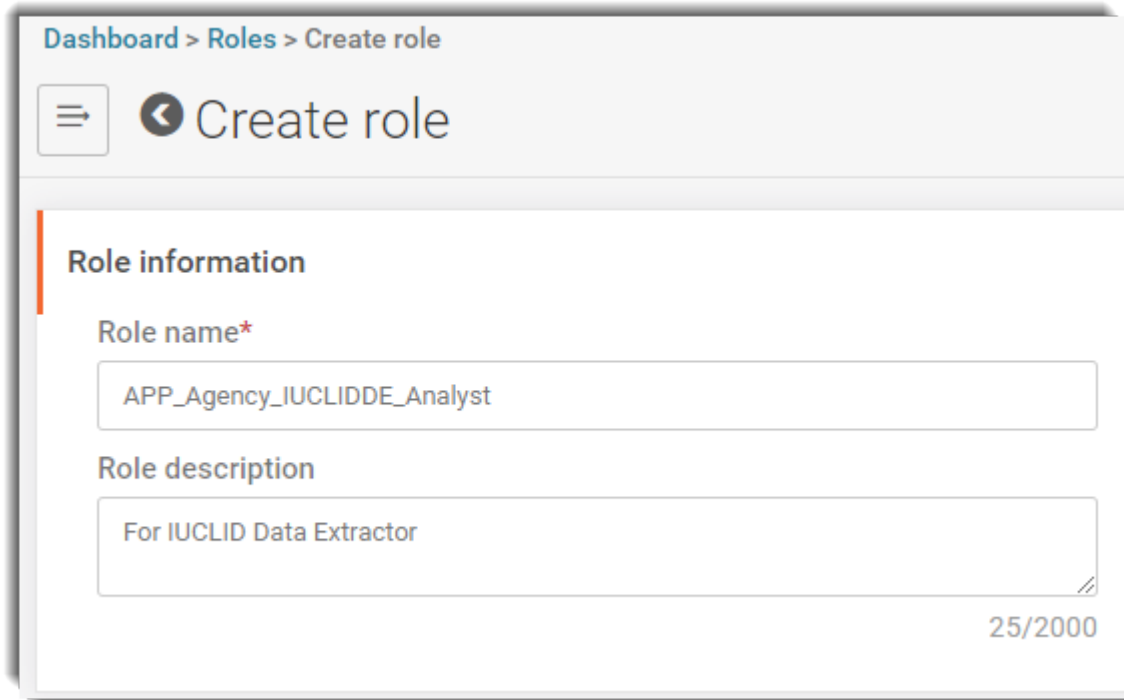
To create a Role, select the button + *New Role*, indicated below.

Figure 3: Create a Role



Name the Role as:

APP_Agency_IUCLIDDE_Analyst

Figure 4: Name a Role

Dashboard > Roles > Create role

☰ ◀ Create role

Role information

Role name*

APP_Agency_IUCLIDDE_Analyst

Role description

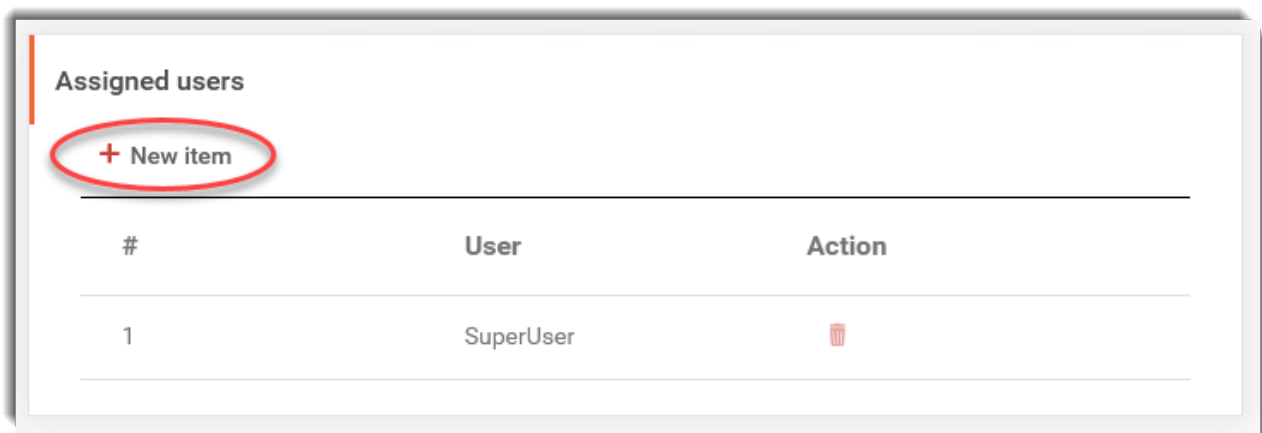
For IUCLID Data Extractor

25/2000

Underneath the Role information there are settings for permissions. These settings can be defined for the DE Roles, but it is often simpler to define them in separate Roles.


The next step is to give the DE Role to a User or Users. This can be done later by editing from the record of either the User or the Role, but it is convenient to do it now.

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 5: SuperUser is given every Role by default.

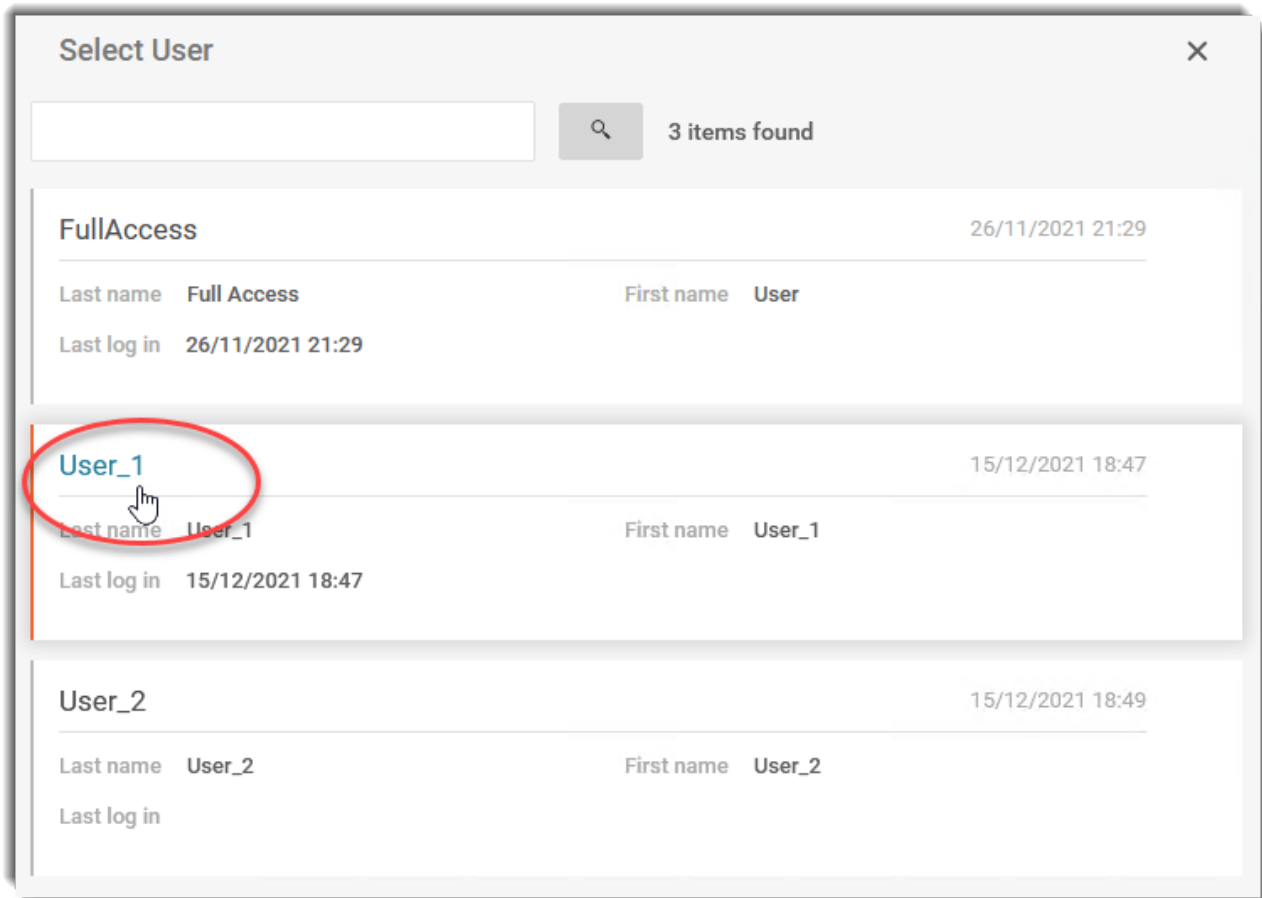
Assigned users

+ New item

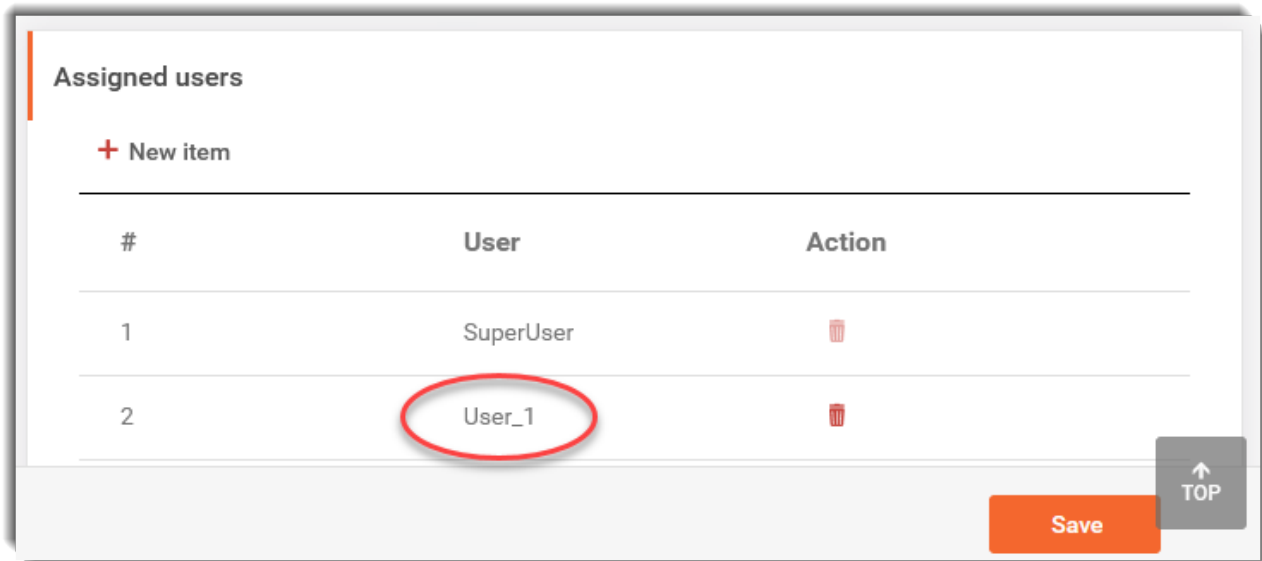
#	User	Action
1	SuperUser	

If you cannot see the required User in the list, it can be found using the standard search functionality. Select the User by clicking on it, as shown below for *User_1*.

Figure 6: Select a User



Note the User has now been added to the list of assigned users for the Role, as shown below for *User_1*.

Figure 7: A User in a Role

To finish creating the Role, click on **Save**.

Repeat the actions described above for the other Role for DE, which has the name:

APP_Agency_IUCLIDDE_Administrator

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

This applies for IUCLID 6 version 6.27.1 and later. IUCLID Data Extractor 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 IUCLID Data Extractor, 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 DE can be:

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

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

```
http://127.0.0.1:28080
```

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

`https://localhost:28434`

`https://127.0.0.1:28434`

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

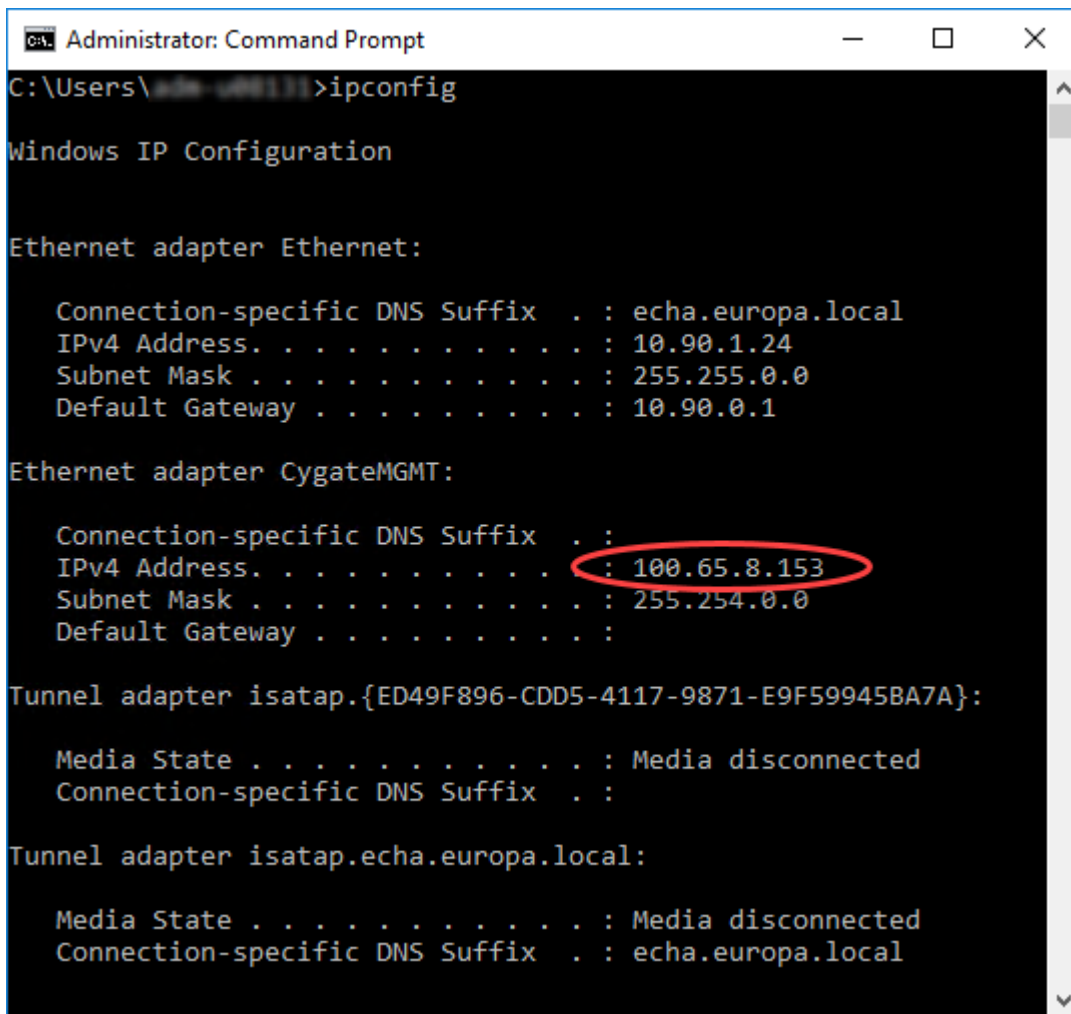
```
<system-property
name="eu.echa.iuclid6.idp.cors.allowed.origin.patterns"
value="http://localhost:${HTTP_LISTENER_PORT},https://localhost:${HTTPS_LISTENER_PORT},http://127.0.0.1:${HTTP_LISTENER_PORT},http://100.65.8.153:28080,http://localhost:28080,http://127.0.0.1:28080,https://100.65.8.153:28434,https://localhost:28434,https://127.0.0.1:28434"></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 IUCLID Data Extractor and IUCLID are run on the same host, the host can be set to `localhost`, which has a numeric equivalent of `127.0.0.1`. A numeric value that is specific to the machine can also be used, and in some cases may avoid confusion. In Windows this can be found using the command `ipconfig` in a terminal, as shown below where the value is `100.65.8.153`.

Figure 8: Find the IP address of the host for IUCLID Data Extractor

```
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. IUCLID Data Extractor installation

During the installation of IUCLID Data Extractor, IUCLID 6 Server can be left running. It will be restarted at the end.

4.1. Preparation for installation

Before running the IUCLID Data Extractor installer, obtain the following information:

- 1) Location of the folder in which IUCLID Data Extractor will be installed;
- 2) Location of the installation folder of IUCLID 6;
- 3) The port that will be used by IUCLID Data Extractor. Any free port can be used.

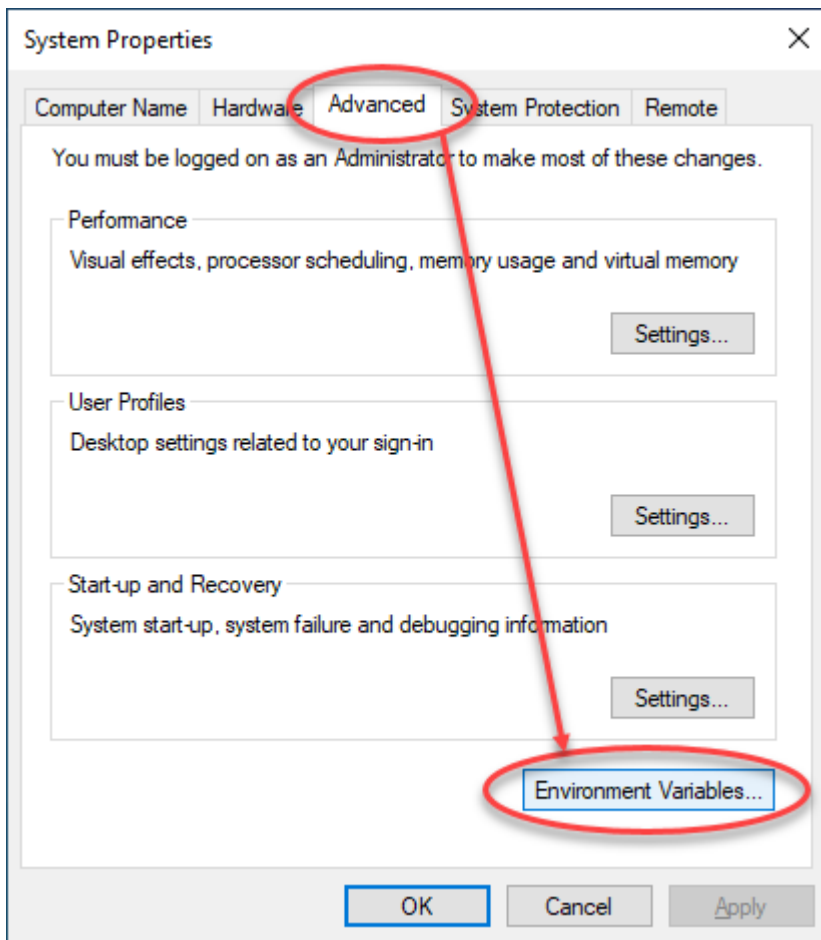
An installation of IUCLID Data Extractor consists of:

- 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.

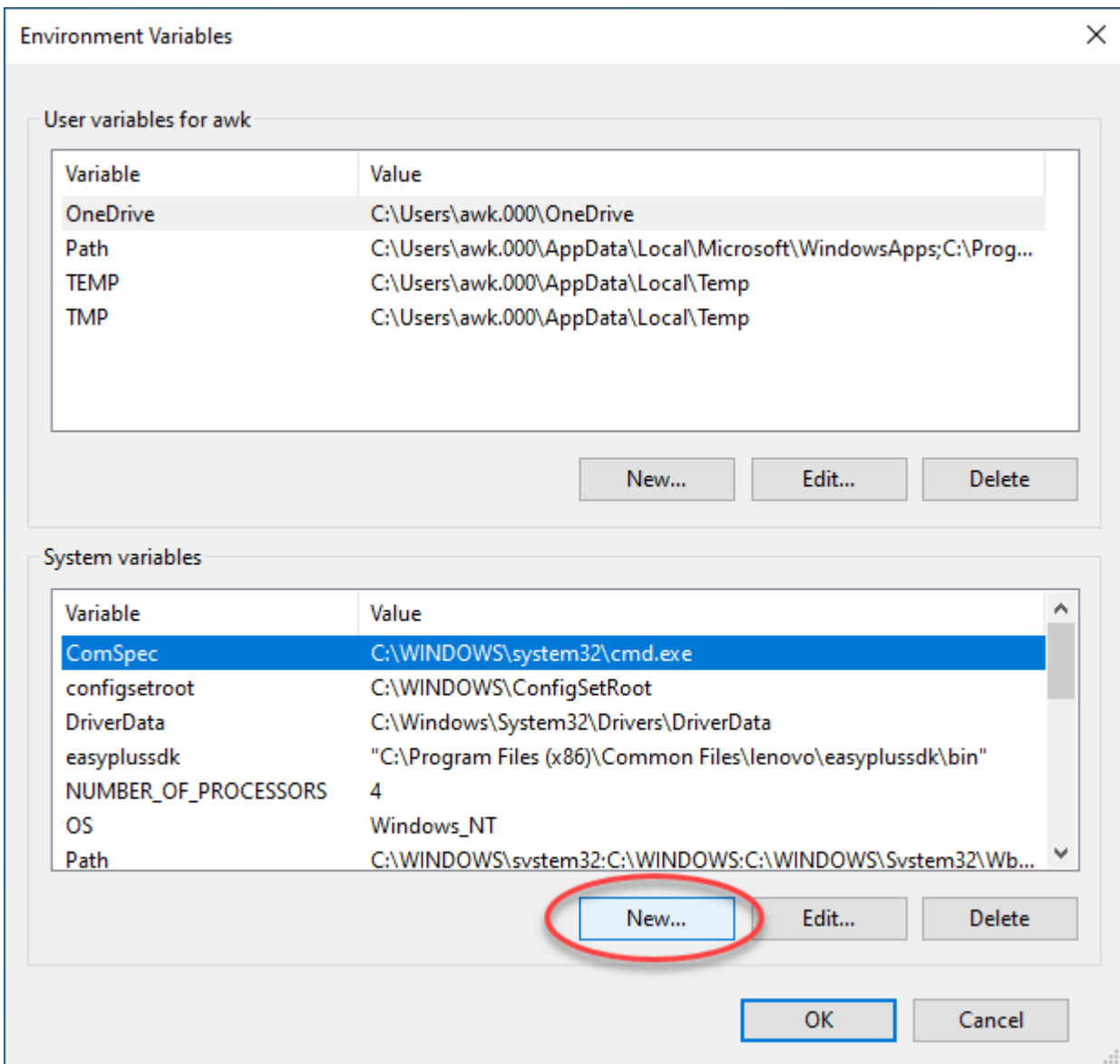
The IUCLID Data Extractor can automatically install the plugin into the installation of IUCLID, but it must have access to its file system. Otherwise, the plugin has to be installed manually. Make sure that the environment variable `JAVA_HOME` points to JDK. If IUCLID Data Extractor is installed on the same computer as IUCLID 6, the OpenJDK delivered with IUCLID 6 can be used. To set the environment variables in Windows, open:

Control Panel > System > Advanced system settings > Environment Variables

Figure 9: Environment variables are set in Windows from System Properties



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

Figure10: Create a system environment variable

Set the *Variable name* to JAVA_HOME. Set *Variable value* to the absolute path of the directory that contains the JDK that will be used with IUCLID Data Extractor. To use the JDK that was delivered with IUCLID 6 set the value to:

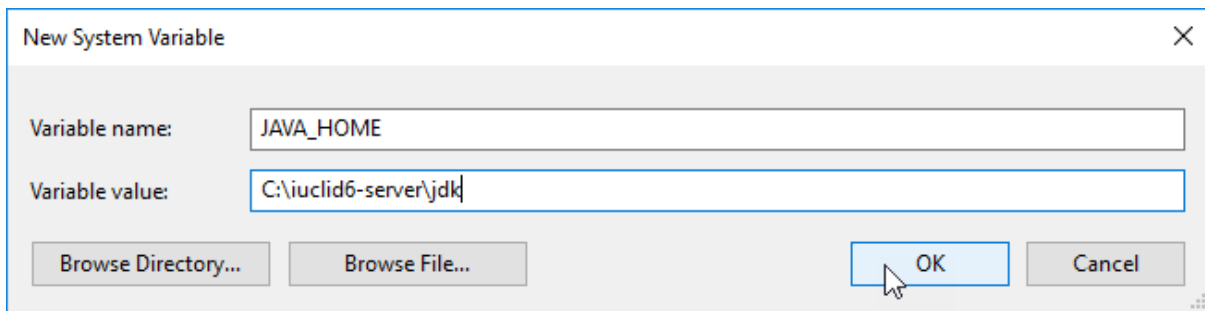
```
<installation directory of IUCLID 6>\jdk
```

In the example shown in the figure below, the installation directory of IUCLID 6 is:

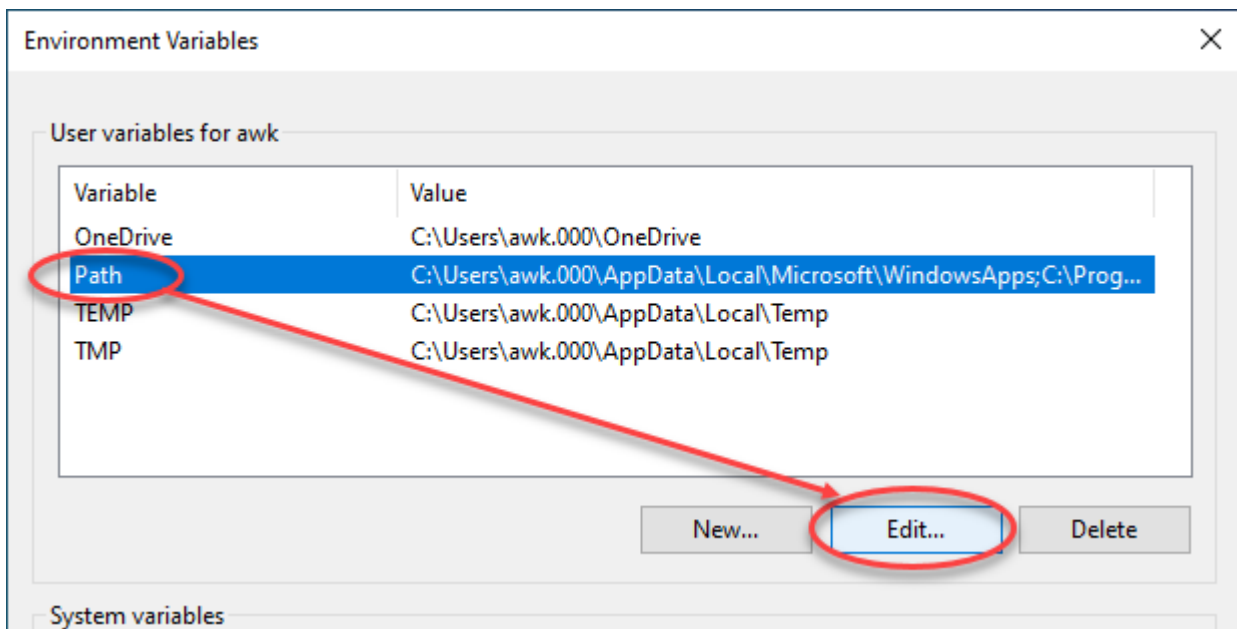
```
C:\iuclid6-server
```

Therefore, the value of the variable is:

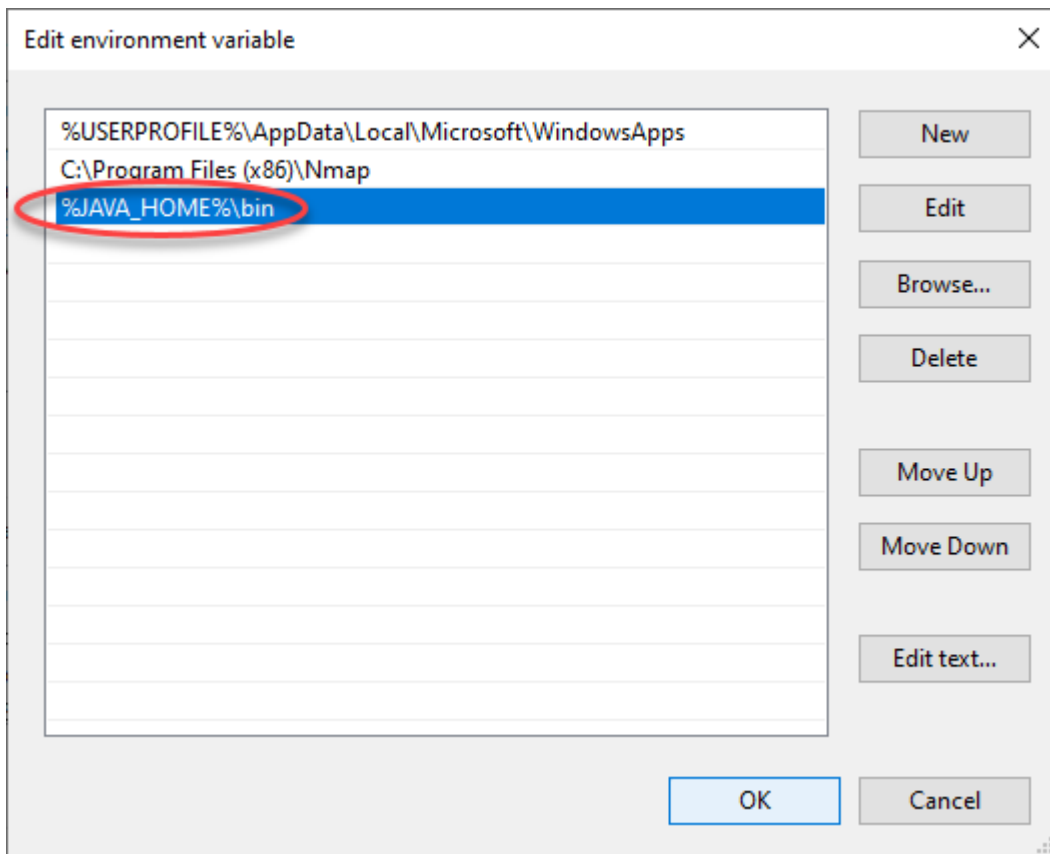
```
C:\iuclid6-server\jdk
```


Figure 11: Define the system variable JAVA_HOME

Append the value `%JAVA_HOME%\bin` to the environment variable `PATH`, as follows. Under *User variables*, click on *Edit*.

Figure 12: Open the environment variable PATH for editing

Add a line `%JAVA_HOME%\bin` and then click on *OK*.

Figure 13: Add the path to JDK to the user environment variable PATH

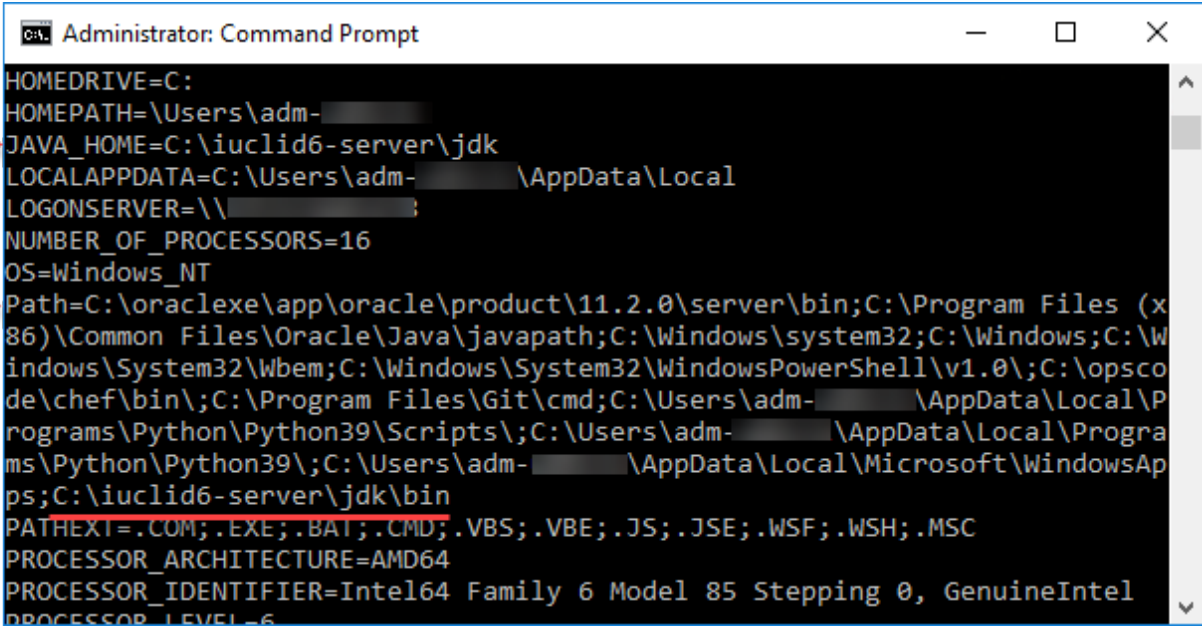
In the example, the result is that the following is appended to the environment variable `Path`.

```
;C:\iuclid6-server\jdk\bin
```

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

```
C:\> set
```

The output is shown below, with `JAVA_HOME` and `Path` pointed out with red arrows.

Figure 14: Checking the environment variables using the command set

```
Administrator: Command Prompt
HOMEDRIVE=C:
HOMEPATH=\Users\adm-
JAVA_HOME=C:\iuclid6-server\jdk
LOCALAPPDATA=C:\Users\adm-\AppData\Local
LOGONSERVER=\\
NUMBER_OF_PROCESSORS=16
OS=Windows_NT
Path=C:\oracle\app\oracle\product\11.2.0\server\bin;C:\Program Files (x
86)\Common Files\Oracle\Java\javapath;C:\Windows\system32;C:\Windows;C:\W
indows\System32\Wbem;C:\Windows\System32\WindowsPowerShell\v1.0\;C:\opsco
de\chef\bin\;C:\Program Files\Git\cmd;C:\Users\adm-\AppData\Local\Progra
ms\Python\Python39\Scripts\;C:\Users\adm-\AppData\Local\Progra
ms\Python\Python39\;C:\Users\adm-\AppData\Local\Microsoft\WindowsAp
ps;C:\iuclid6-server\jdk\bin
PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PROCESSOR_ARCHITECTURE=AMD64
PROCESSOR_IDENTIFIER=Intel64 Family 6 Model 85 Stepping 0, GenuineIntel
PROCESSOR_LEVEL=6
```

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.

4.2. Graphical Installation Wizard

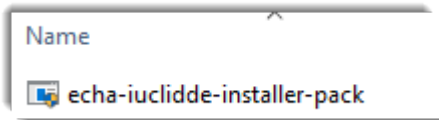
During the installation of IUCLID Data Extractor, IUCLID 6 Server can be left running. It will be restarted at the end.

For an installation in MS Windows, run the following executable as a local administrator.

`echa-iuclidde-installer-pack.exe`

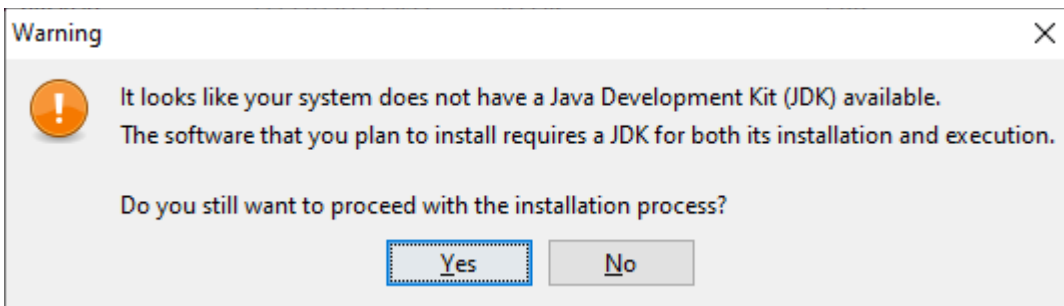
In the file browser, if file extensions are not shown, the executable file looks like the following:

Figure 15: The executable of the installer displayed with no file extension



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

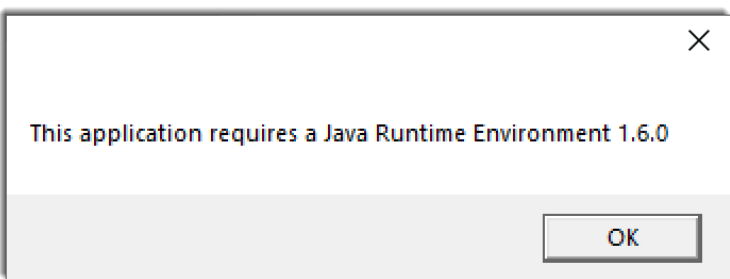
Figure 16: Warning shown if JDK is not in PATH



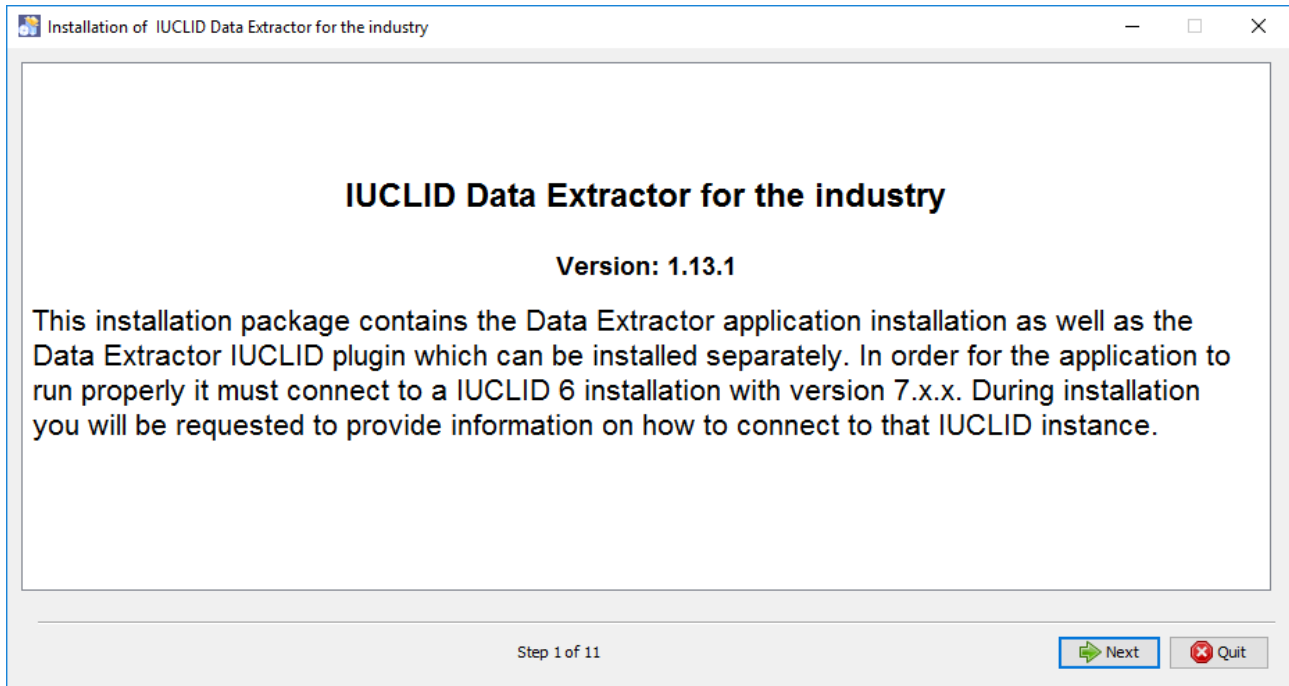
If the warning is shown, select *No.*, add the path of JDK to PATH, as described above, and then re-run the installation. It is advisable to also check the value of JAVA_HOME.

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

`$ java -jar iuclidde-installer.jar`



Read the information presented by the installation wizard and the descriptions in this manual carefully for each page. The first wizard screen displays information about the version of IUCLID Data Extractor; and the required version of IUCLID.

Figure 17: Installation wizard step 1 - Information

In the second step, select the components to be installed. For a fresh installation of IUCLID Data Extractor run on the same machine as IUCLID 6, both boxes should be ticked. If IUCLID Data Extractor is to be run on a different machine from IUCLID 6, and the installer cannot access both file systems at the same time, the installer can be run twice, once to install the application files, and then separately on the IUCLID machine to install the plugin. If an option is not ticked, the wizard skips the steps that are no longer relevant.

If a previous version of IUCLID Data Extractor is installed in the IUCLID, ensure the plugin has been deleted, and that the box for *IUCLID plugin* is ticked, so that the new version will be installed. The plugin installed in IUCLID, is the file indicated below. The version number in the file name is not necessarily the same as the version of the IUCLID Data Extractor application. The version for IUCLID 6 v6 was:

1. <iuclid installation directory>
 \payara5\glassfish\domains\domain1\iuclid6\
 echa-iuclidde-extension-1.6.0.jar

The new version will be:

2. <iuclid installation directory>
 \payara5\glassfish\domains\domain1\iuclid6\
 echa-iuclidde-extension-1.7.1.jar

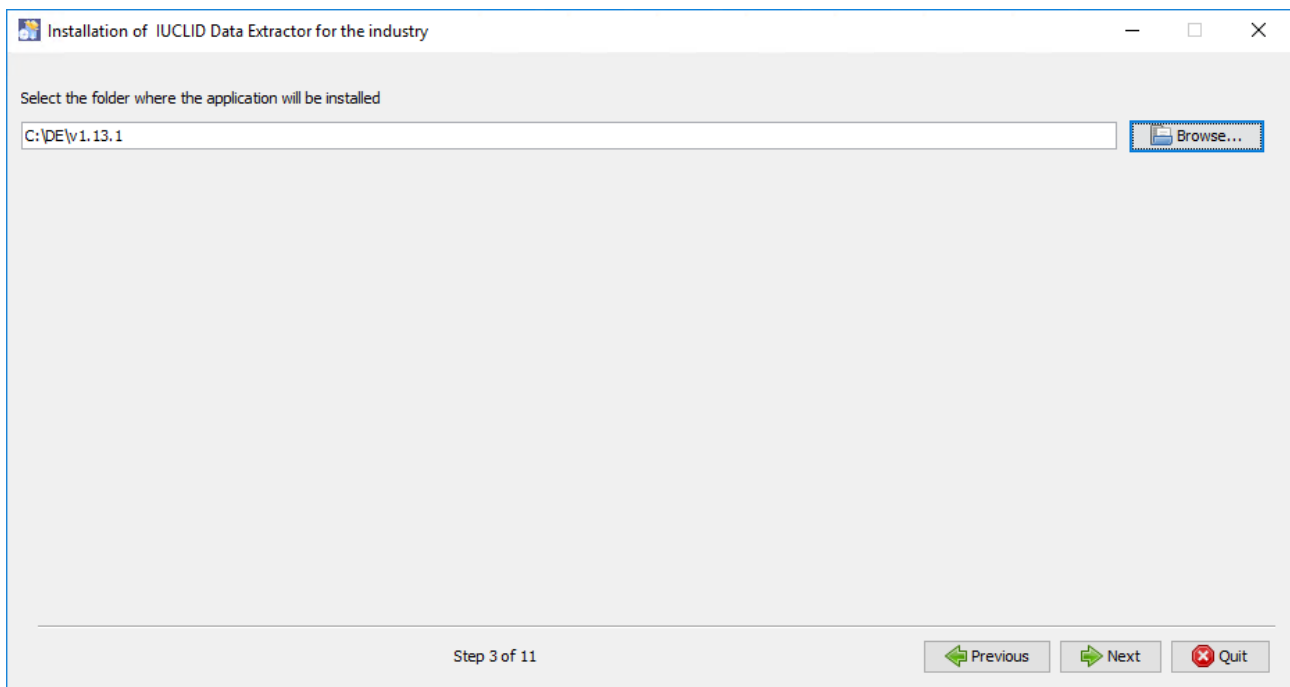
At the foot of the page on the right, note the total storage space required, and the available space.

Figure 18: Installation wizard step 2 - Select components to install



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

Figure 19: Installation wizard step 3 - Enter the installation directory for the IUCLID Data Extractor application



Step 4 prompts for the port number(s) of the IUCLID Data Extractor 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.

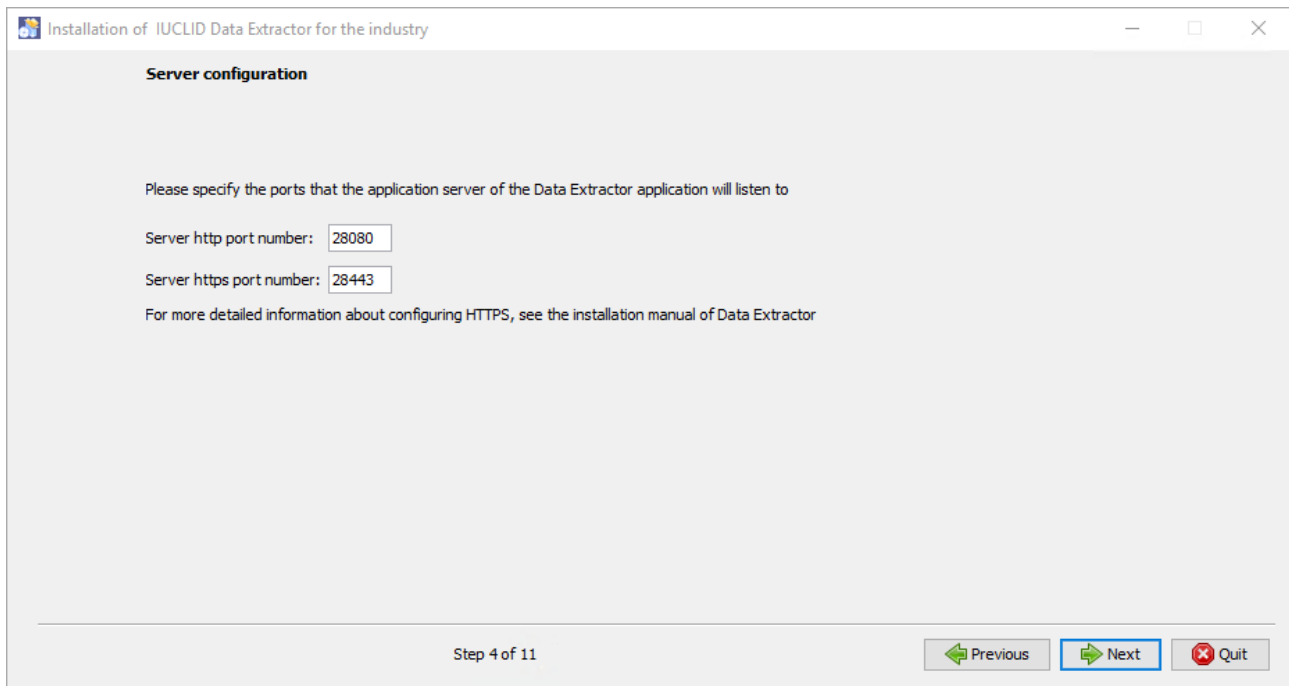
Windows command line:

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

The port is free if the output is empty.

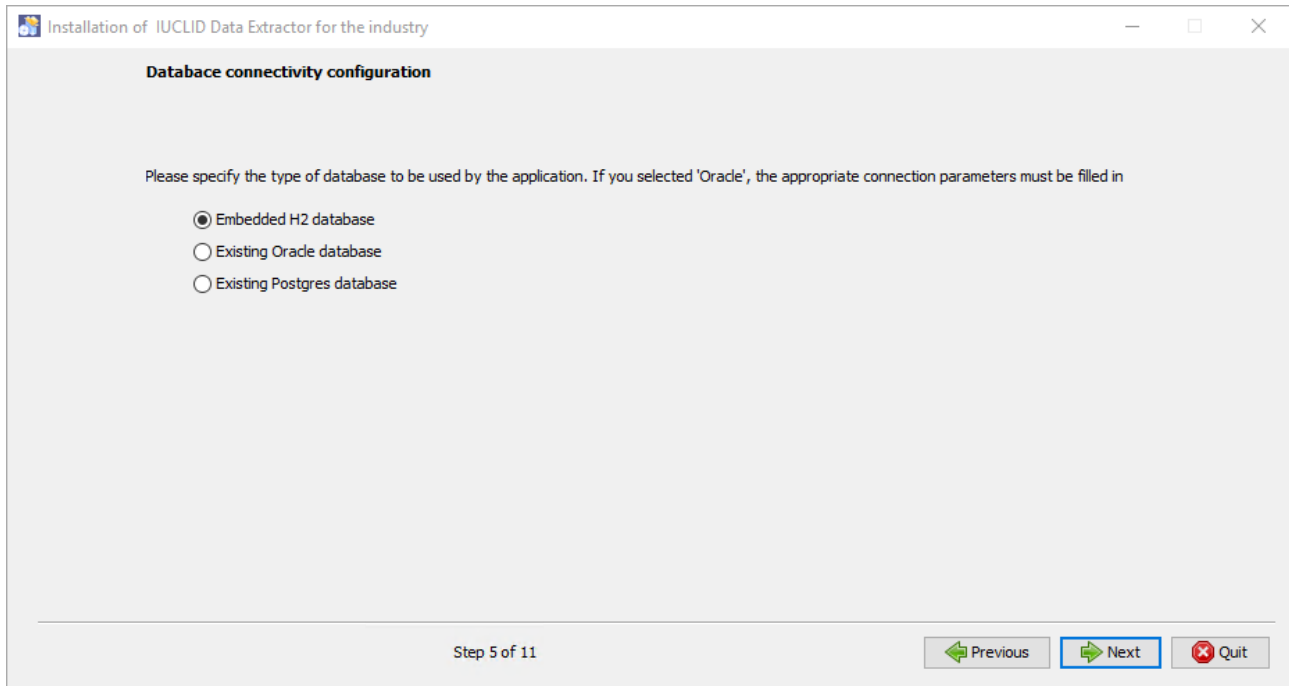
In the example below the ports are set to 28080 for HTTP and 28443 for HTTPS. If you will not be using HTTPS it can be left at the default value.

Figure 20: Installation wizard step 4 - Enter the port for the IUCLID Data Extractor application



In step 5 the type of database is selected, and external databases are configured. The IUCLID Data Extractor application may be used with either an embedded H2 database that is provided by the installer, or an external database which must be created separately. The types of external database supported are Oracle and Postgres. If H2 is selected, the user does not have to enter any additional information, and the installer configures the connection automatically.

Figure 21: Installation wizard step 5 - Select an H2 database for the IUCLID Data Extractor application



If the option is selected for an Oracle database, an Oracle database schema is required. An example of how this can be created is given in *Appendix A: Example configuration for an Oracle database*. The parameters for the database are entered into the wizard as shown below.

Figure 22: Installation wizard step 5 - Select an Oracle database for the IUCLID Data Extractor application

Installation of IUCLID Data Extractor for the industry

Database connectivity configuration

Please specify the type of database to be used by the application. If you selected 'Oracle', the appropriate connection parameters must be filled in

Embedded H2 database
 Existing Oracle database
 Existing Postgres database

Please provide the following connection parameters

Host name or ip:
Port number:
Service name:
Username:
Password:

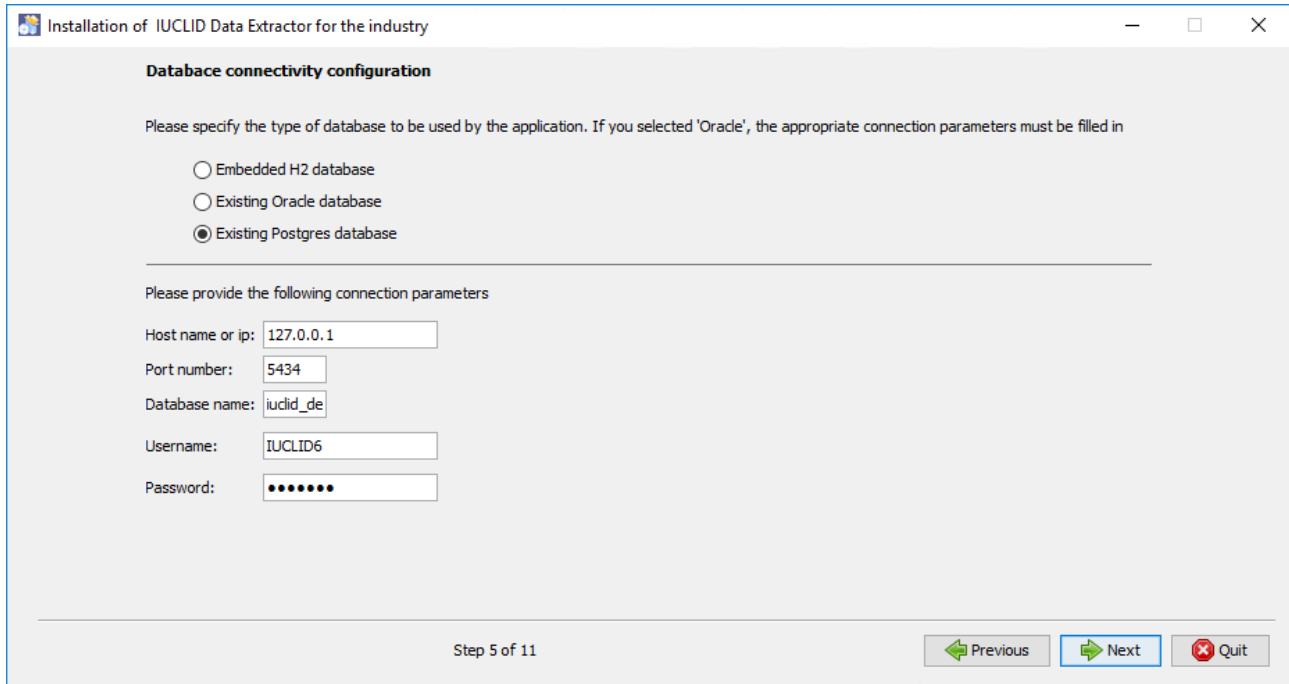
Step 5 of 11

The default values in the screenshot above are shown below in parentheses:

1. The host name (or IP) of the database server (100.65.8.153)
2. The port number of the database server (1521)
3. The service name of the database (XE)
4. The username (iuclidde)
5. Password used to connect to the database (<hidden>)

If the option is selected for a Postgres database, a Postgres database is required. The process is the same as the creation of a database for IUCLID 6 Server, which is documented in section 5.2.4. *PostgreSQL* of the document [Installation and Update Instructions for IUCLID 6 Server](#). Pay attention to the caveat for the parameter `max_prepared_transactions`, which also applies to Data Extractor. After editing the value of the parameter, restart the *Windows service* for *Postgres*. The parameters for the database are entered into the wizard as shown below.

Figure 23: Installation wizard step 5 - Select a Postgres database for the IUCLID Data Extractor application



Installation of IUCLID Data Extractor for the industry

Database connectivity configuration

Please specify the type of database to be used by the application. If you selected 'Oracle', the appropriate connection parameters must be filled in

Embedded H2 database
 Existing Oracle database
 Existing Postgres database

Please provide the following connection parameters

Host name or ip:
Port number:
Database name:
Username:
Password:

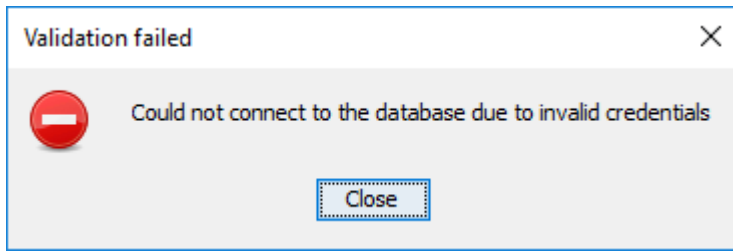
Step 5 of 11

Previous Next Quit

The default values in the screenshot above are shown below in parentheses:

1. The host name (or IP) of the database server (127.0.0.1)
2. The port number of the database server (5434)
3. The name of the database (iuclid_de)
4. The username (IUCLID6)
5. Password used to connect to the database (<hidden>)

On selecting *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 24: Cannot connect to an Oracle database

Step 6 prompts for the following IUCLID connectivity information:

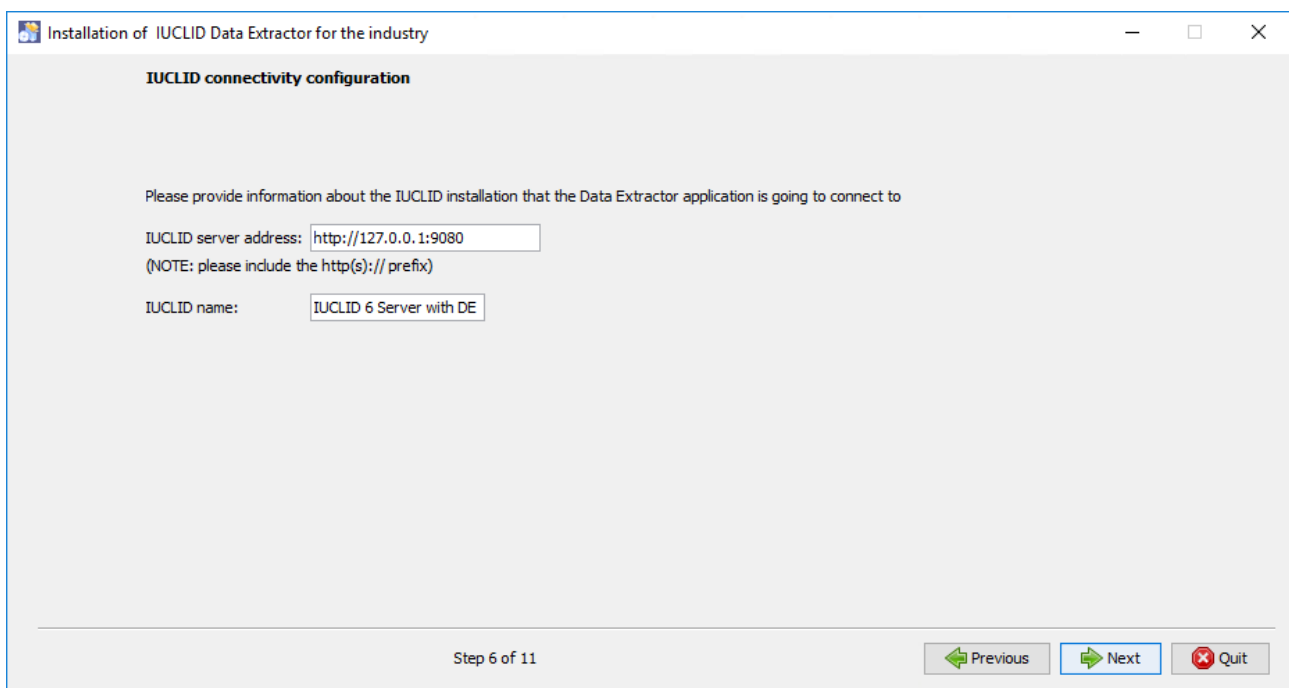
1. **IUCLID Server Address:** This is used to tell IUCLID Data Extractor the network address of the instance of IUCLID to which it is connected. It is used in the authentication of users, and to provide a link from the web interface of IUCLID Data Extractor to the instance of IUCLID. The form is:

```
<protocol>://<host>:<port_number>
```

The value of `<host>` should be the IP address in number format for the machine that hosts IUCLID. Finding this value for localhost is described in section 3.3 *Securing Cross-Origin Resource Sharing (CORS)* in IUCLID. If the browser runs on the same machine as IUCLID Data Extractor, the value `127.0.0.1` can be used. However, in that case be aware that the browser may apply its own rule for CORS and block the authentication, in which case the interface becomes stuck at “Loading...”. In the screenshots the address is:

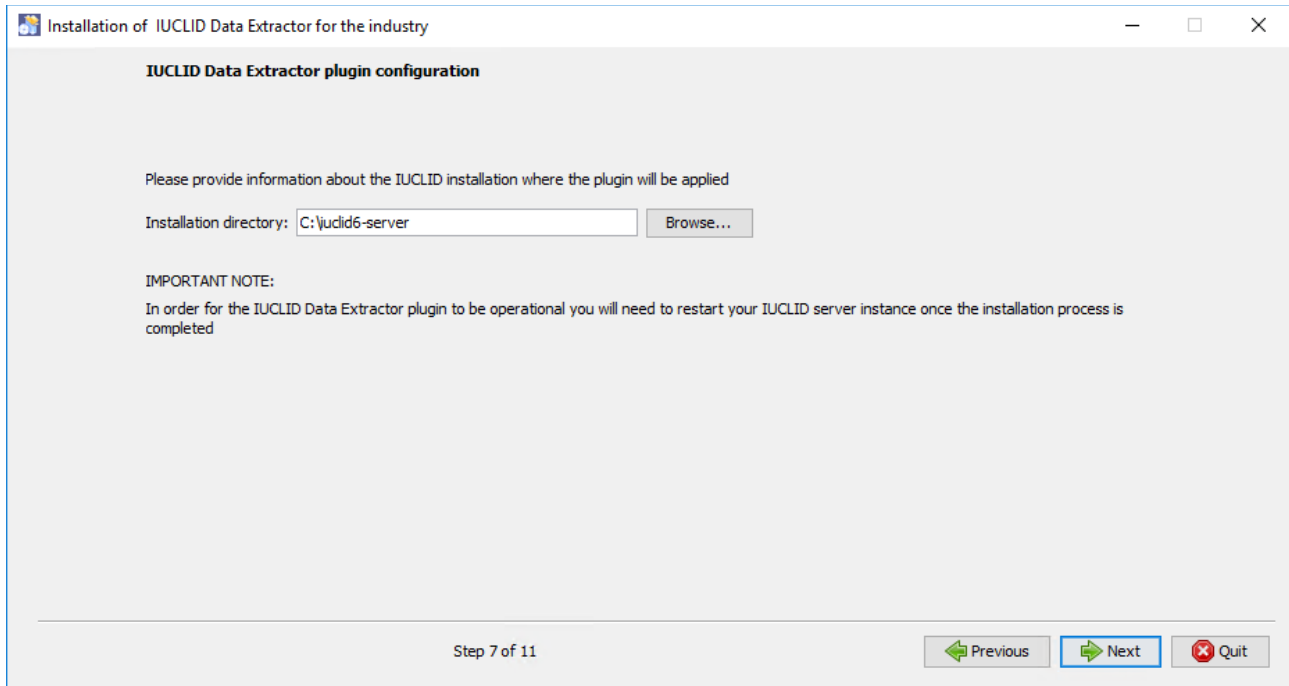
```
http://127.0.0.1:9080
```

2. **IUCLID name:** Enter a name to help the user of DE to identify the installation of IUCLID to which it is connected. The name is displayed in the GUI of DE. For example, *IUCLID 6 Server with DE*.

Figure 25: Installation wizard step 6 - IUCLID connectivity configuration

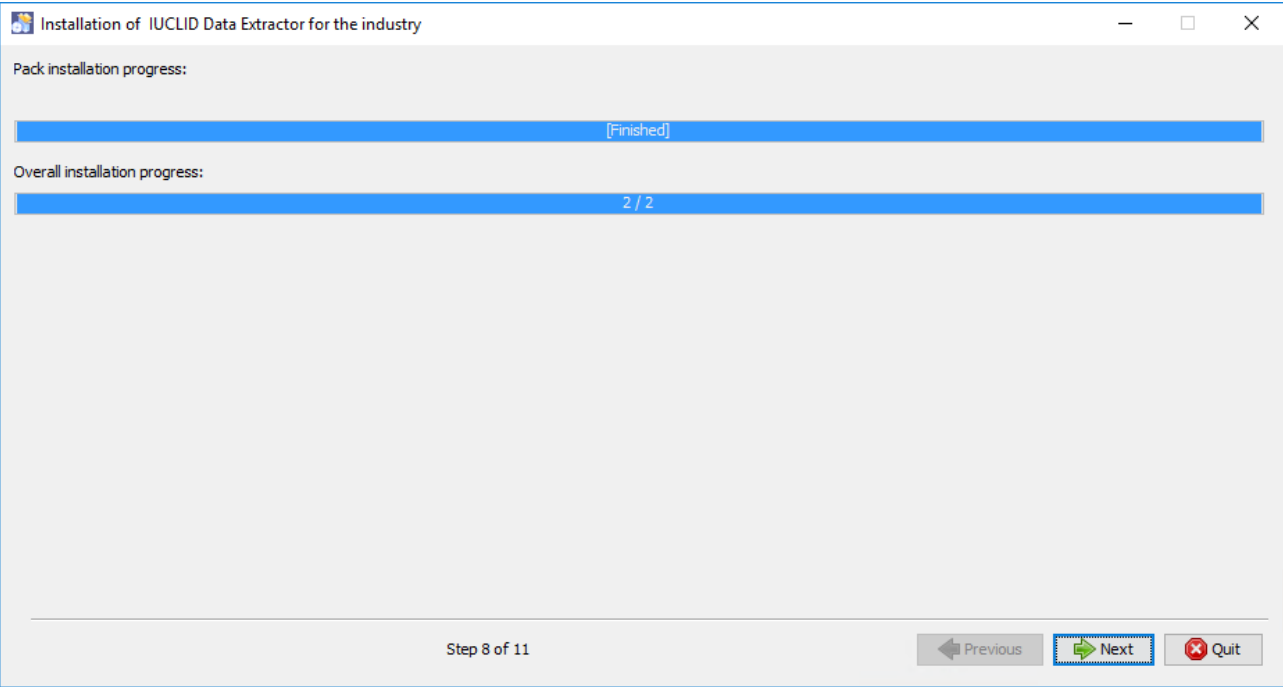
The next wizard step is displayed only if the IUCLID plugin is selected for installation in step 2. In this step the user is requested to provide the installation directory of IUCLID 6. After clicking on *Next*, the installer checks whether the value entered is a valid installation directory of IUCLID 6.

Figure 26: Installation wizard step 7 - IUCLID Data Extractor plugin configuration



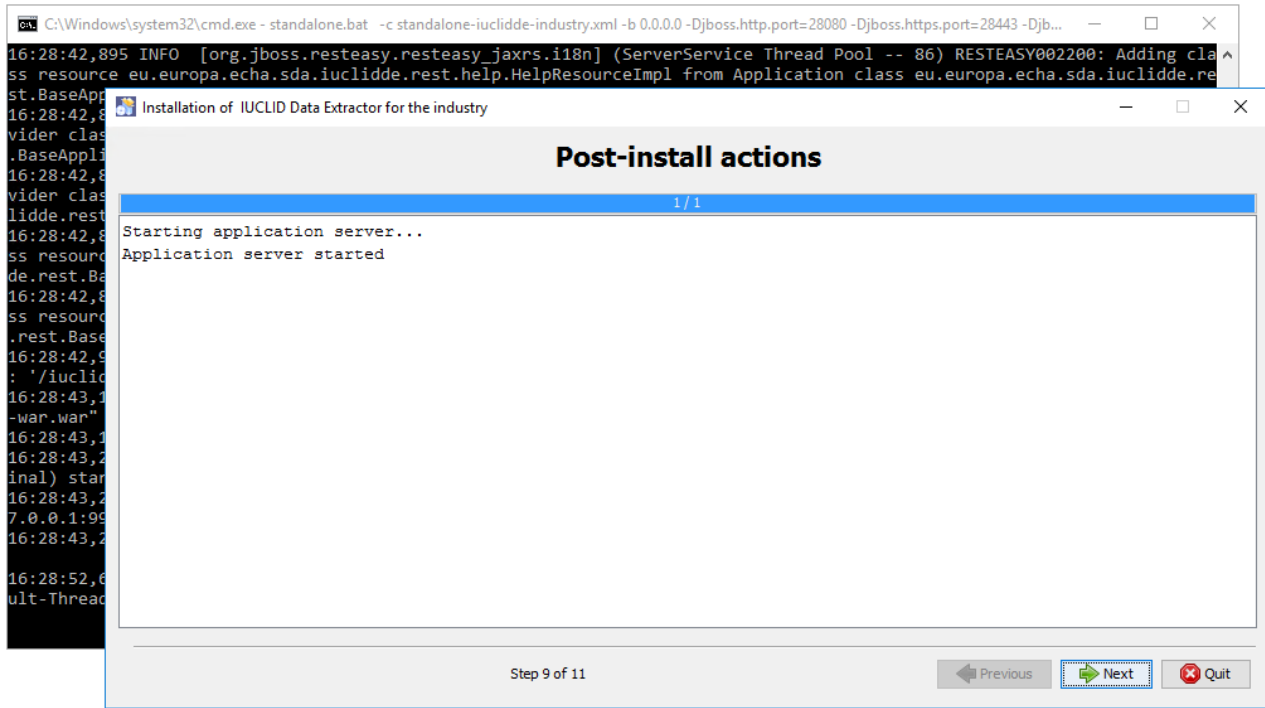
At this point the wizard has gathered all data required for the installation and the following steps are informative of the installation process. Step 8 displays the progress of the copying of the selected components.

Figure 27: Installation wizard step 8 - Progress of the installation



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

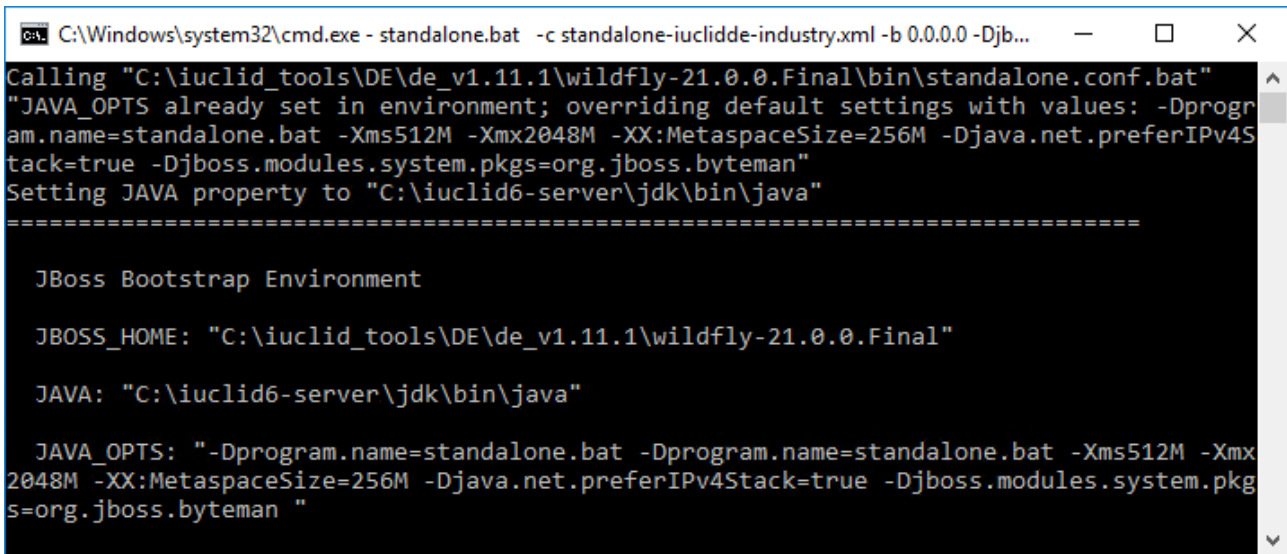
Figure 28: Installation wizard step 9 - post-installation tasks



When the application starts, a CMD window opens. This is shown above, behind the wizard window. This must be left open if IUCLID Data Extractor is to keep running it. Closing the window shuts down IUCLID Data Extractor. The output shown in the window is the server log which is located at:

```
<installation directory>\wildfly-21.0.0.Final\standalone\log\server.log
```

On start up, the values of the environment variables are shown. On first start up there is an error message, 'No property named "filename"', which can be ignored. It does not occur on subsequent start-ups. An example of the first start-up is shown below.

Figure 29: Content of log file 'server.log' on initial start-up of IUCLID Data Extractor


```

C:\Windows\system32\cmd.exe - standalone.bat -c standalone-iuclidde-industry.xml -b 0.0.0.0 -Djb...
Calling "C:\iuclid_tools\DE\de_v1.11.1\wildfly-21.0.0.Final\bin\standalone.conf.bat"
"JAVA_OPTS already set in environment; overriding default settings with values: -Dprogram.name=standalone.bat -Xms512M -Xmx2048M -XX:MetaspaceSize=256M -Djava.net.preferIPv4Stack=true -Djboss.modules.system.pkgs=org.jboss.byteman"
Setting JAVA property to "C:\iuclid6-server\jdk\bin\java"
=====

JBoss Bootstrap Environment

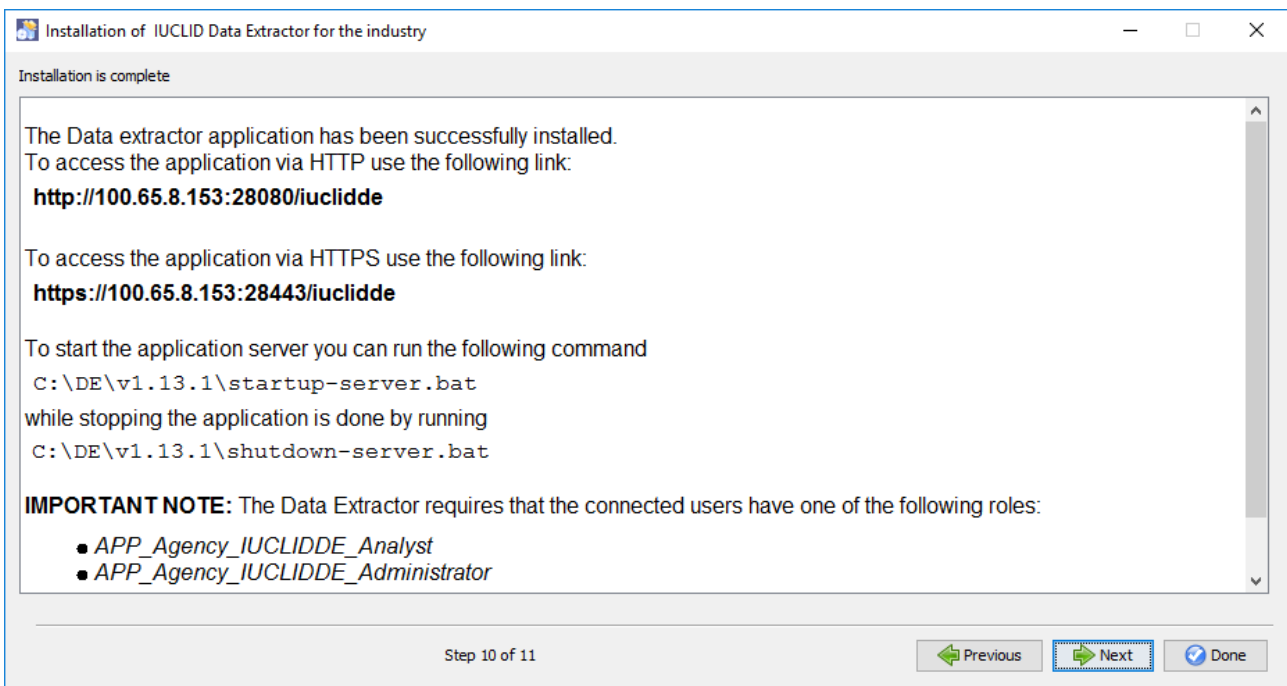
JBOSS_HOME: "C:\iuclid_tools\DE\de_v1.11.1\wildfly-21.0.0.Final"

JAVA: "C:\iuclid6-server\jdk\bin\java"

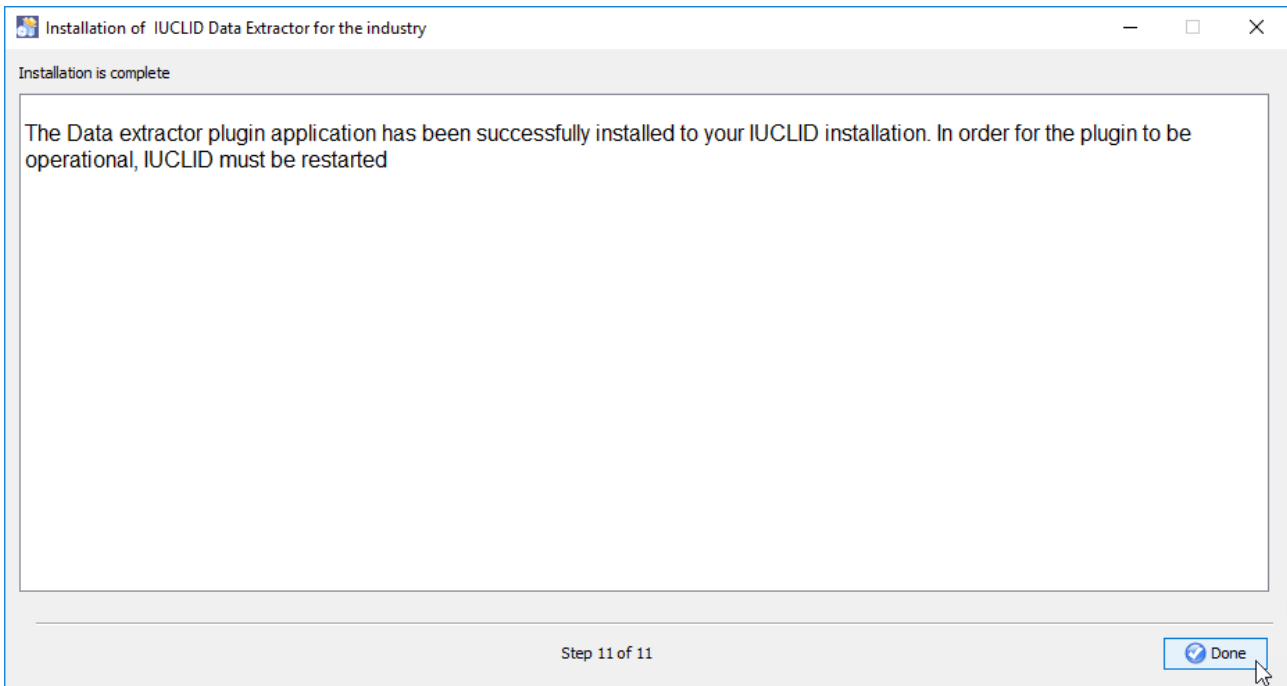
JAVA_OPTS: "-Dprogram.name=standalone.bat -Dprogram.name=standalone.bat -Xms512M -Xmx2048M -XX:MetaspaceSize=256M -Djava.net.preferIPv4Stack=true -Djboss.modules.system.pkgs=org.jboss.byteman "

```

The final step of the wizard presents the user with information about the installation just performed. It states the URL used to access the application as well as the scripts that should be run to start - stop the application server. Make a note of the network address of the interface of IUCLID Data Extractor. In the example below it is `http://100.65.8.153:28080/iuclidde`.

Figure 30: Installation wizard step 10 - post-installation report

The last page of the wizard is a reminder to restart IUCLID. Before doing that, if IUCLID 6 is version 6.27.1 or later, check that the configuration step has been done that is described in section 3.3 *Securing Cross-Origin Resource Sharing (CORS)* in IUCLID.

Figure 31: The final step of the installation wizard

At the end of the installation, IUCLID Data Extractor is left running. After clicking on *Done*, following a successful installation and start-up, there should be an entry in the command window "Started 575 of 798 services (395 services are ...", as shown below.

Figure 32: Content of log file 'server.log' after a successful start-up of IUCLID Data Extractor

```

C:\Windows\system32\cmd.exe - standalone.bat -c standalone-iuclidde-industry.xml -b 0.0.0.0 -Djboss.http.port=28080 -Djboss.https.po...
19:06:33,303 INFO [org.jboss.resteasy.resteasy_jaxrs.i18n] (ServerService Thread Pool -- 91) RESTEASY002205: Adding provider class eu.europa.echa.idm.nx.token.authentication.jaxrs.server.TokenAuthenticationContainerFilter from Application class eu.europa.echa.sda.iuclidde.rest.BaseApplication$Proxy$_$$_WeldClientProxy
19:06:33,421 INFO [org.wildfly.extension.undertow] (ServerService Thread Pool -- 91) WFLYUT0021: Registered web context: '/iuclidde' for server 'default-server'
19:06:33,546 INFO [org.jboss.as.server] (ServerService Thread Pool -- 48) WFLYSRV0010: Deployed "echa-iuclidde-industry-war.war" (runtime-name : "echa-iuclidde-industry-war.war")
19:06:33,639 INFO [org.jboss.as.server] (Controller Boot Thread) WFLYSRV0212: Resuming server
19:06:33,671 INFO [org.jboss.as] (Controller Boot Thread) WFLYSRV0025: WildFly Full 21.0.0.Final (WildFly Core 13.0.1.Final) started in 22470ms - Started 575 of 798 services (395 services are lazy, passive or on-demand)
19:06:33,671 INFO [org.jboss.as] (Controller Boot Thread) WFLYSRV0060: Http management interface listening on http://127.0.0.1:9990/management
19:06:33,671 INFO [org.jboss.as] (Controller Boot Thread) WFLYSRV0051: Admin console listening on http://127.0.0.1:9990
19:06:43,110 INFO [org.hibernate.hql.internal.QueryTranslatorFactoryInitiator] (EE-ManagedScheduledExecutorService-default-Thread-1) HHH000397: Using ASTQueryTranslatorFactory

```

Warning

Clicking in the CMD window so that it becomes the focus in Windows, can cause it to enter *Select* mode, which freezes IUCLID Data Extractor. For more information, see section 5.1 *Warning about logging in, and unresponsive behaviour*.

4.3. Linux and running the installer in text-only mode

In an environment with no windowing system, for example a headless Linux server, the installation is started manually from the command line, and runs in text-only mode. The command is:

```
$ java -jar iuclidde-installer.jar
```

The options presented and end results are the same as running the graphical installer.

If a graphical windowing system is available, the command above runs the graphical installer.

5. Post-installation

If IUCLID 6 is version 6.27.1 or later, check that the configuration step has been done that is described in section 3.3 *Securing Cross-Origin Resource Sharing (CORS)* in IUCLID.

If the installation has worked properly, start, or re-start, IUCLID 6 to allow it to recognise the newly installed plugin for IUCLID Data Extractor. Start the interface of IUCLID Data Extractor by pointing a web browser to the address given on the final page of the installation wizard. The example given there is:

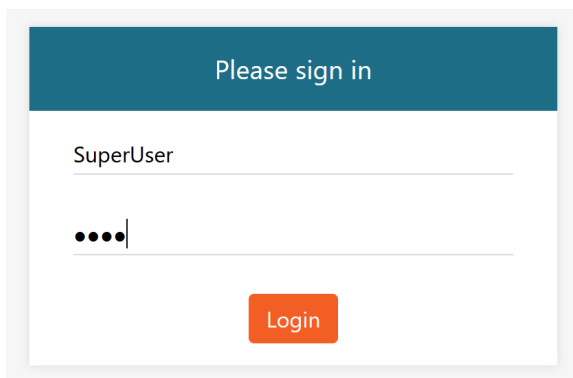
<http://100.65.8.153:28080/iuclidde>

If the browser and IUCLID Data Extractor run on the same machine, the following would also work in the example:

<http://localhost:28080/iuclidde>

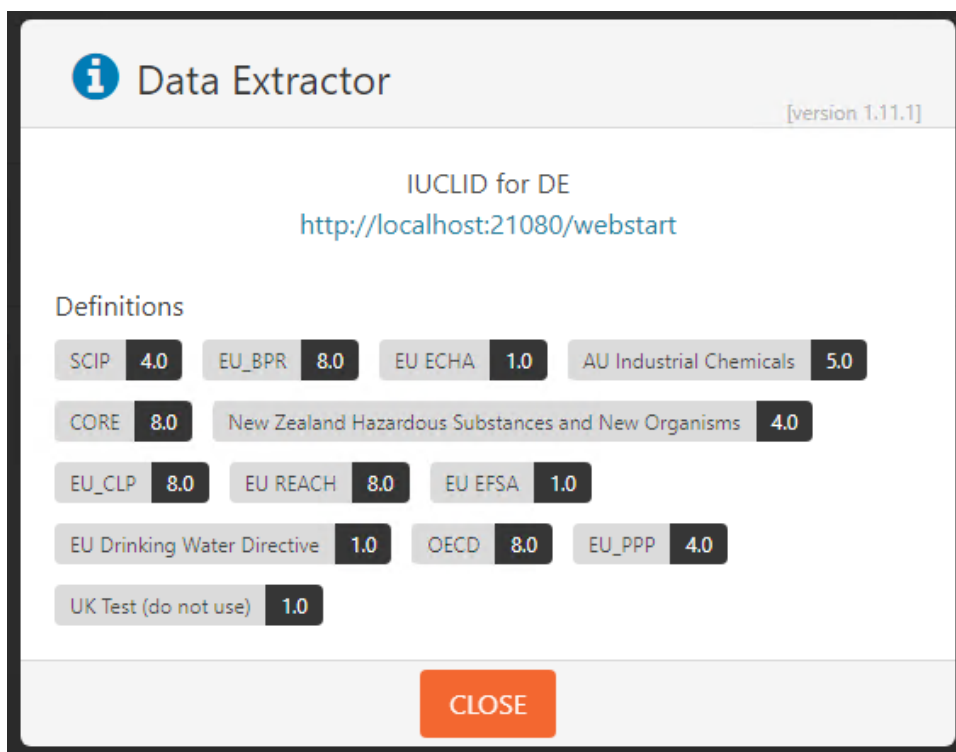
Log in as a IUCLID User that has the correct access rights.

Figure 33: Log in as a IUCLID User

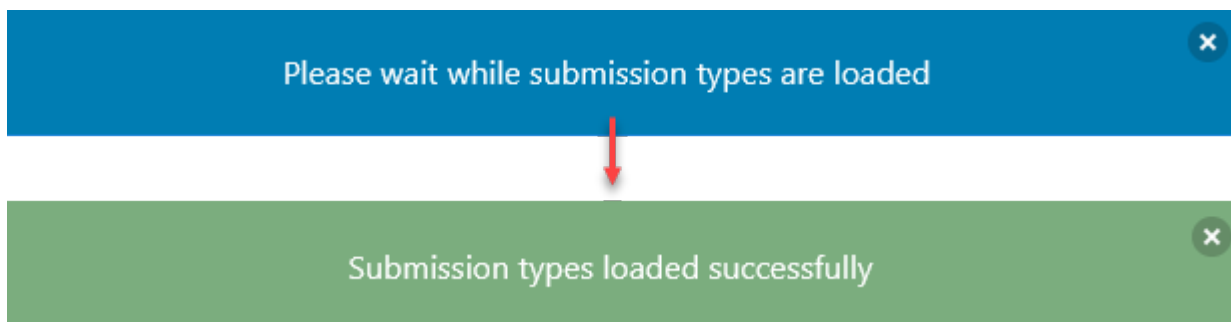


The screenshot shows a login form with a dark teal header containing the text "Please sign in". Below the header, there are two input fields. The first field contains the text "SuperUser". The second field contains four masked characters represented by black dots. Below the input fields is an orange button with the text "Login".

On logging in, the available definitions of IUCLID format are stated. Click on *Close* to continue.

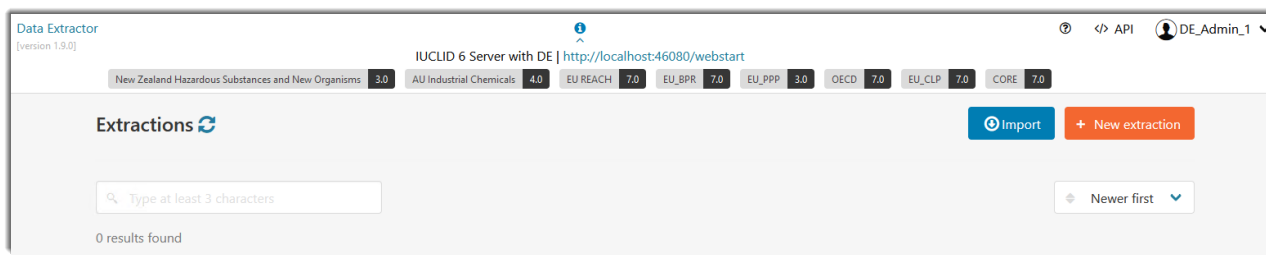
Figure 34: IUCLID definitions shown on logging in to IUCLID Data Extractor

Next, the working contexts, formerly know as submission types are loaded.

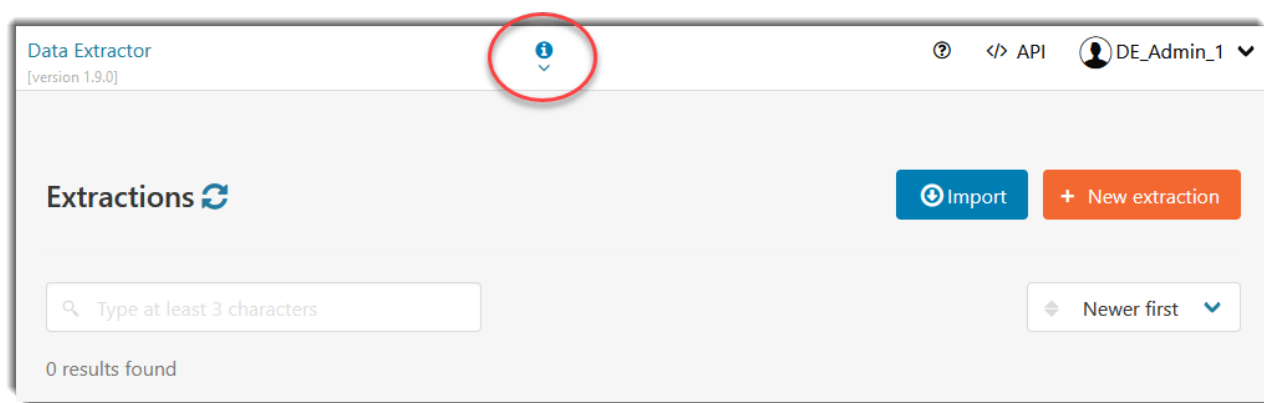
Figure 35: Loading of the working contexts / submission types

Once the green box appears, click on Close. The list of extractions is shown. Initially it is empty.

The list of extractions is shown. Initially it is empty.

Figure 36: The list of extractions

On some systems, dependent on the width of the browser window, and the screen resolution, the menu for the user at the top right, can be obscured. To see the menu, expand the width of the interface. Closing the information banner can allow for a narrower screen, as highlighted below.

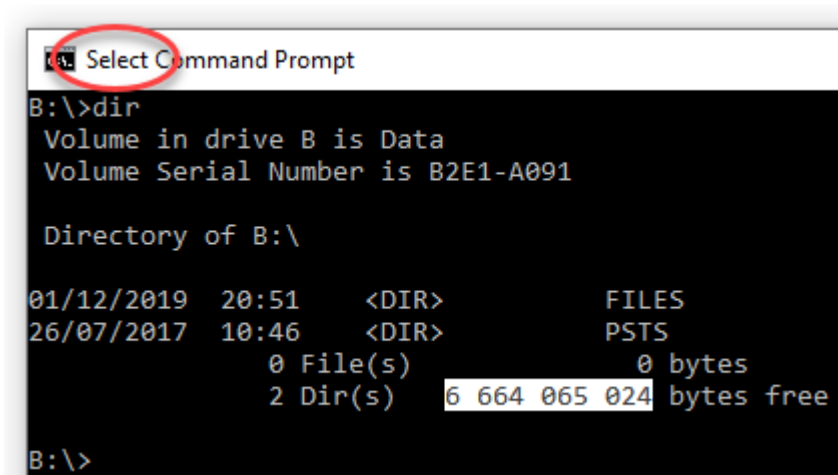
Figure 37: Closing the information banner

To test the system, create an extraction via the button *New extraction*. The functionality of the interface is described in a user manual on the IUCLID website [here](#).

5.1. Warning about logging in, and unresponsive behaviour

If log in does not work, or IUCLID Data Extractor becomes unresponsive, try the following:

1. Check whether the CMD window for IUCLID Data Extractor is in *Select* mode. This mode prevents output from being written to the console, and therefore under certain circumstances freezes IUCLID Data Extractor. To check the mode of the CMD window, look in the top left of the window for the word *Select*, as shown below.



```

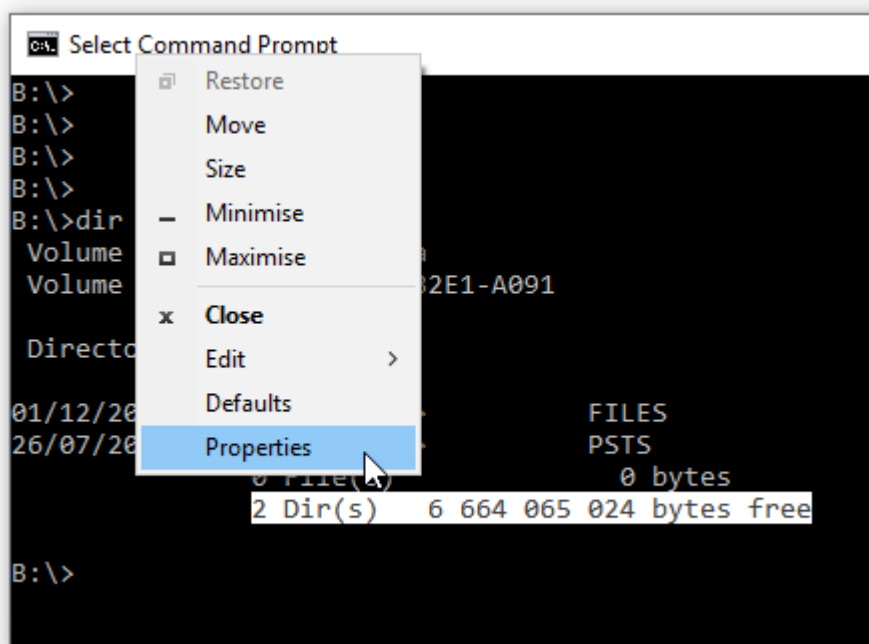
Select Command Prompt
B:\>dir
Volume in drive B is Data
Volume Serial Number is B2E1-A091

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:\>
```

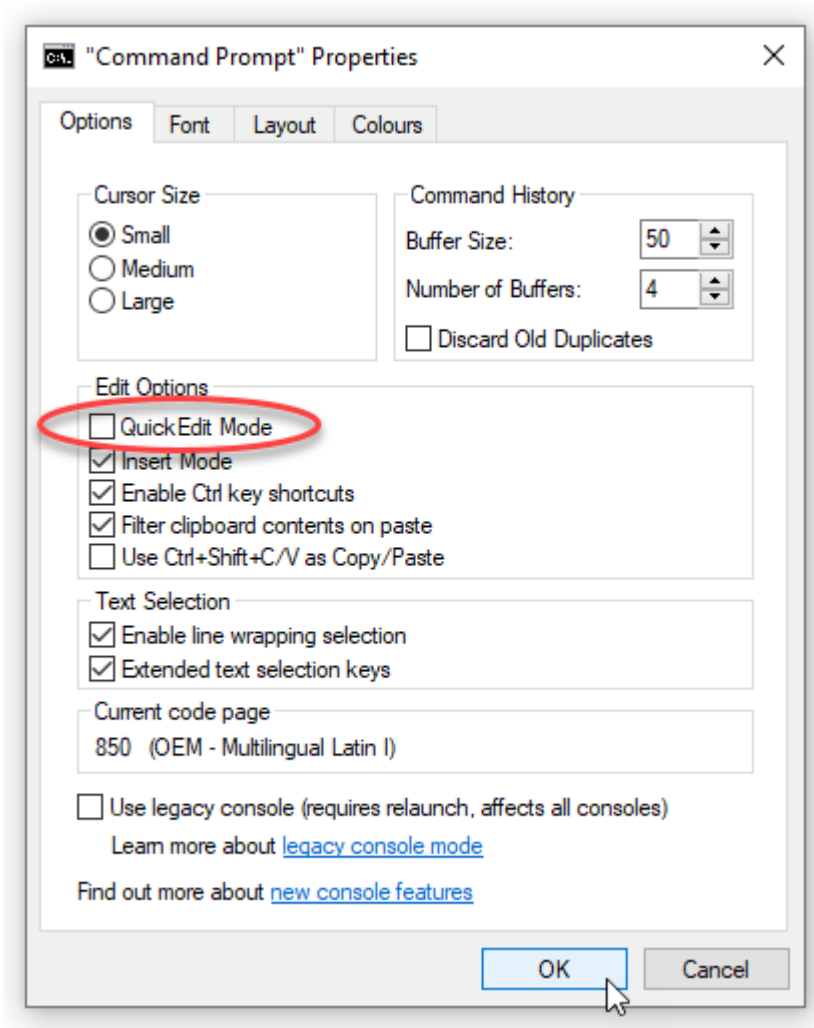
Select mode is entered when any text in the window has been selected. To exit *Select* mode, press the Enter key. To prevent *Select* mode from being entered, untick the box for *QuickEdit* in the properties of the CMD window. These are accessed by right-clicking in the title bar of the window, as shown below.



```

Select Command Prompt
B:\>
B:\>
B:\>
B:\>
B:\>dir
Volume
Volume
Volume
Volume
2E1-A091
Directory
01/12/20
26/07/20
0 File(s)
2 Dir(s)  6 664 065 024 bytes free

B:\>
```



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 IUCLID Data Extractor, and clear the browser cache again.
3. Check that the plugin is installed in IUCLID, and that IUCLID has been restarted after IUCLID Data Extractor 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 the IUCLID Data Extractor application:


```
<iuclid installation directory>
\payara5\glassfish\domains\domain1\iuclid6\
echa-iuclidde-extension-1.7.0.jar
```
4. Check in IUCLID that the Roles are set up correctly.
5. If on logging in, the box into which user credentials are entered becomes stuck and will not close, it should be possible to view the list of extractions by clicking on the link *IUCLID Data Extractor* at the top left of the interface.
6. If the browser on which the interface to *IUCLID Data Extractor* is run on a different machine from IUCLID, check that the following properties contain the correct host and port:


```
token.industry.url
s2s.url
con.iuclid.url
```

con.iuclid.api

The values should be the absolute network address of IUCLID relative to the browser. In this case, the host is **not** localhost.

7. Restart IUCLID.

If the installation is unsuccessful, check the following logs:

8. IUCLID Data Extractor

```
<IUCLID Data Extractor installation. folder>  
\wildfly-21.0.0.Final\standalone\log\server.log
```

9. IUCLID

```
<IUCLID installation directory>\payara5\glassfish\domains\domain1\logs
```

If you manage to determine what caused the problem, you can delete the contents of the IUCLID Data Extractor installation folder, and then install again. If however the problem is not clear, create a ticket at the ECHA Helpdesk. Provide a detailed description of your what you did, screenshots, and all the logs.

5.2. SSL - HTTPS

DE can be accessed using HTTPS. By default, DE trusts a default IUCLID. In a real set up, you will have to install your own certificates. The process is similar to that for IUCLID, as described in the manual *Installation and Update Instructions for IUCLID 6 Server*.

DE is supplied with a default trust store that can be replaced by a custom file using a setting in the configuration file `iuclidde-industry.properties` described in then next section. The parameters are:

con.iuclid.truststore.file

con.iuclid.truststore.pass

5.3. Settings the ports for DE

The ports at which DE runs are set in the script `startup-server.bat`, using the parameters listed below.

Djboss.http.port

Djboss.https.port

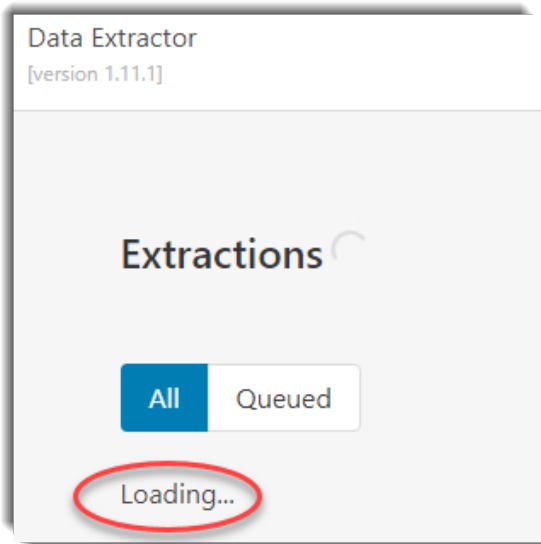
Djboss.management.http.port

Their values are set during installation, but they can be changed later by editing the script and then restarting DE.

5.4. What to do if the interface is stuck at “Loading...”

If on logging in to IUCLID Data Extractor, the interface becomes stuck at “Loading...”, as shown below, the authentication is blocked in IUCLID due to a security restriction placed on *Cross-Origin Resource Sharing (CORS)*.

Figure 38: Interface stuck at “Loading...”



The configuration of IUCLID for CORS is described in section 3.3 *Securing Cross-Origin Resource Sharing (CORS) in IUCLID*. Use the example checklist below to check the consistency of the overall setup. The hosts and ports used in the browser to access IUCLID and IUCLID Data Extractor must be consistent with the values in the three files indicated below. The red arrows indicate where a port is defined, and where that value is read by the other application.

Figure 39: Example of hosts and ports

<IUCLID 6 installation folder> \\payara5\glassfish\domains\domain1\config\domain.xml	
HTTP_LISTENER_PORT	21080
HTTP_SSL_LISTENER_PORT	21181
eu.echa.iuclid6.idp.cors.allowed.origin.patterns	... http://100.65.8.153:28080,http://localhost:28080,https://100.65.8.153:28434,https://localhost:28434
<IUCLID Data Extractor installation folder> \\config\iuclid6.industry.properties	
token.industry.url=	http://100.65.8.153:21080/iuclid6-idp-ws/service/token
token.industry.client.url=	http://100.65.8.153:21080/iuclid6-idp-ws/service/token
s2s.url=	http://100.65.8.153:21080/iuclid6-idp-s2s-ws/service/token
con.iuclid.url=	http://100.65.8.153:21080/webstart
con.iuclid.api=	http://100.65.8.153:21080/iuclid6-ext/api/ext/v1/
<IUCLID Data Extractor installation folder>\startup-server.bat	
-Diboss.http.port=	28080
-Diboss.https.port=	28443

6. Maintenance

When the installation is complete the directory specified in step 3 contains all the files required for IUCLID Data Extractor to be operational. It contains the JBoss Wildfly application server folder where the application is deployed, as well as the appropriate scripts to start and stop the server. These scripts are:

`startup-server.bat`

`shutdown-server.bat`

The configuration parameters for the IUCLID Data Extractor application are in a file named `iuclidde-industry.properties` under the directory `config`. This file is created during the installation process. It needs to be edited only if some aspect of the set up is changed. The application must be restarted for changes to take effect. The parameters are described below.

Table 2: Configuration file `iuclidde-industry.properties`

Property	Description	Comments
<code>iuclidde.db.driver</code>	The name of the driver used to connect to the database	Allowed values are H2 or Oracle. The names are case sensitive.
<code>iuclidde.db.url</code>	Database URL	
<code>iuclidde.db.username</code>	Database credentials: username	
<code>iuclidde.db.password</code>	Database credentials: password	
<code>attachments.dir</code>	Name of the folder where attachments extracted from IUCLID are stored	Default value is a folder within the application server installation directory, but any valid accessible folder can be used.
<code>token.industry.url</code>	Used in authentication of the IUCLID User when logging in. The base URL is that of IUCLID.	Default is: <code>http://<host:port from step 6 of the installer>/iuclid6-idp- ws/service/token</code>
<code>s2s.url</code>	Used in authentication of the IUCLID User when logging in. The base URL is that of IUCLID.	Default is: <code>http://<host:port from step 6 of the installer>/iuclid6-idp-s2s- ws/service/token</code>
<code>token.system.user</code>	Used in authentication of the IUCLID User when logging in.	Default is: <code>app_iuclid</code>
<code>token.system.password</code>	Used in authentication of the IUCLID User when logging in.	Default is: <code>admin12345_</code>
<code>help.url</code>	URL to access the Data Extractor help.	The help on the IUCLID website is at: <code>https://iuclid6.echa.europa.eu</code>

		/documents/1387205/5614205 /data_extractor_user_manual_en.pdf
<i>job.pool.size</i>	Number of extraction jobs in the pool	
<i>extraction.result.expiry</i>	Duration after which the extraction results will expire	ISO-8601 notation used
<i>job.lock.expiry</i>	Duration after which job lock will expire	ISO-8601 notation used
<i>cache.lifespan.unit</i> <i>cache.lifespan.value</i>	The duration of cached objects in the server.	Used for the caching of entities retrieved from IUCLID that are known not to change frequently, e.g. Document definitions.
<i>cache.maxIdle.value</i> <i>cache.maxIdle.unit</i>	The maximum time an entity can remain idle in the cache	This is used to determine the maximum idle time before a user session is expired. (default = 10 minutes)
<i>poll.extraction.expiration</i>	Polling interval for extraction expiration	Set in seconds
<i>poll.job.dispatch</i>	Polling interval for job dispatching	Set in seconds
<i>poll.job.lock.expiration</i>	Polling interval for extraction job lock expiration	Set in seconds
<i>con.iuclid.url</i>	The url of the IUCLID installation.	Default is: <i>http://<host:port from step 6 of the installer>/webstart</i>
<i>con.iuclid.api</i>	The URL of the IUCLID REST API.	Default is: <i>http://<host:port from step 6 of the installer>/iuclid6-ext/api/ext/v1/</i>
<i>con.iuclid.confidential</i>	Display an indicator in the GUI to state that IUCLID contains confidential data	Boolean value, with default value of false.
<i>con.iuclid.name</i>	A name to help the user of DE to identify the installation of IUCLID. It is displayed in the application's GUI.	
<i>con.iuclid.authmode</i>	The mode in which the data extractor communicates with IUCLID.	Do not change this. Default is <i>REQUESTOR</i> .
<i>con.iuclid.truststore.file</i>	The absolute path of a custom trust store.	Default value is: <installation directory>

		\\wildfly-21.0.0.Final\\standalone \\configuration\\iuclidde.keystore
<i>con.iuclid.truststore.pass</i>	The password for the custom trust store defined above.	

Appendix A. Example configuration for an Oracle database

It is the responsibility of the database administrator to configure an Oracle database correctly and to manage the data it contains effectively. The commands below are provided only as examples.

The commands below have been tested and shown to work with a default installation of Oracle XE 18 c. To use the default pluggable database that is delivered with Oracle XE. The command to log in is:

```
C:\WINDOWS\system32>sqlplus SYSTEM@localhost:1521/XEPDB1
```

The commands to create the user in Oracle and the expected responses are:

```
SQL> create tablespace IUCLIDDE_TS datafile 'IUCLIDDE_TS.dbf' size 1G
autoextend on next 50M maxsize 2G;
```

Tablespace created.

```
SQL> create user IUCLIDDE identified by IUCLIDDE default tablespace
IUCLIDDE_TS quota unlimited on IUCLIDDE_TS;
```

User created.

```
SQL> grant connect, create session to IUCLIDDE;
```

Grant succeeded.

```
SQL> grant resource to IUCLIDDE;
```

Grant succeeded.

If these values were used, the values to go in step 5 of the installer would be:

1. Host name (or IP) of the database server = localhost
2. Port number of the database server = 1521
3. Service name of the database = XEPDB1
4. Username = IUCLIDDE
5. Password used to connect to the database = IUCLIDDE