

IUCLID 6 database patch tool



IUCLID 6 is developed by the European
Chemicals Agency in association with the OECD



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European Chemicals Agency

Mailing address: P.O. Box 400, FI-00121 Helsinki, Finland

Visiting address: Annankatu 18, Helsinki, Finland

Changes to this document

Date	Modification
31/01/2017	Added advice on the use of the Java that is delivered with IUCLID 6. Updated values for IUCLID 6 v1.2.0.
30/09/2016	Added patches that are delivered in IUCLID 6 service release 1 (version 1.1.0). Reviewed formatting and language.
02/08/2016	First version

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1. Introduction

The *IUCLID 6 database patch tool* is provided to fix a number of known problems with the storage of data in IUCLID. The problems can be present in a IUCLID 6 database of versions v1.0.0 or v1.0.2 to which data was migrated from a IUCLID 5 database. These are the only types of IUCLID 6 database upon which the *IUCLID 6 database patch tool* should be run.

The *Migrator tool* included in the release of IUCLID 6 v1.1.0 in September 2016, and subsequent releases, contains the functionality of the *IUCLID 6 database patch tool*. Therefore, after migrating directly from IUCLID 5 to IUCLID 6 v1.1.0 or a later version, there is no need to run the *IUCLID 6 database patch tool*.

A list of the fixes carried out by the tool is available in section 2 below.

Whilst running the tool, the user can decide which particular types of fixes are applied. Fixes are applied independently of each other, and the tool can be run more than once. For example, a user can decide to run the tool several times, each time applying a different type of fix or fixes, and checking the result between runs. The user is informed of prior runs, and whether or not they were successful.

2. Patches applied by the IUCLID 6 database patch tool

2.1. Patch001_AttachmentReferences

This patch addresses a situation caused by corrupted references to attachments in a IUCLID 5 database. If a migration is carried out to IUCLID 6 without any fix being applied either to IUCLID 5 directly before migration, or during the migration itself, affected documents cannot be opened in IUCLID 6.

Before migrating from IUCLID 5 to IUCLID 6, it is recommended to run the *IUCLID 5 attachment corrector tool* on the source IUCLID 5 database, as described in the document [Migration Instructions for IUCLID](#). This will ensure that the maximum amount of information about the missing attachments is present in IUCLID 6.

However, if this is not possible, and the database has already been migrated to IUCLID 6, the *IUCLID 6 database patch tool* can be used to identify the problematic documents and to fix them so that they can be opened in IUCLID 6. This requires access to only the IUCLID 6 database.

The *IUCLID 6 database patch tool* replaces the corrupted references to attachments with references to a dummy file. The dummy file is a text file that contains a brief statement of its purpose. After running the *IUCLID 6 database patch tool*, the references to the dummy file should be replaced with references to the intended files. This can be done only manually, by re-attaching the file. Therefore, you must have access to the files that were originally attached, or their equivalents. The locations of the corrupted references can be seen from the log file that is written by the tool here:

```
<patch tool installation folder>\logs\patch001-attachment-references-report.log
```

The following fields indicate the locations of the references.

Owner Document UUID;Owner Document Identifier;Document Key;Document Identifier;Document Name;Path;Attachment Type;Missing Attachment

2.2. Patch00A_60T061Migrator

Converts documents that exist erroneously in IUCLID 6.0 format, in IUCLID 6.1. This requires access to only the IUCLID 6 database.

This fix is there to address a specific migration glitch in the migration of test materials in documents under an inherited template linked to a substance dataset.

2.3. Patch002_DosesConcentrationsOHT074

Inserts values that were incorrectly not migrated in to the field *Remarks* in the table *Doses / Concentrations* for the document *Developmental toxicity / teratogenicity (OHT #74; IUCLID section 7.8.2)*. This requires access to both the IUCLID 5 and IUCLID 6 databases at the same time.

2.4. Patch003_InquiryRecords

Corrects the data migration of the fields that correspond to the block *Toxicological information* in the document *Inquiry*. This requires access to both the IUCLID 5 and IUCLID 6 databases at the same time.

2.5. Patch005_ReferenceUse

Corrects the migration of *use* names stored in the links from section 7.6 *Method of application and a description of this method* to section 7.1 *Field(s) of use envisaged for biocidal \ products and treated articles* for Mixture/Product datasets. This requires access to both the IUCLID 5 and IUCLID 6 databases at the same time.

3. Preparatory steps

The patch tool will make changes to your IUCLID 6 database. Before running *IUCLID 6 database patch tool*:

- a. Stop IUCLID 6;
- b. If you are using IUCLID 6 Server, stop Glassfish;
- c. Make sure that you have valid backups of your IUCLID 6 data stored in a safe location.

4. Installing the database patch tool

The *IUCLID 6 database patch tool* is delivered in an archive named:

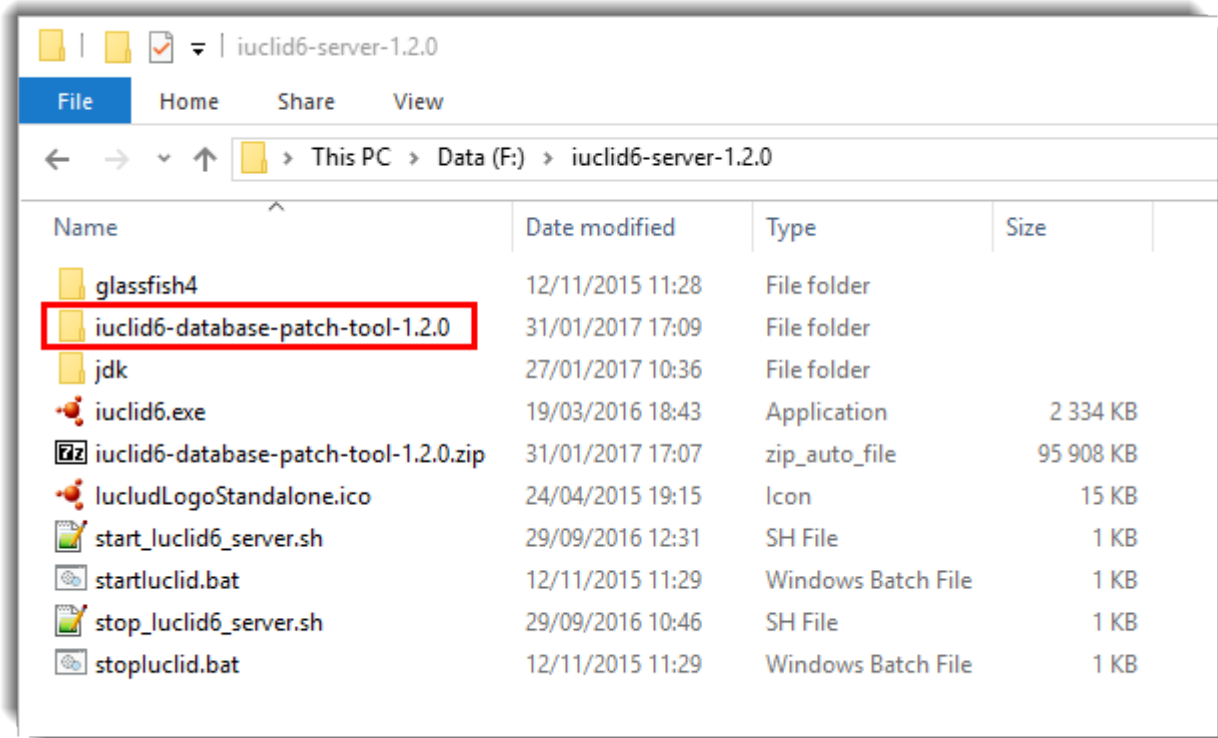
`iuclid6-database-patch-tool-<version>.zip`

It is recommended to copy the archive to the installation directory of the IUCLID 6 Server on which the tool is to be run, and to then use the option *Extract here* in your archive manager. After unpacking there should be a new directory named:

```
iuclid6-database-patch-tool-<version>
```

An example of the installation directory is shown below.

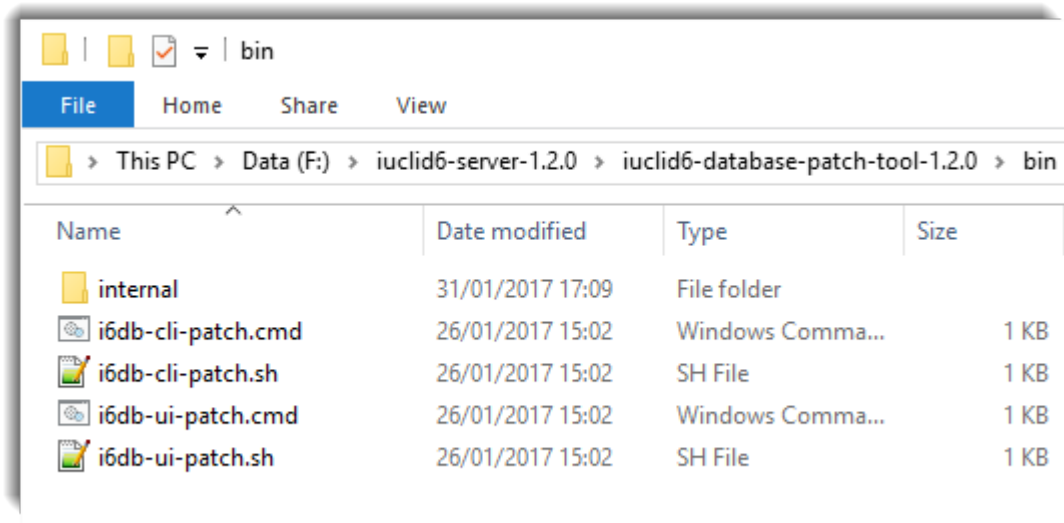
Figure 1: The recommended location of the IUCLID 6 database patch tool



The scripts for the *IUCLID 6 database patch tool* are in the directory:

```
iuclid6-database-patch-tool-<version>\bin
```

An example is shown below.

Figure 2: The scripts for the IUCLID 6 database patch tool

The reason for using the location recommended above is that it enables the *IUCLID 6 database patch tool* to find and use the installation of Java that was delivered with IUCLID 6, which is in the directory named `jdk`. Therefore, the machine on which the *IUCLID 6 database patch tool* is run does not need to have a system installation of Java. If a different location is used for the scripts than that described above, the *IUCLID 6 database patch tool* looks for a local system installation of Java.

The *IUCLID 6 database patch tool* can be run either with or without a graphical interface, as described below. The graphical interface provides a wizard that guides the user through the migration process. The method without a graphical interface is designed for environments where it is preferable, or essential, to use only the command line.

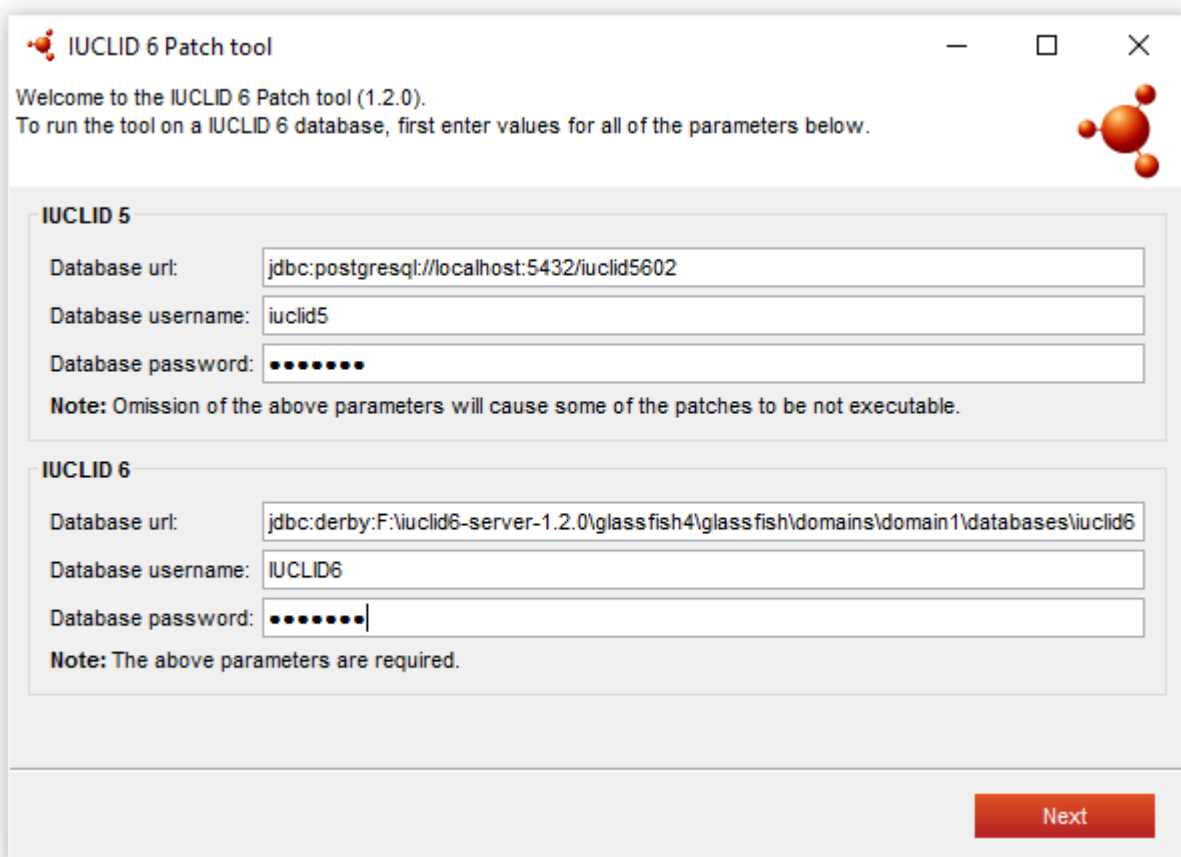
5. Running the database patch tool with a graphical interface

To run the tool with a graphical user interface in Windows, carry out the following steps.

1. Double-click on the script:

```
<IUCLID6 patch tool installation dir>\bin\i6db-ui-patch.cmd
```

2. Enter the parameters for the database(s). The parameters for IUCLID 6 are mandatory, but for IUCLID 5 they are required only if the particular patch requires them. If parameters for IUCLID 5 are omitted, on the next page of the wizard, any patch that requires them cannot be selected. An example value of the URL for IUCLID 5 with an Oracle database is `jdbc:oracle:thin:@10.1.8.1:1521:orcl`. An example of the parameters for IUCLID 5 with a PostgreSQL database is shown in the figure below.

Figure 3: Example of database parameters

The screenshot shows a window titled "IUCLID 6 Patch tool" with a logo in the top right corner. The window contains the following text and form fields:

Welcome to the IUCLID 6 Patch tool (1.2.0).
To run the tool on a IUCLID 6 database, first enter values for all of the parameters below.

IUCLID 5

Database url:

Database username:

Database password:

Note: Omission of the above parameters will cause some of the patches to be not executable.

IUCLID 6

Database url:

Database username:

Database password:

Note: The above parameters are required.

- When you have entered the correct database parameters, click on the button *Next*. This opens a page that contains a list of the patches that can be and have been applied. A user can decide whether to run a particular patch by ticking its box in the leftmost column. The columns on the right report on previous runs of the tool. An example in which the tool is being run for the first time is shown below, followed by an example of data for previous runs.

Figure 4: Control page of the IUCLID 6 database patch tool. Data from previous runs is in the lower figure.

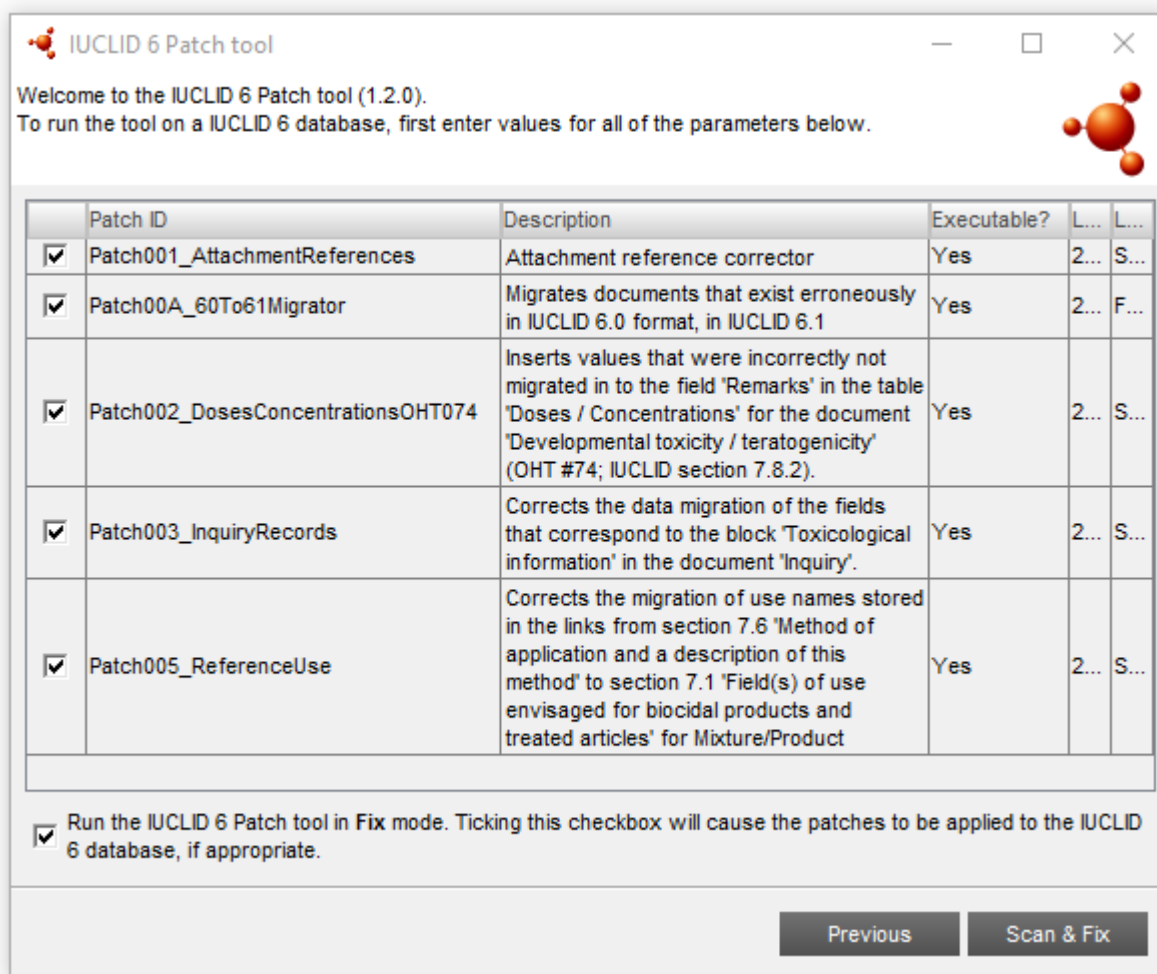
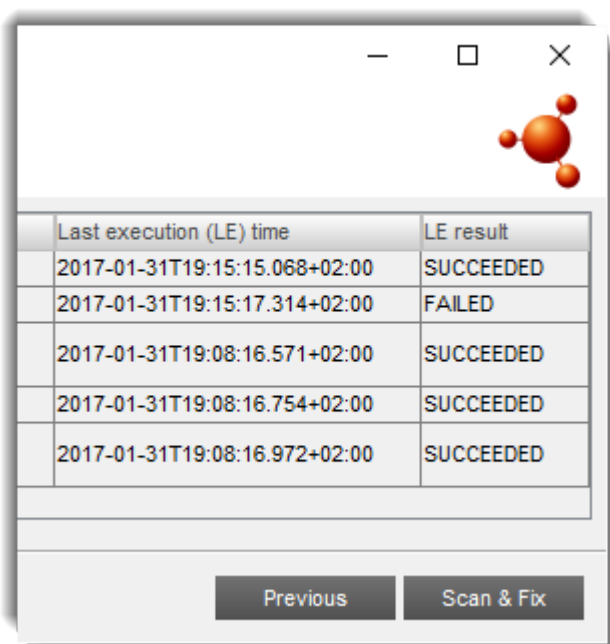
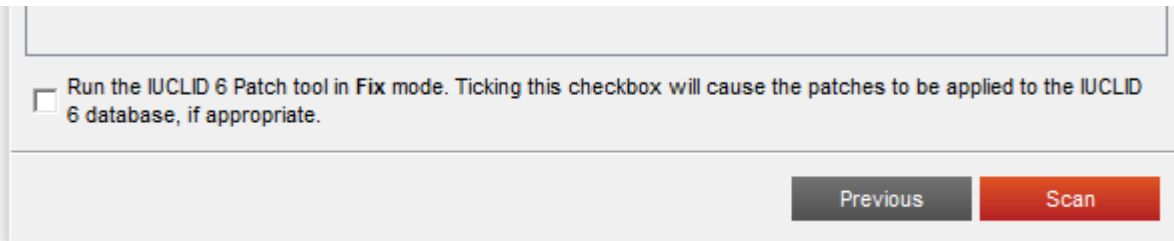


Figure 5: Data for previous runs of the tool. These are the two rightmost columns in the figure above.

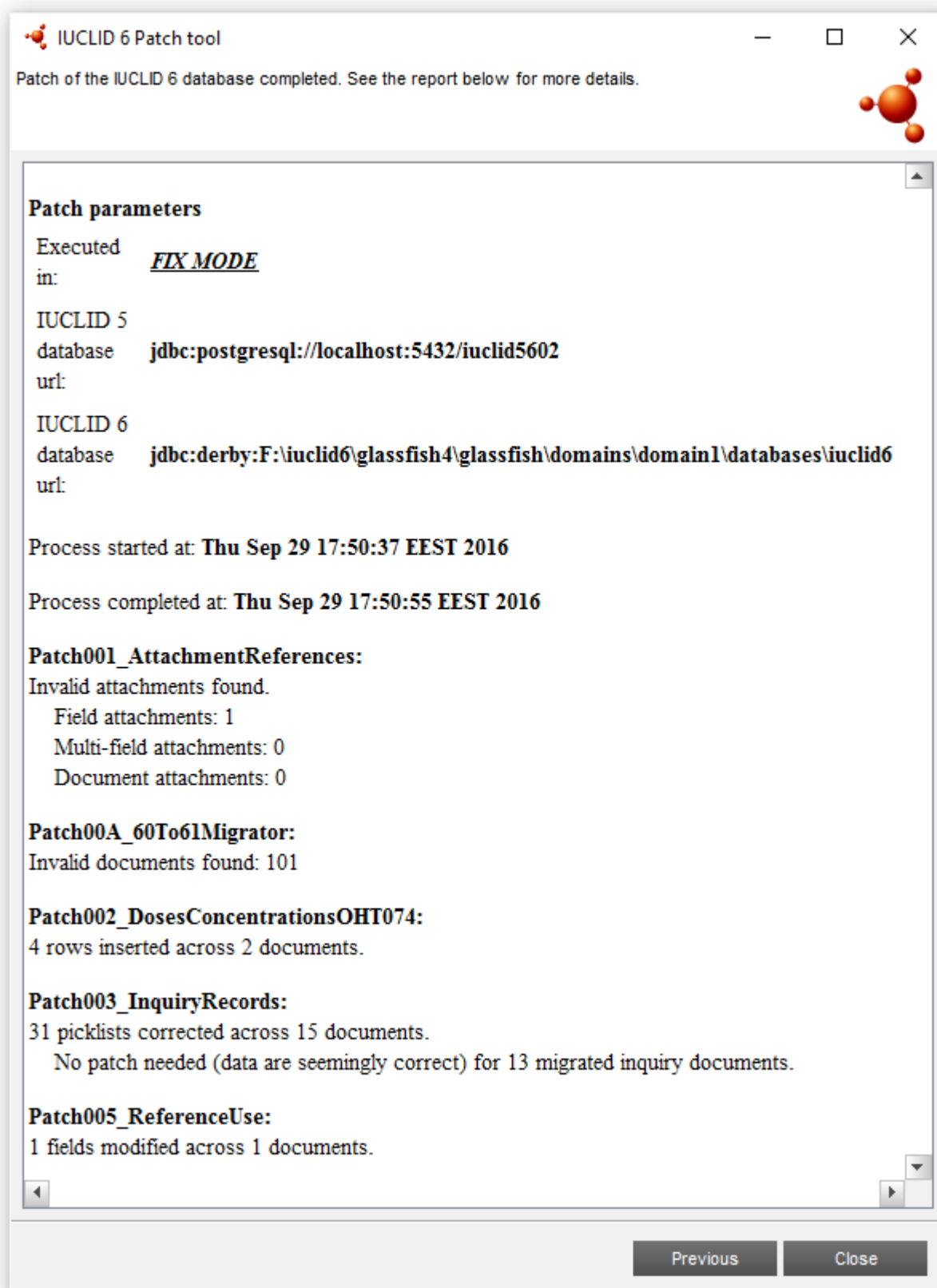


- By default, the box at the bottom left is ticked, which means that the tool will run in *Scan & Fix* mode, as indicated by the button to the bottom right. If you want to only scan the database(s), receive a report, and not make any actual changes, untick the box to enter *Scan* mode, as shown below.

Figure 6: Running the IUCLID 6 database patch tool in scan mode



- When you have chosen the patches to run and selected the required mode, click on the button *Scan*, at the bottom right of the interface. When the *Scan*, or *Scan and fix* is finished, a report is delivered, as shown in example below. Note that the same information is recorded in log files, as described in the next section.

Figure 7: An example of a report in Scan and Fix mode

6. Running the database patch tool without a graphical interface

The values of the parameters must be entered into a settings file:

```
<IUCLID6 patch tool installation dir>\internal\I6PatchConf.properties
```

The settings file contains the same parameters that are set in the graphical wizard. An example is given below for a IUCLID 5 PostgreSQL database, and a IUCLID 6 database installed on a server.

```
# Database url for IUCLID 5
```

```
source.connection.url=jdbc:postgresql://localhost:5432/iuclid5602
```

```
source.connection.user=iuclid5
```

```
source.connection.password=iuclid5
```

```
# The IUCLID6 connection parameters. They are required, if not specified, a validation error will be thrown
```

```
target.connection.url=jdbc:derby://localhost:1527/iuclid6
```

```
target.connection.user=IUCLID6
```

```
target.connection.password=IUCLID6
```

```
#Note that if you are migrating under Windows to a database with a static path, the separator for directories in the path must be double backslashes "\". Thus for IUCLID 6 Server, the default URL would be:
```

```
#jdbc:derby:<installation_dir>\glassfish4\glassfish\domains\domain1\databases\iuclid6
```

```
# Oracle database
```

```
#target.connection.url=jdbc:oracle:thin:@172.17.52.75:1521:iucliddev
```

```
#target.connection.user=iuclid6_vm20
```

```
#target.connection.password=iuclid6_vm20
```

```
# Flag indicating whether the patch tool operates in scan or fix mode
```

```
fix.patch.mode=true
```

```
# The list of rules available in the tool and a flag indicating whether the rule should be executed or not.
```

```
# By default all rules should be applicable for execution
```

```
Patch001_AttachmentReferences.rule.enabled=true
```

```
Patch00A_60To61Migrator.rule.enabled=true
```

```
Patch002_DosesConcentrationsOHT074.rule.enabled=true
```

```
Patch003_InquiryRecords.rule.enabled=true
```

```
Patch005_ReferenceUse.rule.enabled=true
```

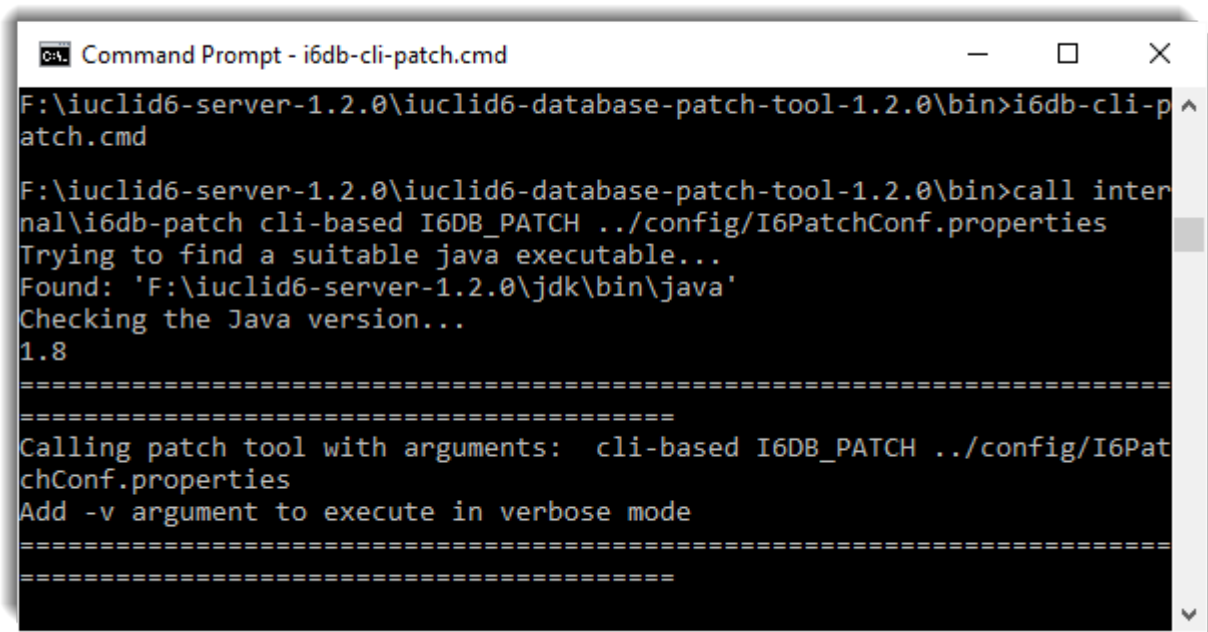
Start the migration by running one of the appropriate scripts below, which are in the directory named `bin`:

```
Windows:    i6db-cli-patch.cmd
```

```
Linux:      i6db-cli-patch.sh
```

Whilst the *IUCLID 6 database patch tool* is running, do not interrupt it in any way. Its progress can be followed from the command window, and from the logs described in section 7 *Log files*. An example of the command line output is shown below.

Figure 8: An example of the command line output for IUCLID 6 database patch tool in Windows with no graphical wizard. The Java delivered with IUCLID 6 is used.



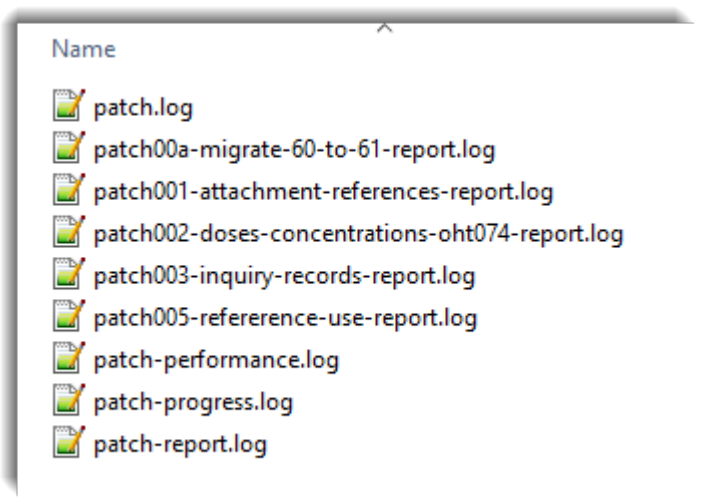
```
Command Prompt - i6db-cli-patch.cmd
F:\iuclid6-server-1.2.0\iuclid6-database-patch-tool-1.2.0\bin>i6db-cli-p
atch.cmd
F:\iuclid6-server-1.2.0\iuclid6-database-patch-tool-1.2.0\bin>call inter
nal\i6db-patch cli-based I6DB_PATCH ../config/I6PatchConf.properties
Trying to find a suitable java executable...
Found: 'F:\iuclid6-server-1.2.0\jdk\bin\java'
Checking the Java version...
1.8
=====
Calling patch tool with arguments: cli-based I6DB_PATCH ../config/I6Pat
chConf.properties
Add -v argument to execute in verbose mode
=====
```

It is important that the changes made by the IUCLID 6 database patch tool are now verified, as described in section 8 *Verification steps*.

7. Log files

The tool writes logs to a directory in its installation folder, named `logs`. The contents of the directory are shown below:

Figure 9: The log files for the IUCLID 6 database patch tool



There is a log file dedicated to each type of patch, and more general logs that apply to all of the tool.

8. Verification steps

Close the report, run IUCLID 6, and verify that:

1. The documents that previously could not be opened can now be opened.
2. In the case of corrupted references to attachments, make sure that you can open the default attachments that have replaced the corrupted references. Re-attach the correct files to the correct fields.
3. Check that the *Validation assistant* can be run on the relevant dataset(s).
4. Confirm that a *Dossier* can be created from the relevant dataset(s).