Stability Update 2018 - Details   TN10

Technical Note for the KLIPPEL R&D and QC SYSTEM (Document Revision 1.3)

1   Database Problems

Klippel result database files (*.kdbx) from dB-Lab 206 or higher / QC4 or higher are based on SQLite databases. Those database files store data in so called "records". In extremely rare cases, those records were stored in a non-unique way. Duplicate records may exist in an affected database and any subsequent access may fetch the wrong data record. Both setup and result data may be affected by this problem.

While this could lead to an incorrect version of the record being accessed, the correct version was still in the database. No data was lost. The ambiguous access may, however, result in wrong setups or results.

To repair this problem and to ensure correct display of results and setup, the storage mechanism was modified in the 2018 stability update to prevent this problem in the future. Older versions of dB-Lab cannot open the databases anymore to prevent incorrect data to be introduced again.

Thus, it is strongly recommended to update your existing software with the Stability Update 2018.

Make sure, all of the systems are updated at once to avoid any database incompatibility issue.

2   Stability Update 2018

All of the database related problems described in this note are fixed with the Stability Update 2018:

- R&D 206.350
- R&D 210.270
- QC 4.4
- QC 5.1

Make sure your installations are updated properly. The update is free of charge and does not require any new license.

Thus, when the Stability Update 2018 was installed, all potentially damaged databases are repaired automatically when accessed (even when accessed via automation interface). The Repair Tool described later in this note is not required to ensure save access to your data in this case.

3   Detection of Corrupted Database records

In the following (older) software versions such problems are reliably detected and the load of the data is blocked to avoid the use of defective database files.
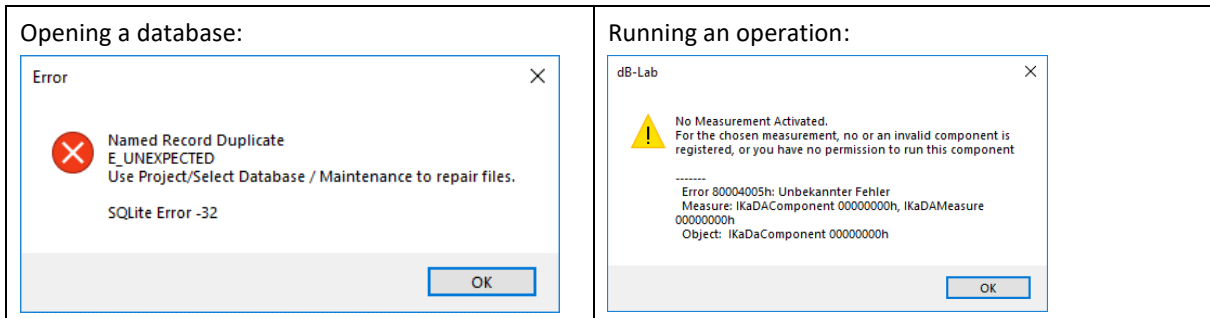
R&D:

dB-Lab 210.250

QC:

QC4.3 or QC5.0g

The typical symptom is an error message after opening the database or running an operation:

Opening a database:	Running an operation:

In both cases the execution and the display of results are blocked.

It is strongly recommended to install the Stability Update 2018. All those versions coming with this update repair the database automatically when opening the database.
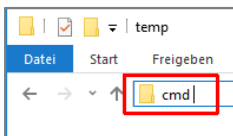
4   Automatic Scanning & Repair Tool

For storage of valuable or sensitive test data, the consistency of result files may be checked using a small tool by parsing a complete drive or a folder. The tool may optionally repair those files and back-up corrupted test files for detailed analysis. This tool is available from Klippel support if not distributed with this Tech-Note.

4.1   Installation and Usage

The tool comes as a zipped archive.

1. Store and extract it at any location with write access right. Go to folder *scantool*.
2. The tool requires a runtime VisualC++ 2008 environment. To install it, run the file *vcredist_x86.exe*.
3. Start a command line prompt in this folder. Just type *cmd* in the explorer address field:

4. In the command line prompt start the tool "*scantool 2018.exe*" with the required parameters:

Parameter:

  a. (optional) Repair Option /r: automatically repairs found defects
  b. (mandatory) Folder to be scanned, e.g. *d:\QC_Data*
  c. (optional) Folder for back-up of database files before repair. It is recommended to specify this back-up option to collect all defective database files at one location.

4.2   Results

The tool generates a list of all scanned files in the same folder labelled *dbdupscan.log*.

Example:


```
dbdupscan.log - Editor
Datei  Bearbeiten  Format  Ansicht  ?
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-13 17-21-25-7 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-13 17-23-25-0 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-13 18-08-37-3 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-13 18-42-03-7 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-13 19-13-46-0 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-14 08-43-12-9 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-14 20-47-32-1 UTC+0200.kdbx
AFFECTED CATEGORY A     d:\QC_Data\MyTest0123\Log\DUT 2016-09-14 20-44-32-1 UTC+0200.kdbx
AFFECTED CATEGORY A     d:\QC_Data\MyTest0123\Log\DUT 2016-09-14 21-12-11-0 UTC+0200.kdbx
ReadFailed       d:\QC_Data\MyTest0123\Log\DUT 2016-09-14 23-12-11-0 UTC+0200.kdbx
ReadFailed       d:\QC_Data\MyTest0123\Log\DUT 2016-09-14 22-15-11-0 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-14 21-10-11-0 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-14 21-13-43-6 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-15 02-45-32-0 UTC+0200.kdbx
OK         d:\QC_Data\MyTest0123\Log\DUT 2016-09-15 09-03-43-4 UTC+0200.kdbx
------  153 files, 15 .kdbx files, 2 failed to open,  2 affected
```

The first column contains the error status. The status *AFFECTED CATEGORY A* or *B* indicates a Duplicate Records problem.

Please send those report files to Klippel report for inspection.

5   Software Version Details

- RnD dB-Lab >= 206.350 does a required database conversion with every opened database.

  Once opened with RnD dB-Lab >= 206.350 the database cannot be opened with an older version again.

  Older versions are:
    - all sub version < 270 of RnD dB-Lab major release 210
    - all sub version < 350 of RnD dB-Lab major release 206

- RnD dB-Lab >= 210.270 does a required database conversion with every opened database.

  Once opened with RnD dB-Lab >= 210.270 the database cannot be opened with an older version again.

  Older versions are:
    - all sub version < 270 of RnD dB-Lab major release 210
    - all sub version < 350 of RnD dB-Lab major release 206

- RnD dB-Lab Viewer >= 210.270 does not convert the opened databases.

  Once opened with RnD dB-Lab Viewer >= 210.270 the database can still be opened with older RnD dB-Lab versions again.

  There is no need for a separate RnD dB-Lab Viewer 206 anymore. The latest RnD dB-Lab Viewer 210 can be used for all .kdbx databases.

- All .kdbx databases can be exported back into old .kdb file format with any RnD dB-Lab 206 or 210 sub version.

  Old .kdb databases can be imported into actual .kdbx file format with any RnD dB-Lab 206 or 210 sub version, preferably the newest RnD dB-Lab versions.

- QC >= 4.4 does a required database conversion with every opened database.

  Once opened with QC >= 4.4 the database cannot be opened with an older version again.

  Older versions are:
    - all sub version <= 3 of QC major release 4
    - QC 5.0

- QC >= 5.1 does a required database conversion with every opened database.

Once opened with QC >= 5.1 the database cannot be opened with an older version again.

Older versions are:

- all sub version <= 3 of QC major release 4
- QC 5.0

6   References

Manual	dB-Lab Manual, Use Hotkey F1 in dB-Lab for on-line manual
	Reference case #9372

Find explanations for symbols at:

http://www.klippel.de/know-how/literature.html

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