

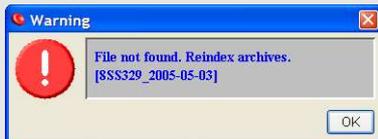
Troubleshooting Resolvigen 3 database.

Author: Carlo Magnaghi

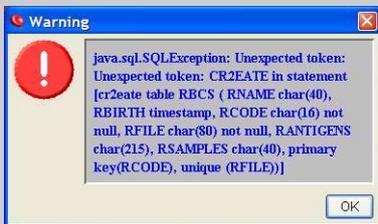
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Resolvigen 3 stores data in XML files in different directories; a database is used for indexing archives. With normal operation there is normally no need for any maintenance operation, but in some cases, like user copying or moving files from the archives or power failures, the database may get out of synch with archived data. The symptoms that such an event has occurred are:

Some items do not show up in Resolvigen 3 main window.



When trying to open an item selected in the main window, an error message is displayed.



In more serious cases Resolvigen 3 may fail to read the database altogether and a message concerning the database is displayed at startup. In this rarer case you will probably need to erase database tables first as described in the **Advanced troubleshooting** section below.

In most cases Resolvigen 3 will pinpoint the problem and suggest to reindex archives.

Reindexing archives

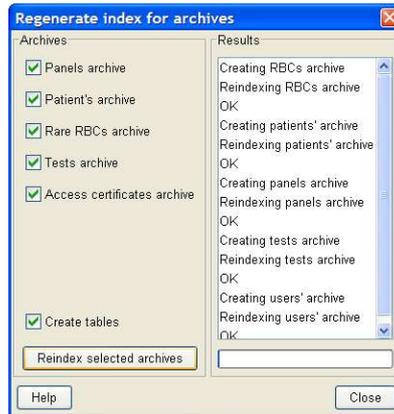
Reindexing archive recreates index tables based on the content of XML files. To reindex files select **Reindex files** from **Tools** menu; Resolvigen 3 will show the **Regenerate index for archives** window.



You should select the archives to reindex; it does not hurt to select all the five archives: it just takes a little more time to complete reindexing.

You may also select the **Create tables** checkmark. If this checkmark is selected new database tables are created, destroying existing tables; this does not cause any data loss since tables only contain indexing information based on XML files: the XML files actually contain all of the data.

Resolvigen 3 may use different database, even databases hosted on remote servers; in such cases it is possible that the local user is not granted the right to erase and create tables; in this case you should not check the **Create tables** checkmark.

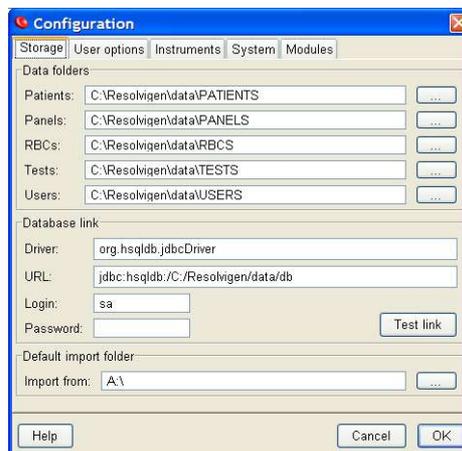


Click **Reindex selected archives** to start the reindexing operation; depending on the quantity of items (XML files) in archives this may take some time; during this time a list of the operations being performed is displayed on the right side of the window and a progress bar shows the progress in reindexing the selected archives.

When done you may click the **Close** button; Resolvigen 3 should work correctly now. In case you still experience problems or the **Results** panel displays any error check the **Advanced troubleshooting** section below.

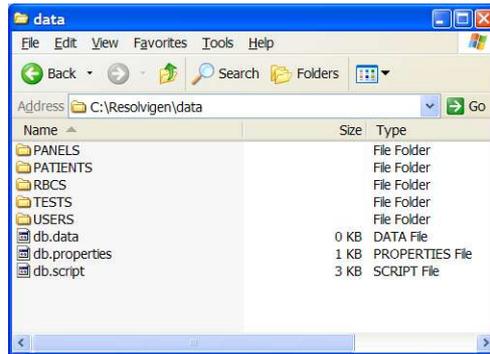
Advanced troubleshooting

As a first step it is necessary to browse the **Configuration** window to check where the archives are stored. Click **Configure** in **Tools** menu. Resolvigen 3 will display the **Configuration** window and the **Storage** tab will be selected.



The first five items in this tab (namely **Patients**, **Panels**, **RBCs**, **Tests** and **Users**) show where XML files are stored; please note that these five paths must be different in order to keep XML files describing different items in distinct folders.

The configuration above matches the following directory structure.



Where the five different folders containing the different types of XML files are clearly visible.

In the **Database Link** group the database configuration is displayed; the first item in this group, namely **Driver**, identifies the type of database used:

org.hsqldb.jdbcDriver

This identifies the database engine contained in the Resolvigen 3 distribution (HSQLDB); Resolvigen 3 may use virtually any JDBC or ODBC database engine; for example when Resolvigen 3 is interfaced to OrthoScan, the Microsoft Access database driver is used.

The second item (**URL**) indicates the location of the database tables:

jdbc:hsqldb:/C:/Resolvigen/Data/db

When HSQLDB is used, the third part of this string contains a path; please note that to be POSIX compliant this path uses forward slashes instead of backslashes and that even the drive part (namely 'C:') is separated by slashes.

This path matches the three files in the C:\Resolvigen\Data directory above; namely:

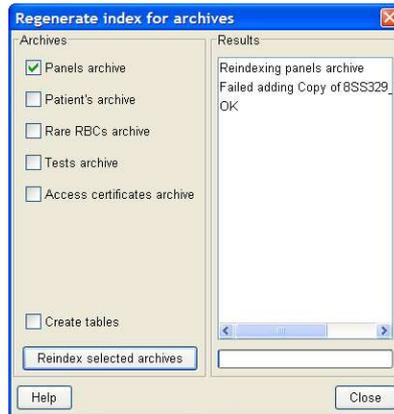
db.data
db.properties
db.script

If you are experiencing problems with the database tables that are not solved with methods described in the **Reindexing archives** section, you may try the following steps.

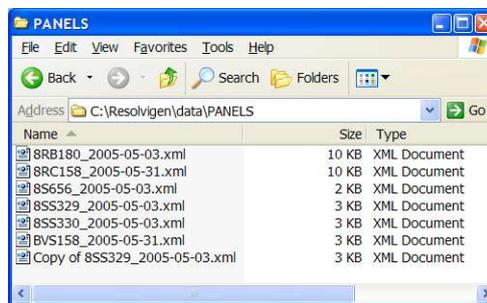
1. Make sure that Resolvigen 3 is not running; eventually exit Resolvigen 3.
2. Erase the three files: db.data, db.properties and db.script.
3. Run Resolvigen 3 again and follow steps in **Reindexing archives** paragraph.

This erases any quirk that may be present in database tables and may prevent them from working properly. Physically erasing tables may also be an option when a database engine different from HSQLDB is used; how this is done depends on the specific database: you should consult your system administrator.

Occasionally some problem may evolve in the XML files; this should be an exceptional occurrence and the fact that all XML files are single independent units warrants that in this case the problem would remain restricted to the single file; except, obviously in the case of a mayor system failure that trashes entire sections of the hard disk. **So making regular backups is always an healthy policy.** In this cases when reindexing, Resolvigen 3 will pinpoint the offending XML files.



For example, in order to generate an error, we made a copy of an XML file containing a panel.



Since panels must be uniquely identified by panel name and expiration date, Resolvigen 3 refuses to add both “8SS329_2005-05-03.xml” and “Copy of 8SS329_2005-05-03.xml” to the database flagging an error: Failed adding Copy of 8SS329_2005-05-03.xml.

To solve the problem you should remove the offending file from the Panels directory.

Making backups

Making regular backups is still the silver bullet against data loss. Making a copy of the five directories indicated in the Data folders group of the Configuration window ensures that you will always be able to recover from data losses.

Making backups of the database tables is not necessary, because these tables may be easily recreated from the XML files in the data directories.