IBSurgeon FirstAID 7.5 Recovery Guide

ver. 7.5.49

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What is IBSurgeon FirstAID?

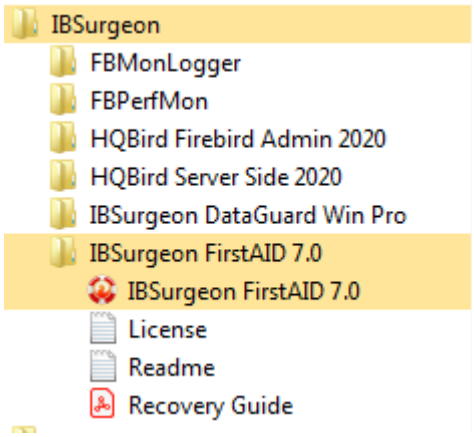


Figure 1. IBSurgeon FirstAID in Start Menu

IBSurgeon FirstAID is the tool that can automatically diagnose and repair corrupted Firebird or InterBase databases - it can repair corruptions that neither gbak nor gfix can handle. It uses its own layer for low-level database access without using the InterBase or Firebird engine, so it can perform real "surgical" operations and repair your database when all other standard mechanisms cannot.

FirstAID 7.5 supports the following versions of Firebird and InterBase:

- Firebird 1.0
- Firebird 1.5
- Firebird 2.0
- Firebird 2.1
- Firebird 2.5
- **Firebird 3.0**
- **Firebird 4.0**
- InterBase 4.x
- InterBase 6.x
- InterBase 7.0
- InterBase 7.1
- InterBase 7.5
- InterBase 2007
- InterBase 2009
- InterBase XE/XE3
- InterBase XE7
- **InterBase 2017**
- **InterBase 2020**

If you have problems with the InterBase 5.x database or earlier version of InterBase, please send email to support@ib-aid.com,

FirstAID Overview

IBSurgeon FirstAID 7.5 can perform 3 kinds of recovery operations: direct recovery, data extraction and forced merge of delta file.

1) Direct recovery. The direct recovery is intended to fix original corrupted database in place. After direct recovery you need to finalize it with gfix and gbak (see below).
2) Data extraction. The data extraction is designed to view and export data from the corrupted database to the database with the same structure (usually it should be empty).

   If you have corrupted database and need to check it and see if there are good enough data inside, open database, select necessary database and use Preview tab (this function is available in a free version, it does not require registration).

   If you can see data you are looking for, and decide to recover database, we recommend performing direct recovery first (always use the copy of corrupted database file!) and only if there will be problems, export data to the new database.

3) Forced merge of delta file and fix up database hanged in backup mode. The forced merge of delta file is intended to fix the Firebird databases hanged in the backup state (when nbackup –n does not work properly).

Let's consider these operations and available options in details.

How to view data in corrupted Firebird/InterBase database with FirstAID

If you need to view data in the corrupted database, you can do it with **free version** of FirstAID 6.0. For this you need to run FirstAID, click "Open corrupted Database" (if you have multi-volume database, choose from menu File\Open multi-file database).

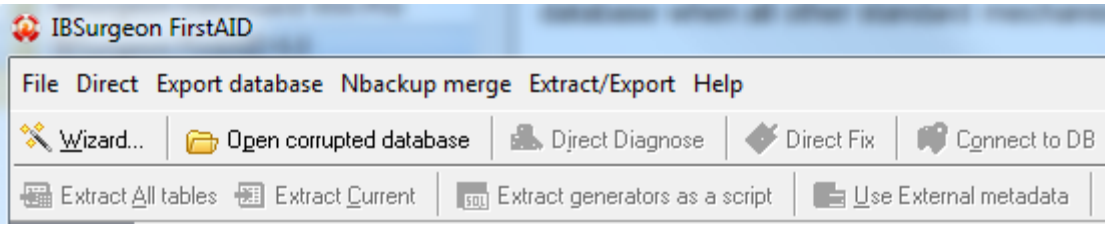


Figure 2 Open corrupted database

After that it will ask you to confirm ODS version (3 variants of dialog are shown, to demonstrate options):

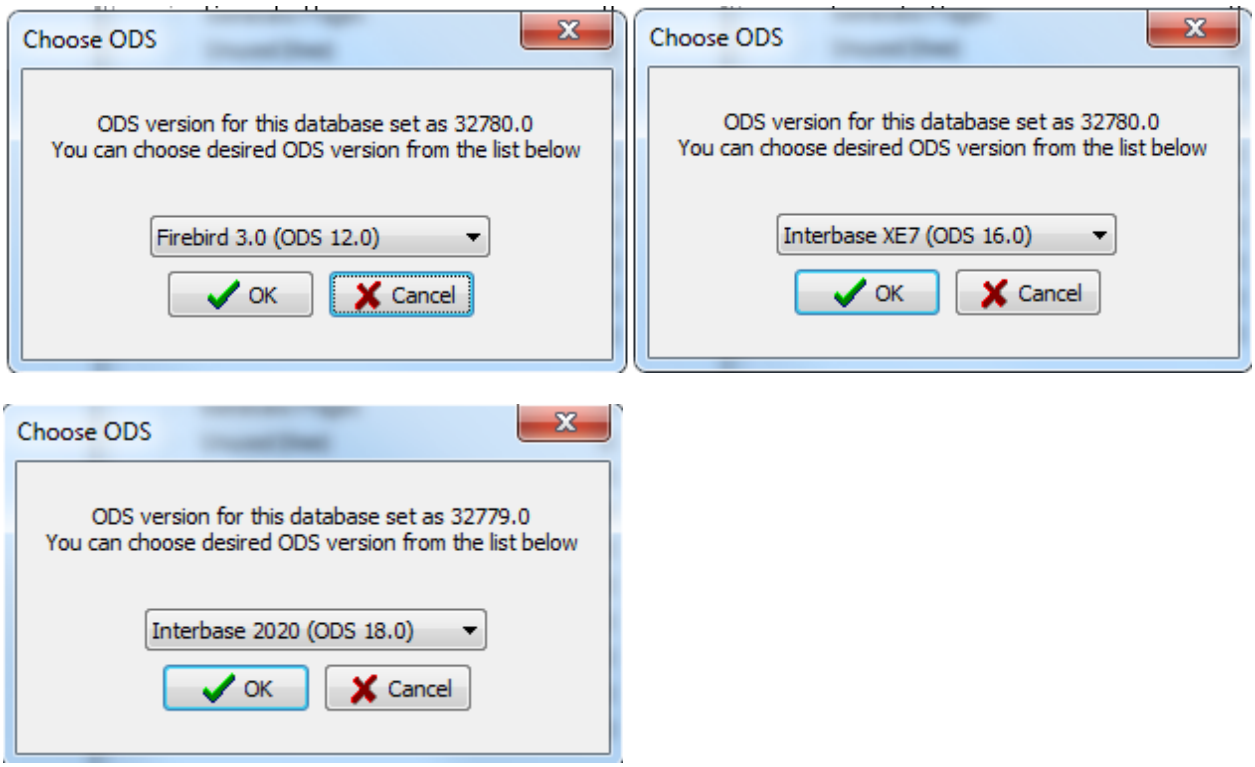


Figure 3. Confirm choice of On-Disk Structure version (optional dialog)

There is the only exception when FirstAID cannot show you ODS – if header page is corrupted. In this case it will show you empty line, and you must select correct version of your database in the drop-down list. We assume you know it; otherwise you should contact us: support@ib-aid.com.

Click “Ok”.

Then it asks to confirm page size:

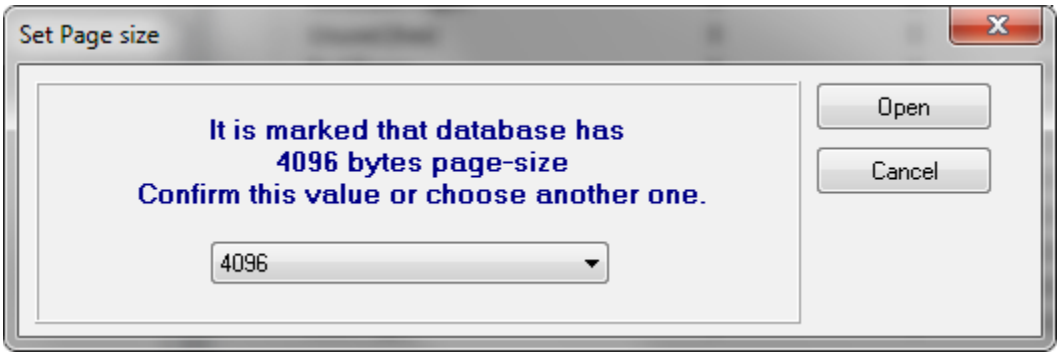


Figure 4. Confirm page size choice (optional dialog)

If the header of database is corrupted, FirstAID will show you empty line and you need to select correct page size from the drop-down box.

*Most often the page size is **4096 for Firebird 2.x** and 1024 for InterBase and Firebird 1.x, and **8192 for Firebird 3**.*

If you will select wrong page size you will see a big percent in “Bad pages” line of “Pages Summary” tab. If you don’t know page size and 4096 looks incorrect, try to open database with different page sizes, in order to find correct value.

Click "Open".

After that database will be opened and you will see list of the tables at the left and summary view of database pages at the right:

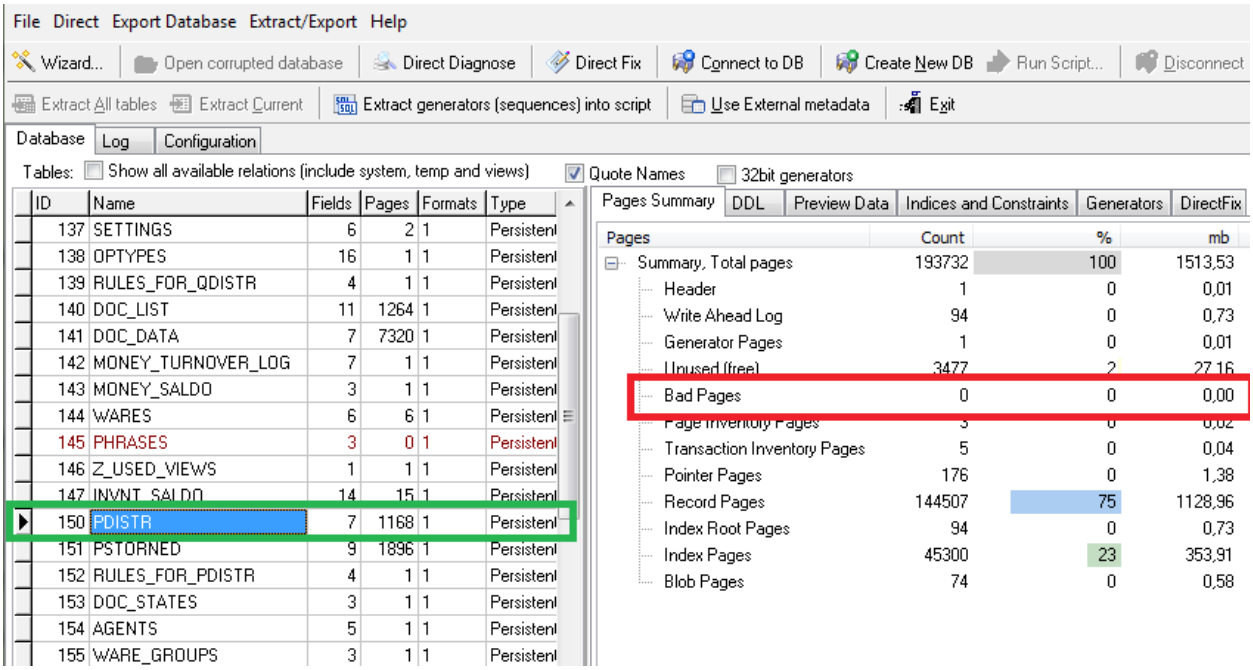


Figure 5 Pages Summary

The most important information on this tab is percent of "Bad pages" - it gives an idea of how many data pages cannot be read and, therefore, what are losses.

> *If you see 0% of bad pages, it (most likely) means that problems are on the records level or in the system area, and there are not so many problems. If you see 1-2%, it slightly corresponds to losses in the database. If you see something like 50% or 75%, it usually means that you have selected wrong page size (in case of wrong header).Of course, there are cases of corruptions when nearly the whole database is damaged.*

You can see that FirstAID highlights empty tables by light red, and tables with data inside have a black color of the font.
Double click on table name and you will see data from the first data page of this table:

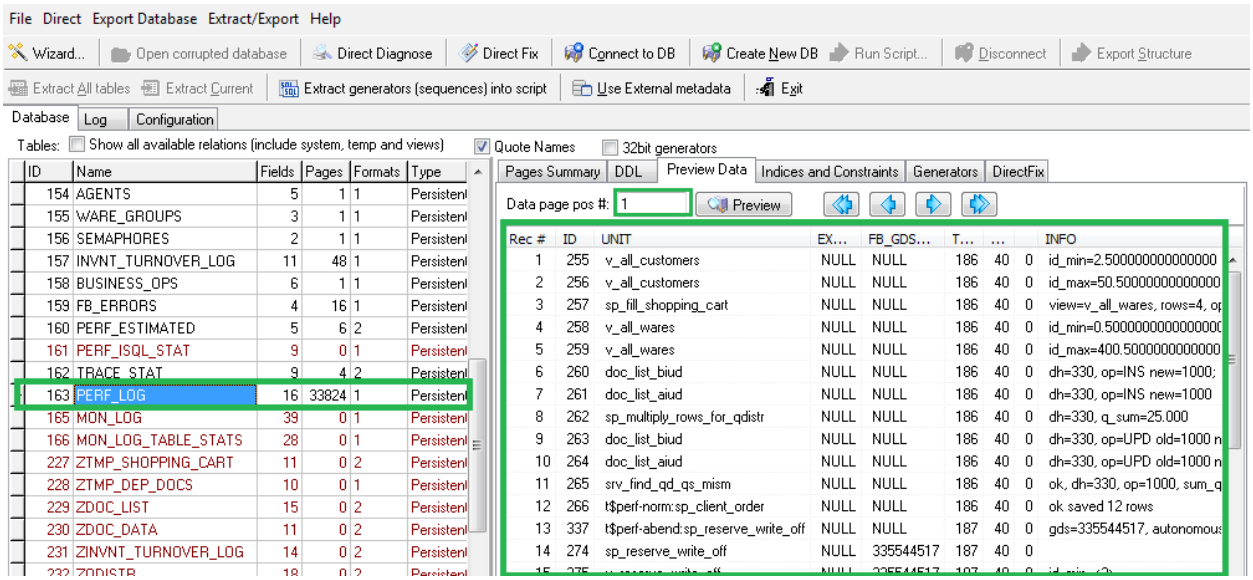
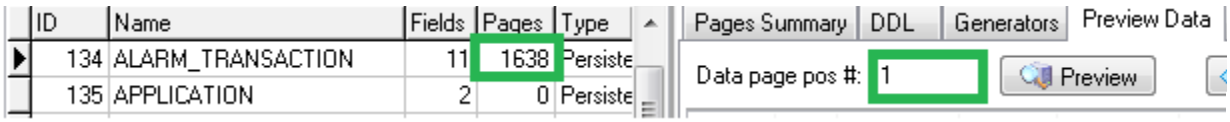
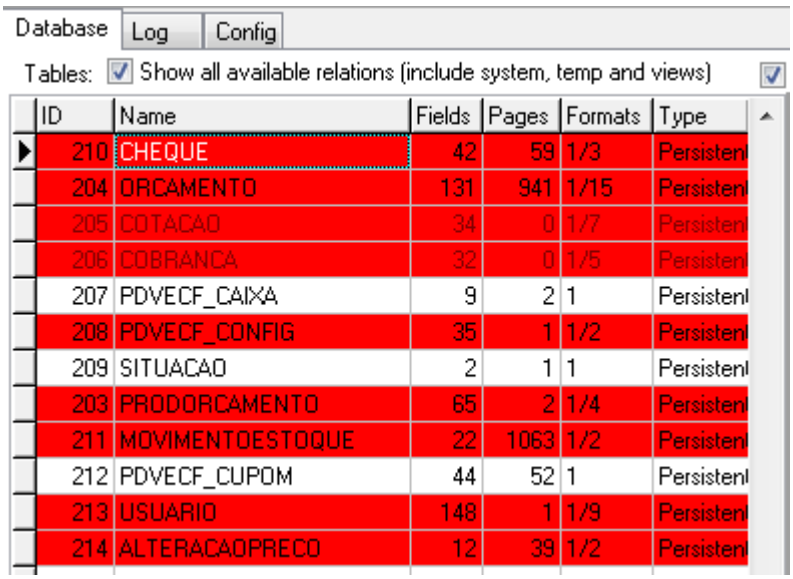


Figure 6 Data preview in corrupted databases

In the tables' list you can see number of data pages found for this table in the database, and there is a navigator to browse data pages on the "Preview" tab of FirstAID:



Browse data pages for the important tables and decide - do you need to recover this database. If you decided to recover database, read next section.



In case of a heavy corruption of system tables FirstAID will highlight by bright red all tables with problems. In the column «Formats» it shows a number of expected record formats and number of existing formats.

In this case, or if you don't see normal tables names or data in them, read "External metadata" section in the end of this guide!

How to get a full version of FirstAID

To recover database you need to purchase appropriate license of FirstAID and wait for its deployment - you should get automatic email from activate@ib-aid.com about it. **Usually it takes around 10-15 minutes**.

FirstAID is licensed on “per database” basis, so you can buy license for 1-3 databases or for 50 databases:

- From 1 to 3 databases:
- Up to 50 databases:

If you have any old version of FirstAID, or you have used all activations for recovery, you can buy the upgrade for 50 databases:

More options are here:

Usually order is processed during several minutes, and then you will get automatic email from PayProGlobal online shop.

After that we will send you the necessary information (essentially, it is a password) to enter it in FirstAID and perform recovery (see details below in section “Registration”).

If you did not receive the password in 1-2 hours, please check your antispam folder (and settings), and then write email to with your order number, to speed up delivery.

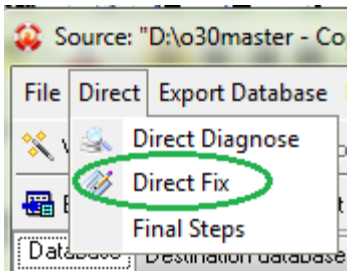
> *You don’t need to reinstall FirstAID6.0 from Download section of Deploy Center – just enter email and password when requested. Reinstall FirstAID 6.0only if you have an older version installed.*

Try to recover database with Direct Fix before trying to export all data with–in-place recovery can be faster than export process (but please don't forget to make a copy before Direct Fix!).

Direct recovery with FirstAID

To directly recover Firebird database please do the following:

1) Please stop Firebird server and **make a copy of the original database file**! This is important to have intact copy of the corrupted database for possible future use – for extraction, for example.
2) Start FirstAID.
3) Open corrupted database. Please wait – it can take some time (it depends on your computer's speed).
4) After database opening FirstAID will enable menu actions to diagnose, repair and export.
5) Choose in menu «Direct->Direct Diagnose». FirstAID will start to walk through database pages and check them. It can be a long process, which depends on the database size, computer speed and data density (i.e., how many records are on data pages).



6) Look into FirstAID log: there will be information messages and errors:

   Example of information message:

```
12:40:55 DEBUG: Checking INVNT_SALDO (147)...
12:40:56 INFO: Relation INVNT_SALDO (147) is OK
```

   Example of error message:

```
18.02.2014 18:45:31 ERROR: Found 1 record errors on datapage#2069
18.02.2014 18:45:31 ERROR: Error on data page #2069
18.02.2014 18:45:32 INFO: Pointer page #243 checking: found 177 errors.
18.02.2014 18:45:32 ERROR: Error in checking relation #160 Found 1 errors.
18.02.2014 18:45:32 ERROR: Relation MOVIMENTA1 (160) is CORRUPT
```

   The most unpleasant are data pages and records-levels errors: if there are many errors, it can be a sign that you need to export data to the new database, instead of direct recovery.

7) After "Direct Diagnose" please choose in menu «Direct->Direct Fix». The following dialog (see Figure 7) will appear (it will appear only if you have Internet connection at the computer where you run FirstAID, otherwise read about "Offline registration").

Enter here your email (which was used for license purchase) and password (from the email from activate@ib-aid.com). Click "Generate UNLK now".

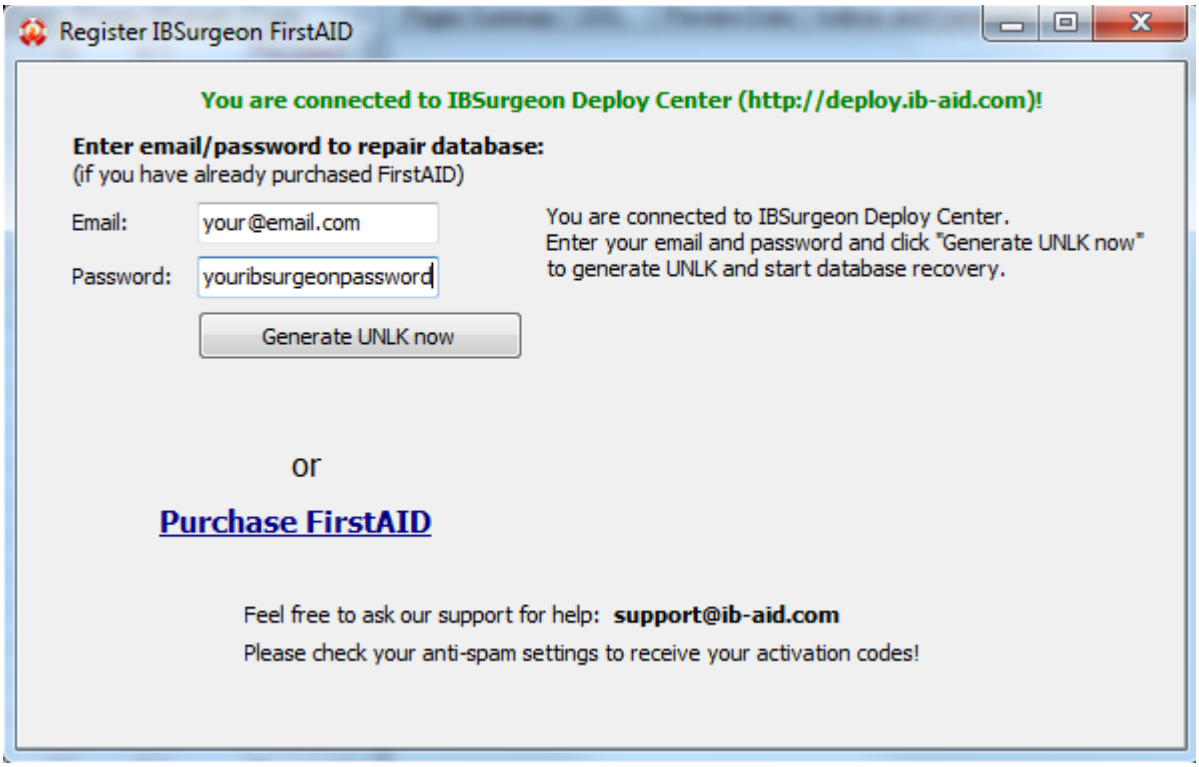
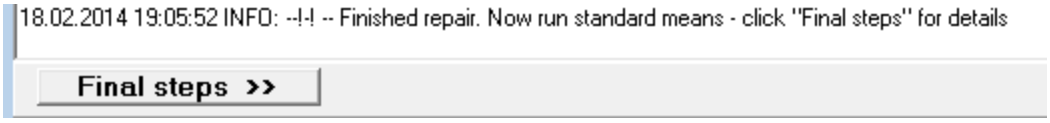


Figure 7 Enter email and password to repair database

*Please note that FirstAID will save UNLK file for this database in the folder **C:\ProgramData\FBFirstAID3\Unlocks**, so next time when you will open this database file at the same computer, FirstAID will not ask you for the registration.*

8) Repair process will take approximately the same time as diagnostics.
9) After Repair you will see this message in the FirstAID log:



Click in menu «Direct\Final Steps» to see this instruction:

FINAL STEPS

After IBSurgeon FirstAID Direct Fix repair procedure you need to run standard means to complete recovery. Please keep results of each step for possible future use.
Even if gfix steps fail, try to run gbak (steps 3 and 4) anyway!

1) Run gfix.exe (**it is located in "Bin" directory of InterBase/Firebird installation**) using the following command line:

gfix.exe -v -full -user SYSDBA -password <your_sysdba_password> Disk:\Path\your_database.gdb

2) After that run gfix.exe with another switches combination:

gfix.exe -mend -ig -user SYSDBA -password <your_sysdba_password> Disk:\Path\your_database.gdb

3) Gfix fixes minor corruptions and prepares database for backup. Then you need to backup database using gbak.exe (in the same directory with gfix.exe). Run backup with the following command:

gbak.exe -b -g -ig -user SYSDBA -password <your_sysdba_password> Disk:\Path\your_database.gdb Disk:\Path\backup.gbk

4) Restore database from backup. Run command:

gbak -c -user SYSDBA -password <your_sysdba_password> Disk:\Path\backup.gbk Disk:\Path\your_database.gdb

5) Only if you have InterBase database! – FirstAID can set InterBase database to the read-only mode during recovery, to set it back to read-write, run the following command:

gfix.exe –mode read_write -user SYSDBA -password <your_sysdba_password> Disk:\Path\your_database.gdb

That's all - now database is repaired.

If you encounter problems during these steps, please use export data from the corrupted database to the new one – see «Recovery through extraction» for details.

Recovery through extraction

If you already tried to fix database with DirectFix and it was not possible to create backup of the database with final steps, proceed with extraction.

We assume that you have an untouched file copy of the original corrupted database which you have created before Direct Fix step. If so, please make a copy of it again and perform all further operations with it.

> ***It's important to run FirstAID on the intact original (before Direct Fix) copy of the corrupted database!***

Overview of data extraction process

The idea of data extraction process is the following: FirstAID reads database on the low-level (it uses its own data access level, not using Firebird engine), and exports all good records into the new good database.

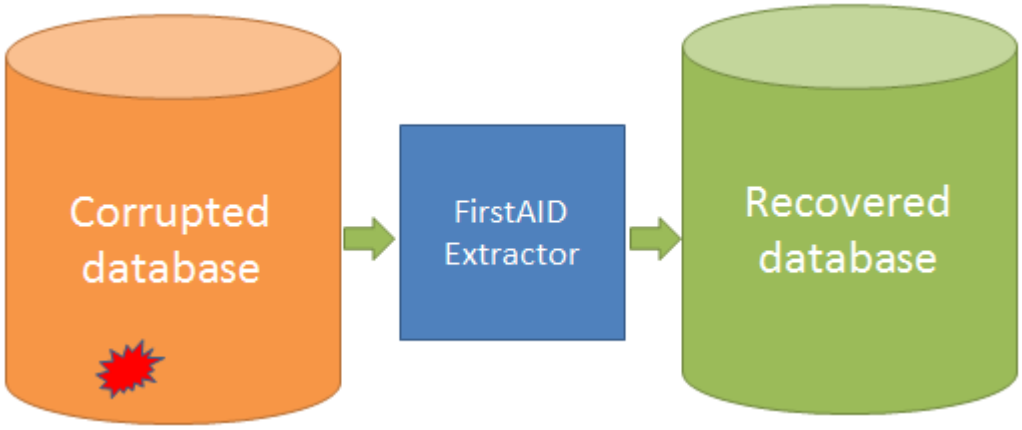


Figure 8 How FirstAID extraction works

There are several important options to be considered:

1) Recovered database. You need to have target database where saved data will be pumped to.
   a. Connect to empty database *with the same structure* (metadata) as a corrupted database. **This is a preferred option**.
   b. Create new empty database *without metadata*. FirstAID can create new empty database for you, but since metadata in the source database can be corrupted, it could be incomplete, and you will need extra steps to create missing metadata manually.

2) More data VS More consistency. In the corrupted database some primary keys could be missing and some database constraints (like NOT NULL, CHECK, FOREIGN KEY, etc.) could be violated, so there is a choice – turn off violated constraints and let potentially inconsistent data to be inserted to the database, or enforce all rules.
   a. *More data*. This is a **preferred option**, because after export you will be able to review results and enforce database constraints manually. It is common that some non-relevant constraints exist in the damaged database, so it's better to save as much data as possible.

b. More integrity. If you don't see many errors, you can try this option. All constraints and Foreign keys will be enforced, and those records, which do not correspond database constraints will be deleted in the destination database.
c. Manual mode. You have options to tune export process manually. We assume you know what you are doing if you choose manual mode and set parameters by yourself.

Export to the empty database with the same metadata

So, let's consider the recommended option: export to the empty database with the same metadata as corrupted database has.

Open corrupted database in FirstAID and then choose "Connect to DB":

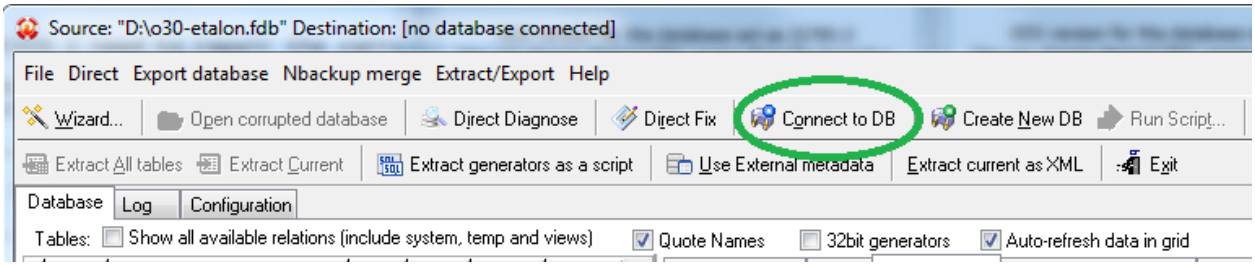


Figure 9 Connect to the empty database with the same metadata

After that the following dialog will appear:

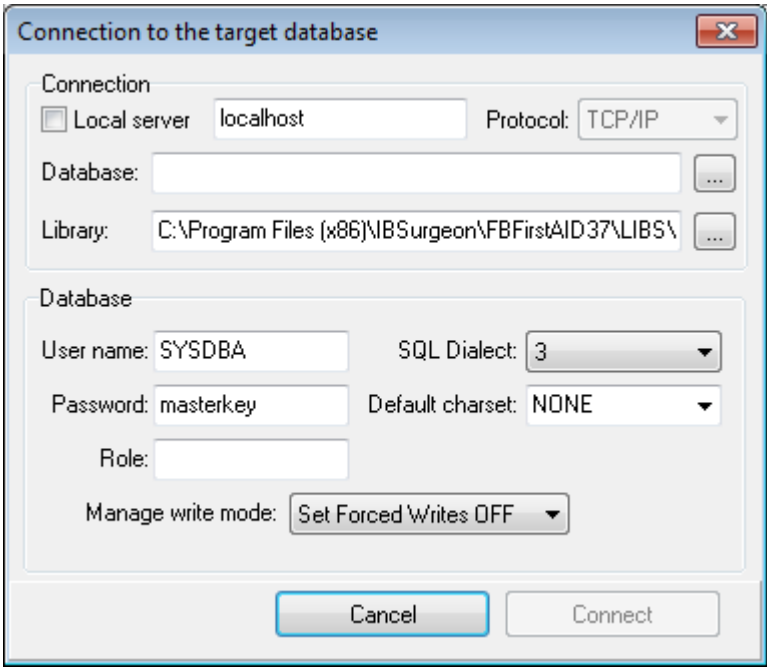


Figure 10 Connect dialog

Click on "…" near "Database" text field and select destination database for the export. Path to client library (fbclient.dll or gds32.dll) is set automatically; it depends on the version of the source database file (necessary client libraries are shipped with FirstAID).

If you prefer to export data with another server version than the original corrupted database, you need to choose the correct client library from that server.

FirstAID will adjust SQL Dialect and Default charset parameters automatically, if header page of corrupted database is not damaged, otherwise you need to set these parameters by yourself.

By default, FirstAID will set target database in Forced Writes OFF mode, in order to speed up export process. You can change to Forced Writes ON after recovery complete, before going to production, with command

```
gfix -write sync <database> -user SYSDBA -pass <your_password>.
```

Make sure that Firebird (or InterBase) server is running at this moment!

Click “Connect”.

UDFs!

After establishing connection with the destination database FirstAID checks the metadata for UDFs. At this moment you may see the following (or similar) message:

Figure 11 UDFs warning

It means that there are UDF functions in the destination database, and you **must** provide UDFs dill file(s) to ensure correct extraction. FirstAID shows you the name(s) of UDF libraries; in this case it is “ib_udf2.dll”.

An absence of UDF dill may prevent the proper export process!

You need to go to UDF folder of your Firebird/InterBase installation and check that this file is in this folder. If not, copy it from the server where originally your corrupted database was located.

What if I don’t have empty good copy of a database?

If you don’t have an empty good copy of the corrupted database, you need to create it with the following process:

1) Find any good copy (probably it will be old good copy) of the corrupted database. If you have good old backup (gbk or fbk), skip step 2.
2) Make backup with metadata only option:

```
gbak -b -g -m -user SYSDBA -pass masterkey
Disk:\Path_to_good_db.fdb Disk:\backup.fbk
```

3) Restore backup with metadata-only option:

```
gbak -c -m Disk:\backup.fbk Disk:\path_to_empty_metadata_db.fdb
```

Use new empty metadata-only database as a target for export.

Export process

After that the following dialog will appear:

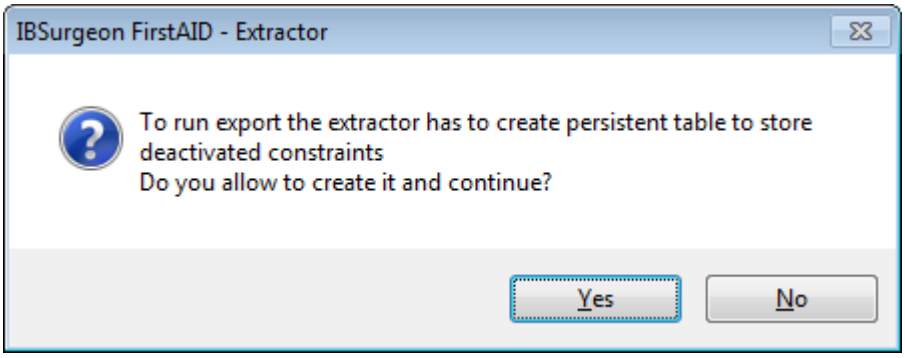


Figure 12 Permission to create service table

FirstAID needs to create service table to store necessary export information. This table will contain information about database constraints, triggers, indices, etc.

Click “Yes”.

After that FirstAID will open new tab “Destination database”:

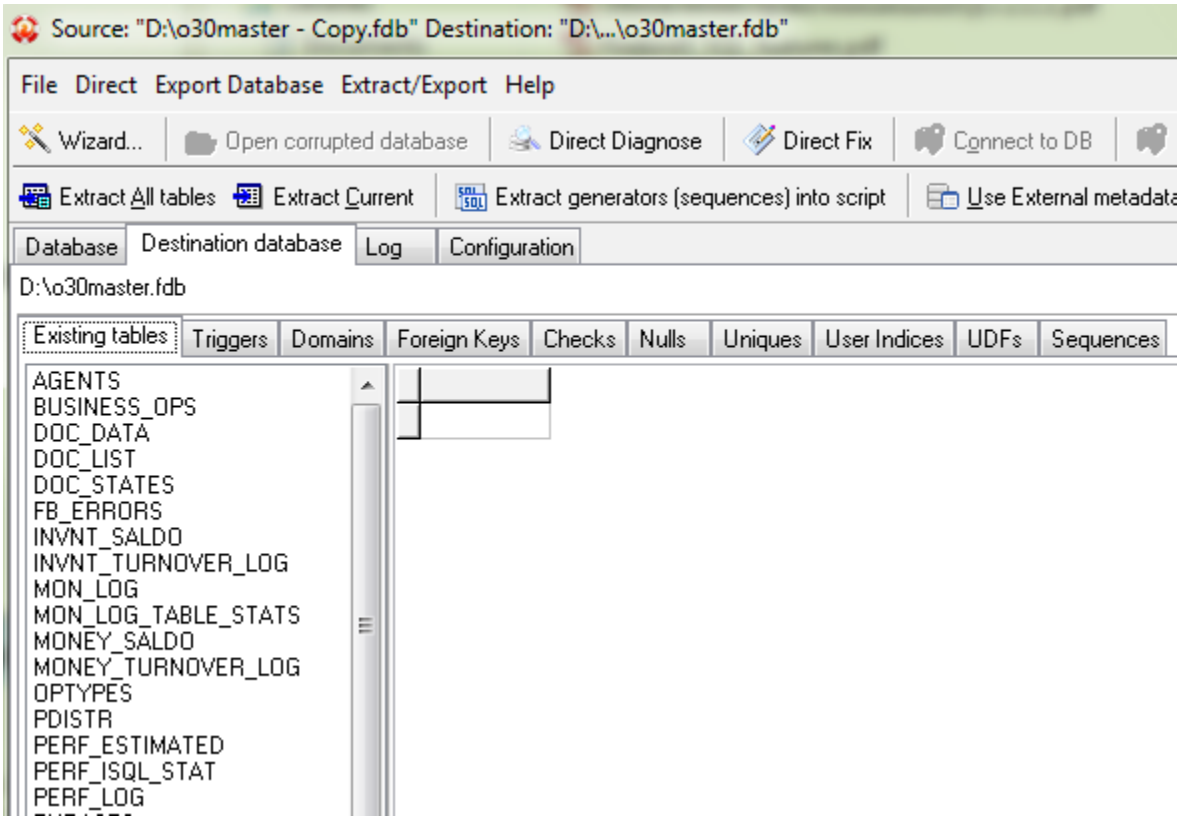


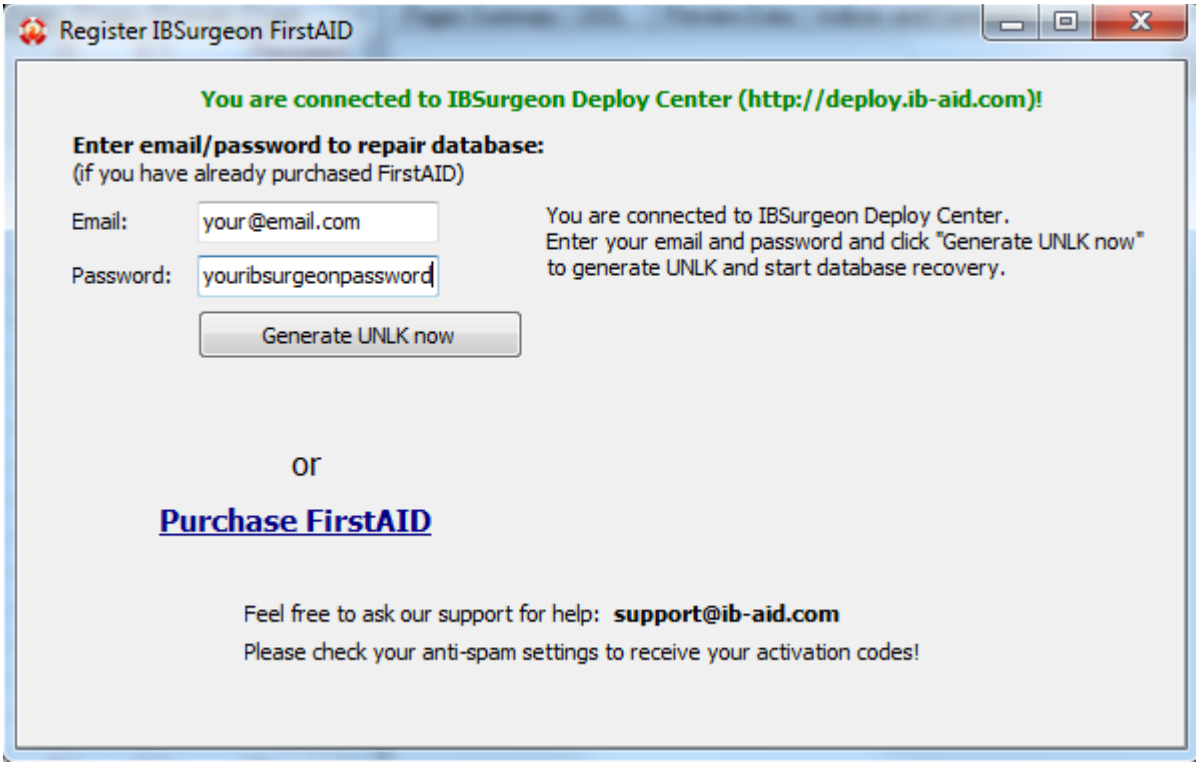
Figure 13 Tab "Destination database"

At this tab you can see the list of tables of target database, as well as triggers, foreign keys, checks and NOT NULL constraints, unique keys, domains, UDFs and generators (sequences).

Click “Extract All Tables”

Registration

The following dialog will appear (if you have Internet connection at the computer where you run FirstAID, otherwise read section "Offline registration"):



Enter here your email (which was used for license purchase) and password (from the email from activate@ib-aid.com).

Click "Generate UNLK now".

If you already registered this corrupted database on the same computer, registration dialog will not appear!

Then this dialog will appear:

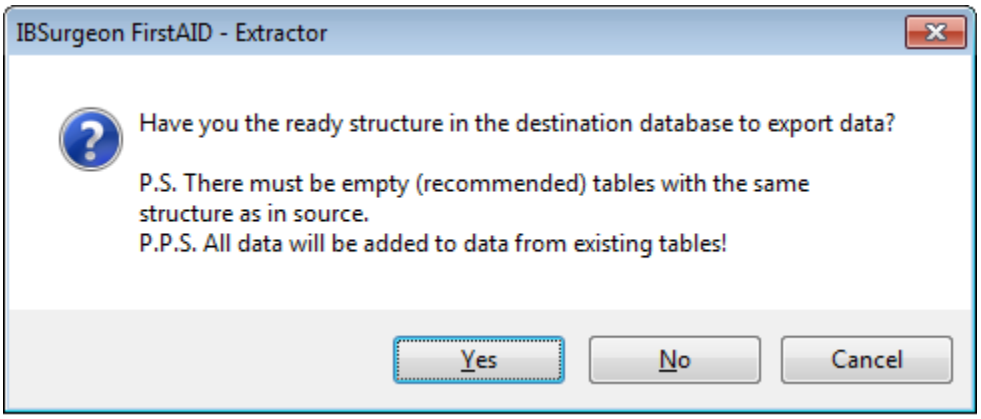


Figure 14 Confirmation of a destination database

It's the confirmation that you are agree to export data from corrupted database to the selected one, and it also informs you that data will be added to the existing tables (if there were already records, they will be not deleted automatically!)

Click "Yes".

If you click "No", FirstAID will try to create structure using corrupted database metadata as template. "Cancel" will cancel the operation.

After that there will be one more dialog with the final confirmation and reminder about the structure:

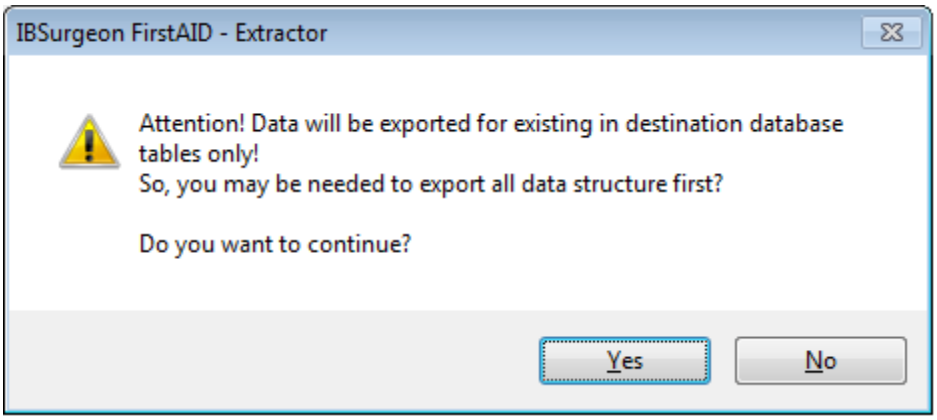


Figure 15 Reminder about structure

Click "Yes".

Then you will see very important dialog with export options (see Figure 16). We recommend option “More restored data”, it will switch off all database constraints (except primary keys) and FirstAID will try to export all available data.

After export all constraints will be switched on again (for those data that allow it). At the tab “Destination database” you can review result and correct or drop all data that you decided to be odd or unwanted.

“More data integrity” mode will restore all constraints after export and will drop all exported data that will not correspond to database constraints.

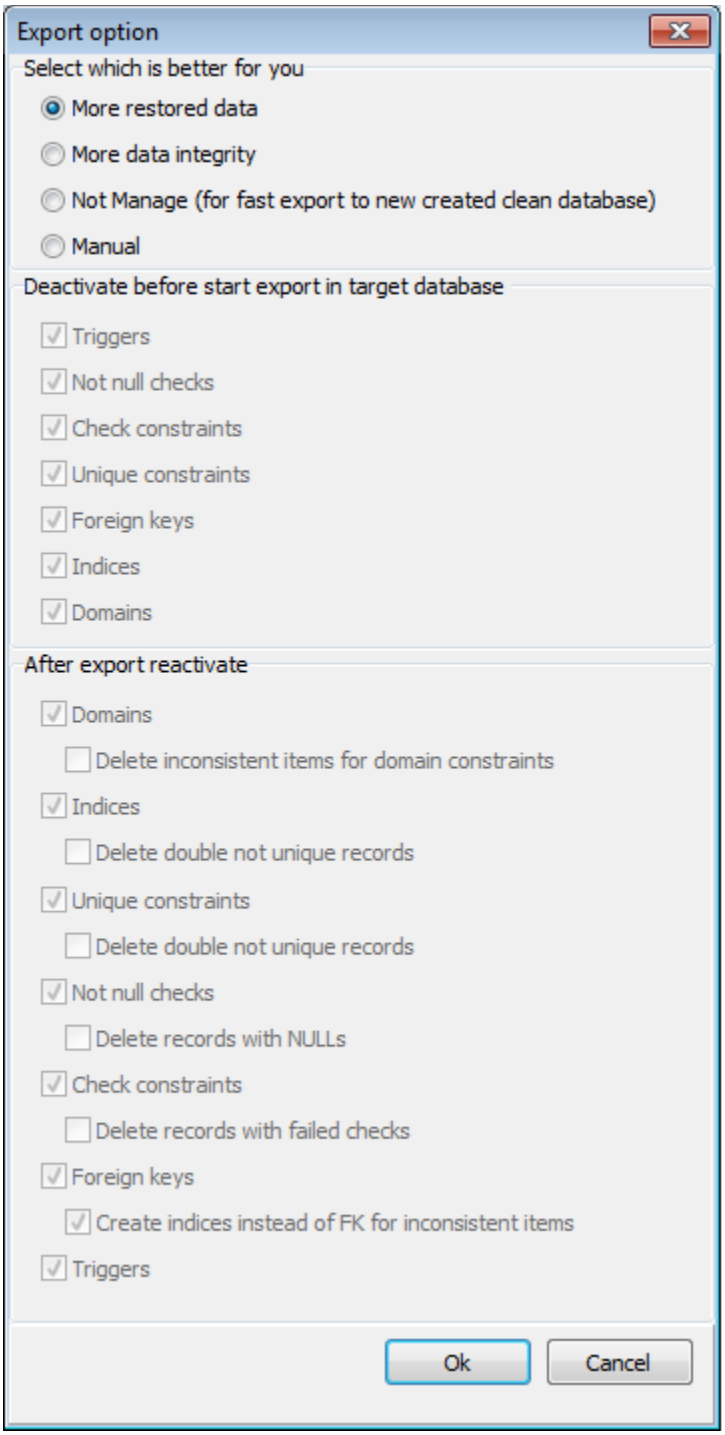


Figure 16 Export options

Click “Ok”.

Export to the new empty database without metadata

Open database in FirstAID and then click "Create New DB":

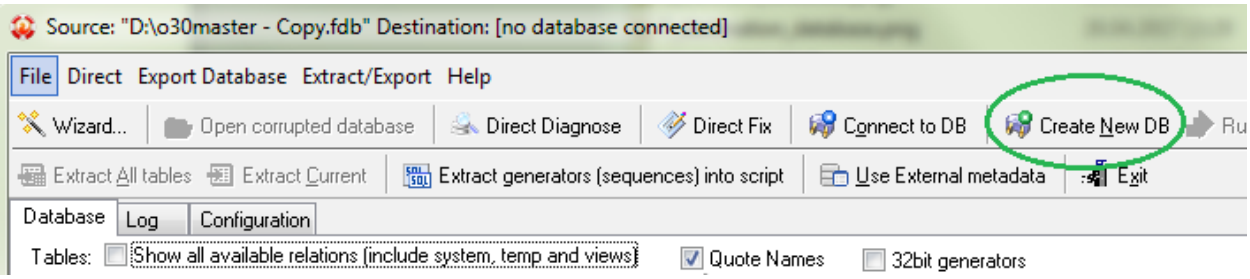


Figure 17. Create database

First you will see this message (see Figure 18):

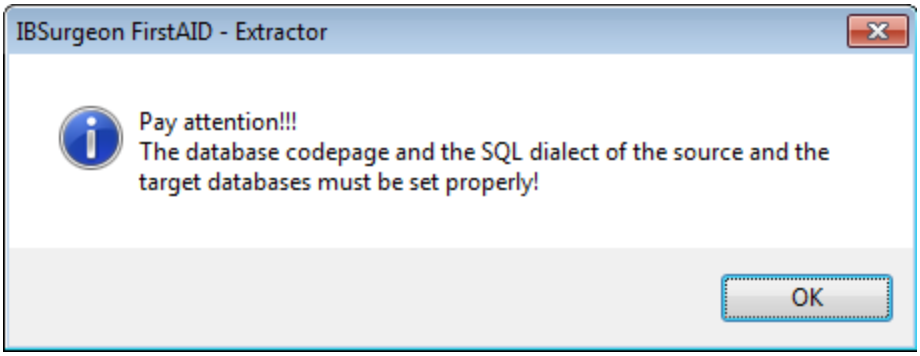


Figure 18. Attention message

It warns you to pay attention to dialect and codepage properties of the next dialog – this is important if you have corrupted header page, otherwise it will be adjusted automatically.

Click “Ok”.

Then you will see dialog “Create new database and login” (Figure 19).

It will create the new empty database where data from corrupted database will be pumped to.

You will see the following dialog, where you need to specify path to new database for export.

Path to client library (fbclient.dll or gds32.dll) is specified automatically (it is shipped with FirstAID).

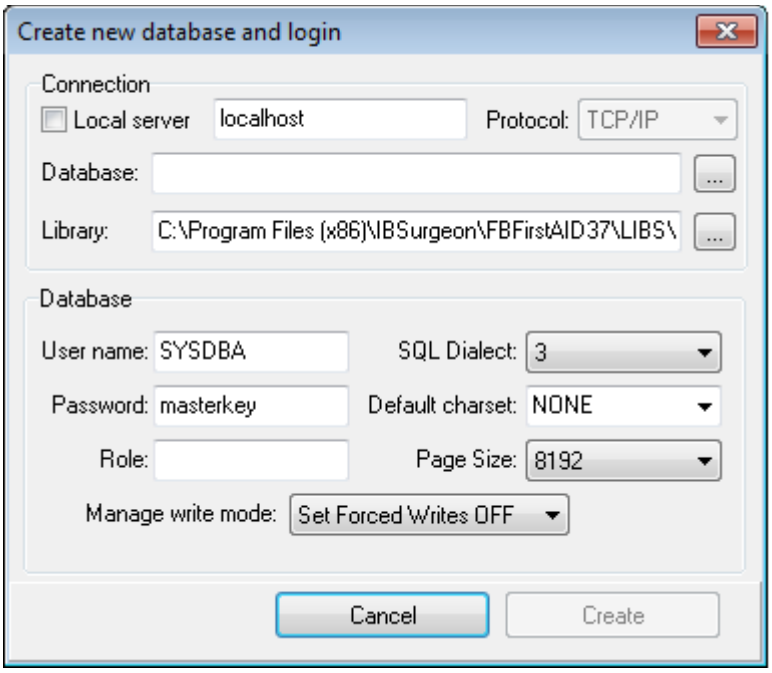


Figure 19. Create new database

Choose where you need to create new database and click “Create”.

When the database will be created, you will see the following dialog:

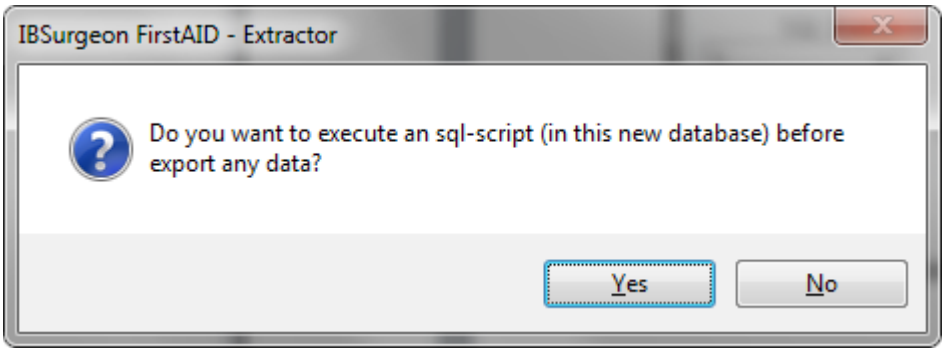


Figure 20 Dialog: do you need additional script?

Click "No".

After that click the button "Export Structure" on the main toolbar and wait for the finish of database metadata export:

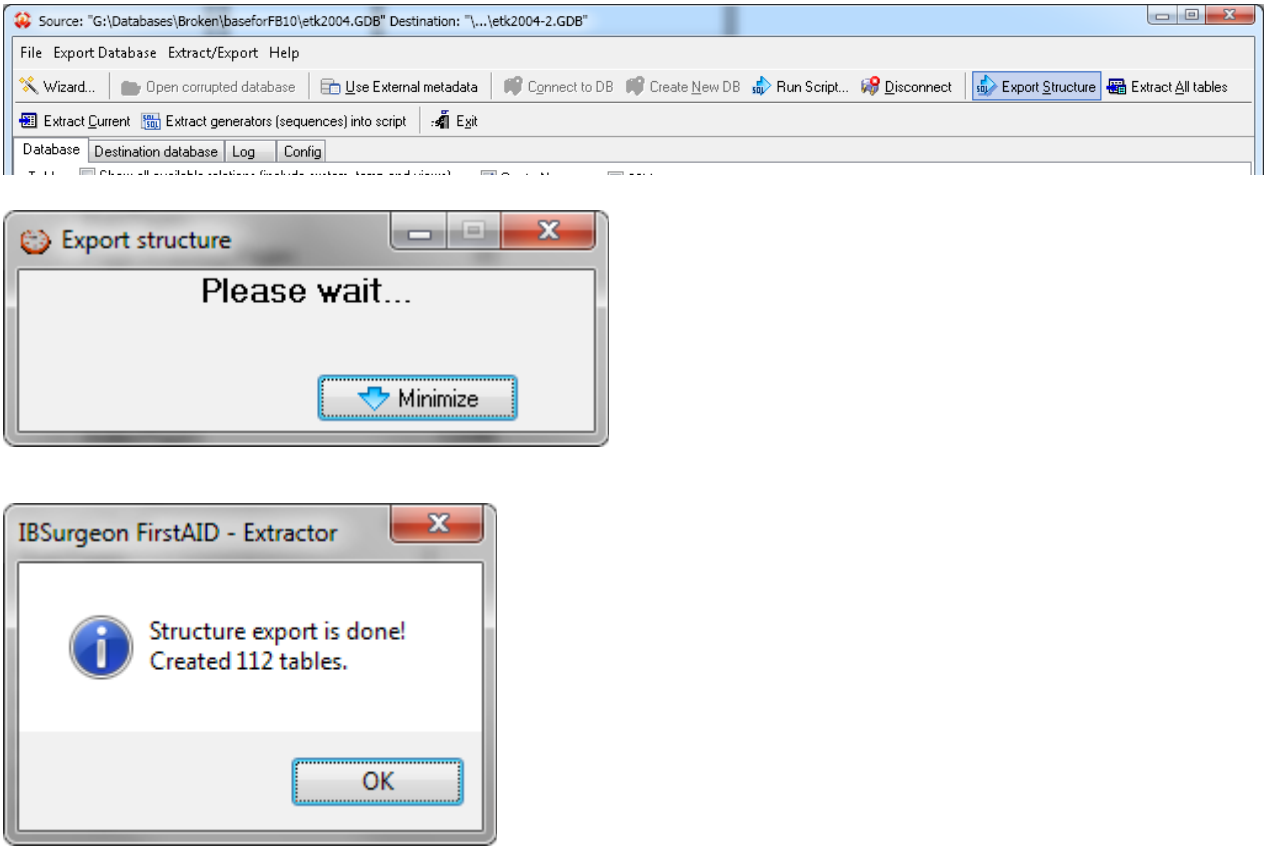


Figure 21 Export structure result

> *If you will see that number of create databases is 0, go to section "Quote names" of this guide!*

Then we need to obtain license to perform export of data from the corrupted database – you already know about it from section "Export to the empty database with the same metadata".

After successful registration the following dialog will appear:

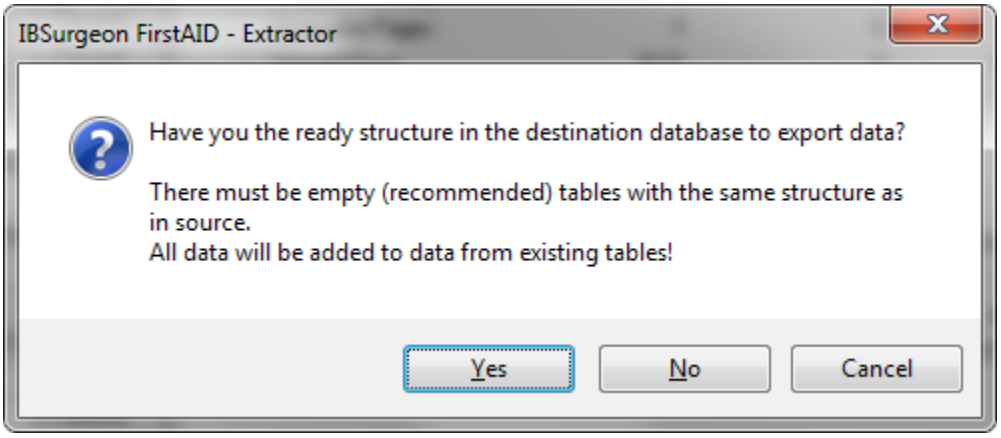


Figure 22 Confirmation dialog

Click “Yes”

and "Yes" again here:

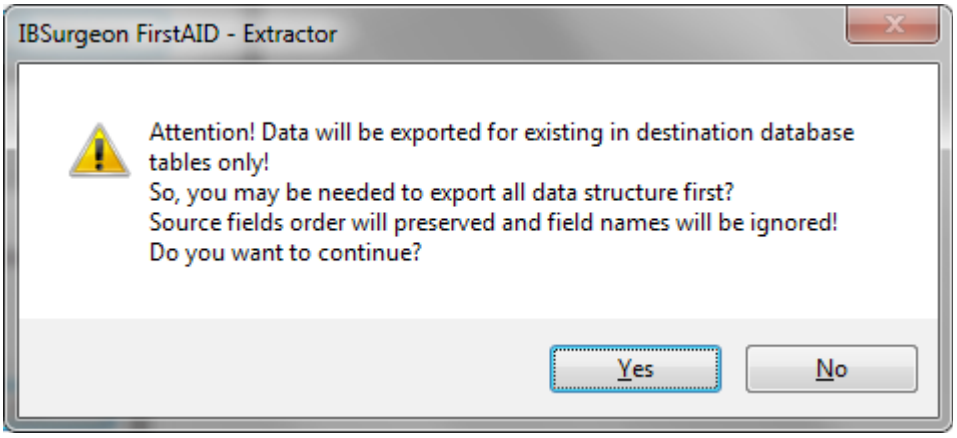


Figure 23. Confirmation dialog 2

Export process will start; you need to wait till its finish:

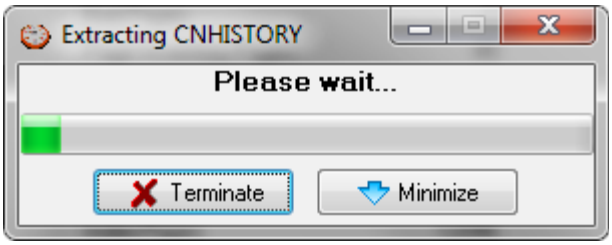


Figure 24 Export is in progress

Export time depends on the size of the database and performance of the computer; it can be several minutes for small databases and several hours for very big database. At the good hardware export speed is approximately 1Gb per 5 minutes.
Please note that FirstAID by default extracts only records from the users' tables, and it does not extract primary and foreign keys indices, triggers and stored procedures.

Generators values will be exported if you choose export all tables (you will be asked about it) or if you can extract them manually:

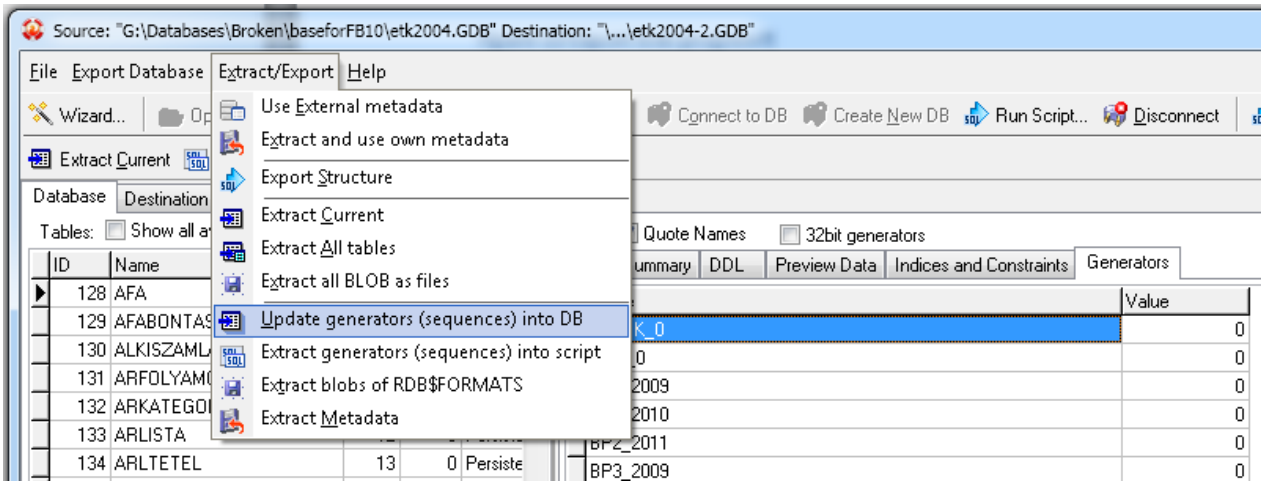


Figure 25. Manual update of generators values

Final steps with empty database export

For destination database you can find generators values and SQL definitions for its primary and foreign keys and indices on tabs "Generators" and "Indices and Constraints", so it is possible to create these objects in export database - you need to run these scripts in your database (with isql.exe from Firebird's Bin folder, for example).
However, there is easier way to complete recovery - just pump exported data to the new empty database with all necessary metadata using free tool IBDataPump.
You can download (https://github.com/CleverComponents/Interbase-DataPump), run it and set exported database as source and new empty dat

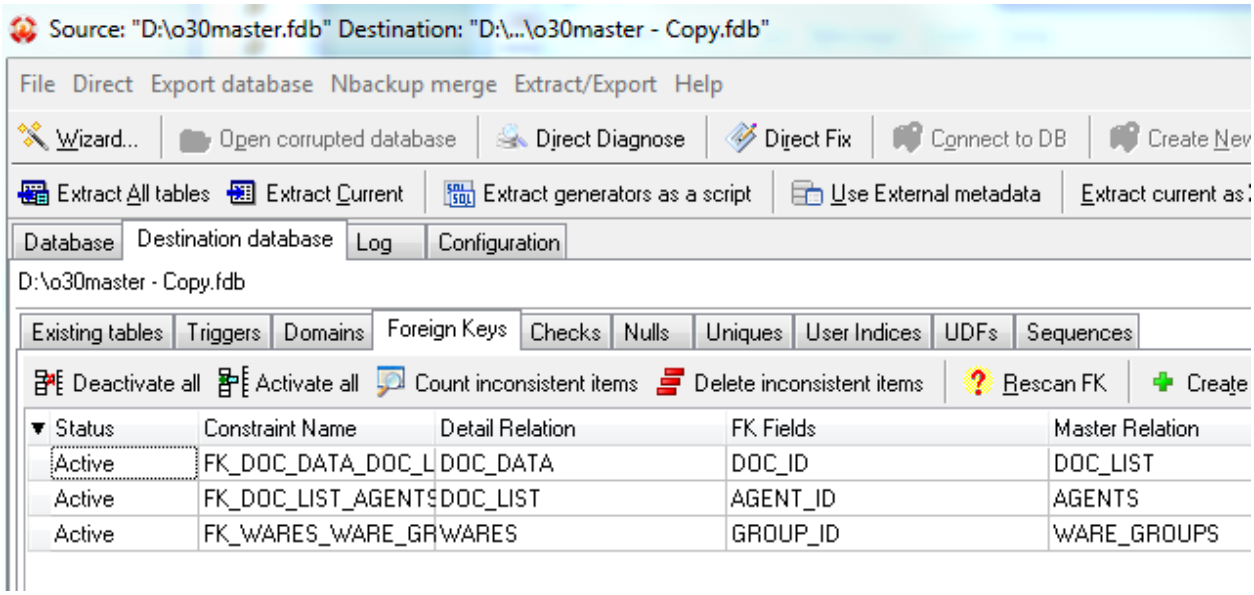
However, if you have reached this point and decided to use IBDataPump, probably it would be better to choose export to the empty database with ready metadata (the same as in the corrupted database).

After extraction

After the extraction, perform the review of the extract process.

First of all, open tab Log and search for errors. The type of extraction errors will give you the hint what is wrong – the most popular reason for error is different table structures in the corrupted and empty databases.

Then, open tab Destination database and review all tabs there for errors:



The data in these tabs are stored in the special table, created by FirstAID during the export. It gives an ability to connect to the exported database several times and fix various inconsistencies in the exported database.

Tab «Existing tables»

On the tab «Existing tables» you can view the exported data. If your database is big and complex enough, there is not a good idea to scroll down all tables.

Tab «Triggers»

On tab «Triggers» you will see state of triggers. When the export is performed, triggers are deactivated, and activated again after export is complete. If you see errors and inactive triggers, most likely it means that trigger uses some UDF library, which was not found, and trigger was failed to activate. To fix this problem, put the necessary UDF to the server and recompile triggers.

Tab «Domains»

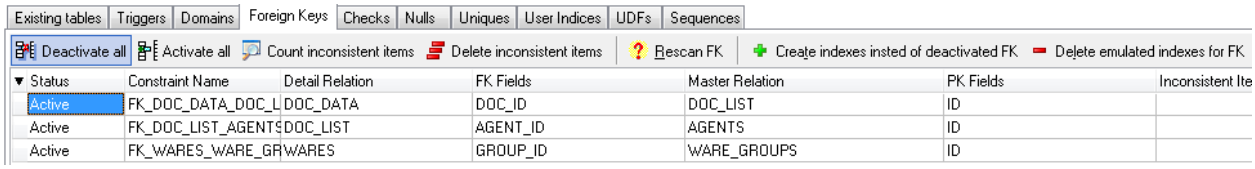
You can notice problems on tab «Domains» if there are CHECKs or NOT NULL constraints on the domains level, and these constraints lead to some problems.

There are several options what you can do:

The most important options are the following:

- **Count inconsistent items for domains**. This command will calculate the number of records with problems caused by domain constraints, and show the number in the column Inconsistent Items.
- **Delete All inconsistent Items for domains**. If you think that number of inconsistent items is small, it is possible to delete records which violate the domain constraint.
- **Deactivate all Domain constraints**. It will deactivate all constraints. It is useful if constraint was created by mistake – for example, NOT NULL for the column with NULLs in pre-3 versions of Firebird.
- **Activate all Domain constraints**. If you have fixed problems, for example, deleted all inconsistent records, you can try to activate all constraints.
- **Rescan Domains**. If you have connected to the exported database in other application, for example, with Firebird SQL Studio from HQbird, and modified domains, you can click this button to rescan domains, and update the status of Domains.

Tab «Foreign Keys»



This tab is the most interesting, because it addresses the often problem with extracted database – inconsistency in Foreign Keys. Such inconsistency is caused by lost records in some tables, so other tables with foreign keys which reference the tables with lost records give errors: usually «Cannot commit foreign key XXX».

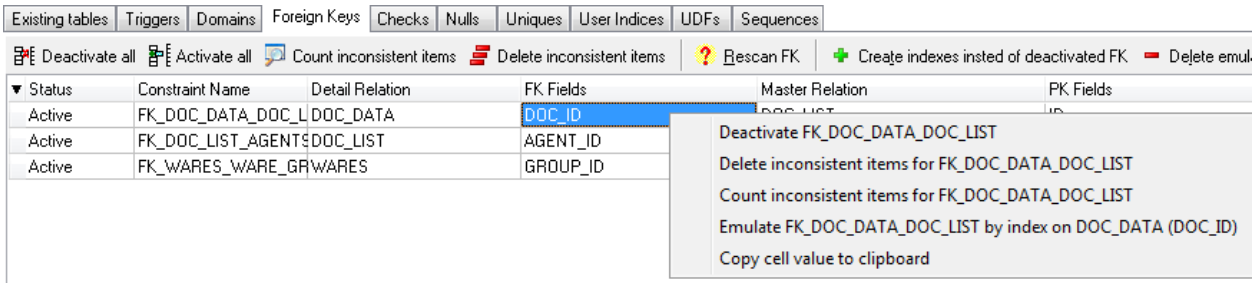
The reason of "Cannot commit index...» error is obvious: corruption affects database referential integrity, and records disappear in magic (from the server's point of view) way.

For example, you have a table "Customers" and associated table "Orders" referenced by Foreign key. Without corruption it's not possible to violate Foreign key and delete record from Customers without prior deleting all orders which refers to particular customer. The corruption affects database files at low-level and kills records directly. What a nice surprise for server to see unresolved links to master records from foreign key records.

When FirstAID does Extraction, it exports only available records and skips corrupted records, so in the exported database we can have this problem with Foreign Keys.

There are several options how to deal with this problem.

The first option is to simply delete records with inconsistent records from the exported database. You can do it in FirstAID – for all tables, just choose «Delete inconsistent items», or right-click on the table and select «Delete inconsistent items for FOREIGNKEY_NAME»



The second option is to deactivate the appropriate Foreign Key constraint, so it will be possible to perform normal backup/restore later. For this you need to select «Deactivate FOREIGNKEY_NAME» in the right click menu.

However, the deactivated foreign key can be important part of business logic, so it is necessary to create substitute indices for deactivated FK – for this choose «Emulate FKNAME by index on table TABLENAME».

Practically, more often there is a situation when it is easier to delete records which violates the Foreign Key constrains: for this click on «Delete inconsistent items» to delete records in all tables, or choose tables one by one, and in the right-click menu choose «Delete inconsistent items…».

After deleting inconsistent records, click on «Count inconsistent items» to see the actual situation with foreign key errors.

There are options «Deactivate all» and «Activate all», which activate or deactivate all foreign keys in the database.

Please note that index can have the third state – non-active, which is different from active and inactive. Non-active indices occur when restore process stops abnormally. FirstAID will detect such indices and show in the list, so it will be possible to activate them.

Tabs Checks, Nulls, Unique Indices, User Indices

These tabs are similar to Domains.

Tab UDFs

This tab contains list of UDFs used in the exported database. Make sure to have UDFs in the UDF folder of Firebird.

Tab Sequences

This contains the list of generators and their values in the exported database.

Nbackup merge

Since version 2.0 Firebird has the mechanism of incremental backups (nbackup), but it became good enough for the production usage only in version 2.5.2. Since that time its popularity increased, and we have started to receive more recovery request for it, and since version 6.0 the functionality for fixing nbackup is included into FirstAID.

There are 2 main possible problems with corrupted incremental backups (usually it happens due to abnormal shutdown during the merge operation):

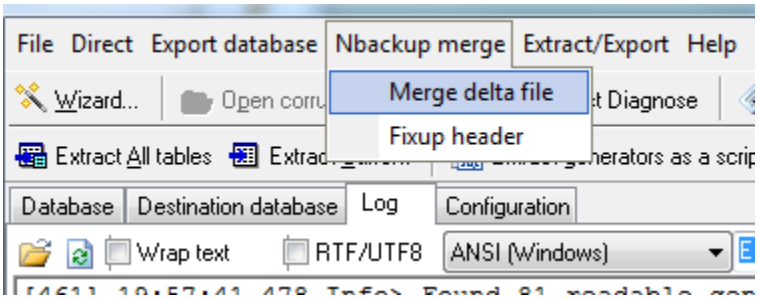
1) Delta file won't merge into the main database with nbackup –n command. If delta file won't merge, it is not possible to use database, and, in case of a corruption, it is not possible to use FirstAID to repair the database.
2) Delta file merged to the main database file, but it contains the link to the delta, and database does not work with various errors.

To fix these problems, FirstAID 7.5 has 2 new features: «Merge delta file» and «Fix up header».

Merge delta file

If you have a corrupted Firebird database with delta file which cannot be merged with standard command (nbackup –n database…), use this feature to perform forced merge of the database.

Important! Create the backup copy of the main database file and delta file before the forced merge!



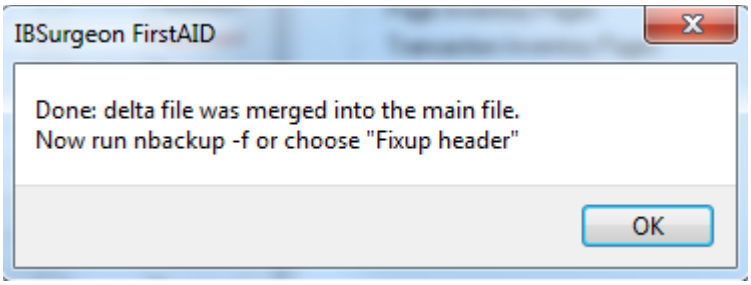
To use this feature, first open corrupted database as usual: File->Open corrupted database. Then, choose in the main menu **Nbackup merge->Merge delta file** and select delta file for this database.

Please be careful – if you will select delta file from the different database, forced merge will ruin the main database file! That's why we ask to always create a backup copy of the main database file before forced merge!

The merge process will be visualized with the progress bar and records in the log:

```
[466] 19:57:45.411 Export Info> === 0 ===
[467] 19:57:45.411 Export Info>deltaPos = 1  iP = 1 actNum0 targ0
[468] 19:57:45.421 Export Info>deltaPos = 2  iP = 2 actNum3305
targ3305
[469] 19:57:45.426 Export Info>deltaPos = 3  iP = 3 actNum155 targ155
[470] 19:57:45.435 Export Info>deltaPos = 4  iP = 4 actNum14 targ14
[471] 19:57:45.444 Export Info>deltaPos = 5  iP = 5 actNum151 targ151
[472] 19:57:45.453 Export Info>deltaPos = 6  iP = 6 actNum275 targ275
[473] 19:57:45.462 Export Info>deltaPos = 7  iP = 7 actNum16 targ16
```

In the end of the process (the time depends on the delta size), the following message will be shown:



It means that data pages were copied from delta to the main database file.

After that you need to fix up database file, in order to remove backup lock from the database.

The best way to do it is to run the standard nbackup command:

```
nbackup -f database_name –user SYSDBA –pass yourpass
```

However, this command can be not successful and give various errors. In this case, choose Nbackup merge -> Fix up database header

After that, proceed with DirectFix recovery and then do backup/restore, or with Extraction.

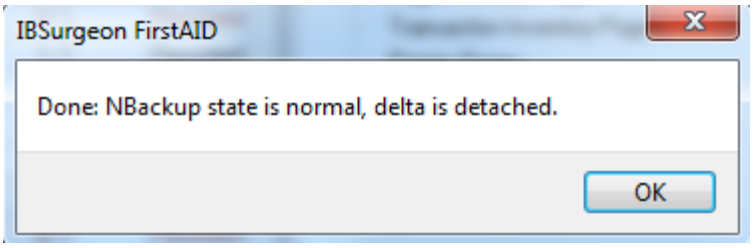
Fix up database header

If you cannot fix up the corrupted database with the standard nbackup command (nbackup –f databasename…), use this function to remove backup lock mark from the header page.

Please be careful! Always have a copy of the database to be changed with this function!

The function is simple – open corrupted with the backup lock and choose Nbackup merge -> Fix up header.

As a result, the following message will appear:



After that, proceed with DirectFix recovery and then perform backup/restore, or with Extraction.

Some important information you may need during recovery

"Quote names" setting

At the tab "Database" of FirstAID you can see checkbox "Quote Names". This checkbox determines should FirstAID quote tables and metadata names during the export, i.e. is database in Dialect 1 or in Dialect 3.

Usually it is set ON/OFF automatically, using information from the header page of the corrupted database (not destination!).

If header page is corrupted or if you are trying to export data to the database with another dialect, you may need to check or uncheck "Quote names".

One of the good indications that you need to change "Quote Names" setting is 0 tables as a result of "Export Structure" command.

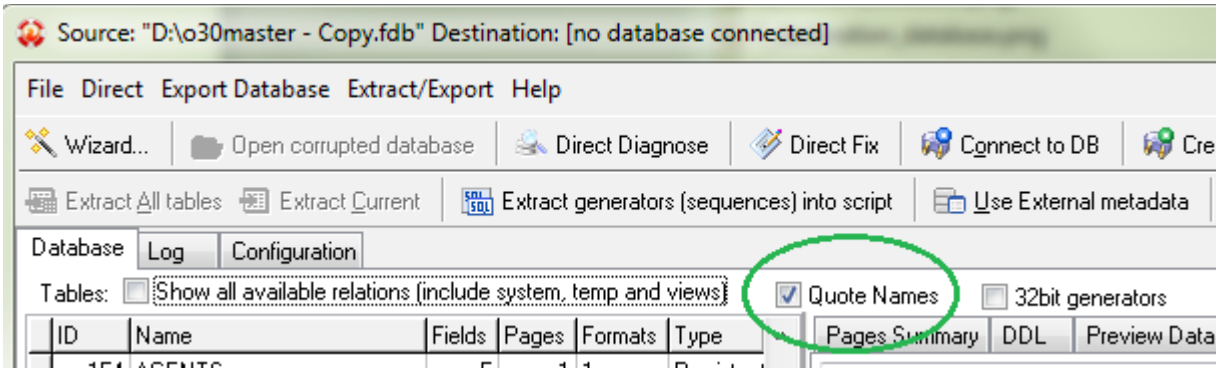


Figure 26"Quote Names" checkbox

Offline registration

If you run FirstAID on the computer without Internet access, you will need to perform “Offline registration” of the database:

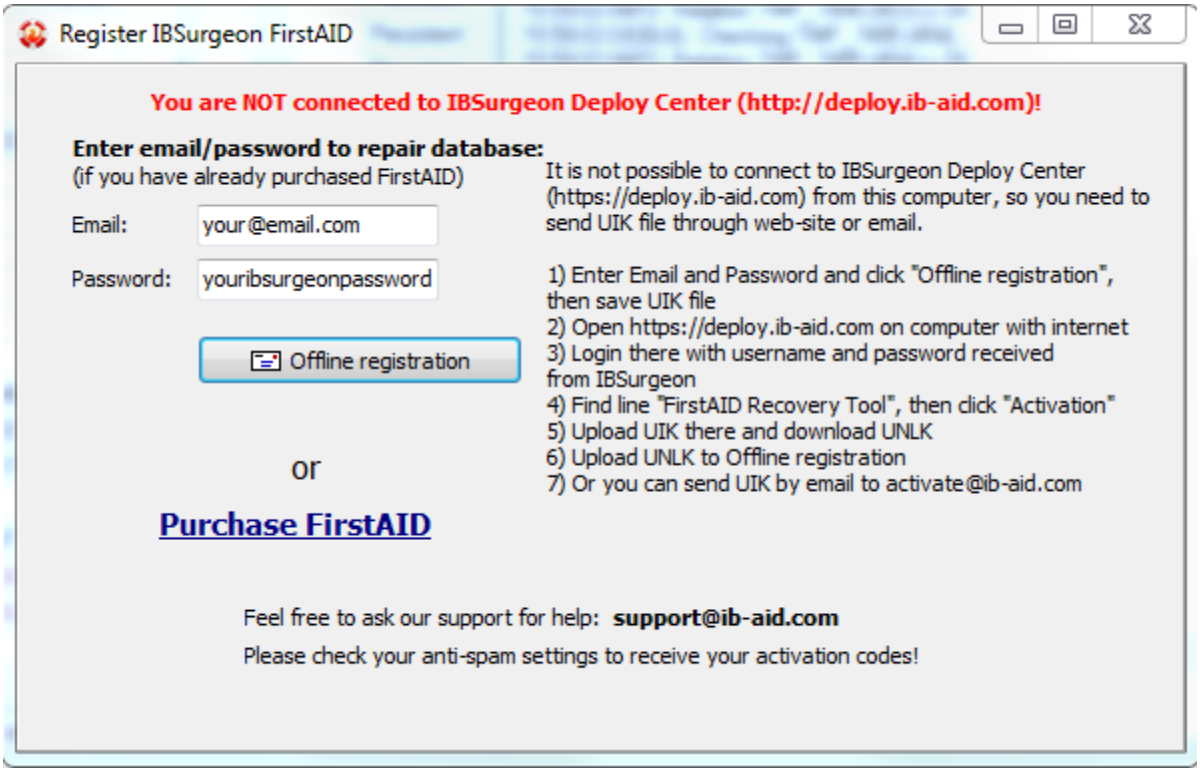


Figure 27 Offline registration process

It is not possible to connect to IBSurgeon Deploy Center (http://deploy.ib-aid.com) from this computer, so you need to send UIK file through web-site or email.

1) Enter Email and Password and click "Offline registration", then save UIK file

2) Open https://deploy.ib-aid.com on another computer

3) Login there with username and password received from IBSurgeon

4) Choose "IBSurgeon FirstAID 7.x", and then choose "Activation"

5) Upload UIK there and download UNLK

6) Upload UNLK to Offline registration

7) Or you can send UIK by email to (it will take some time due to manual processing of such requests)

Export the single table

FirstAID gives you an ability to export only needed relations. For this you need to select table in the list, right-click and select “Export current relation”:

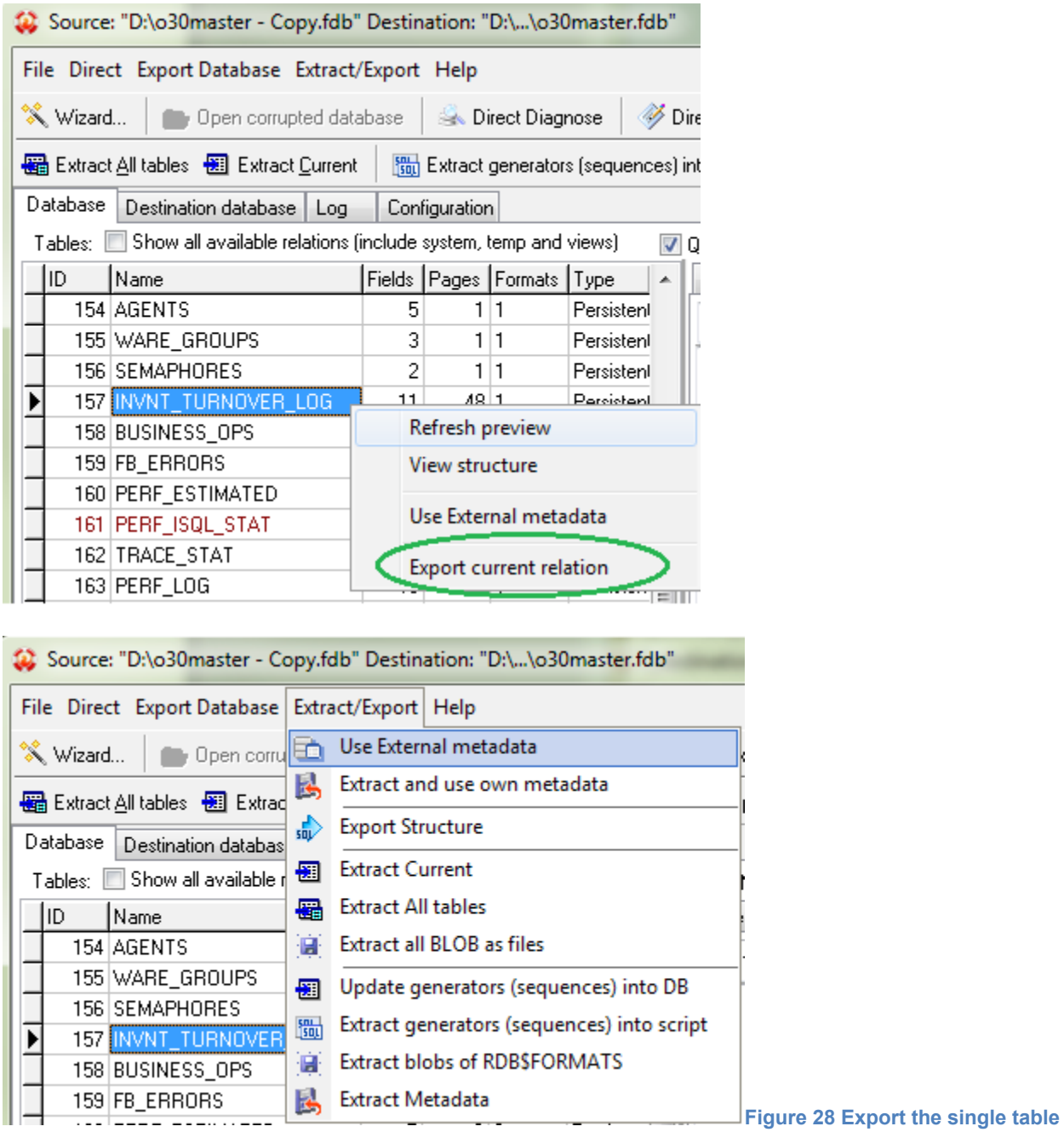


Figure 28 Export the single table

All steps for export are similar to export to the new created database.

External Metadata

Sometime corruption kills important system information in the database and even FirstAID cannot see its contents due to lack of metadata.

In this case you can try to borrow metadata from the good database with the same structure (old good copy), or you can get them from the HQbird FBDataGuard metadata repository.

It's necessary that this donor database will be good file copy of the corrupted database (usually it is old file copy).

In order to use "External Metadata", please open your corrupted database and then choose "Extract/Export"/"Use External metadata":

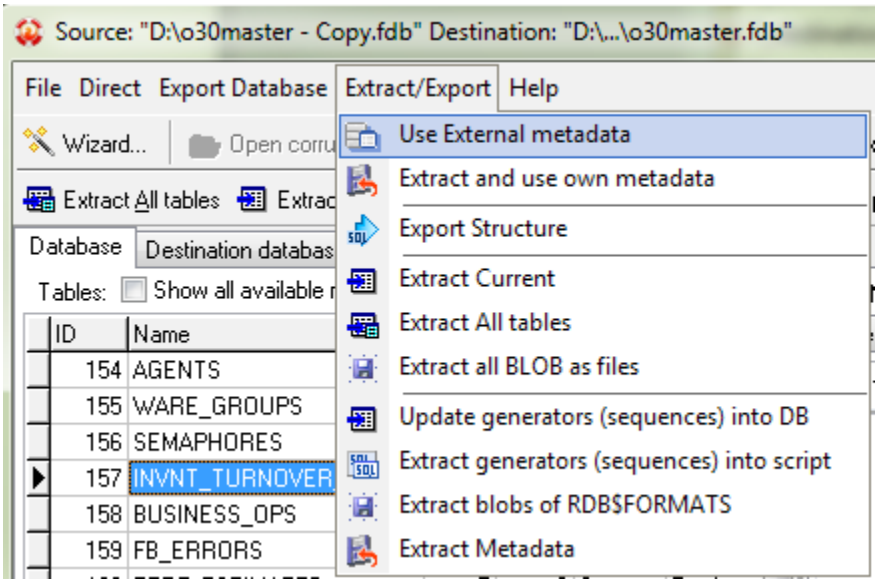


Figure 29 Use External Metadata

The following warning will appear:

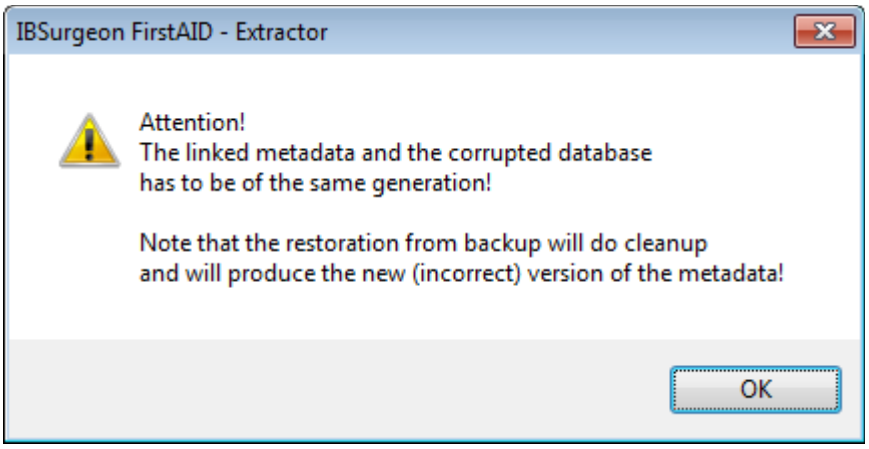


Figure 30 Warning: the database where you borrow metadata should have the same metadata as corrupted one

Click “Ok”.

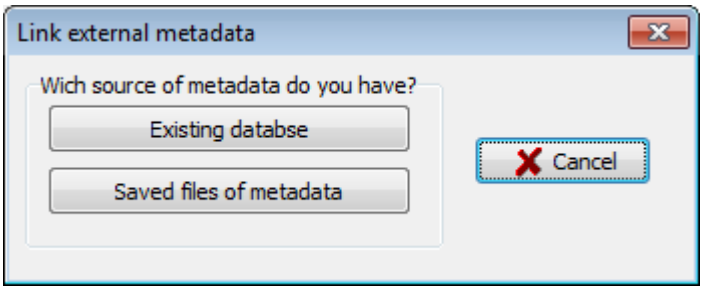


Figure 31. Choose how to get external metadata

If you need to get metadata from the live database (old good copy), click “Existing database”:

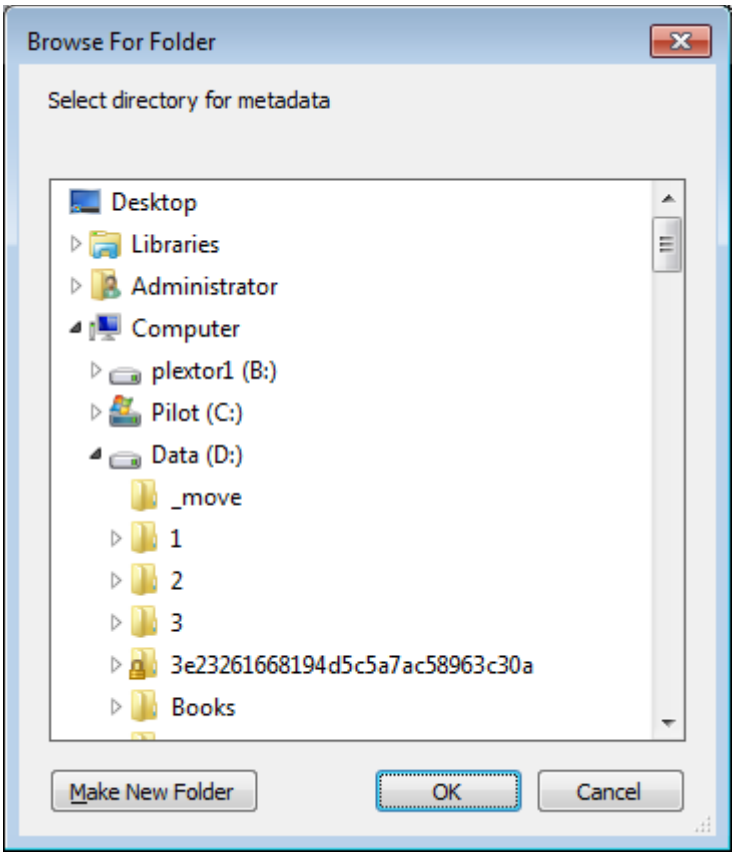


Figure 32 Choose old good copy of the corrupted database as source of metadata

Firebird server must be running at this moment!

After that FirstAID will extract metadata from the good database and reload corrupted database in order to apply new metadata. Hopefully you will be able to see data to recover. If so, proceed with export of the data (see “Recovery through extraction” section.)

Support

If you have any questions please feel free to contact us: