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BIOTABase

Examples of Use

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Notes and remarks regarding BIOTABase or this Examples of Use are always very welcome and should be directed to gerhard.muche@botanik.uni-hamburg.de and/or mfinckh@botanik.uni-hamburg.de.

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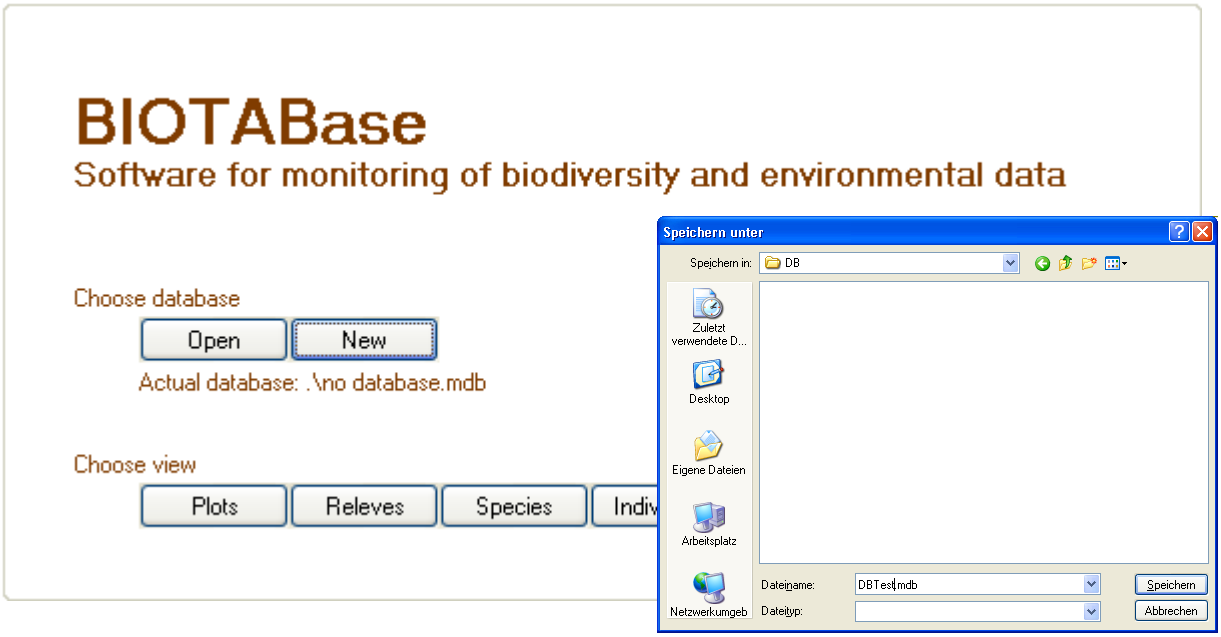
BIOTABase Examples of Use

1. Creation of an empty database

Sometimes it is necessary to have an empty database. This sounds simple. Indeed, it is simple if it is done in the right sequence of steps.



- Open BIOTABase. The start panel is being shown.
- Press the [New] button.
- A windows file dialog opens.
- Type a file name, for example DBTest or DBTest.mdb.

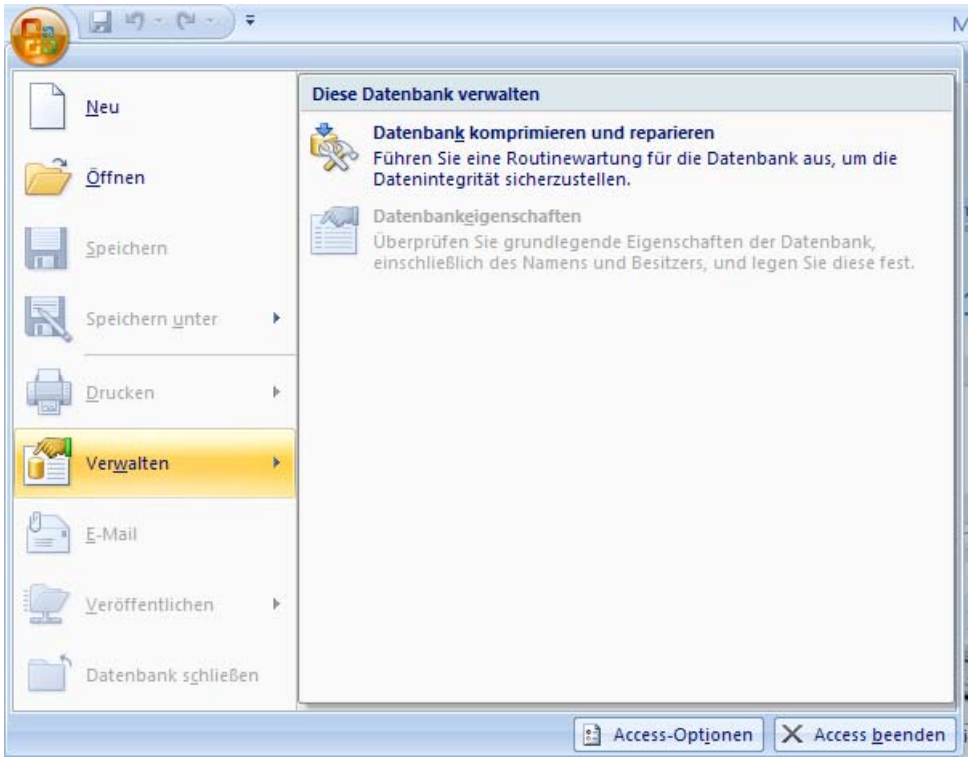
Now a new database is created. All the tables and relations needed by BIOTABase exist in this file. But this database is completely empty.

If you open a view like [Plots] a default record will be created. Now you can begin with the input of your data.

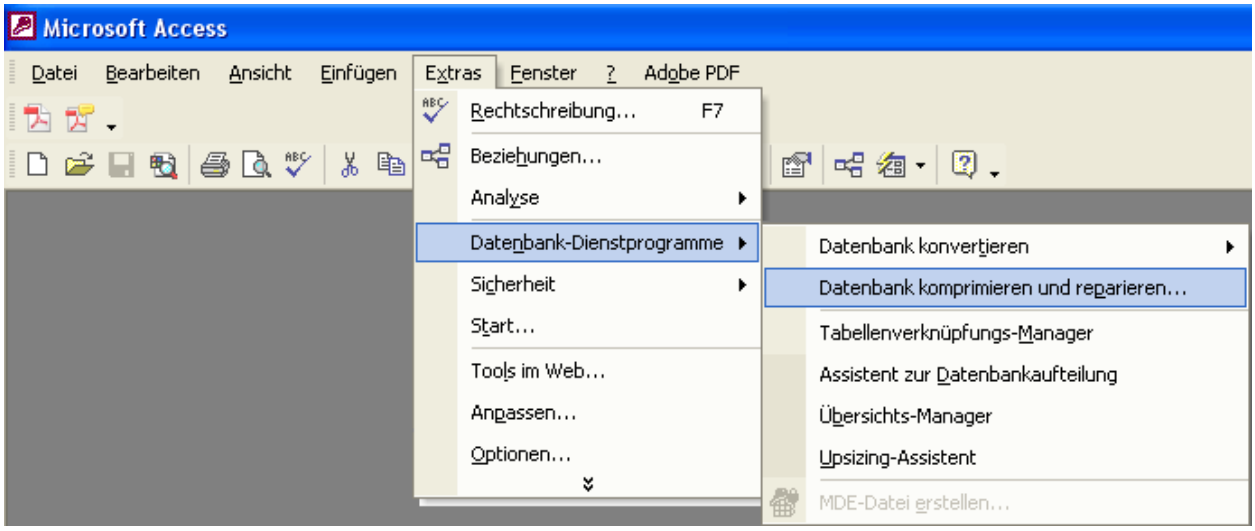
2. Shrink the database's file size

The MS-Access database file doesn't shrink if you delete a record. This is a question of performance. But indeed sometimes it can be useful to work with a small file.

To decrease the database's file size you can use features of MS Access® (sorry - we work with German MS Access ® editions):



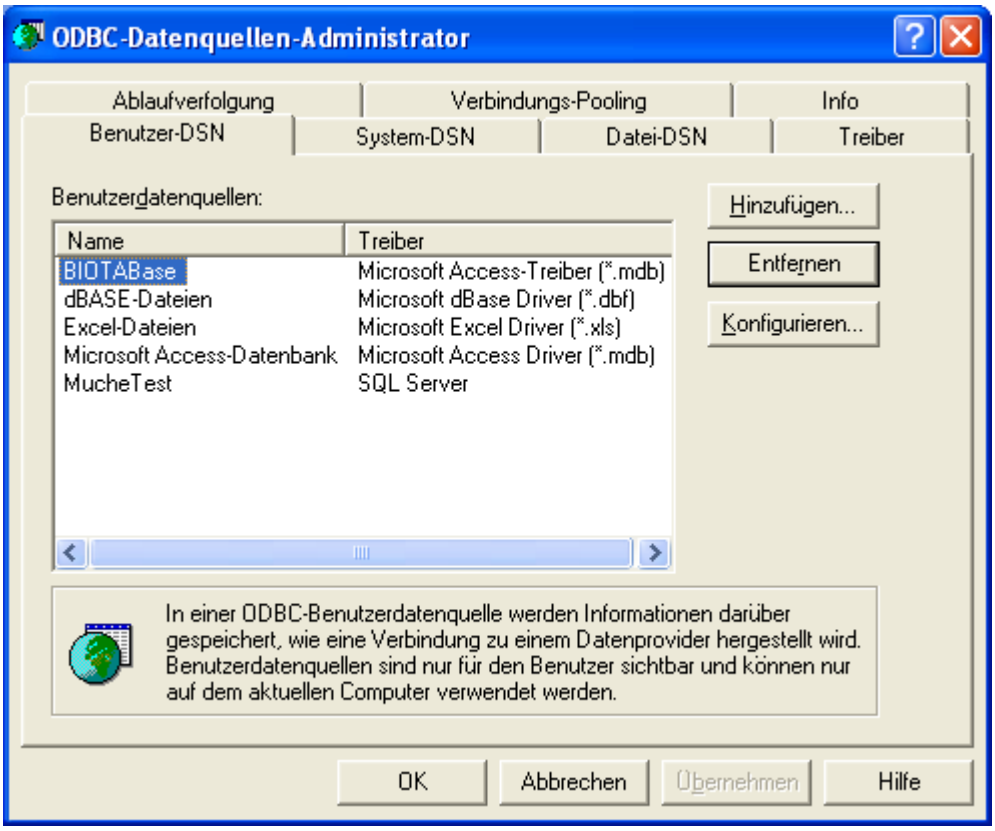
MS Access® 2007



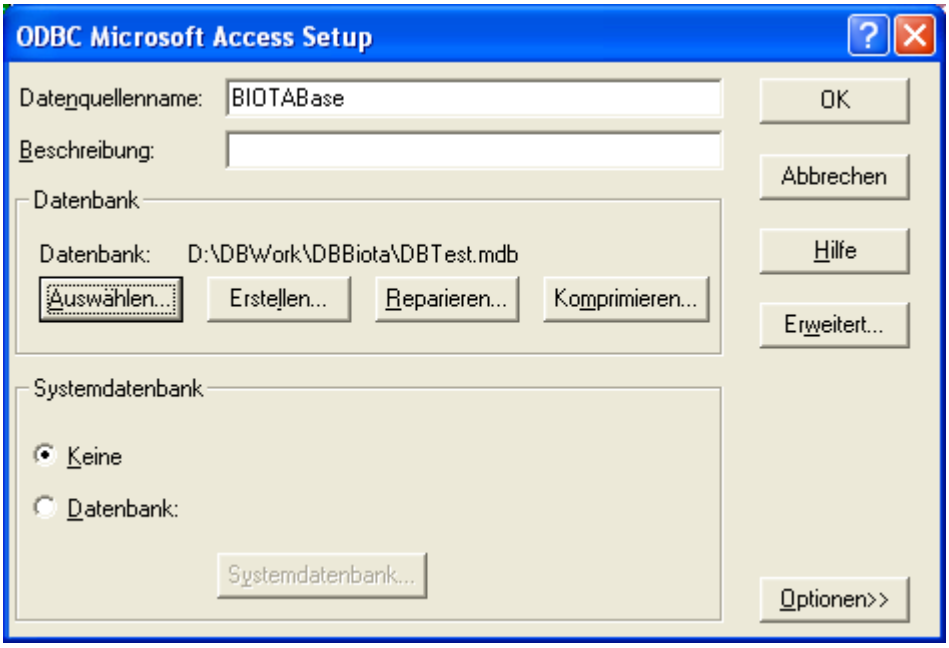
MS Access® 2000-2003

If you don't have a MS Access® licence then you can use the OBDC feature of MS Windows®.

Click in the Window menu [Start][Systemsteuerung][Leistung und Wartung] [Verwaltung] [Datenquelle ODBC]



- Add or configure an entry (e.g. with the term BIOTABase as Microsoft Access Driver)



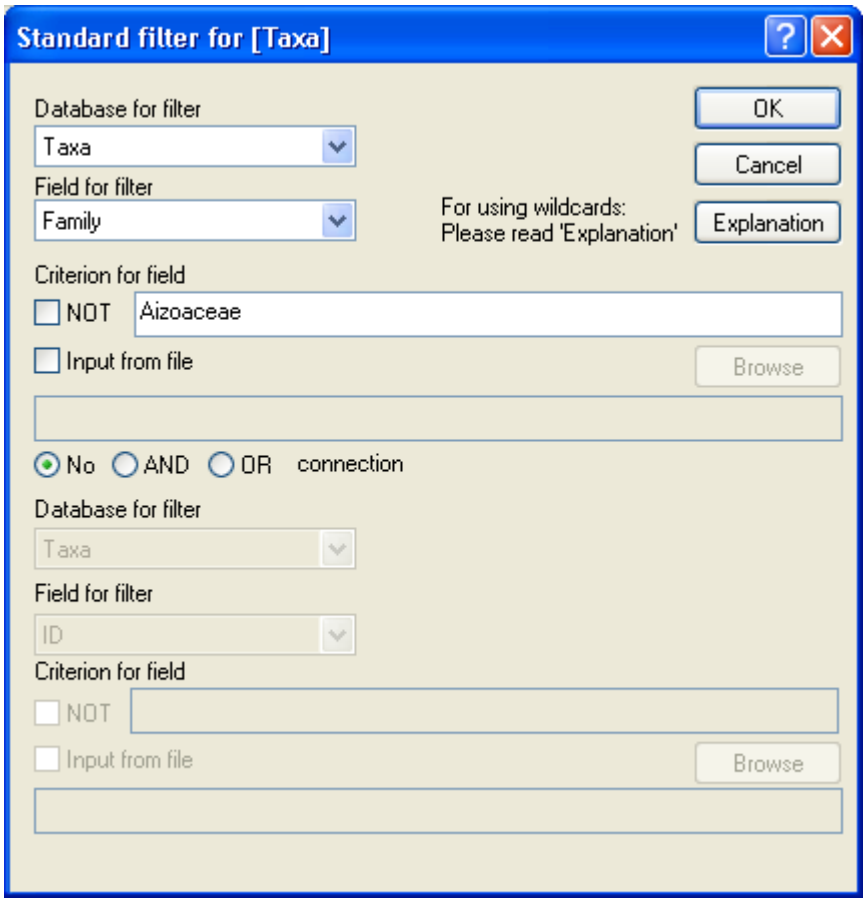
- Click the Repair button.

After execution the file size is as low as possible.

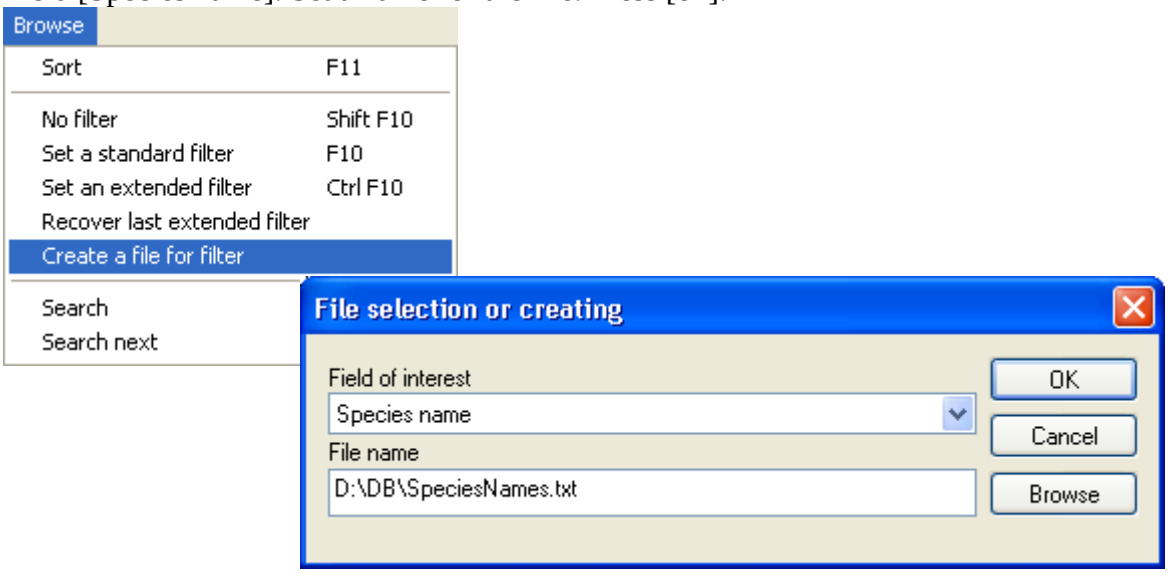
3. Filter photographs like the family of species names

Suppose you want to see all photographs which belong to the family of the “Aizoaceae”. But in the form view [Photographs] there is no field [Family]. How do you do this job? Here is the answer:

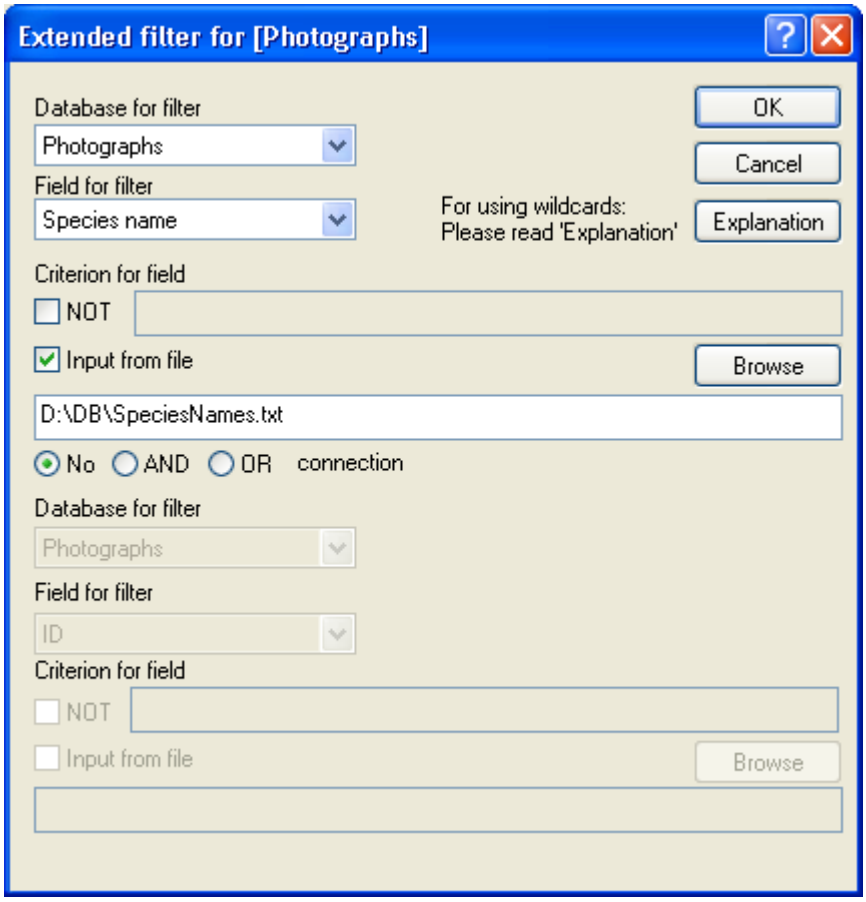
- Call the form view [Taxa].
- Set a filter expression (standard filter) on the table [Taxa] and the field [Family] with “Aizoaceae”. You get a collection of all records which belong to this family.



- Click the menu item [Browse][Create a file for filter]. You get a dialog box. Choose field [Species name]. Set a name for the file. Press [ok].



- Call the form view [Photographs].
- Set an extended filter with this file as input.



4. How to keep your photographs collection clean

In the database there are only records about the photographs. The photographs itself are files on the hard disk. The record refers to the location of the photograph's file. This is the link between the record and the file of the photograph. A link may be alright, but it also may be that the link doesn't fit. So we must look what to do if there are errors.

If the path of the location is a relative one then the database can be used to handle several sets of the photographs e.g. one set for photographs with high resolution, another set for photographs with thumbnails, and again another for a working version of your database.

A huge amount of photographs AND several sets of files! This cannot be hold together! Is there to each record indeed a photograph that is indicated in the location link? Has each photograph in the folder really a record in the database? Are there identical photographs in different folders of the directory tree? How can we find duplicates? How can we find missing files? How can we find missing records?

In BIOTABase there are several service functions to answer these questions and do the necessary actions to keep your collection clean.

Check duplicates - Check and show duplicates of photographs that is photographs with the same file name

Check all records without a corresponding photograph file - The function looks in the database which records don't have a corresponding photograph file on the named location

Remove all files which are not registered in the database - The function will remove all files of the directory tree which are not having corresponding records in the database.

In the following we demonstrate how to use these service functions of BIOTABase.

4.1 Check duplicates

Is the same photograph more than one time in the database? The function checks this. The criterion is the file name of the photographs: The name is the hint for the same photograph! All records in the current filter are under consideration. If there are duplicates you will get a message. In the other case there will be set a filter so that you can see all records in question sorted by the photograph's file name.

HINT: There exits freeware able to check whether two photographs are the same or nearly the same.

4.2 Check all records without a corresponding photograph file

The function takes record for record and looks whether there is indeed a file in the location that the record says. If this is not the case the record will be marked. In the end you get all records without a corresponding file in the view.

Then you can look why this records doesn't fit. Have you lost the photographs in the last copy action? Have you renamed a file and forgotten to change the record too? Or something else?

The function used the field {Photographs.SelectionTemp}. Before the action will start the function sets the field {Photographs.SelectionTemp} to the value *false*. The function marks a record by setting the field {Photographs.SelectionTemp} to the value *true*. The filter expression after the analysis will be set to {Photographs.SelectionTemp} = *true*.

4.3 Remove all files which are not registered in the database

If you work with the database to make the photographs collection looks like you want it, you often edit the records in the database – not the files of the photographs e.g. you delete a duplicate by deleting the record. The photograph's file exists then in the location after all. To find these files and delete them is the job of the function under consideration. Instead of deleting the files we move them in a folder named "temp". Below this folder the directories are named in the same manner as the folders they came from. This has the advantage that we know the original location if we want to put them back.