BIONUMERICS Tutorial:

Adding entry information

1 Aim

Adding entry information to a BIONUMERICS database can be done in two ways: either manually via the keyboard, or with the import tools available in the software. The BIONUMERICS import tools allow information to be imported from external files such as text and Excel files. In this tutorial you will learn how to add information manually using the keyboard and how to use the import routines.

2 Adding entry information manually

1. Create a new database (see tutorial "Creating a new database") or open an existing database.

2. Click on the *Database entries* panel to highlight this panel in the *Main* window and select ***Edit*** > ***Create new object...*** (+).

The *Add new database entries* dialog box appears (see Figure 1).

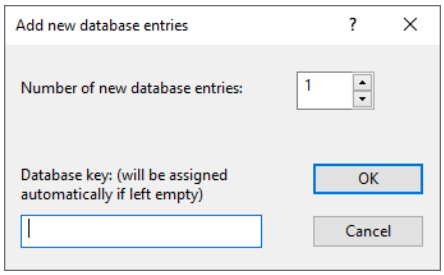

Figure 1: The *Add new database entries* dialog box for adding new entries to a database.

The dialog box prompts for the ***Number of new database entries*** to create. The ***Database key*** input field in the bottom of the window allows a key to be entered by the user. This input field is only accessible when a single entry is added. As soon as the number of entries is specified to be more than one, the field is disabled and the keys will be generated automatically by the software.

3. Enter "3" in the ***Number of new database entries*** input box and press <***OK***>.

BIONUMERICS generates unique keys for the three entries. The entries are displayed in the *Database entries* panel (see Figure 2).

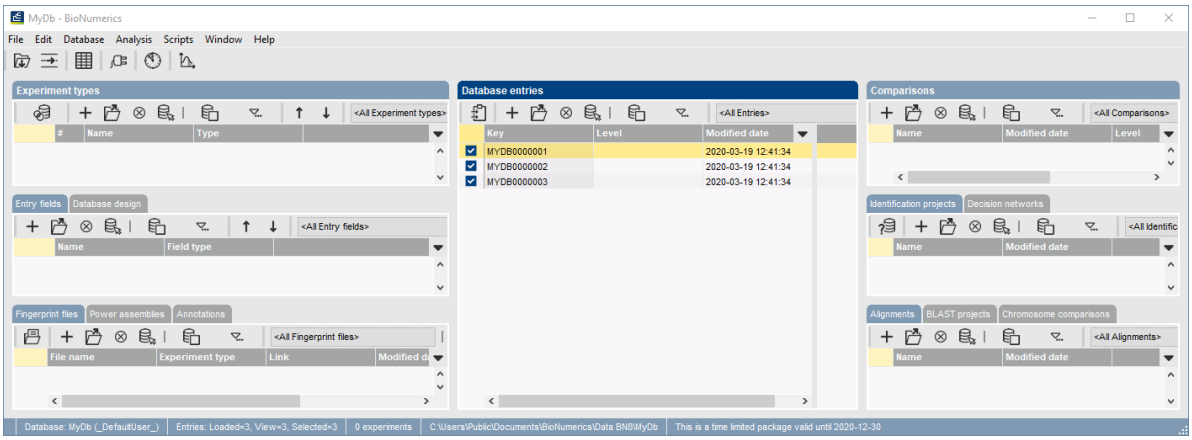

Figure 2: The *Main* window.

4. Select ***Edit*** > ***Information fields*** > ***Add information field...*** or highlight the *Entry fields* panel and select ***Edit*** > ***Create new object...*** (+).

The *Create new entry information field* dialog box pops up (see Figure 3).

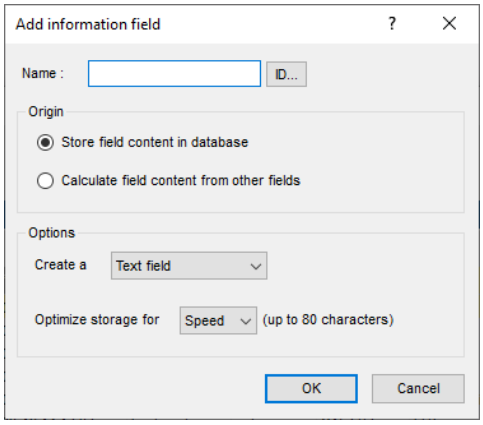

Figure 3: The *Create new entry information field* dialog box.

5. Specify a ***Name***, e.g. “Genus” and press <***OK***>.

The new entry information field is created and is displayed in the *Database entries* panel.

6. Repeat previous step to add a second information field called “Species”.

7. Double-click on a database entry to open the *Entry* window.

Information can be edited in the *Entry* window and saved (see Figure 4).

8. Close the *Entry* window.

Alternative to using the *Entry* window, information in the information fields can be edited directly by clicking twice (not double-click) on an information field in the database. The information will appear highlighted and can be edited.

9. Click twice on the information field ***Genus*** of an entry or select a field and press **Ctrl+Enter**.

The information appears selected blue against a bright colored background and can be modified (see Figure 5).

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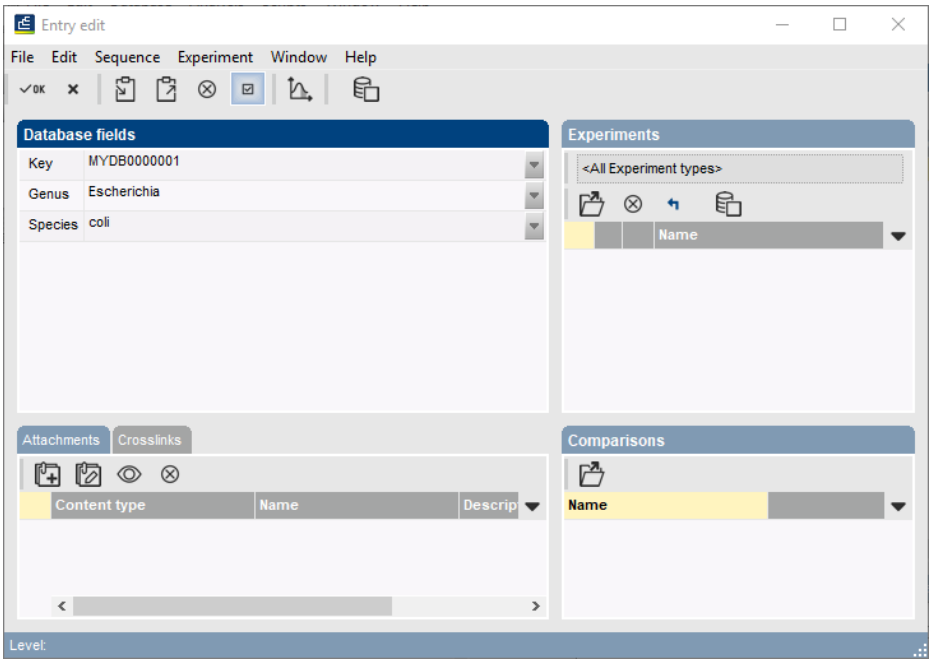

Figure 4: The *Entry* window.

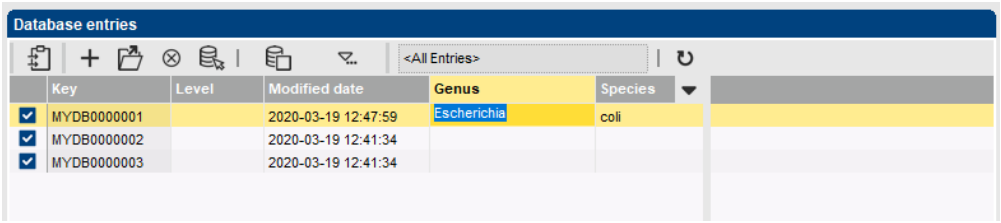

Figure 5: Clicking twice on an information field enables direct editing.

10. Use the **ArrowUp** and **ArrowDown**-keys on the keyboard to jump to the previous/next row.

11. To jump to the next column, use the **Tab**-key.

12. To jump to the previous column, press **Shift+Tab** on the keyboard.

3 Importing entry information from a file

Database information can be imported from text, Excel, and other ODBC-compatible files and linked to new or existing entries using the BIONUMERICS import routines.

As an exercise, we will import data from the text file `Ecoli-info.txt` (see Figure 6) into a BIONUMERICS database. This text file can be downloaded from our website: go to `https://www.applied-maths.com/download/sample-data` and click on *BIONUMERICS Tutorial Data*.

1. Create a new database (see tutorial "Creating a new database") or open an existing database.

2. Select ***File*** > ***Import...*** (, **Ctrl+I**) to call the *Import* dialog box.

3. In the Import tree, expand ***Entry information data***, highlight ***Import fields (text file)*** and press <***Import***> (see Figure 7).

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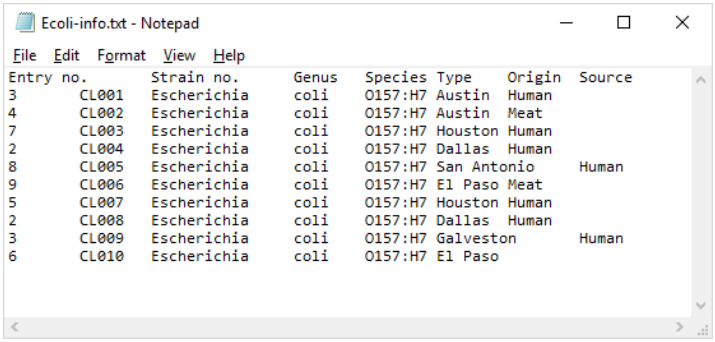

Figure 6: Import entries from a text file.

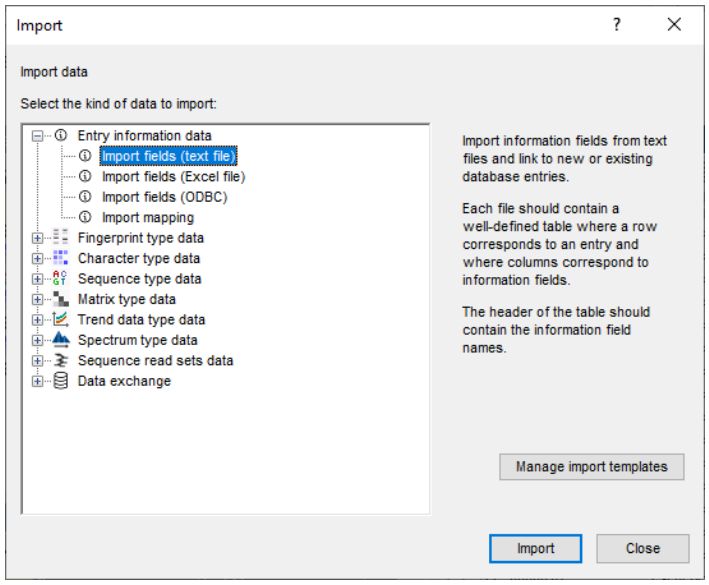

Figure 7: Import tree.

4. Browse for the `Ecoli-info.txt` file in the `BIONUMERICS Tutorial data \Database` folder and press <***Next***>.

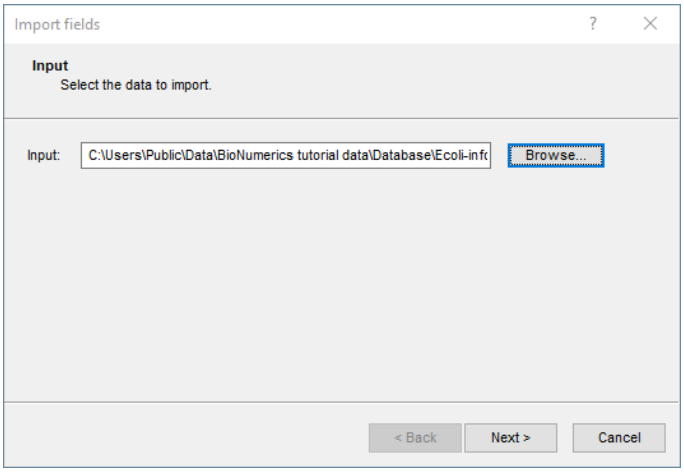

Figure 8: Select the file to import.

This brings up a new dialog box (see Figure 9). Each column in the selected file corresponds to a

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row in the grid (column 1 in the file corresponds to row 1 in the grid, column 2 corresponds to row 2, etc.).

5. Select the second row in the grid, press the <***Edit destination***> button and select the ***Key*** field from the list. Press <***OK***>.

The grid is updated (see Figure 9).

6. Highlight the five other external fields in the grid panel (Genus, Species, Type, Origin, and Source) using the **Shift**-key. Press the <***Edit destination***> button and select the ***Entry info field*** option from the list. Press <***OK***>.

7. Press <***OK***> once more to accept the default suggested names and press <***Yes***>.

The grid is updated (see Figure 9).

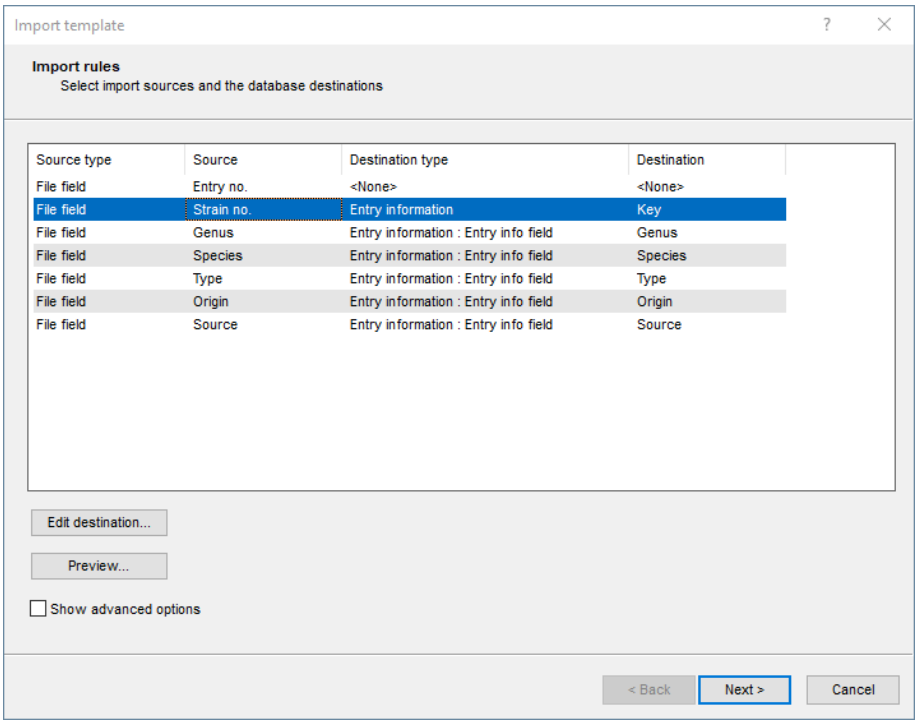

Figure 9: Define a new import template.

8. Press <***Next***> and press <***Finish***>.

9. Specify a template ***Name*** and press <***OK***>.

The import template is added to the list and is automatically selected.

10. Press <***Next***> and press <***Finish***>.

Twelve new entries are imported, each with six database information fields filled in (see Figure 10).

4 Conclusion

Once entries are created/imported in BIONUMERICS, experimental data can very easily be imported and linked to these entries. Step-by-step procedures on how to import experimental data into BIONUMERICS can be found in the import tutorials on our website.

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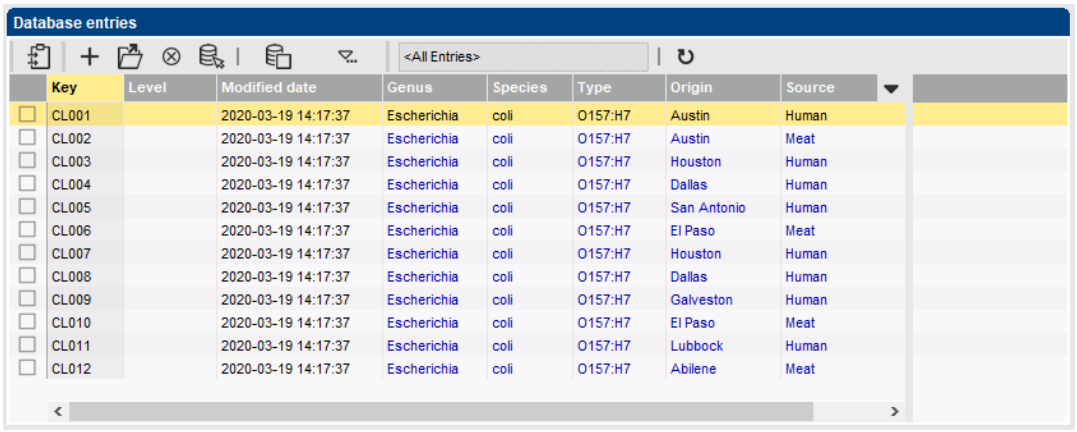

Figure 10: The *Database entries* panel after import.

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