

# Audiobase

Your music collection's database

## User manual

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### 1 Introduction

Audiobase is a small, fast and easy-to-use Windows application that allows you to catalogue and keep track of all your “physical” (CDs, LPs, tapes, etc) music collection.

With Audiobase you can, among other things:

- Know the contents of every album in your music collection;
- Find instantly which are the albums that contain a certain song;
- Find instantly the albums in which a certain artist participates.

On the other hand, Audiobase is designed in a way to make data entry easy and fast. For example, when you type the name of a song, Audiobase tries to locate that song in its database. If that song has already been entered for a previous album, Audiobase will present it and you just have to press Enter to accept the choice. The same happens for artists names. Typically, you'll have to type 3~4 characters to locate such items.

This manual can be used as a tutorial, which can be divided roughly into two parts:

- The first part covers the initial setup of Audiobase, creating an empty database from scratch, and entering the first album. This is covered by sections from 2 to 5. For this part of the tutorial, you should work with Audiobase alone (i.e., not using the sample database included in the bundle).
- The second part of the tutorial covers navigation and browsing through a database. It is covered by section 6. In this part of the tutorial you should use the sample database that comes in the software bundle.

## 2 Setting up Audiobase

Audiobase is a *portable application*, meaning that it does not need to be installed<sup>1</sup>. Audiobase is a standalone application that is normally kept in a folder, where its database files are kept too. That folder can be anywhere, either in your computer's hard disk or in a portable storage device, like a USB pen drive. Audiobase runs directly from that folder. You can bring it along anywhere, and it will just work.

So, Audiobase setup is simple. Basically, you just have to create a folder and put the Audiobase executable file in it.

### 2.1 *Create a folder for Audiobase and its database*

Choose a name for Audiobase's folder and the place where to create it. For example, a folder named "My albums" on your desktop. To do this, place the mouse pointer somewhere on your computer's desktop (also known as wallpaper), click the right mouse button and select "New" and then "Folder". Rename the new folder to "My albums".

### 2.2 *Copy the Audiobase file to your computer*

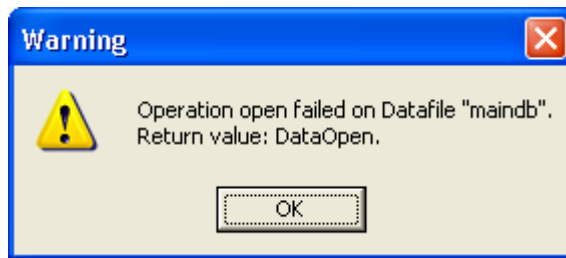
You can now copy Audiobase's executable file `audiobase.exe` into this folder. If you wish, you can create a shortcut to this file and place it in your desktop (select the file, right-click the mouse and select "create shortcut"; you can drag it to the desktop if you like).

### 2.3 *Execute the program*

Now that the Audiobase file is in an otherwise empty folder, you can execute it by double-clicking it. The following screen will appear:

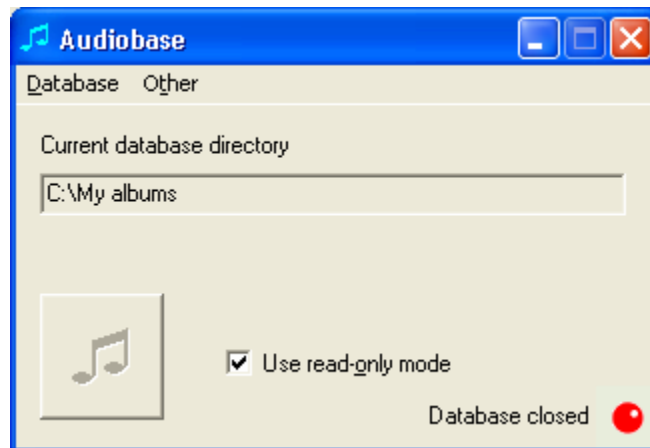
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<sup>1</sup> This means that Audiobase is a compact, standalone application, which does not need to copy vast amounts of files into your computer's hard disk, including DLLs or other file types that are installed in obscure places. In addition, Audiobase does not insert entries into your system's registry.



This means that no music database exists in the folder and therefore Audiobase could not open it.

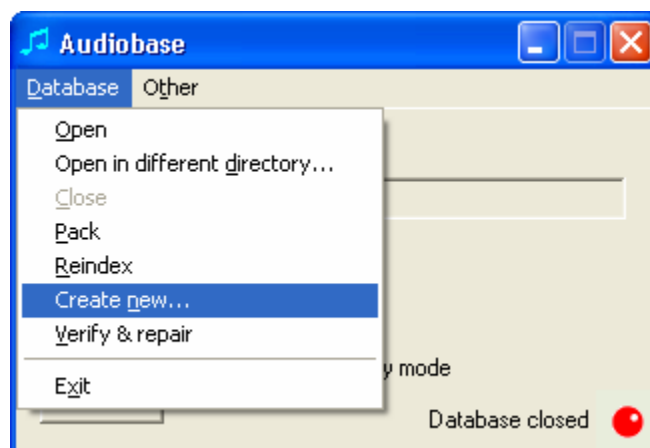
Press OK and the following screen will appear:



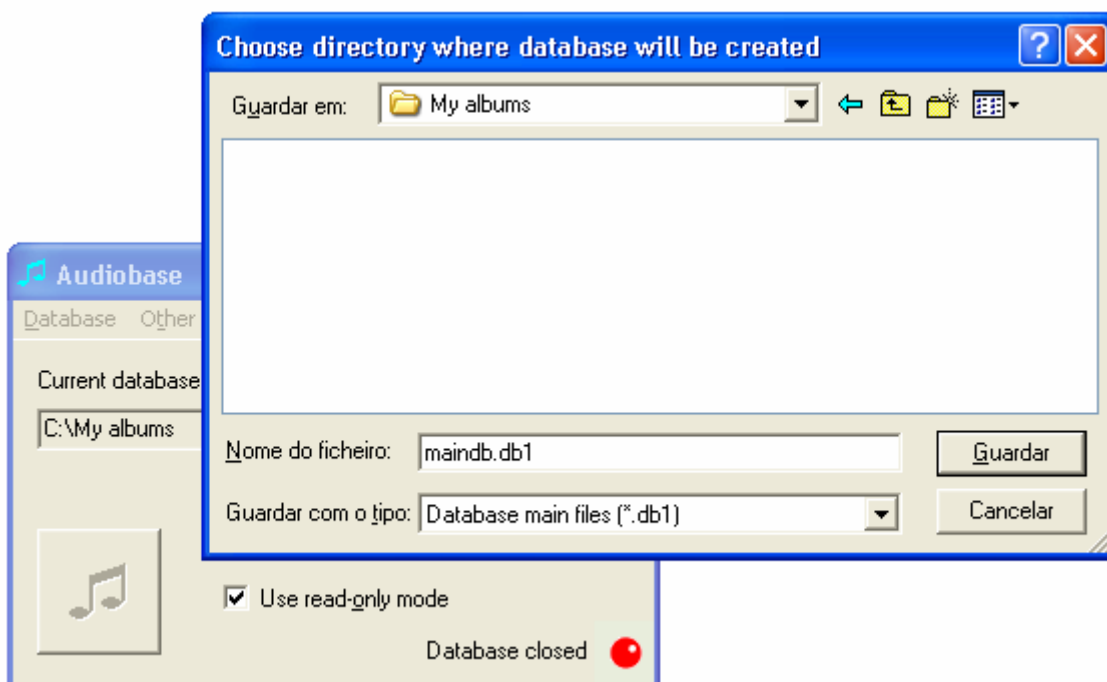
This is Audiobase's entry screen. The red ball in the lower right corner indicates that no database is open, so there's not much that you can do at this point. The next step is to create a new database.

### 3 Creating a database

To create a new database, go to the "Database" menu. Choose "Create new..." as shown below:

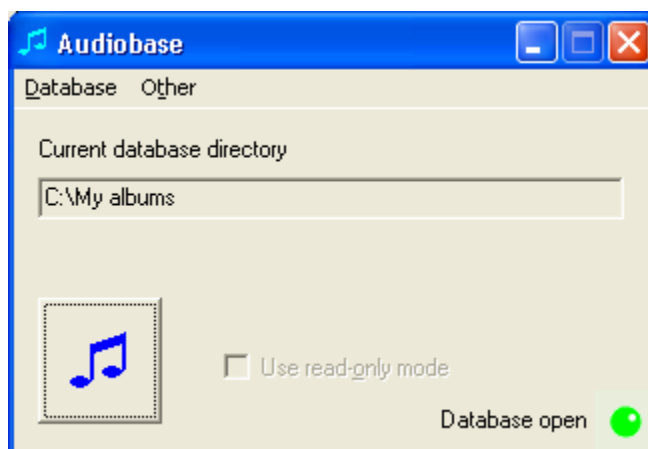


This will cause the following dialog box to appear:



You should use this dialog box to choose the folder where the database should be created. Use it to browse your disk and locate the “My Albums” folder. You should not change the pre-filled file name “maindb.db1”. When you select the desired folder, click the Save button.

After clicking “Save”, an empty database will be created. Audiobase will open it automatically, and the screen will have this appearance:



The new database is ready now. Note the green ball indicating that the database is open.

## 4 Opening and closing the database

When Audiobase is launched, it usually opens the last used database automatically.

You can, however, open and close the database manually.

- To close the database, you should go to the Database menu and choose “Close”.
- To open the database in the current directory, you should go to the Database menu and choose “Open”.
- To open a database in a different directory, you should go to the Database menu and choose “Open in different directory...”.

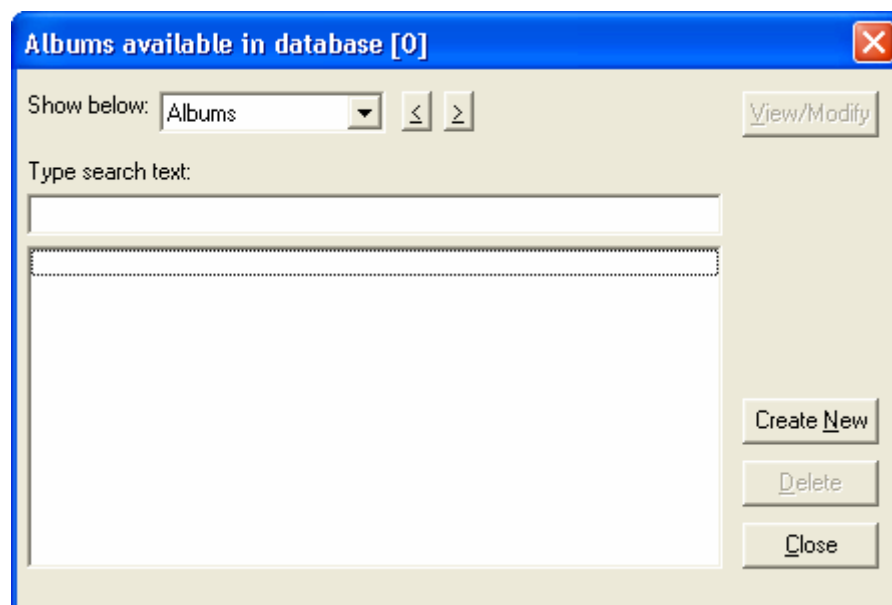
### 4.1 *Read-only versus read-write access*

Audiobase usually opens the databases in *read-only* mode. In that situation, the user may browse through the database but he cannot make any changes to it. It is, therefore, a safe mode. If you want to make changes to the database, you will have to open it in *read-write* mode.

To select the access mode you should use the “Use read-only mode” checkbox in the entry window. Clearing the checkbox will provide read-write access.

## 5 Entering data into your music database

Now that you have an empty database, it is time to populate it. The first thing to do is to open it in read-write mode (clear the read-only checkbox before opening it). After that, open the browse window. You just need to press the browse button (the one with the music figure on it). Normally, pressing Enter will have that effect. This will open the browse window as shown below:

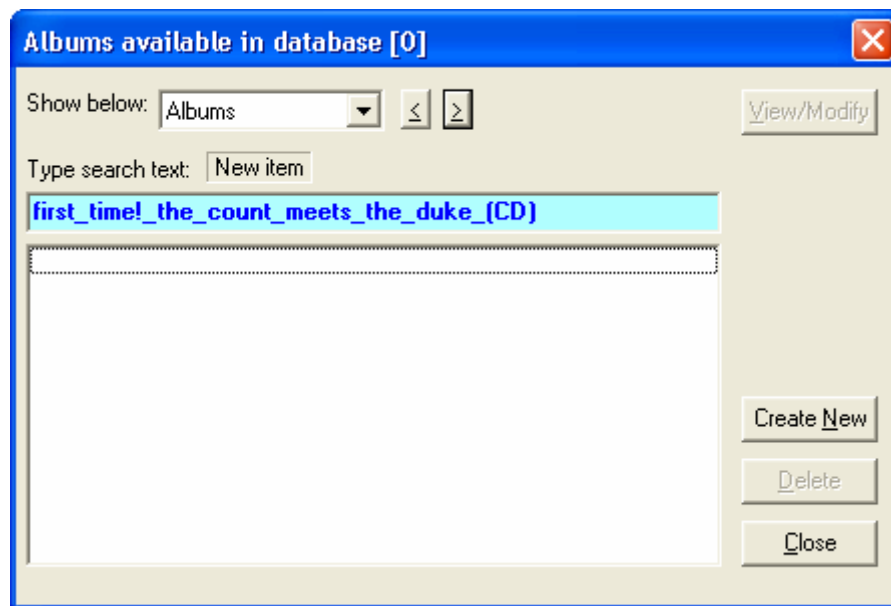


This window shows the database contents. It can show the albums, artists and songs; you can select the type of items displayed through the combobox. Just choose “Albums”, “Artists” or “Songs”. For the moment, leave “Albums” selected.

### 5.1 *Creating an album*

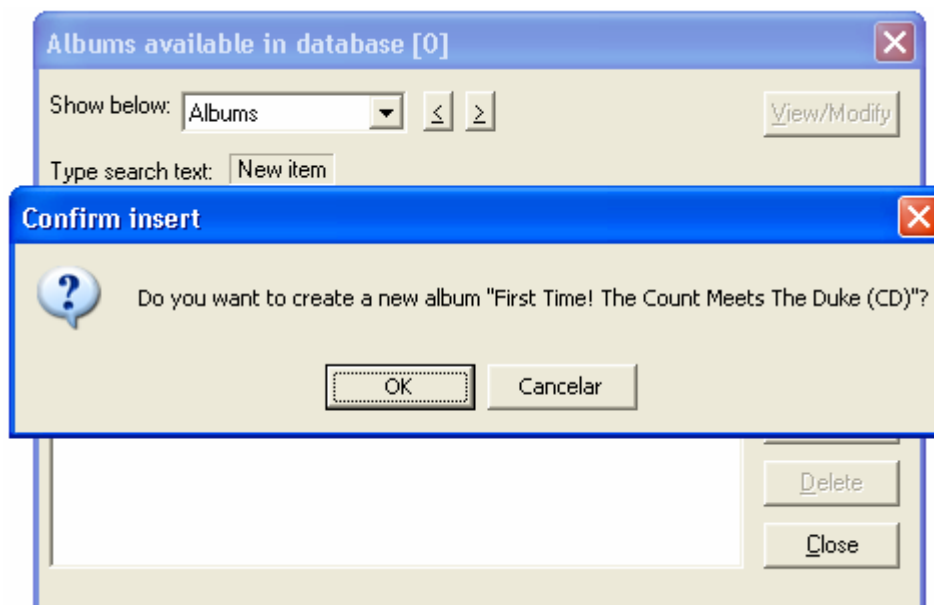
Let us create an album. You just need to enter its name (make sure that the focus is in the listbox — the big white area — if necessary click on it).

Suppose you want to insert a CD titled “First Time! The Count Meets the Duke” by Duke Ellington and Count Basie. Just type the album name:

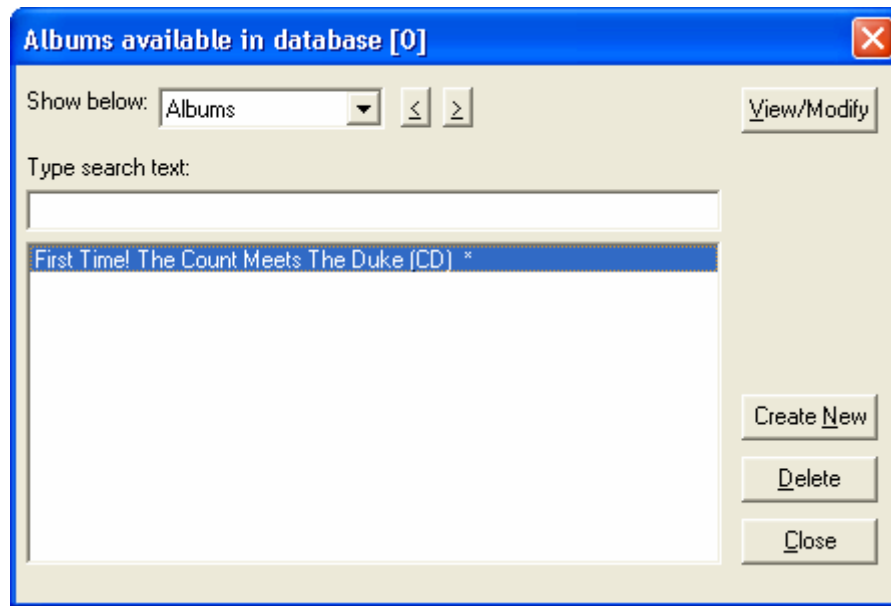


What you type will appear in the search text field. This field will change into a cyan background with blue text: this means that the entered text is a new entry (there is no equivalent entry in the database). Blank characters will be displayed as underscores (\_) in this field, but they will be entered as they are.

To conclude the album entry, just click the “Create New” button or simply press Enter:



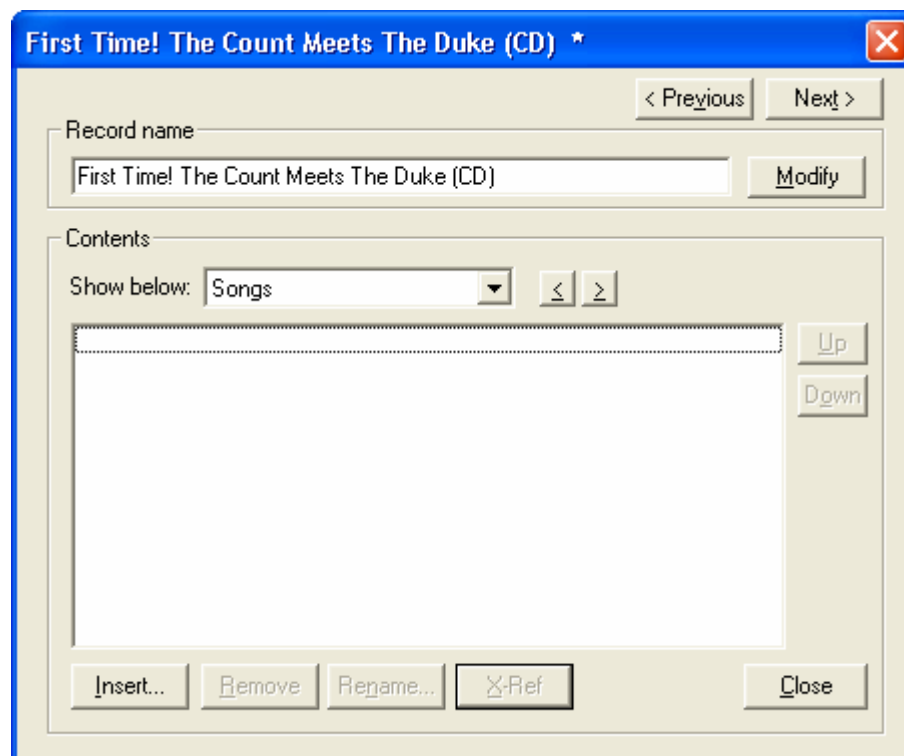
Note that the entered text is automatically capitalised by Audiobase. To confirm the operation, just click OK:



The album has been entered. The asterisk in the title means that it is incomplete (songs and artists are missing).

## 5.2 *Filling an album*

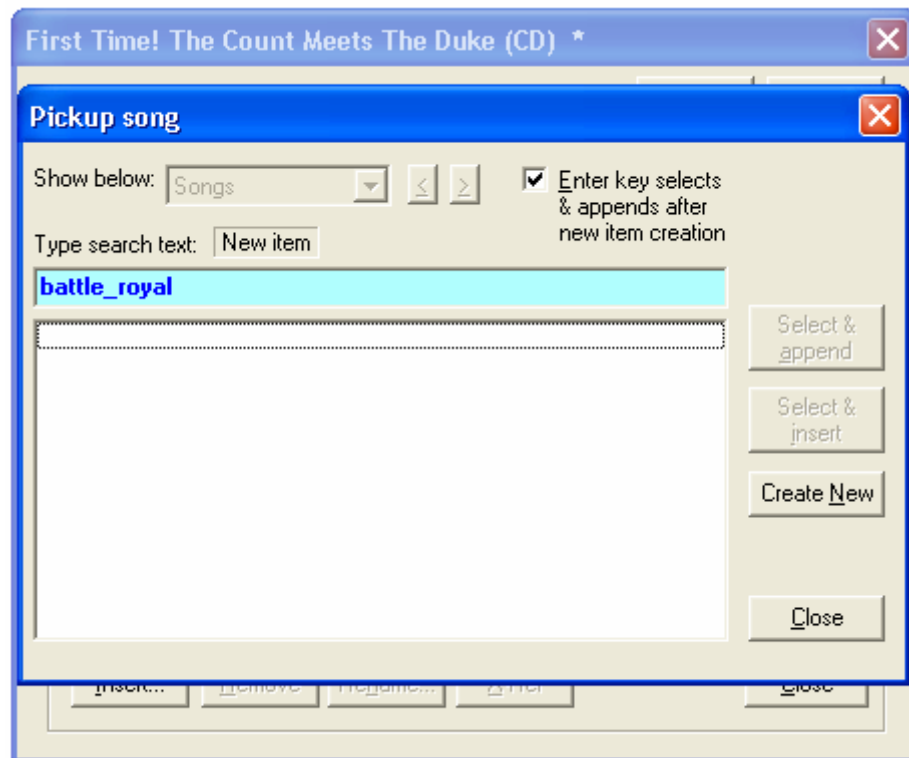
The next thing to do is to fill the album. To view the album's contents, press the "View/Modify" button or click Enter:



This dialog box shows the album's contents. You can see the songs and artists that belong to it (just select what you want to see in the "Show below" combobox).

### 5.2.1 *Adding songs and artists to an album*

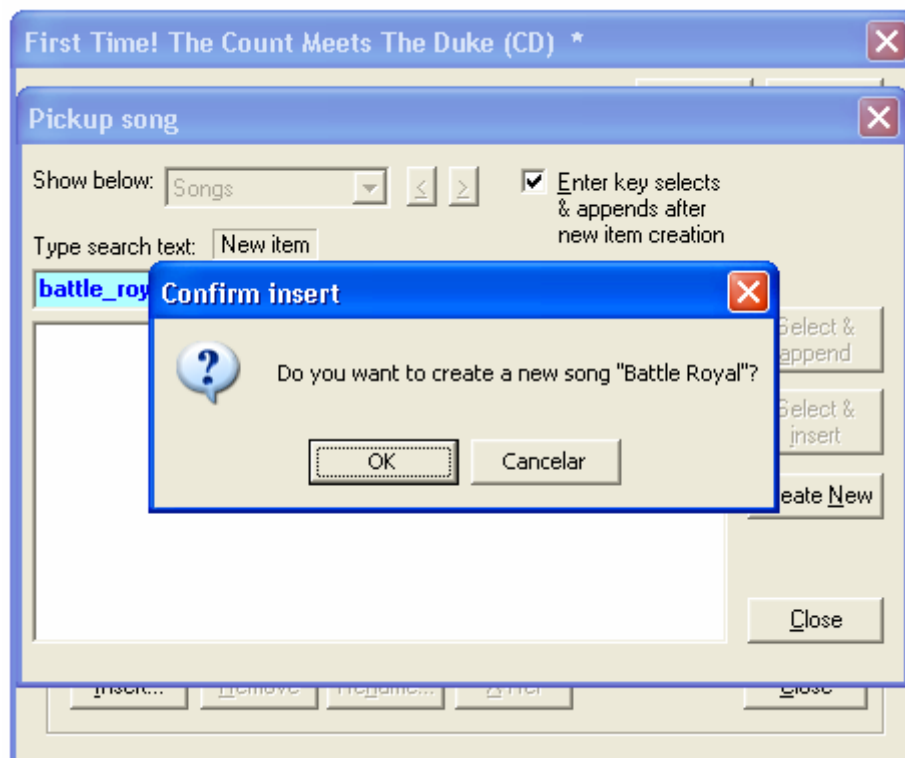
Let us start by filling the songs. First song will be "Battle Royal". Just type it (make sure that the focus is on the listbox).



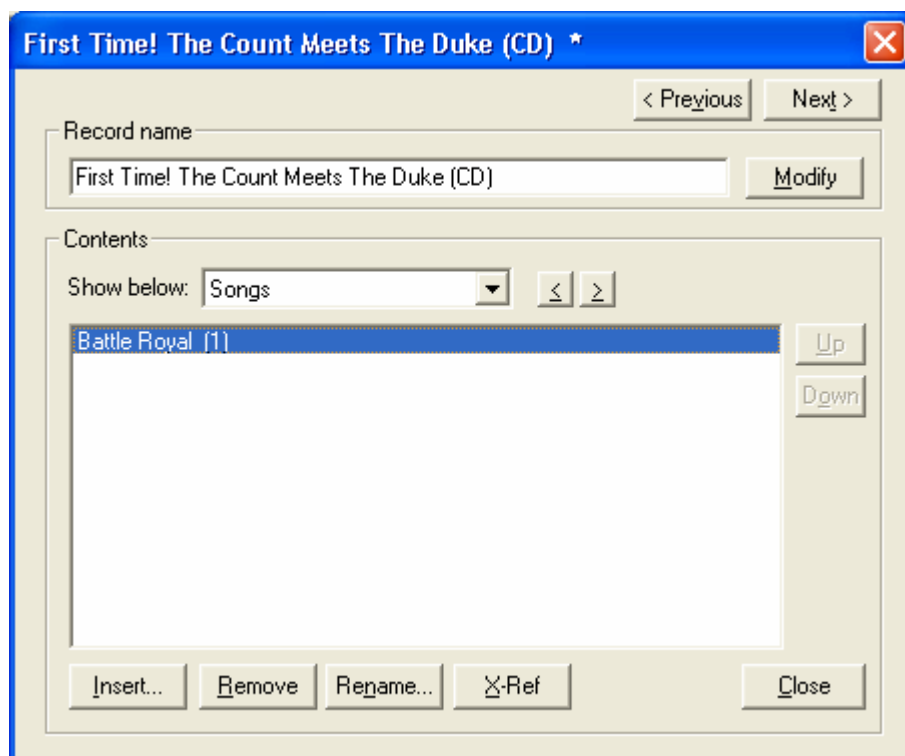
When you begin entering the song name, the “Pickup song” dialog will appear. This is because Audiobase is trying to find out if that song already exists in the database. At this point the database is empty, so the song will be added to it. You can do that by clicking the “Create New” button or, more easily, by pressing the Enter key.

The checkbox in this dialog governs the way it behaves when you press the Enter key. If the checkbox is cleared, when you press Enter for the first time, the new song will be inserted in the song database; you will have to press Enter again, this time to select the new song and add it to the album, closing the dialog. If the checkbox is set (the default mode), when you press Enter after typing the song name, the song will be inserted into the song database and then inserted into the album, closing the dialog, all this in a single operation.



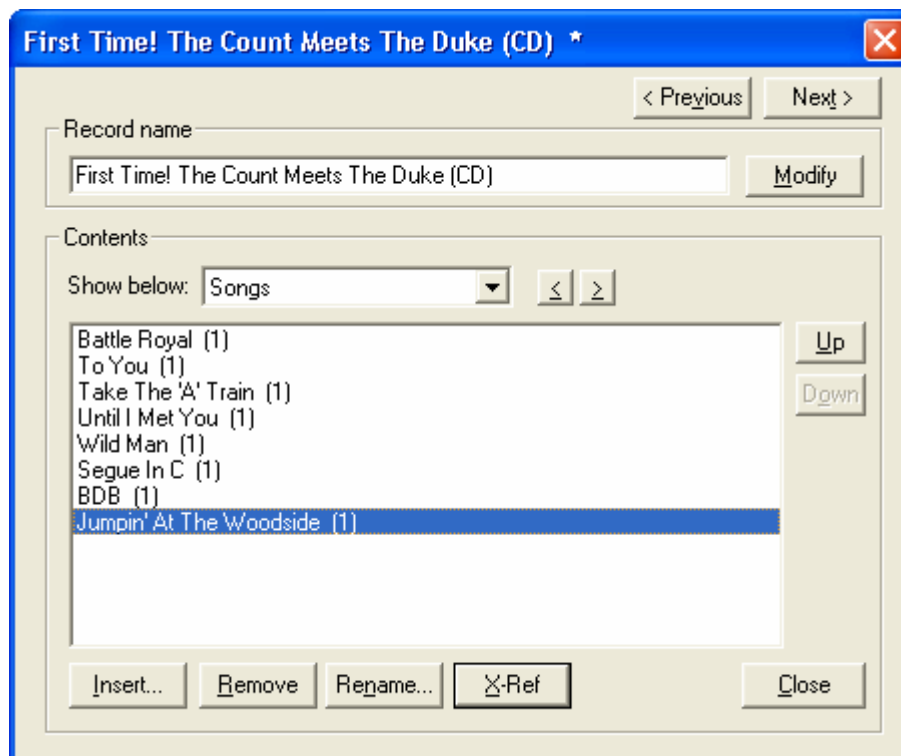


You should now confirm the creation of the new song. The result will be:

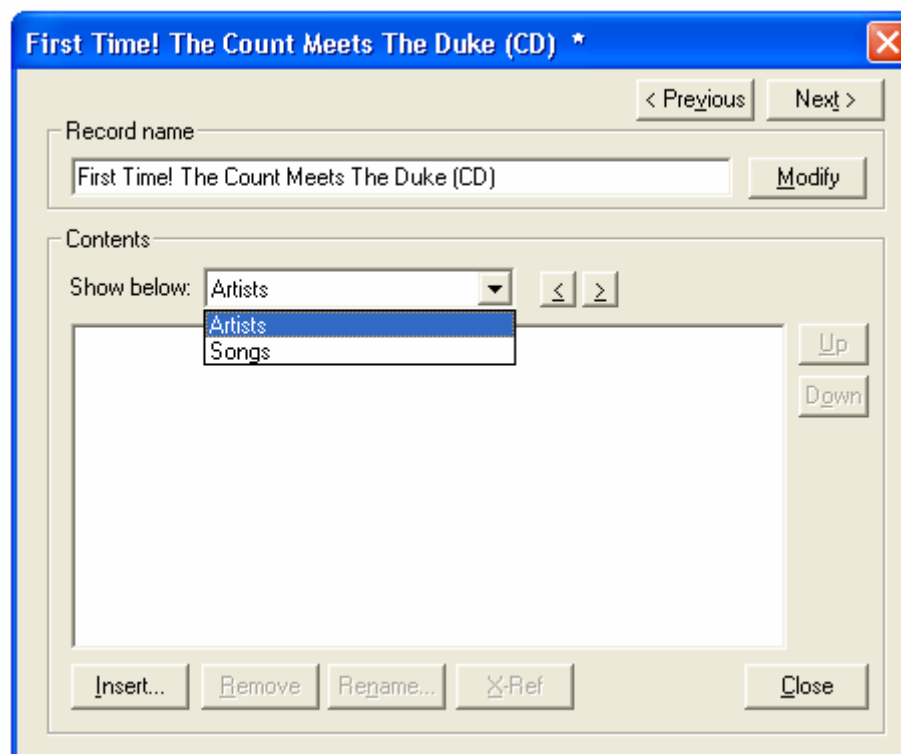


The number in parenthesis is a *reference count*: it indicates the number of times the song appears globally in the database. In this case, only one album contains the song. Should the song appear in other albums, this number will increment accordingly.

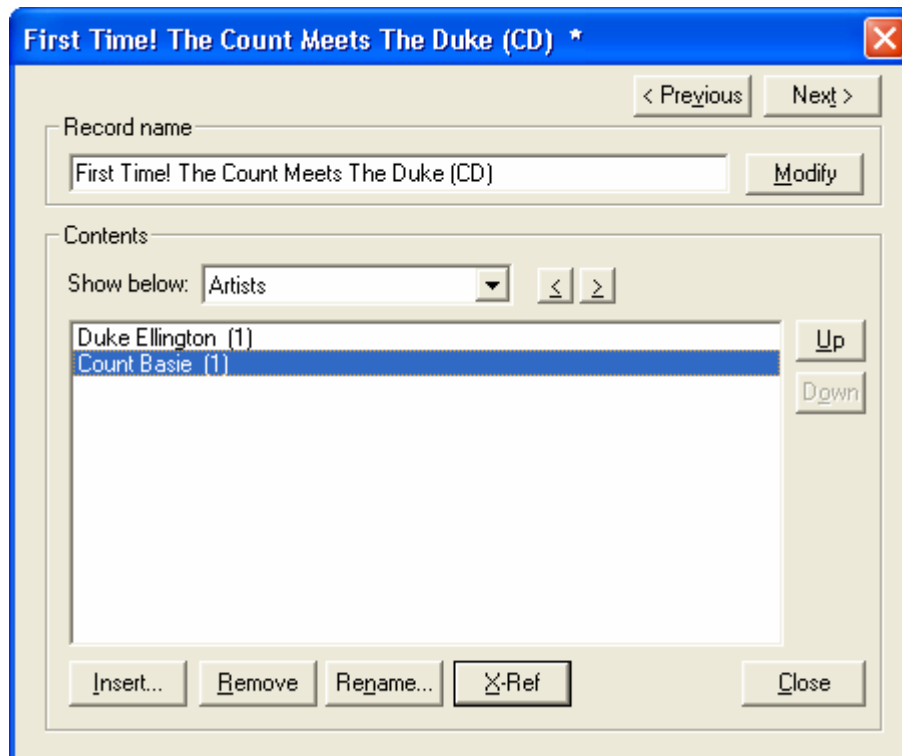
All you have to do now is to repeat the operation and insert the remaining songs:



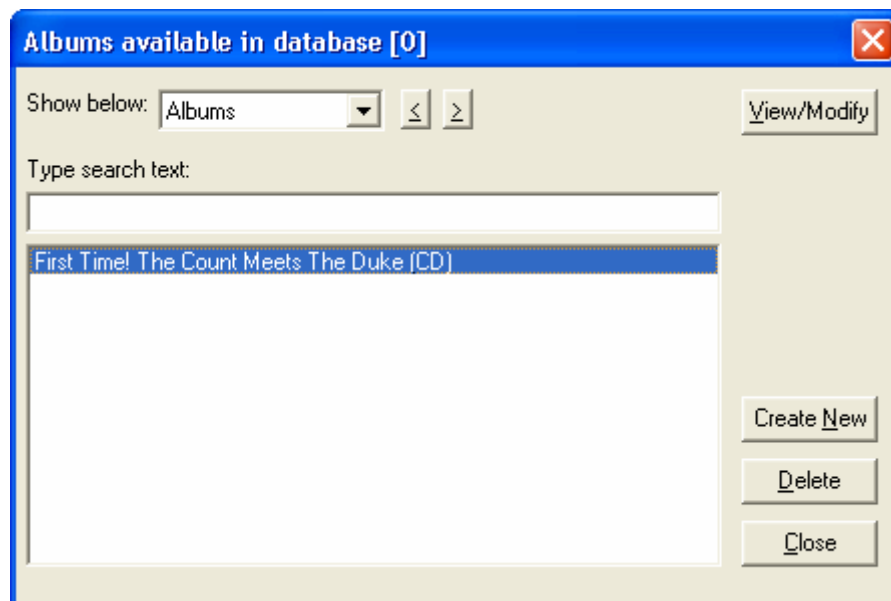
The next thing to do is to fill the artists that participate in the album, Duke Ellington and Count Basie. First, change the “Show below” combobox into “Artists”:



Repeat the operations you did to enter the songs. The result will be:



Now you can close the album dialog. The album list will display the album title, this time without an asterisk because both songs and artists have been filled.

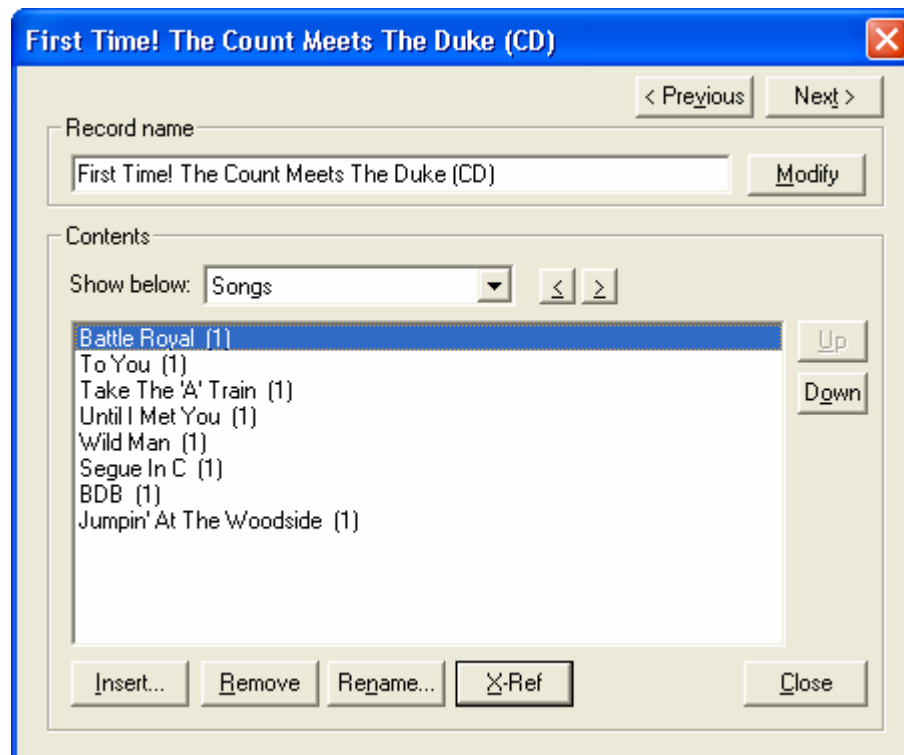


### 5.3 *Making changes to an album*

You can make many kinds of changes to an album. These include:

- Changing the album's title;
- Add, change and delete its songs;
- Add, change and delete its artists;
- Change the order of songs and artists.

The first thing to do is to open the album. Just locate it and press Enter:

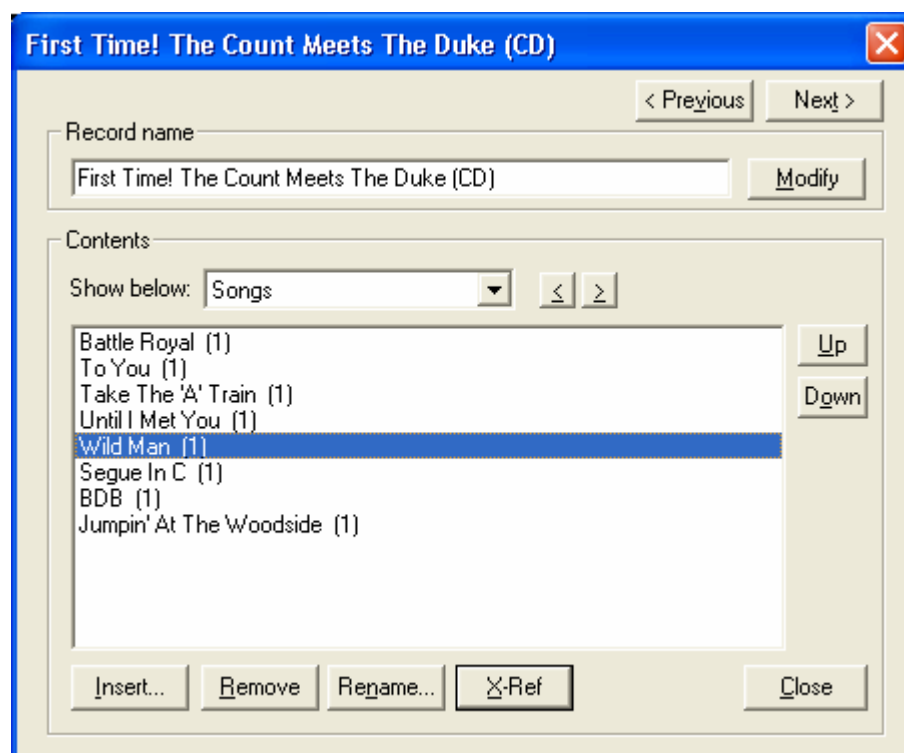


### 5.3.1 Changing an album's title

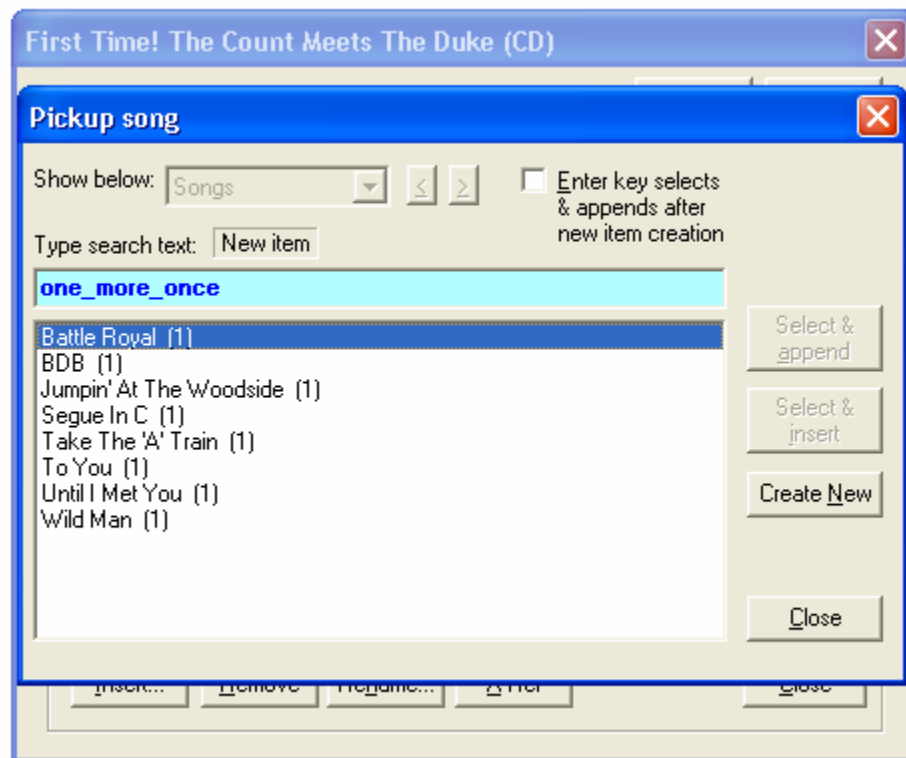
To change the album's title, just change its name and click the Modify button.

### 5.3.2 Inserting a song at a specific position

Suppose that you want to add a song called "One More Once" in the 5th position. Move the selection to the fifth row (use the arrow keys):



Now, type the song name:

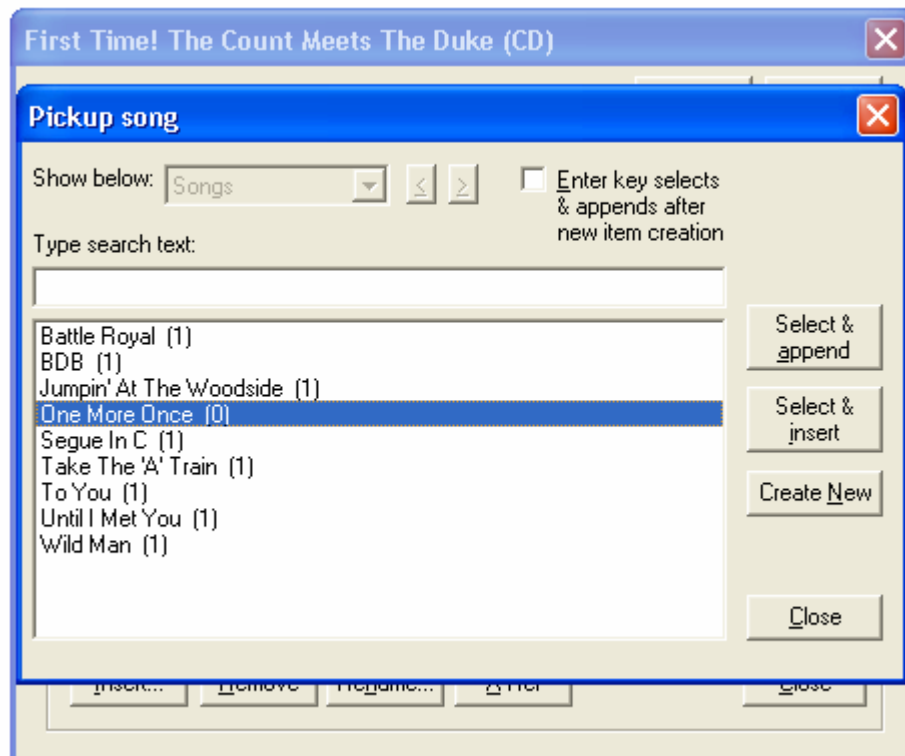


Audiobase usually inserts the new song into the song database and at the same time it appends the song to the album's contents. However, it is not what we intend to do this time: we want the song to be inserted at the fifth position in the album, not the last.

To accomplish this, we should clear the checkbox in the above dialog. This will prevent the dialog box from closing and the song from being automatically appended. It will become instead a two-step process:

- The first time you press Enter, the song will be added to the song database. However, the "Pickup song" dialog box will remain open.
- The second step is to decide how the song will be added to the current album. You have two choices, provided by two buttons: "Select & append" (which will *append* the song to the end of the album) or "Select & insert" (which will *insert* the song into the highlighted row in the album).

So, let us press Enter for the first step. As a result, the song will be inserted into the song database. The "Pickup song" dialog box remains open, and the new song appears in the list of available songs in alphabetical order. The reference count is still zero because the song has not yet been added to the album.



We must now decide how the song is added to the album (the second step). What we want to do in fact is to select the recently added song and *insert it* (as opposed to append it) into the album. You should therefore click on the “Select & insert” button (or press Alt-I).

As a result, the dialog box closes and we are back to the album.

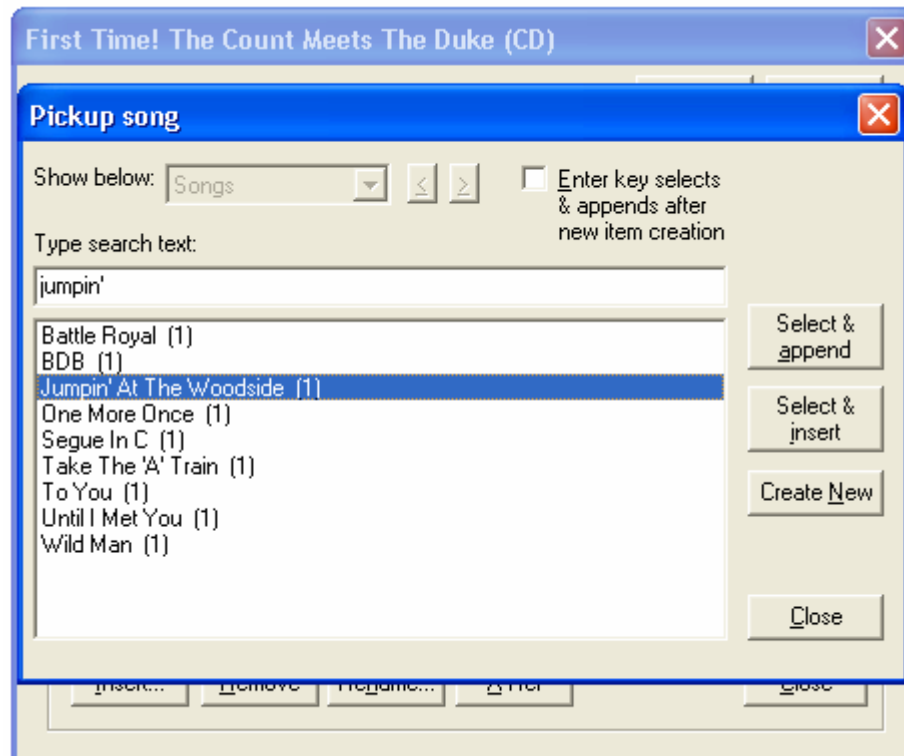


As you can see, the song has been inserted into the desired position.

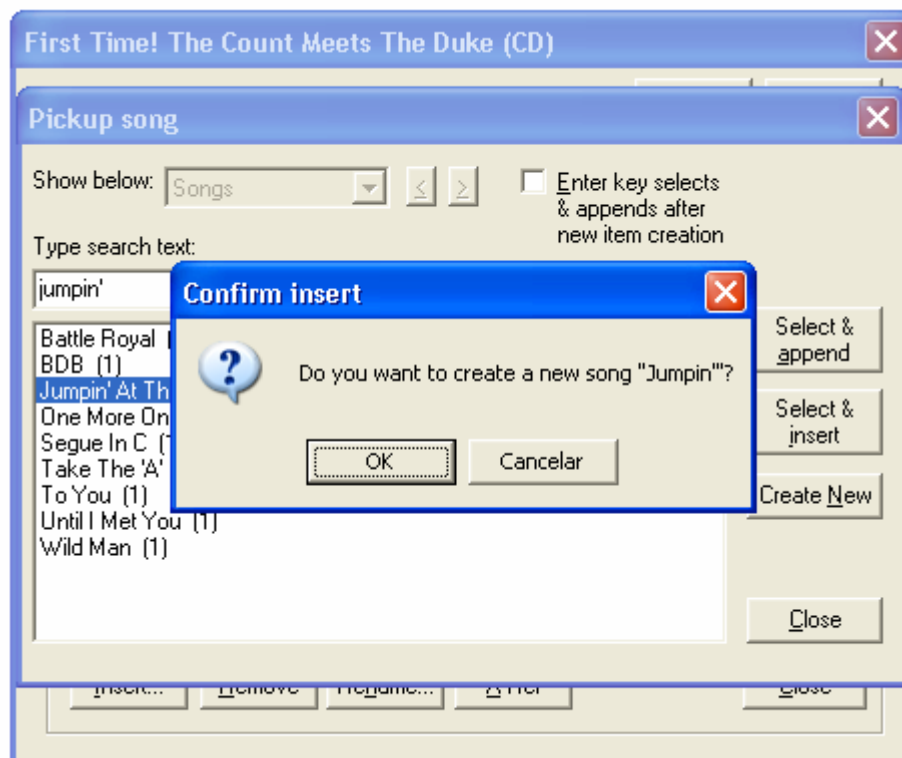
### 5.3.3 Inserting a song identical to the beginning of another song

This is a case that arises now and then: suppose that you want to add a song that coincides with the beginning of an existing song (for example, you want to insert a song called *Jumpin'* but a song *Jumpin' at the Woodside* already exists in the database).

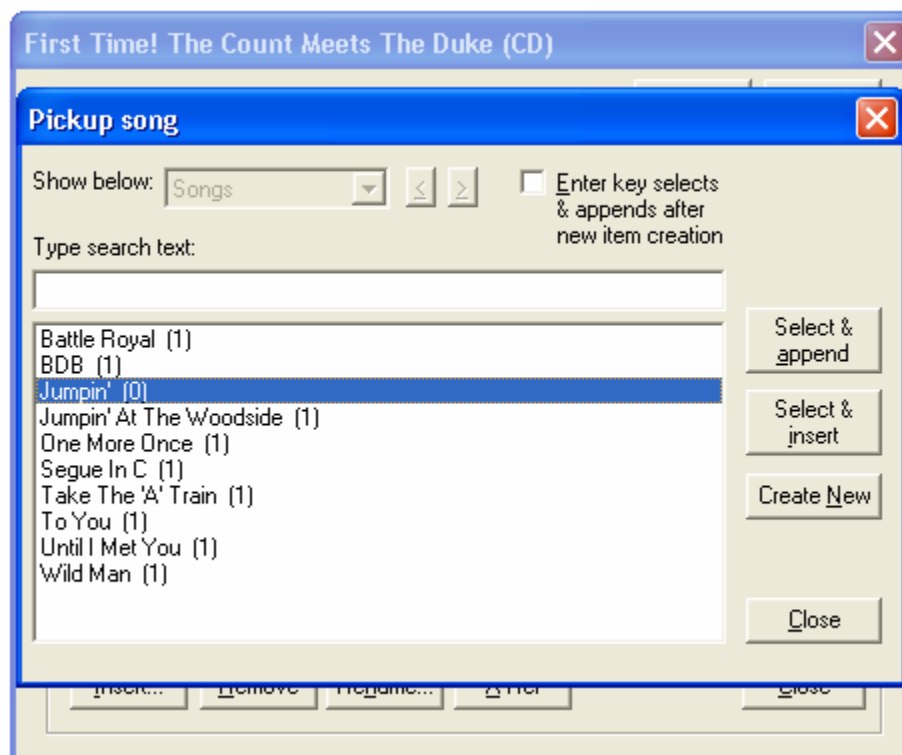
When you type *Jumpin'* Audiobase will try to find a matching song. In this case, *Jumpin' at the Woodside* will be found. If you press Enter, you will select *Jumpin' at the Woodside*, when you in fact want to create a new song called *Jumpin'*.



To avoid this problem, instead of pressing Enter (and selecting *Jumpin' at the Woodside*), you should instruct Audiobase to create a new song by clicking Create New (or pressing the Ins key).



All you have to do now is confirm. Song *Jumpin'* will be created and all you have to do is select it.



Now you can either select the song and append it (clicking Select & Append or pressing Alt-A) or select the song and insert it at the current position (clicking Select & Insert or pressing Alt-I).

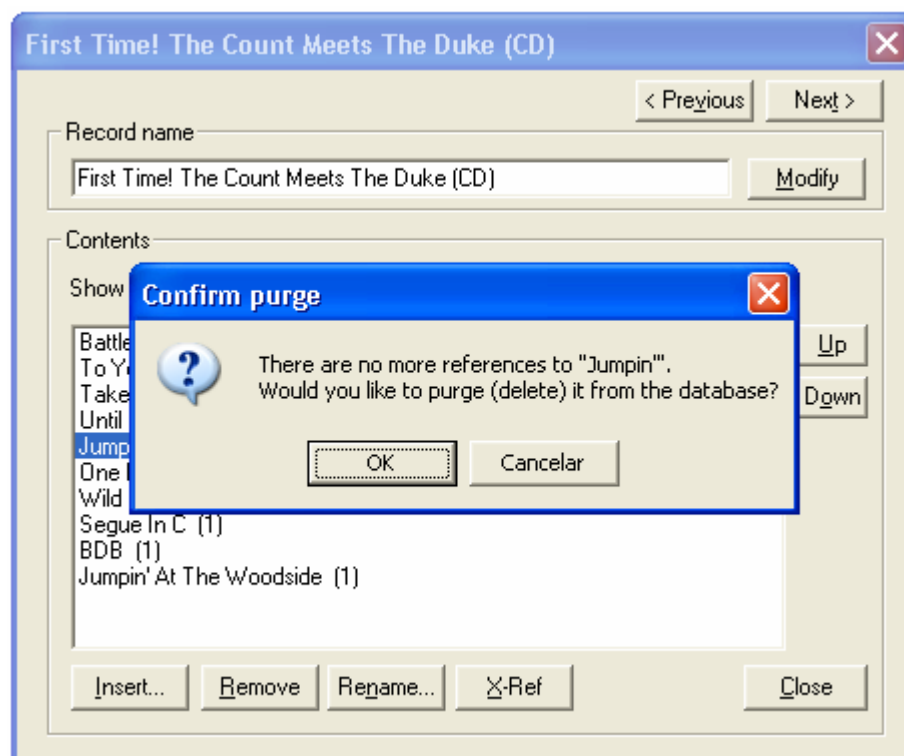
#### 5.3.4 Deleting a song from an album

To delete a song from the record, you just need to select it and press the Del key (or click the Delete button). A confirmation dialog follows:





If you press Yes, the song is removed from the record. However, if the song has no more references to it (it is not contained by other albums), the application will ask you if you want to purge the song (purging means removing entries with a reference count of zero from the database).

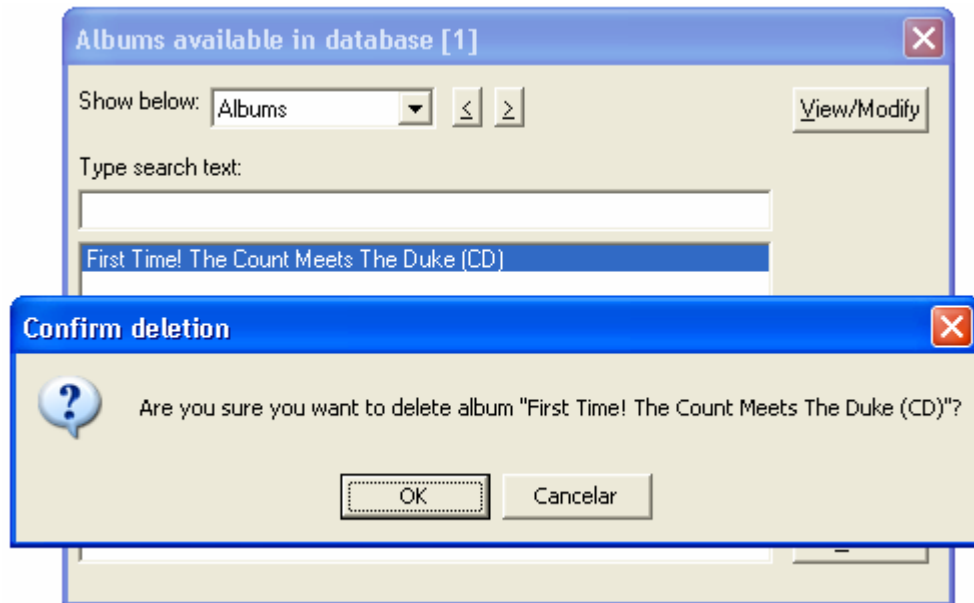


To change the name of a song (or musician), you just need to press the Rename button.

To change the order of the songs (or musicians), you should select it and use the Up and Down buttons.

## 5.4 *Deleting an album*

To delete an album you just need to select it and click the Delete button or press the Del key:



If you confirm, Audiobase will:

- Remove all the songs from the album;
- Remove all the artists from the album;
- Purge the songs and artists (remove the ones that have zero reference count);
- Remove the album.

## 5.5 *Inserting, renaming and removing artists and songs*

You can insert, rename and remove artists and songs from the respective database. Just select Artists or Songs in the main dialog combobox to access their tables. Note that you only can remove artists or songs when their reference count is zero (when they do not belong to any album).

# 6 **Browsing your music database**

In this section we will use as example the sample database supplied in the Audiobase bundle.

You should therefore replace the current database files (the “.db1” and “.idx” files) with the ones that come with the Audiobase bundle. In alternative, you can work in a different folder. Just make sure it contains the executable program and the sample database.

Let us begin by opening that database. You can open it in read-only mode, since we do not intend to make changes to it.

Click the button with the musical figure (or press Enter or Alt-T B) to launch the browse window.

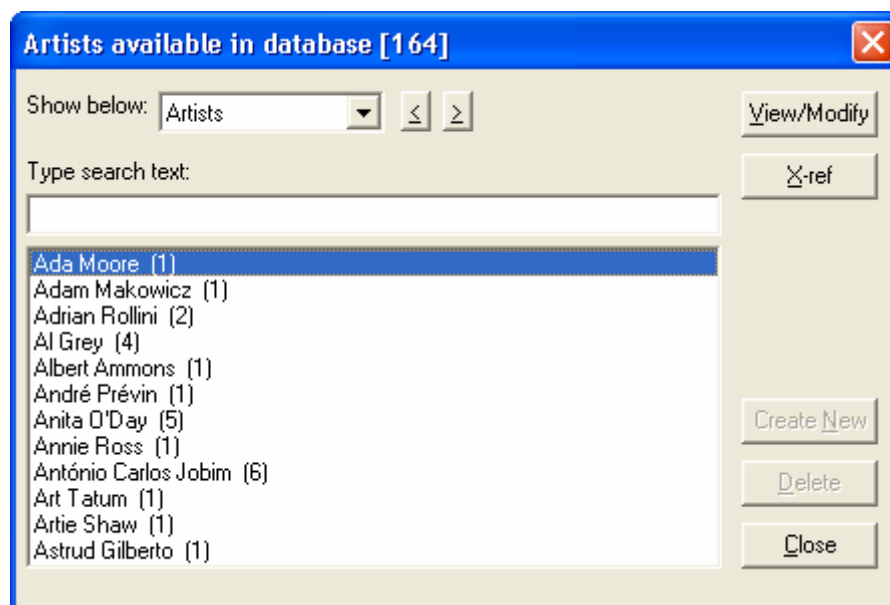
## 6.1 *Browsing albums, artists or songs*

You can browse the albums in the database. In this case, we have 541 different albums:

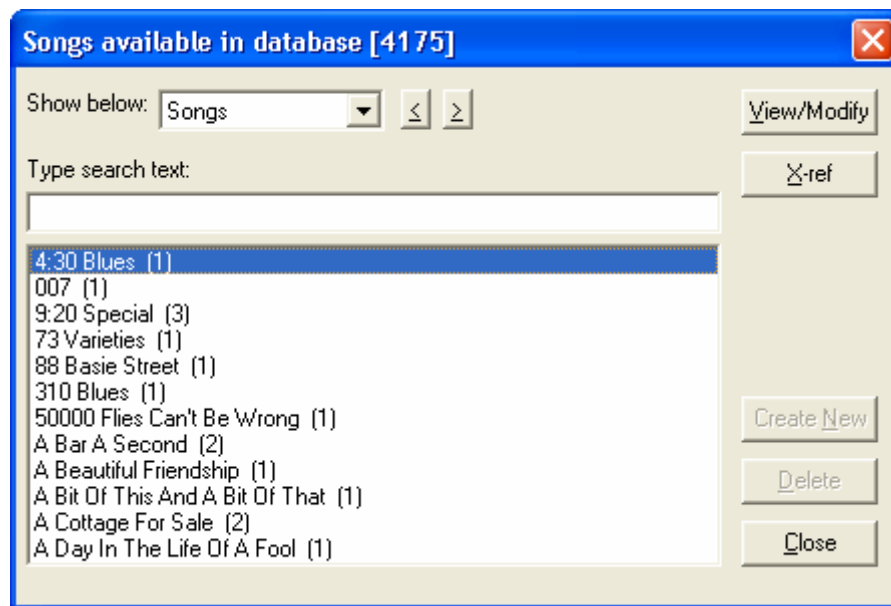


To view an album's contents, you just need to highlight it and press Enter or click the View/Modify button.

You can also browse artists. In this example, the database contains 164 artists:



Finally, you can browse the songs. This sample database contains 4175 songs:



There are several ways to browse these lists:

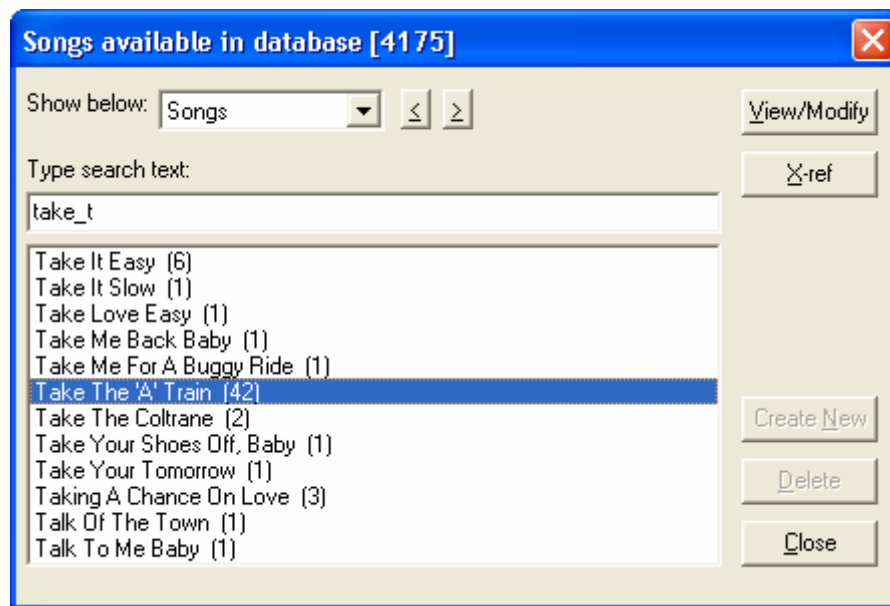
- You can use the up and down arrow keys to move one row at a time;
- You can use the Page Up / Page Down keys to move one page at a time (one page corresponds to the number of rows in the listbox minus one);
- You can use Ctrl-PgUp and Ctrl-PgDn to go to the top or bottom of the list;
- You can type the name of an entry. Audiobase will try to locate that entry as you type it.

## 6.2 *Cross referencing artists & songs*

Cross reference is perhaps one of the most useful functionalities provided by Audiobase.

Cross reference is an operation whereby Audiobase presents a list of all the albums that contain a certain song or include a given artist. All you have to do is to highlight a song or artist and click the X-Ref button or press the Enter key.

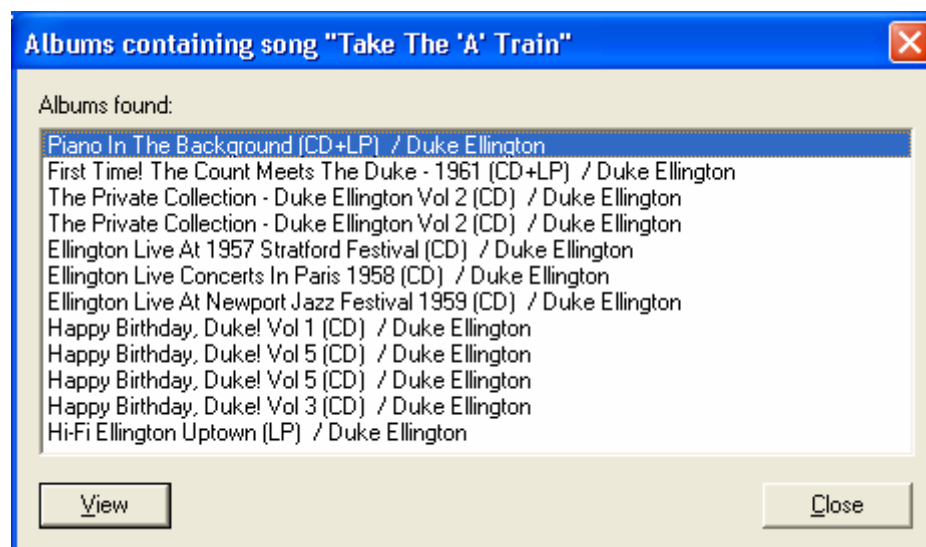
For example, if you want to know which albums contain the song *Take the 'A' Train*, the first thing to do is to locate it. Begin by selecting the song list in the “Show below” combobox. Then type the first few letters of the song’s name:



The first 6 characters (“take t”) are enough to locate the song. Note that punctuation characters like single quotes, double quotes, exclamation marks, etc are equivalent to white space. When searching items you don’t need to insert them, one space will be sufficient).

The number in parenthesis indicates that the song appears 42 times in the database.

Now all you need to do is to press the Enter key (or click the X-ref button):

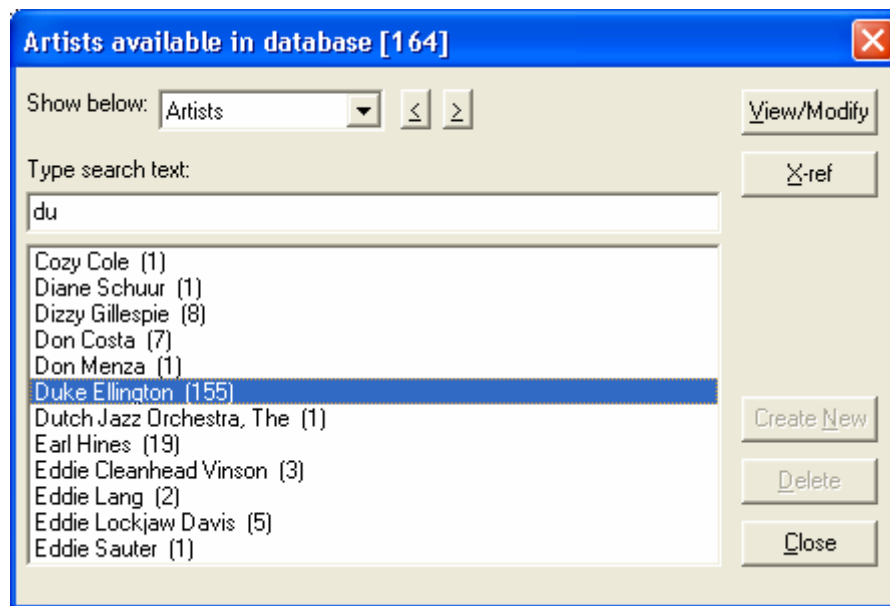


You can browse this list. You can open each album and see its artists and songs. You can also repeat the cross-reference operation for any song or artist in the album.

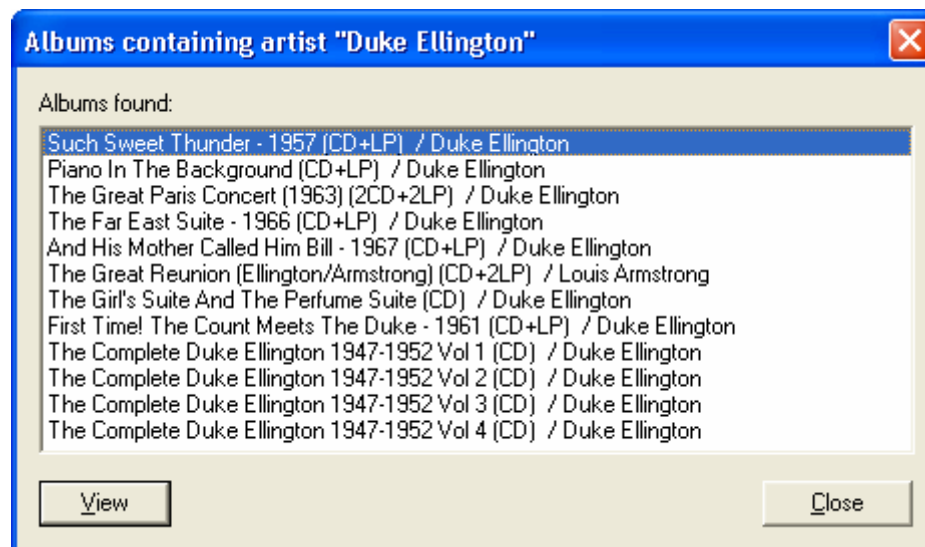
The album list presents the title of the album as well as the main artist in the album. The main artist is the first artist in the album’s artist list.

Some of the albums appear repeatedly in the list: that means they contain several versions of the song.

To find the albums in which an artist participates, you do a similar procedure. For example, to locate the Duke Ellington albums, go to the artist list and locate it (entering “du” should be sufficient):



Now press Enter. The list of 155 albums in which Duke Ellington participates is displayed:



You can open each album in this list and continue to navigate from album to album.

## 7 Maintenance operations

From time to time, you should maintain your databases. The maintenance operations are:

- Re-indexing the database;
- Packing the database;
- Verifying and repairing the database.

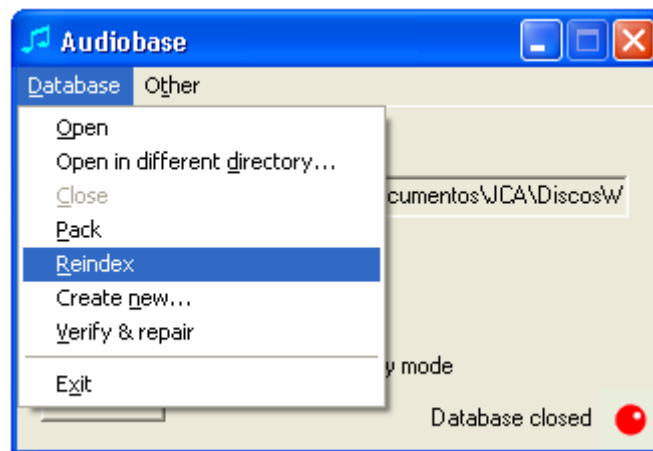
All these operations require that the database be closed.

### 7.1 *Re-indexing the database*

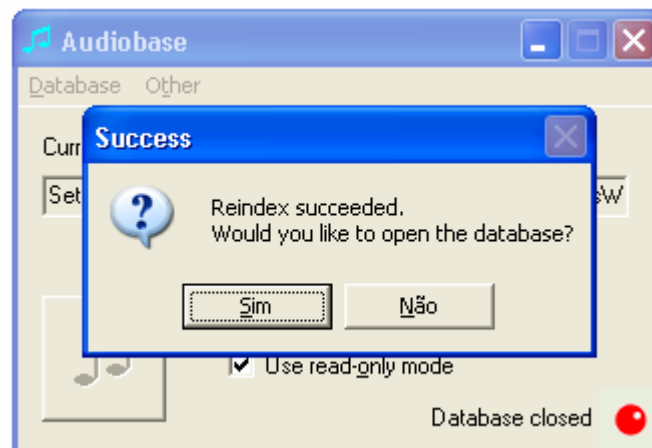
In order to display items ordered alphabetically and to improve search speed, the Audiobase database uses index files. Index files are automatically maintained; however, should one or more become damaged (e.g., due to power failure during an update or any other reason) or out-of-date, you can re-index the database. Re-indexing is an operation whereby all index files are generated automatically from the actual data stored in data files.

One of the situations where re-indexing becomes necessary is after packing the database.

You can re-index the database any time (as long as the database is closed). To do it, all you need is to go to the Database menu and select Reindex.



After re-indexing the database, the following message is displayed:



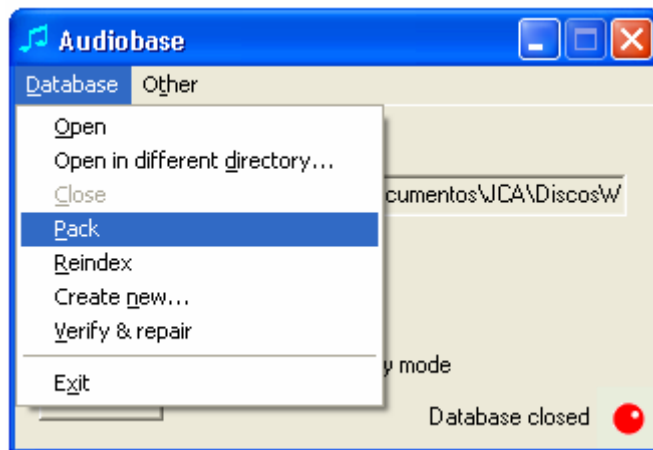
You can press Yes if you want to open the database after the operation.

## 7.2 *Packing the database*

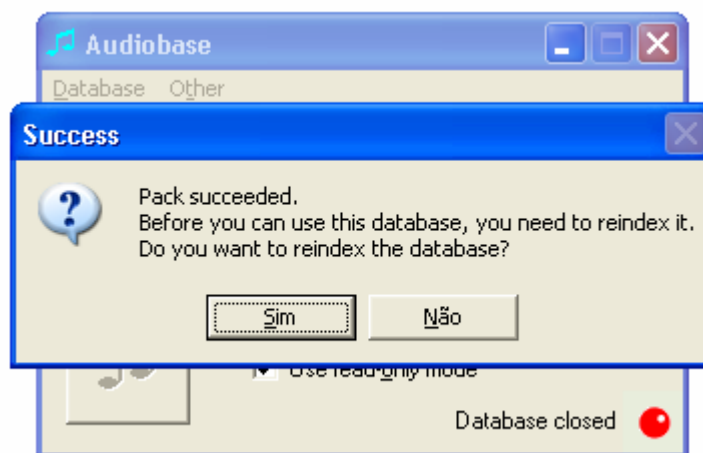
In many situations, when you delete a record in a database, the record is not physically deleted, for performance reasons. It is *marked* as a deleted record and is no longer seen, but it is still there. Normally this does not cause any problem, although the database may occupy a bit more disk space than is strictly needed (it does not affect database speed).

However, if you do many deletions, the percentage of records marked for deletion may increase and become significant. In that case, you can *pack* the database. Packing is an operation that physically removes records marked as deleted. It can take some time if the database contains many records, but after packing the space taken up by deleted records is freed and the database size will decrease accordingly.

To pack the database, you first need to close it (go to the Database menu and select Close). Then, go to the Database menu and select Pack:



When packing is concluded, the following message appears:



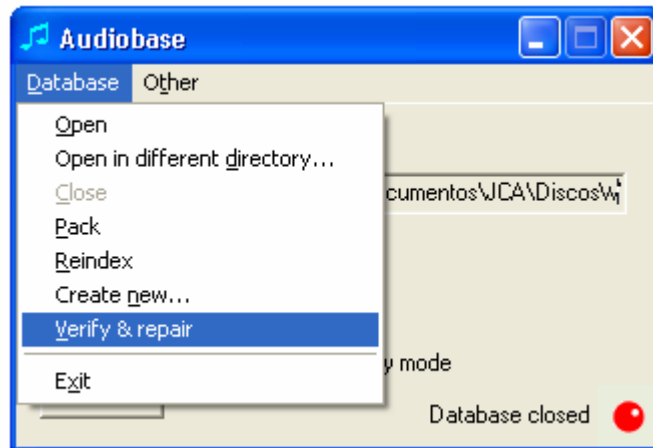
This is because after packing the database, the index files become out of date. You should re-index it in order to be able to use it. You should click Yes. The procedure is similar to the one described for *Re-indexing the database*.

### 7.3 *Verifying and repairing the database*

Audiobase is capable of checking the condition and integrity of its database files and, in certain situations, of repairing some kinds of errors.

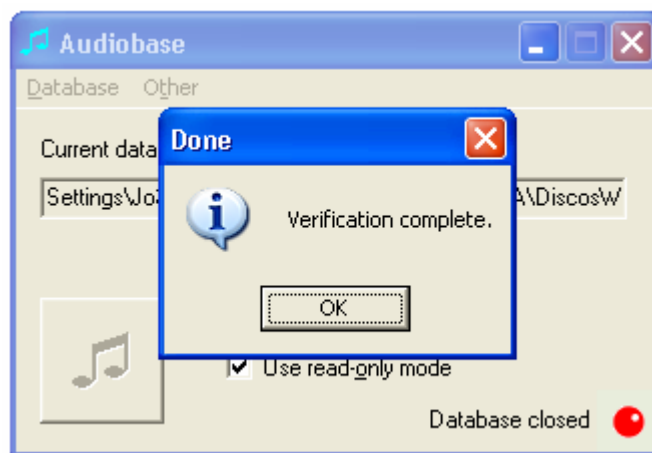
To verify and/or repair the database, you should go to the Database menu and select Verify & Repair as shown below:





When (and if) Audiobase detects a problem, it will ask the user if he would like Audiobase to correct it.

After the procedure is complete, the following message will be issued:



Although you can use Audiobase to repair possible damage to its database tables, it is always a good idea to make periodic backups of these databases. After all, it is your valuable information and can be the result of many hours of effort.

## 8 Backing up your data

It is recommended that from time to time you make a backup copy of your databases and keep it in a safe place.

This procedure is quite simple for Audiobase. You can simply make a copy of Audiobase's folder (which will include the data and the application) or you can make a copy of the data files.

The Audiobase database is stored in the following files:

Data files	Index files
maindb.db1	maindb.idx
attr001.db1	attr001.idx
attr002.db1	attr002.idx
rel001.db1	rel001.idx
rel002.db1	rel002.idx

The essential files are the data files (with extension “.db1”). The index files are not essential, since they can be generated at any time.

To backup a database, you only need to make a copy of the five data files. You can store them in a folder or in a ZIP archive, whatever you prefer.

To restore a database, you just need to copy the backed-up files to the Audiobase directory. When you run Audiobase on the new database, it may refuse to open the database because the indices are out of date; just re-index the database.

## 9 Appendix A – List of keys

Audiobase encourages you to use the keyboard rather than the mouse as the preferred form of interaction.

This is because you will need the keyboard anyway (to search for items, to enter new data, etc). If you keep changing from the keyboard into the mouse, you will not progress much in terms of speed of use. If, however, you stick to the keyboard, you will see that most of the operations can be done very quickly through the keys.

The keys that you can use are summarised below:

- To access the menu, you can use the Alt key combined with the underlined letter for each menu command. For example, to close the database and open it in read-write mode, you can press Alt-D C (Database Close), Alt-O (toggle the read-only checkbox) and Alt-D O (Database Open).
- The Enter key can be used for many situations: to enter the browse window, to open an album, to cross-reference a song or artist, to select an artist or song and add it to an album, etc. In most cases, Enter is the default key for the most likely option.
- The escape (Esc) key can be used most of the time to go back.
- Tab allows you to move inside a dialog box, covering buttons, input fields, etc.
- To answer a question or dismiss a message box, you can normally use Enter or Space (default action) or Esc (cancel).
- You can use the *printable character keys* (letters, numbers, space and punctuation marks) to enter data and make searches.
- To browse a list of items, you can also use the arrow keys, PgUp and PgDn (page up/down), Ctrl-PgUp and Ctrl-PgDn (top/bottom).
- To delete an item, you can use the Del key.

- To insert a new item, you can use the Ins (insert) key (although in most cases typing the item name and pressing Enter will be sufficient).

If you practise, you will soon see that the keyboard will be the fastest way of interacting with Audiobase. But you can always rely on the mouse if you feel more comfortable with it.