1. Lexicon Editor :

When using the synthesizer, you might want to change the way a word is spoken. This happens often when you have names, acronyms, foreign words or other words that are not vocalised in the right way.

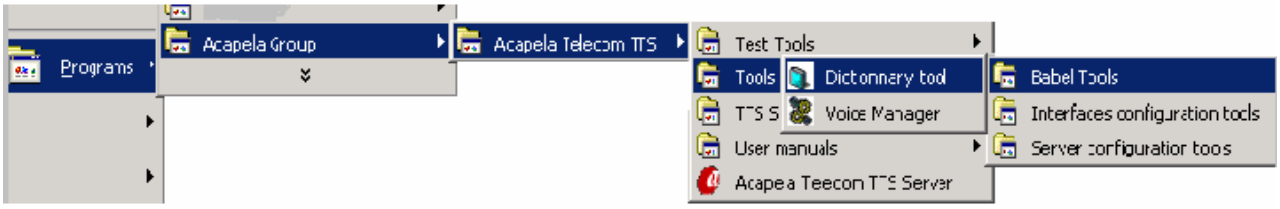
Creating a user lexicon (or user dictionary) gives you the opportunity to set the pronunciation of a word exactly the way you like it.

A user lexicon consists of a list of names (which works as a lookup string) and translations.

For instance, let's suppose that we want the Text-to-Speech Engine to actually speak the word "سنتيمتر" every time in the text the acronym " سم " is encountered. To achieve this, you have to add to the active user lexicon file an entry whose name is "سم " and whose translation is "سنتيمتر". The translation string can either be specified as text or as phonetic text, by preceding it with phonetic prefix character (#) and using the phonetic symbols defined for the language in use.

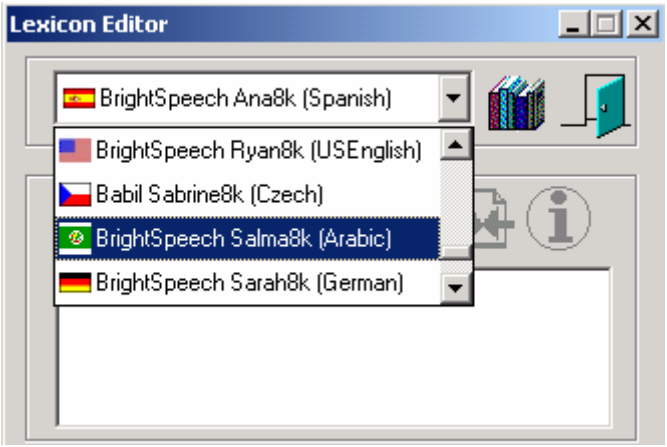
2. Using the user lexicon editor :

To start the Lexicon Editor, you need to launch "Dictionay Tool" from the start menu : *Start/ programs/Acapela Group/Acapela Telecom TTS/ Tools/Babel Tools* et vous ouvrez *Dictionnary tool :*



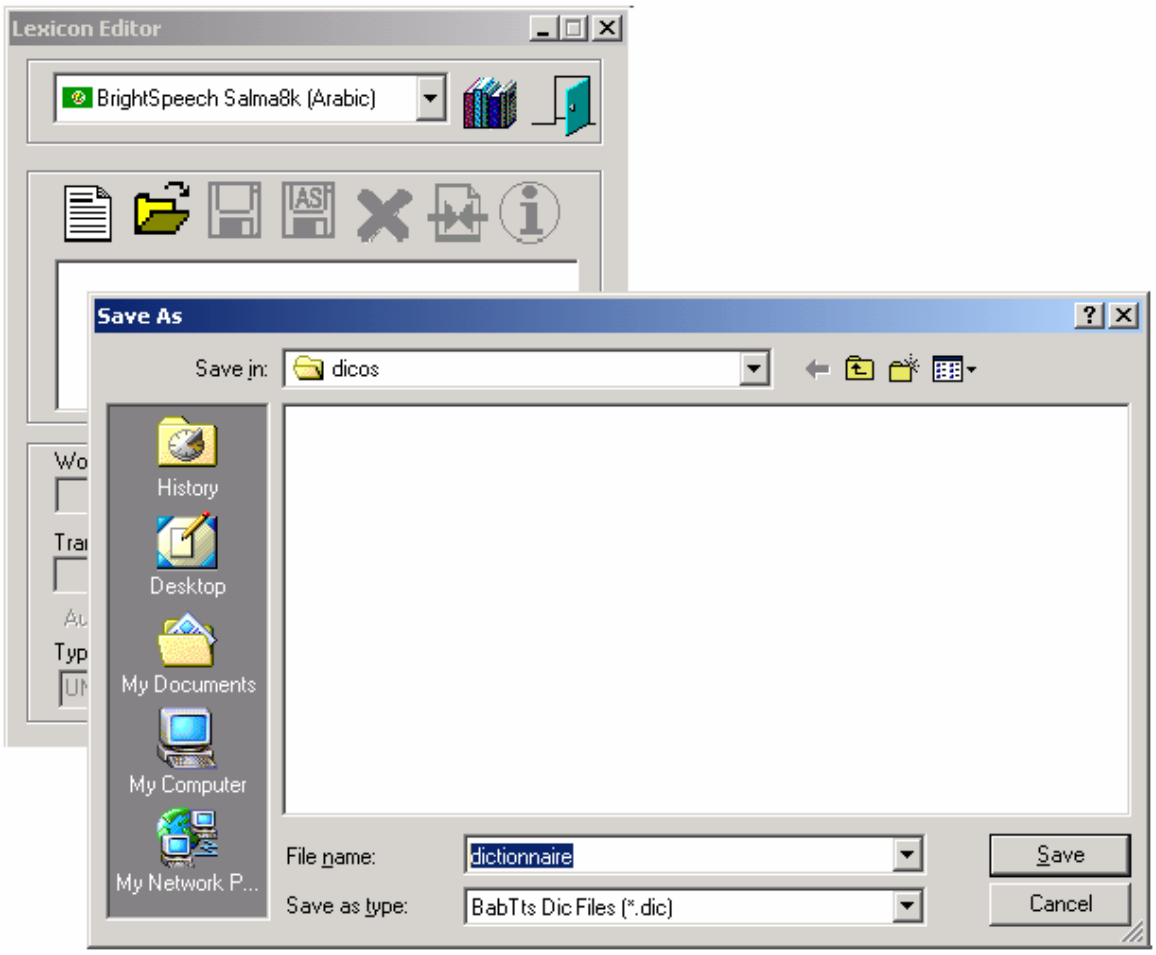
If the software is correctly installed the lexicon editor Dilog Box will appear on the screen :

1 – Select the language and the voice of your choice :



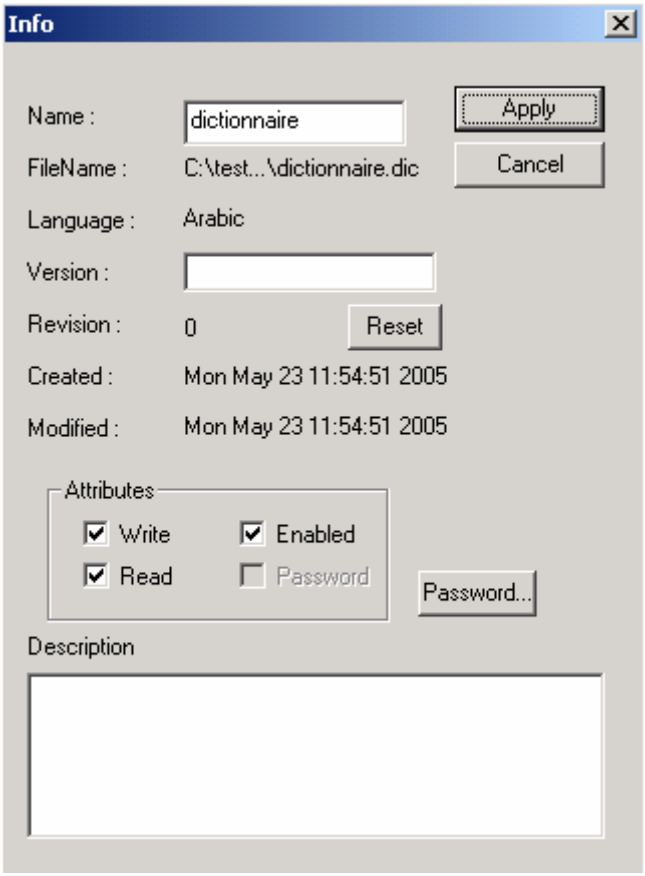
2 – To create a new dictionary, click on “create new lexicon” button :

You are ready to create your list of words and save it in your user dictionary :



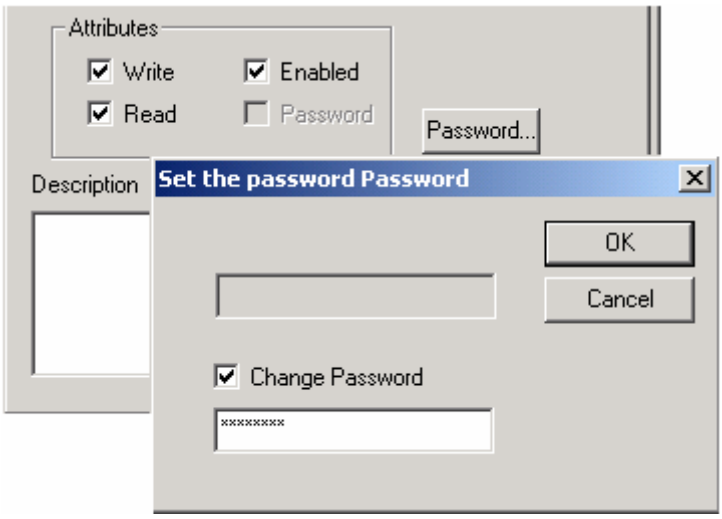
3 – Choose the name and the path of the exception dictionary

4 – The following dialog box will appear :



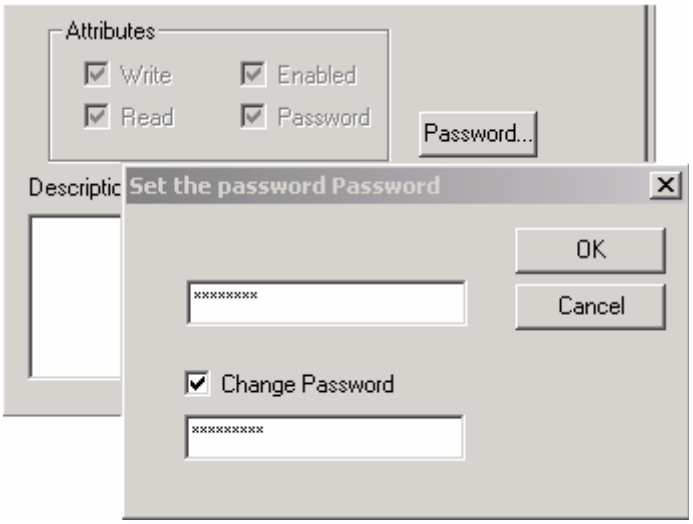
You may enter the following informations on this dialog box :

- ✓ *Name* : Name of your dictionary ;
- ✓ *FileName* : Path of the Dictionary ;
- ✓ *Language* : Language of the dictionary ;
- ✓ *Version* : You can add a version number to your dictionary, in case you would like to create other versions in the future .
- ✓ *Revision* : Any modification on the current dictionary will increase by increments the Revision number ;
- ✓ *Created* : Date of the creation of the dictionary ;
- ✓ *Modified* : Date of the last modification made on the dictionary ;
- ✓ *Attributes* : Rights of the dictionary.
- ✓ *Password* : protection of your dictionary.
  - Creation of a password : If you want to add a password on your dictionary, in order to protect it, you have to select the “password” button.



Add your password (8 characters) and select « OK ».

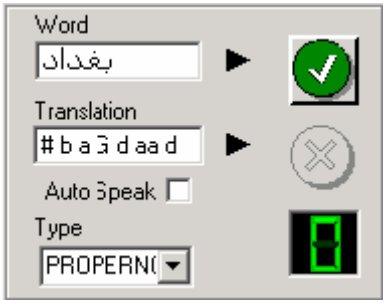
- Modify your password : Select « *Password* », add your previous and new passwords on the dialog box and select « OK ».



✓ *Description* : add comments related to the dictionary

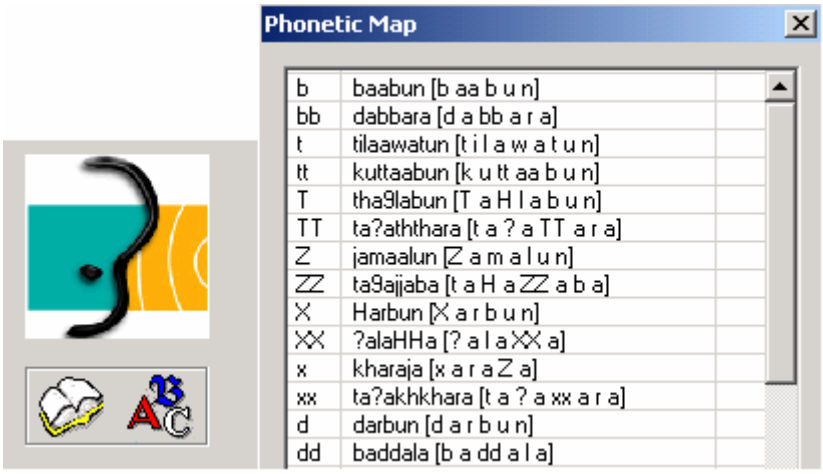
Then, select the « *Apply* » button to start using your user Lexicon :

5 – Select the dictionary you want to modify, and add a new entry in the « *Word* » edit box. Then, select the « *Play* » button on the right of the edit box. A phonetic transcripton will appear on the « *Tranlastion* » box.



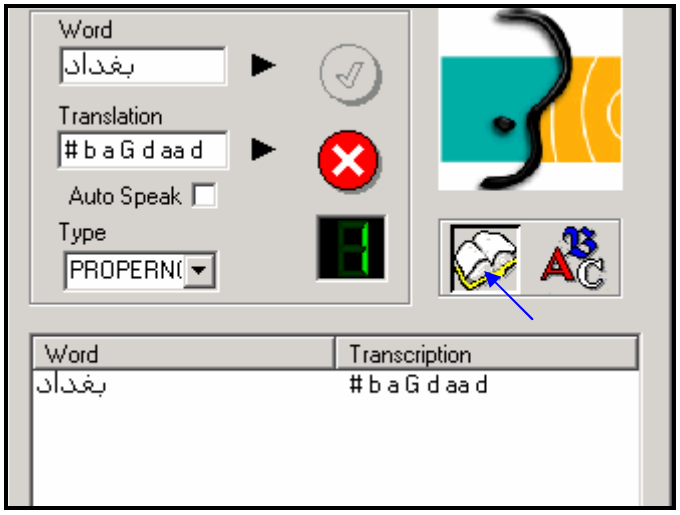
You can modify the pronunciation of a word by several ways :

- A “sounds like” method: the translation consists of a plain orthographic word that is pronounced as you want.
- A “Phonetic” input: By preceding the translation by ‘# ’, you can insert phoneme code (each separated by spaces) and expect a fine tuned pronunciation. The list of the Phoneme codes is available by selecting the **ABC** button



6 – Select the green button to add the entry on the user dictionary. The box is increased by increments each time you add an entry to the dictionary.

7 – You can edit the list of the entries by selecting the following button :

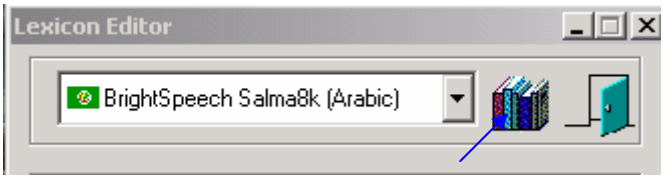


8 – Save your dictionary using the « *save* » button .

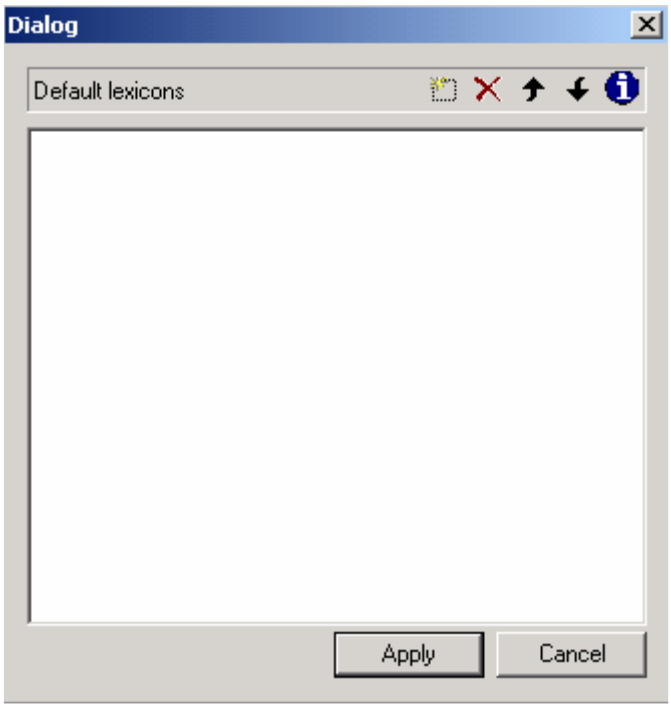
3. Default user Lexicon :

The created user Lexicon can be added by default to the selected language or voice. You can also add many dictionaries for the same language

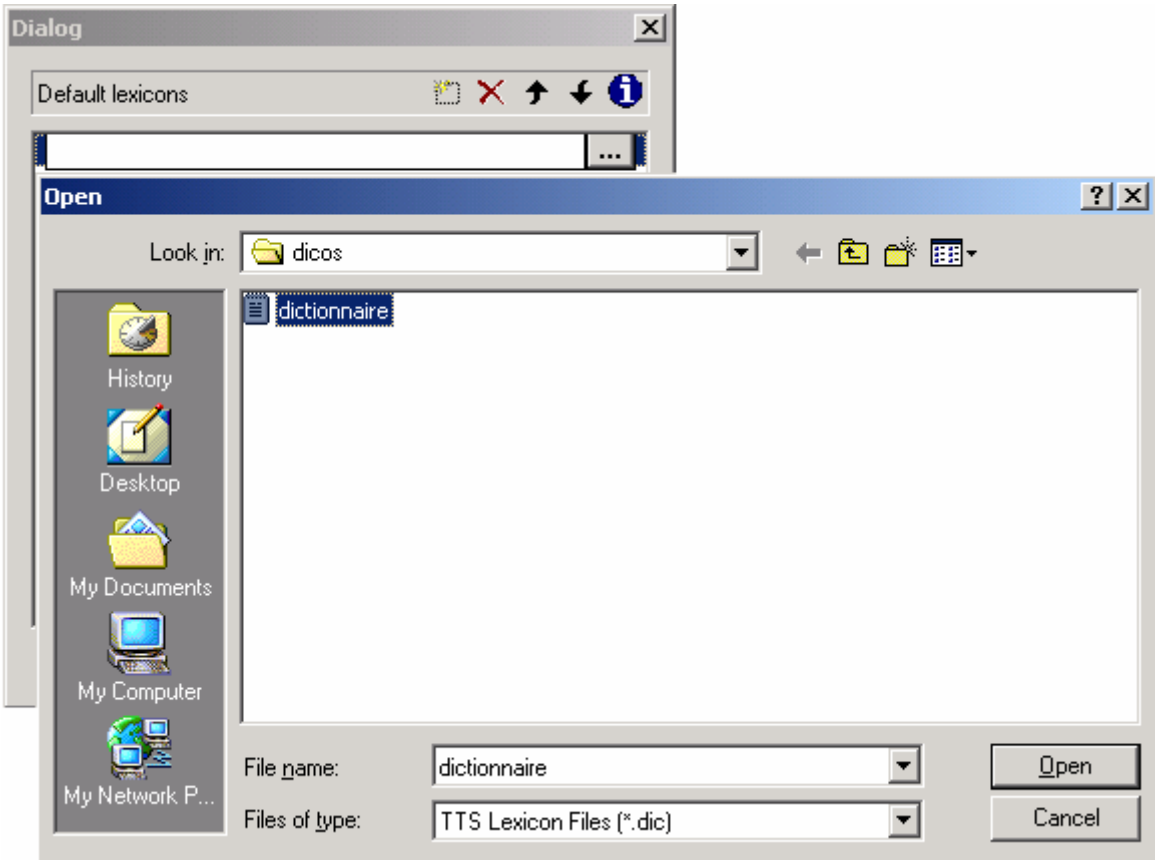
1 – To add a user Lexicon by default, Select the following button :



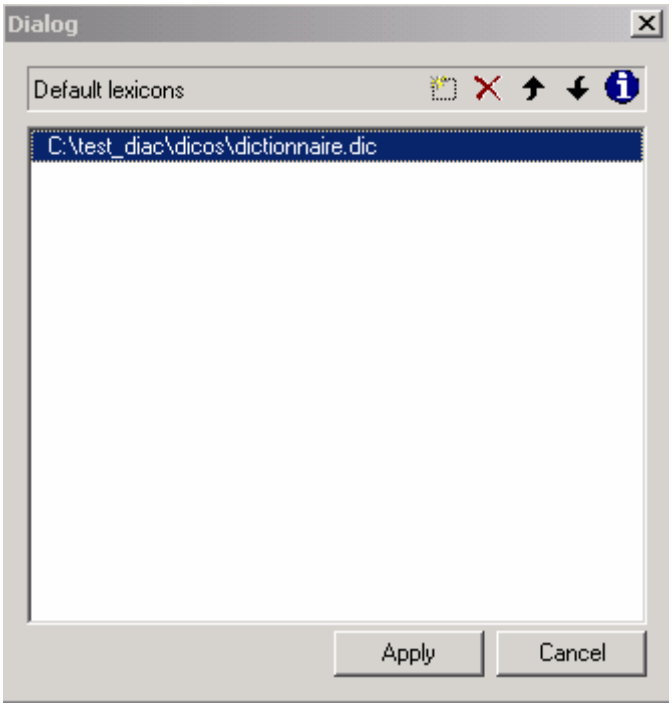
The following dialog box will appear :



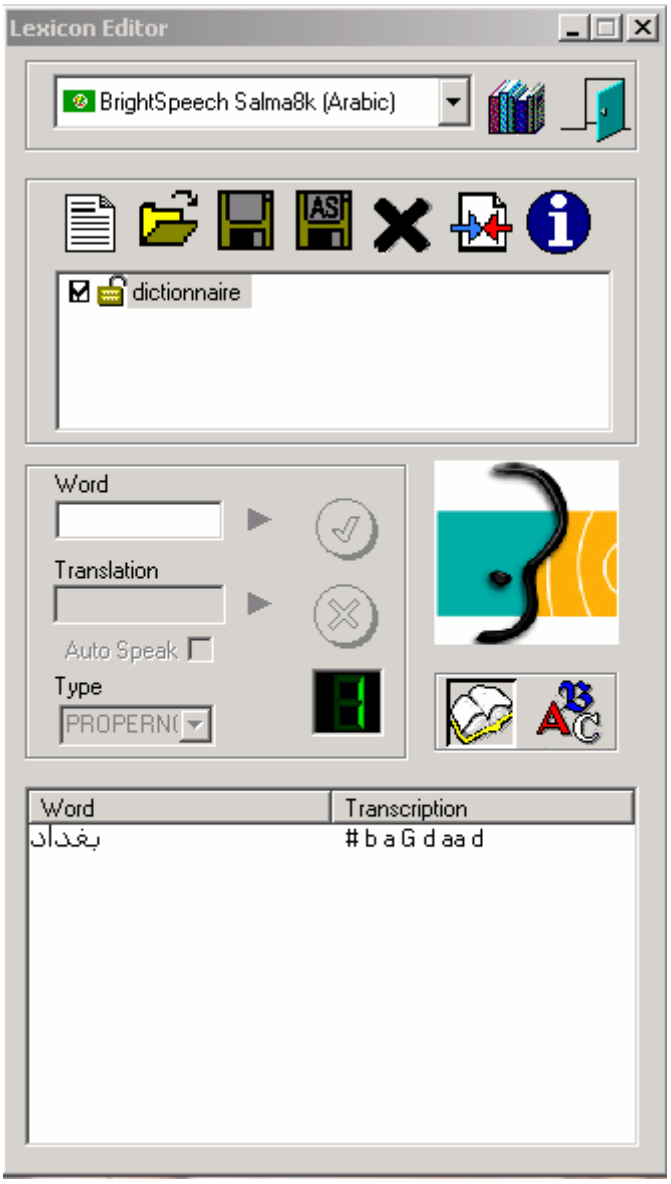
2 – Select , and then to add the dictionary as default one :



The dictionary will be added in the default lexicon list :



3 – Select *Apply* . The dictionary will be displayed each time you open the selected voice or language :

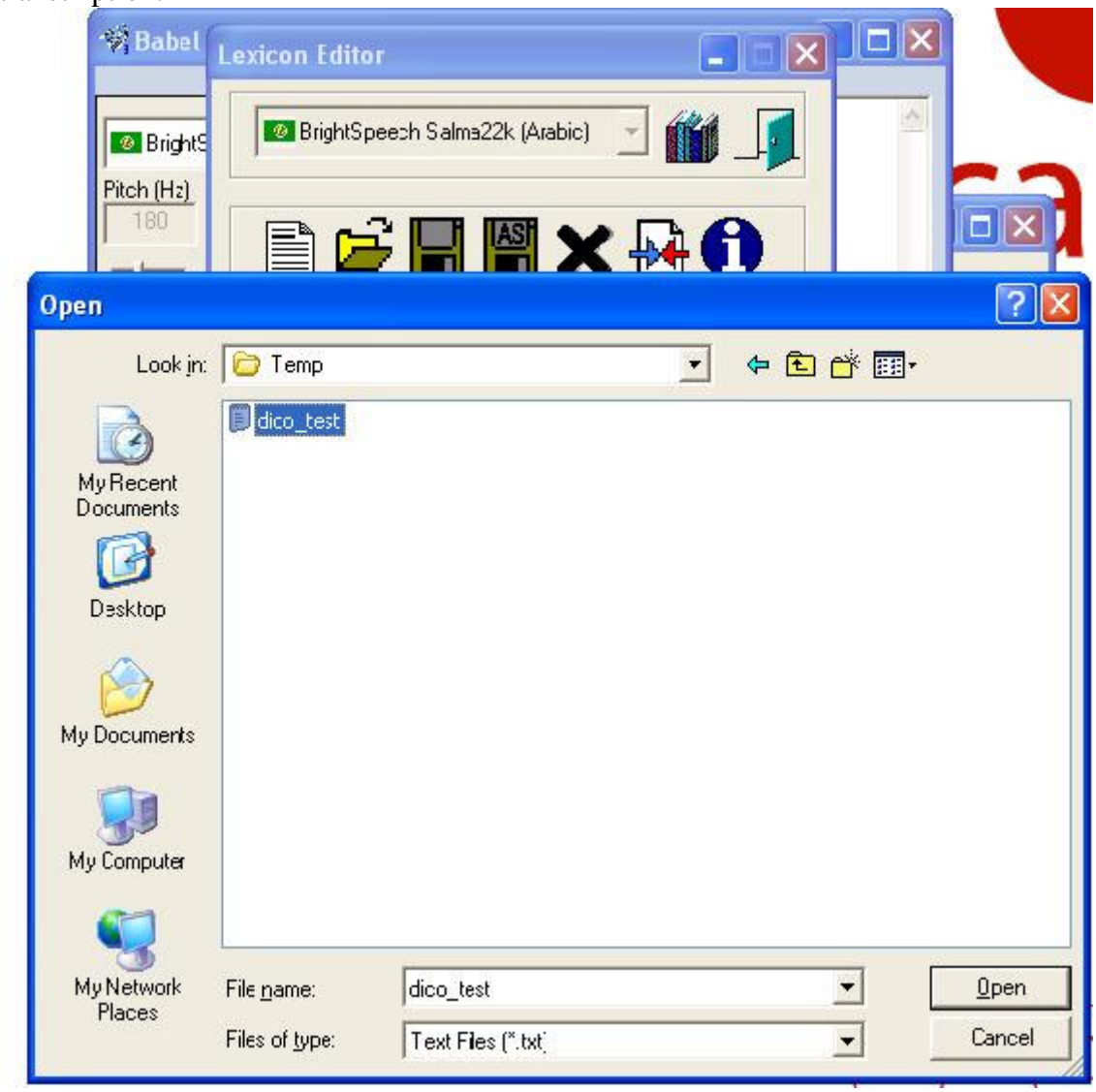


4. Import a dictionary

You may want to create a dictionary in text file format, and then import it into the user lexicon. This can be done using the *Import* button

Lexicon Editor
BrightSpeech Salma8k (Arabic)
dictionnaire
Word
Translation
Auto Speak
Type
UNKNOWN

You have to select the Text file (ASCII) that contains the list of the words with their phonetic transcription:

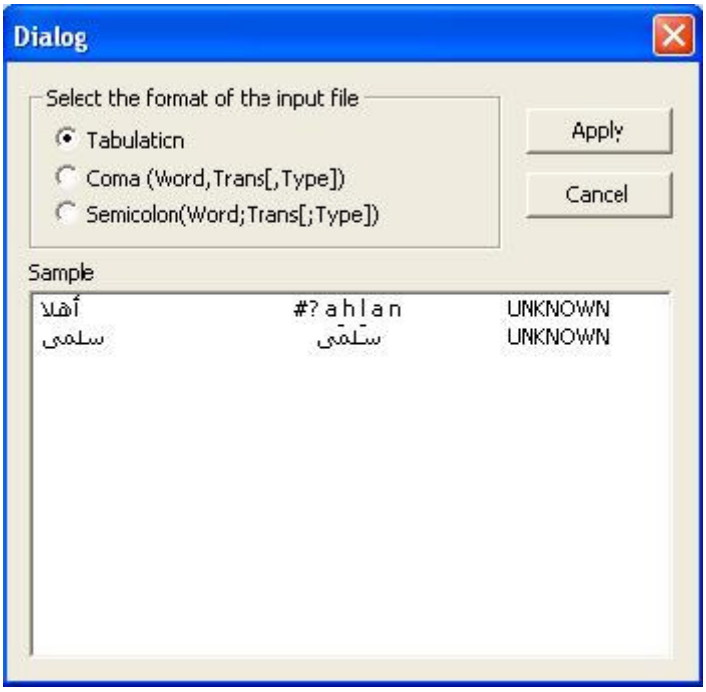


Select the Format of the Text File. You can choose between the :

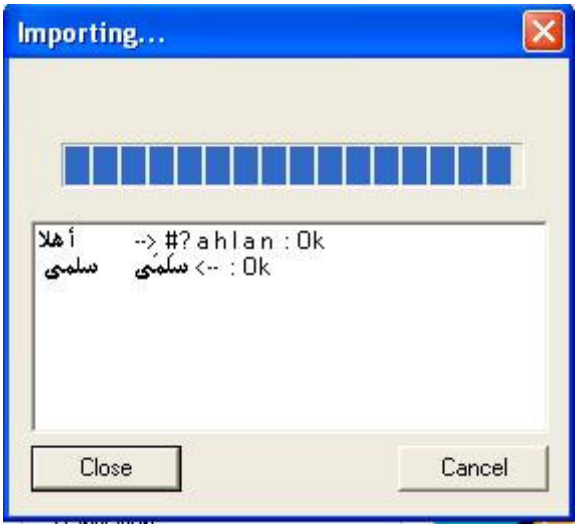
- Tabulation format : The word, the phonetic transcription and the type of the word (optional) are separated by a tabulation
- Coma format : The word, the phonetic transcription and the type are separated by a Coma
- the Semicolon format : The word, phonetic transcription and the type are separated by a Semicolon

In the following example, the text file contains :

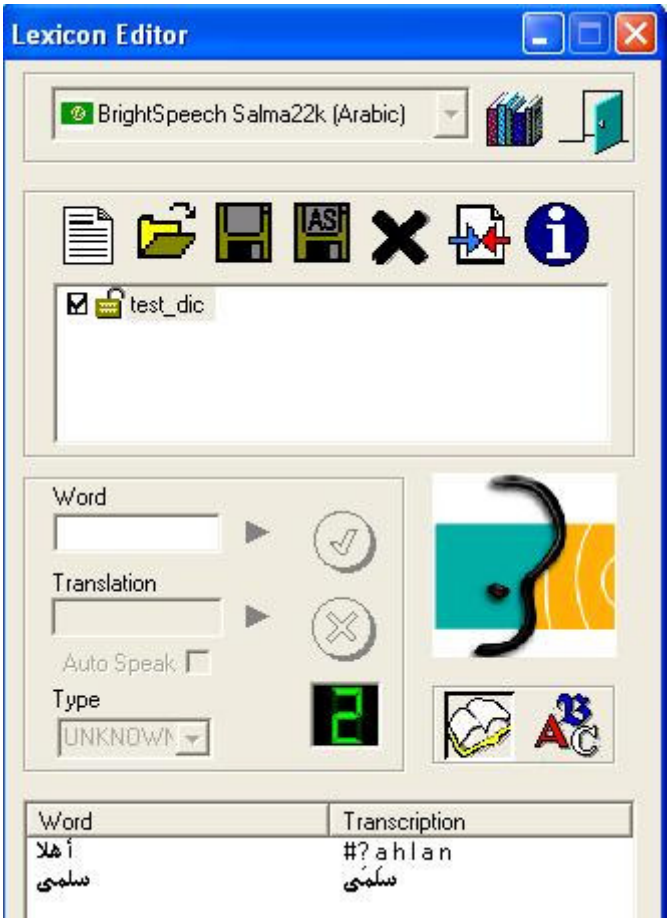
أهلا #? a h l a n
سلمى سَلمَى



When selecting the *Apply* button, the following dialog box will appear :



If the format and the phonetic transcription are correct, you'll find "Ok" at the end of each line. Only the correct format will be added to the user lexicon.
When selecting the button Close, the following dialog box will appear :



The file is now correctly imported in the user lexicon format, and you can save it.

5. File Management

Create a new lexicon file for use with the language of the selected voice.

Open an existing lexicon file. Only lexicons compatible with the selected voice can be correctly open.

Save changes.

Remove the lexicon from the current list. The file is not deleted, only removed from the loaded list of the current mode.

Import a text file (ASCII) into lexicon. The text file can be in several formats. (tabulation, CVS,…)

Open an *information dialog* editor that permits to changes information and properties of the selected dictionary.
Possible information are:

- The name of dictionary
- Its version and revision (number of changes that occurred)
- The date of creation and last modification
- Properties of the dictionary (Read, write, password enabled, …)

6. Editing Entries

Create a new entry in the active user lexicon file.
The name of the entry is taken from the "*word*" edit box and its translation is take from "*translation*" box

Delete the current entry

Play the entry (or the translation). When the "Auto Speak" is checked, any character input in the translation box will play it, for easy correction.

7. Other functions

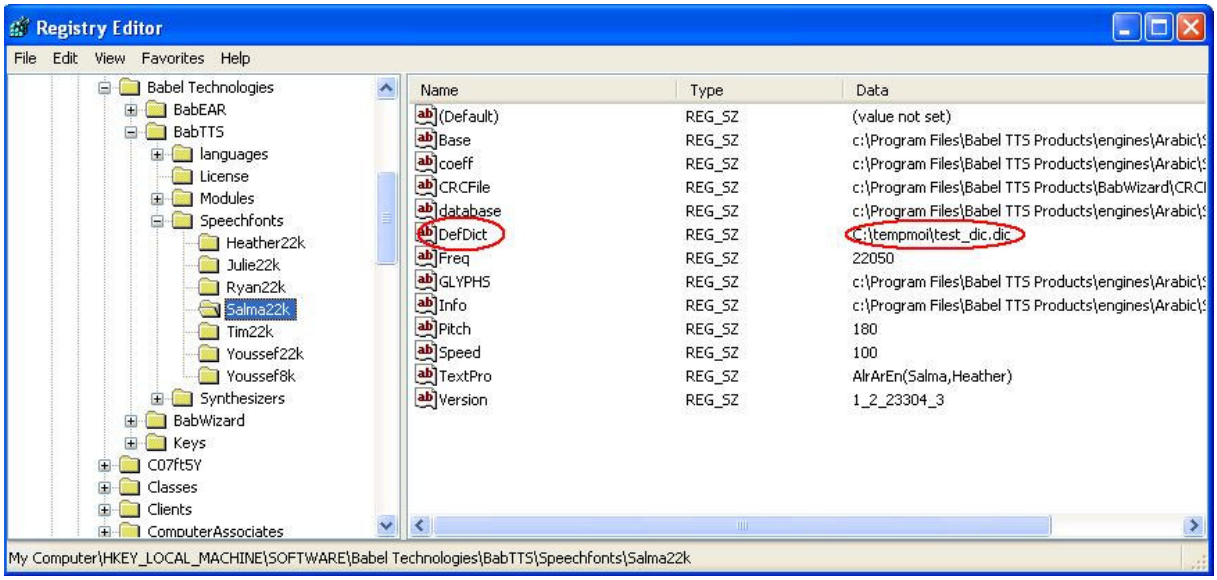
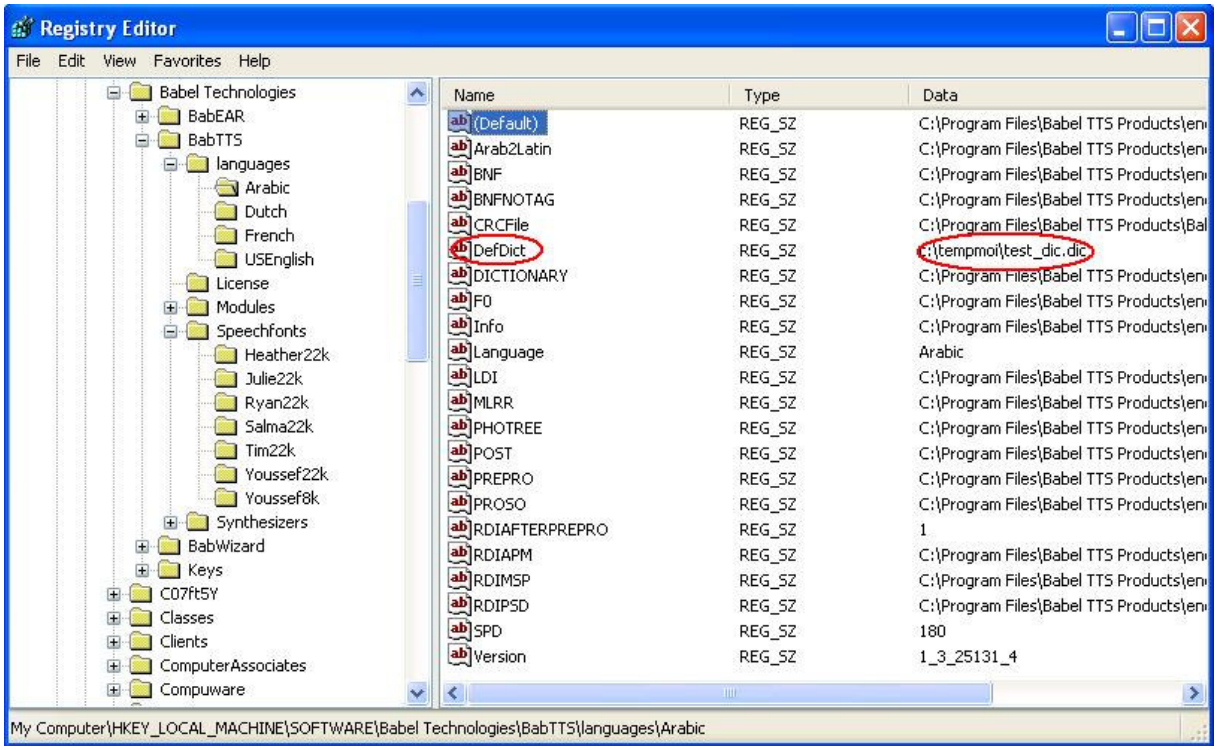
Show the list of entries registered in the active user lexicon file. Selecting an entry will adapt the word and translation edit box for easy editing.

Show the list of phonemes of the language with some examples. Double-clicking on an example will play it for listening reference.

Show the default list for the selected voice. You can add dictionaries that will be loaded each time you open a new instance of the voice. Higher dictionaries have priority if the same entry exists.

8. Keys in the Registry

If you use the Lexicon editor and you add your user lexicon in the default dictionary list, the dictionary will be automatically added in the registry of Windows. You may need to add the key manually. To do that, open the Registry Editor, and select the needed voice. Then, add the key *DefDict*. Its value have to be the path of your user lexicon :



In this case, the user lexicon will be enabled only for the selected voice. If you want the lexicon to be available for the selected language (voice independent), you have to add the key on the Language level :