

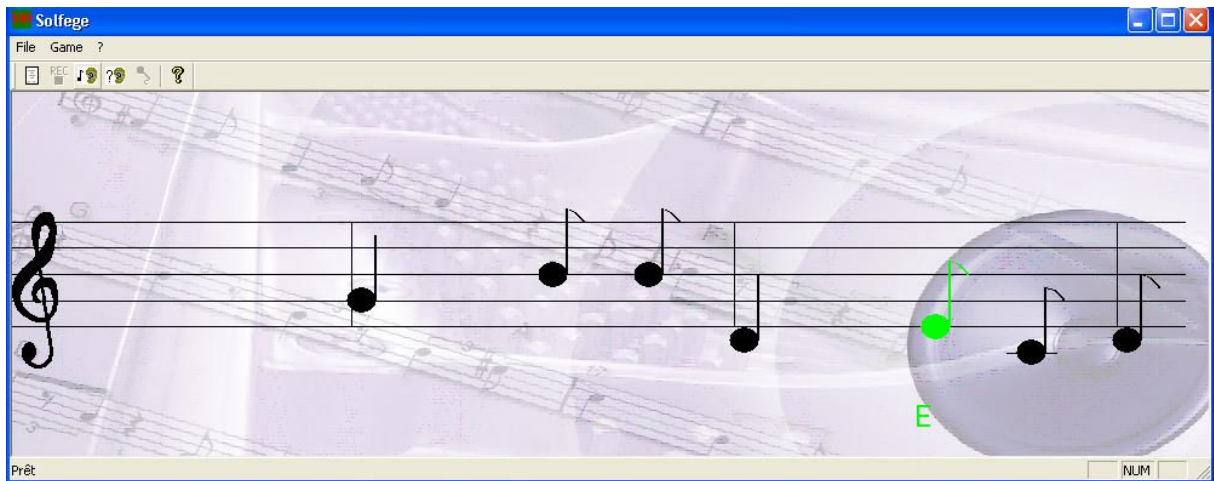
Getting started with music theory

Presentation

This software allows learning the bases of music theory. It helps learning progressively the position of the notes on the range in both treble and bass clefs.

A listening and a dictation modules allow to train your ear.

In addition, a sounds recognition module allows reading and saying in loud voice the scrolling notes. It is alternatively possible to play them on a music instrument.




It can be configured to fit to the trainee skill.

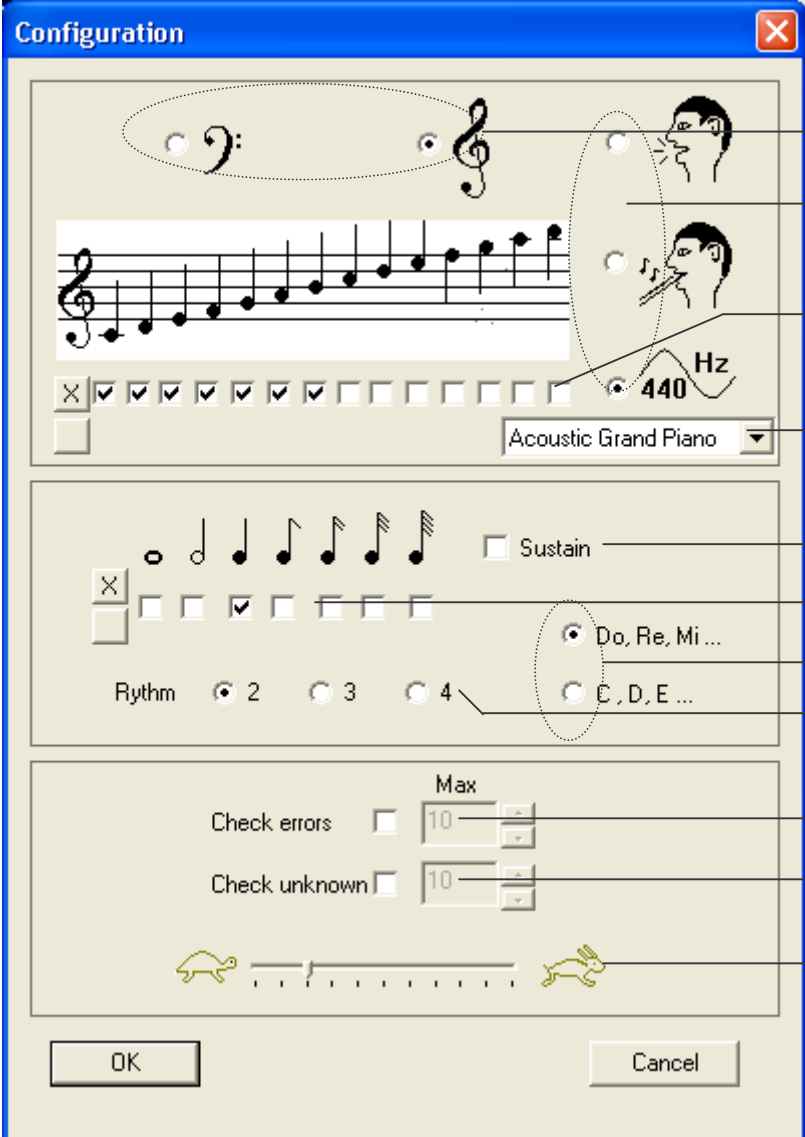
Topics

The following topics are available in the software

- **Configuration,**
to tune parameters according to the level of the user and the theme to work with.
- **Sound recording,**
to record the selected notes either with voice or from a music instrument.
- **Listening,**
to view and listen the recorded notes while they are scrolling on the range.
- **Dictation,**
to listen the recorded notes and try to find their place on the range
- **Recognition,**
to read the notes that are scrolling on the range and say or play them as during the recording activity.

Configuration

The configuration is available via the menu item: Game→Configure or via the icon 
In this activity the user can tune various parameters of the software.



The Configuration dialog box is shown with various settings and annotations:

- Clef selection:** Two radio buttons for Bass and Treble clefs are shown at the top. The Bass clef is selected.
- Selection of the kind of sound:** A dropdown menu at the bottom right is set to "Acoustic Grand Piano".
- Selection of the notes:** A piano roll shows a sequence of notes. A frequency of 440 Hz is indicated. A red note is highlighted with the text: "In trial version, some notes cannot be selected".
- Sustain mode:** A checkbox labeled "Sustain" is present.
- Selection of the types of notes:** A row of checkboxes for different note types (quarter, eighth, sixteenth, etc.) is shown.
- Naming convention:** Two radio buttons for "Do, Re, Mi ..." and "C, D, E ..." are shown. "Do, Re, Mi ..." is selected.
- Selection of the rhythm:** Three radio buttons for "Rythm" 2, 3, and 4 are shown. "2" is selected.
- Maximum errors allowed:** A checkbox "Check errors" and a spinner box set to "10" are shown.
- Maximum undefined allowed:** A checkbox "Check unknown" and a spinner box set to "10" are shown.
- Scrolling speed:** A slider with a rabbit icon and a scale from 1 to 10 is shown.

Buttons for "OK" and "Cancel" are at the bottom.

Clef selection

Two clefs are available :

- Treble clef
- Bass clef

The selected one is displayed on the range.

Selection of the kind of sound

Three possibilities

- *Voice*

For that kind of sound, the recording and recognition can't make the difference between the 2 ranges. Indeed, for this selection, half the notes are grayed. The recording is voice recording and the recognition is voice recognition.

- *Instrument (or song)*

In this selection all notes are to be sung or played on an instrument. They all are different from each other.

- *Synthesized*

Recording and recognition are no longer possible, only the listening is available.

Synthesized instrument selection

This selector allows choosing among various types of MIDI instruments. This selector is available only if the kind of sounds is "synthesized"

Selection of the notes to work with

This selector allows starting with few notes and adding progressively new ones. It is based on check boxes.

Two buttons allows selecting/deselecting all the notes at a time.

Selection of the rhythm

Three rhythms:

- 2 times
- 3 times
- 4 times

It influences the apparition of vertical lines during the scrolling of the notes in the listening and recognition activities.

Sustain mode

This mode allows keeping the previous notes playing while a new one is played.

Note: This mode makes sense with percussion or hit instruments (like piano) which notes intensity naturally decreases in time. For chords instruments (like violin) it quickly leads to non harmonious superposition of notes.

Selection of the types of notes

All types are available. The selection is multiple.

Naming convention

Two naming conventions are supported:

- C, D, E ...
- DO, RE, MI ...

The notes names are displayed with respect to the selected convention.

Maximum error number

This parameter, if activated, determines the maximum number of errors that are allowed during the dictation and recognition activities. This parameter can be activated via a check box.


Maximum number of undefined notes

This parameter, if activated, determines the maximum number of notes allowed to be unrecognized when they arrive at the left side of the screen. This parameter can be activated via a check box. It is useful for the dictation and recognition activities.

Speed scrolling

This parameter controls the speed of the notes when they are scrolling from the right side to the left side of the screen in the listening and recognition activities.

Sound recording

The recording is available via the menu item Game→Record or via the  icon. This activity is not possible if the selected type of sound is 'synthesized'.

The user records the notes he selected during the configuration.

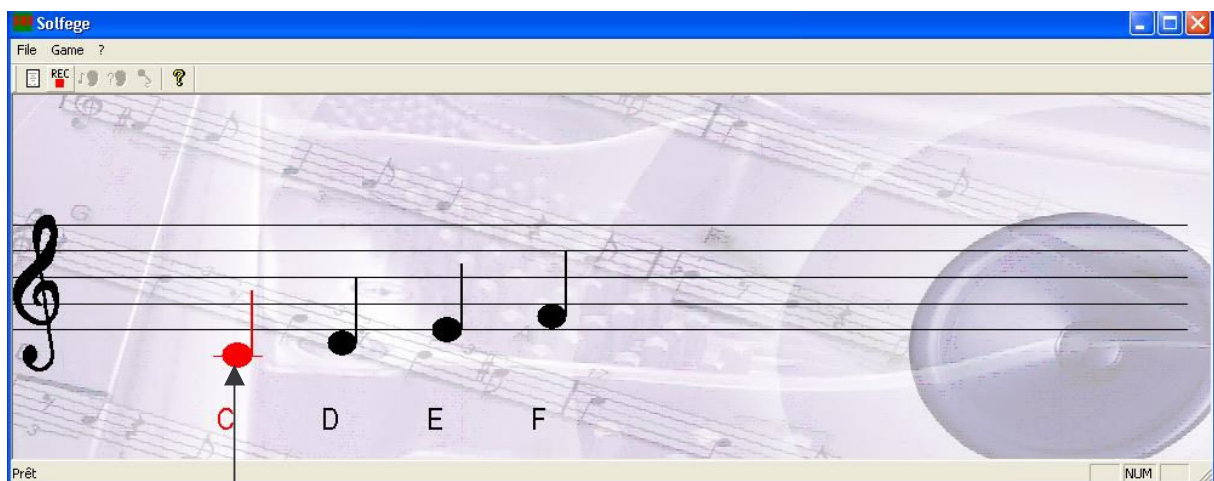
If the selected type of sound is '*voice*' then the same notes of both octaves are recorded only once.

If the selected type of sound is '*instrument*' then all selected notes are to be recorded.

When in 'voice' mode, do not hesitate to speak loudly to improve the recognition rate.


At the beginning of the recording sequence a count down is started 3...2...1, requiring the silence. Then the notes are displayed in red each after the other. The user must say or play the note *during* this period of time.

At the end of the recording sequence, all the notes are played again in order for the user to check if the record is correct or not. If not, the activity shall be restarted.

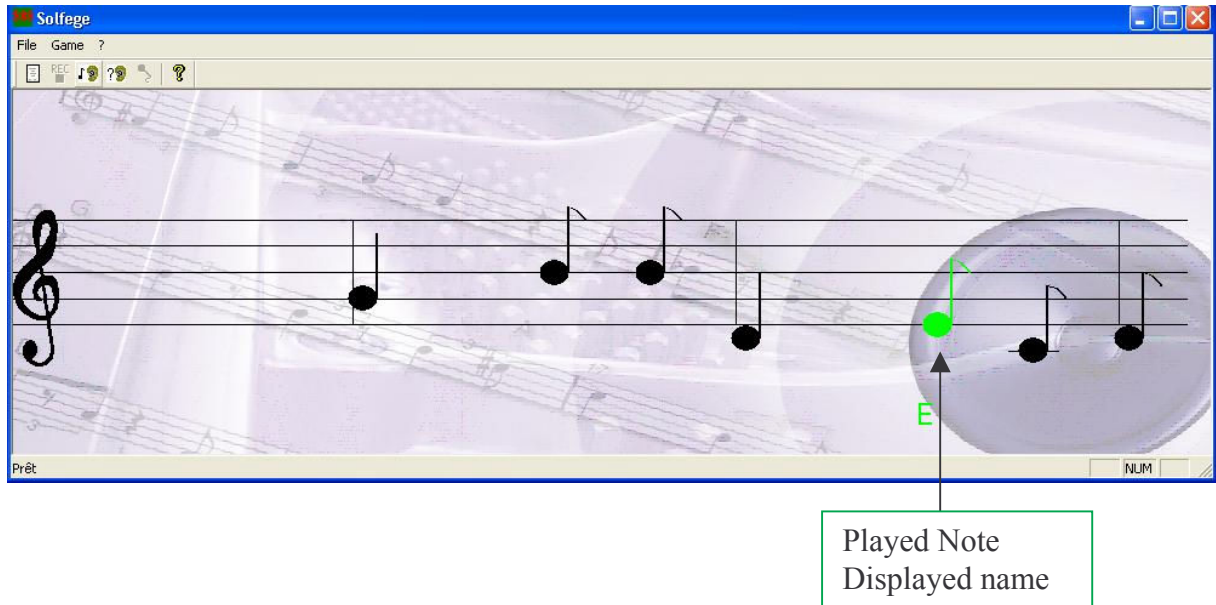


Note to say or play

Listening


This activity is available via the menu item Game→Listen or via the  icon. It helps getting familiar with the position of the selected notes on the range.

Notes are scrolling from right to left and each after the other is played while its name is displayed.

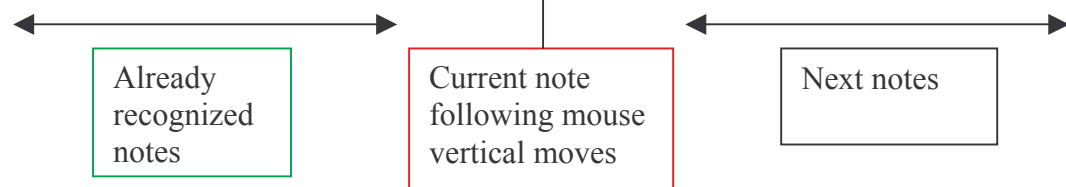
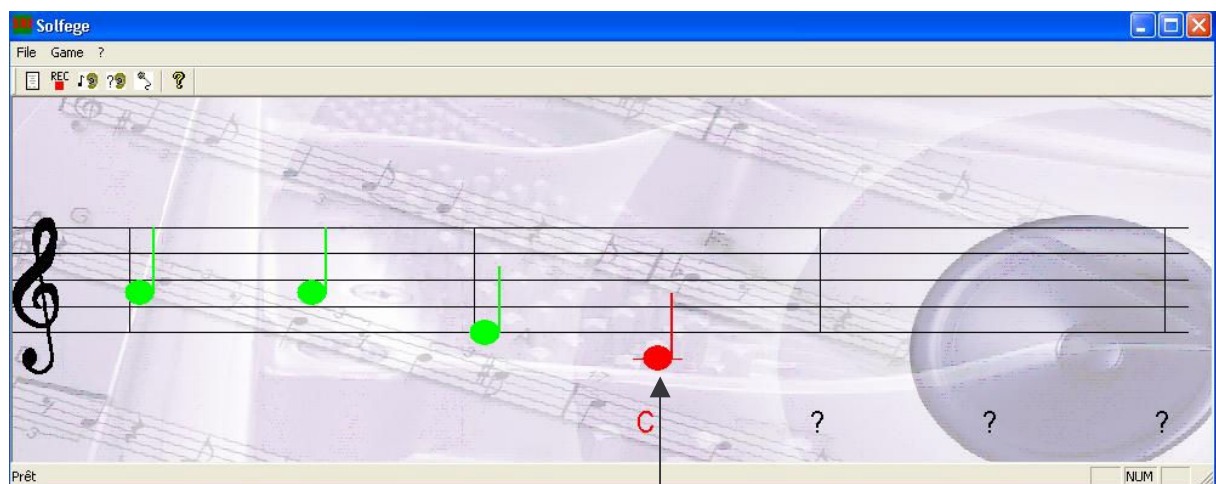


Notes are randomly selected among the set defined in configuration. The type of notes is also variable, which allow apprehending the duration of each one. This is a good training for the dictation and recognition activities.

Dictation

This activity is available via the menu item Game → Listen or via the  icon. The software generates a sound corresponding to a randomly chosen note, among the selected notes in configuration and the operator has to place this note on the range.

Generated notes are scrolling from right to left. The only one that has to be recognized at the current time is displayed in red and is periodically played by the computer. Notes to be recognized afterwards are displayed as question mark in black.




The user has to place the current note on the range using its mouse and to click when he thinks it is the good note.

In case of good proposal, the note is displayed in green, the score is incremented and the problem moves on to the next generated note.

In case of erroneous proposal, the proposed note is displayed in blue and is played so the user can compare its sound with the sound of the note to find currently.

If the maximum errors or undefined counters are activated, the recognition score is displayed and the game is over when the first active limiter is reached.

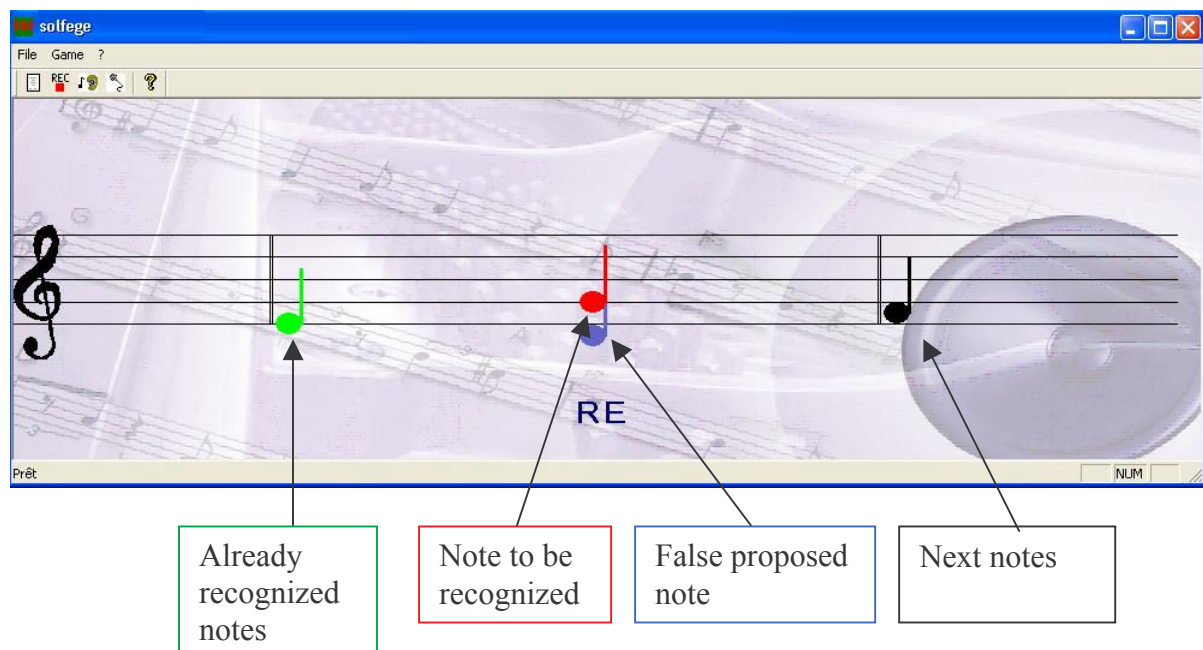
Recognition

The recognition is available via the menu item Game→Recognize or via the  icon. This activity is not possible if the selected type of sound is 'synthesized'.

During this activity, the user has to reproduce a sound corresponding to the requested note and **close to the recorded one**.

The software waits for a sound and checks if it is close to the expected one.

Notes are scrolling from right to left. The only one that has to be recognized at the current time is displayed in red. The user has to reproduce the corresponding sound.



If the produced sound is close enough to the expected one, then the note becomes green and the next one becomes red and has to be recognized in turn.

If the produced sound appears to be close to another note, then this other note is displayed in blue and its name is displayed. By this way the user can know if the computer did a good recognition or made a mistake.

If the maximum errors or undefined counters are activated, a recognition score is displayed and the game is over when the first active limiter is reached.

-- Enjoy ! \$88 --

P.S. In trial version, two notes are not allowed for selection. In full version all notes are available.