# EarMaster®6

## USER'S GUIDE

Ear training and sight-singing software

# User's guide
## EarMaster 6

This user's guide is an introduction to the main functionalities available in EarMaster. You will find more details in the online help inside EarMaster.

**Support and troubleshooting**
If you need help on how to use or install EarMaster, please visit:
http://www.earmaster.com/support

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# Welcome to EarMaster 6

Congratulations! If you are reading this, you got your hands on the most user-friendly, motivating, and efficient software title for ear training and sight-reading.

Packed with activities and features that will make your musical training both efficient and entertaining, EarMaster will help you develop your aural and sight-reading skills progressively to make you an even better musician! The 14 activities available in EarMaster 6 will train you to identify by ear, transcribe, and sing or play back intervals, scales, chords, cadences, rhythms and melodies.

We hope you will enjoy sharpening your musical skills with EarMaster!

# Installation Guide

To install EarMaster from a CD, please follow these simple steps:

### Windows
1. Insert the EarMaster CD in your CD/DVD drive. If the setup program does not launch automatically, select "Run" from the Start menu and type "d:setup.exe" where "d:" is the letter of the CD/DVD drive (boxed version only)
2. When the installation program has started, you will be asked to enter your serial number. You will find your serial number in the DVD case of the software or on the manual, depending on the edition you have
3. Once the serial number has been validated, the installation begins. Follow the on-screen instructions to proceed
4. Run EarMaster from your Program Files folder and click on "Activate now" to enter your serial number and activate your license

### Mac OS X
1. Insert the CD and wait for the contents to show (boxed version only)
2. Double-click the EarMaster icon to launch the installation and follow the on-screen instructions
3. Run EarMaster from your Applications folder and click on "Activate now" to enter your serial number and activate your license

Activating your EarMaster license
If your installation has not yet been activated, a prompt window will be displayed when you start the program asking you to activate your license. Click on the activation button, fill in your personal information, and launch the activation process to authorize the installation on your computer.

Note: EarMaster can handle individual settings and results for an unlimited number of users on one computer. The settings and results are stored under the current Windows/OS X user account. Therefore, each user must have his/her own Windows/OS X account (i.e. own user name) to do this.

# System Requirement

## Minimum requirements:
- Windows 8, 7, Vista or XP (32- & 64- bit versions supported)
- Mac OSX 10.5 or newer (Intel only)
- Internet connection for online activation
- 1024x768 minimum screen resolution
- Soundcard

## Recommended:
- Soundcard with audio input (for microphone/instrument input)
- 2 GHz processor
- 2 GB Ram
- Microphone
- MIDI controller (Keyboard, percussion pad, etc.)
- Headphone

# Chapter I - Getting Started

EarMaster 6 offers 14 activities that will challenge your ear training and sight-reading skills in an easy, motivating and efficient way. Each activity includes a large number of lessons designed by experienced music educators. Those lessons are featured in two courses: the *EarMaster Standard Course*, and the *EarMaster Jazz Course*.

The courses included in EarMaster are progressively building up in difficulty. The more you progress, the more challenging the lessons will be. After each lesson, a general evaluation of your answers will be displayed, and you will be given suggestions on what to do next: move on to the next lesson, retake the lesson, or go back to the start of a lesson module.

Most of the lessons can be used by simply clicking on the visual interfaces (notation staff, piano, keyboard, multiple-choice buttons), but the greatest advantage of EarMaster is that it lets you use interactive input methods such as a microphone or a MIDI keyboard with the activities.

EarMaster is structured around 2 main areas:
- **Home window**: The window displayed when you start EarMaster. It is the place where you will be able to specify the training mode and the activity you would like to use.
- **Exercise window**: Where the actual training will take place.

To help you monitor your progress and analyze your strengths and weaknesses, EarMaster offers a detailed statistics window where you will be able to review your results lesson by lesson, day after day. Should you identify things that demand extra training (if you only get 40% success at recognizing diminished 5th intervals for example), you can easily configure each activity in *Customized training mode* to focus on the items of your choice.

# How Course files work

## What is a Course in EarMaster?

A course is a set of lessons compiled into a single file. EarMaster courses can be organized in two ways:
- They can be a set of modules and/or lessons for a selection of separate activities, like the *EarMaster Standard Course* and *Jazz Course*.
- Or they can be a set of modules and/or lessons mixing different activities.

## Modules

Modules are an intermediary cluster of lessons within a course. Each module marks a step in the progression of a course and is usually ending with a test lesson with stricter rules compared to those of regular lessons.

## Lessons

Lessons are defining the content of an exercise within an activity. Lessons are made with various settings that change their properties from being simple practice exercises, to being assignments or tests.

## Adaptive questions

Most lessons include an 'adaptive questions' feature which analyzes your performance and adapts the number of question to the needs of the users. If you are doing really well, the lesson will stop early, if you are struggling a bit, it will be extended with additional questions to make sure that you fully grasp the current topic.

# Home window

The home window is divided into 2 main areas: Training mode and Activity.

To move on to EarMaster's exercise window and get started with your ear training and sight-reading practice, you simply need to select a Training Mode (Standard Course, Jazz Course, or Customized Exercise), and then an Activity. Once your choices are made, click Begin.

## Training mode

### Standard Course

The *Standard course* is a set of progressive lessons covering all the activities available in EarMaster. The difficulty increases as you move on to new lessons. This course is recommended for musicians and music students of all levels. The difficulty ranges from beginner to very advanced, so everybody will find material that covers his training needs.

### Jazz course

The *Jazz course* is for more advanced users. It includes lessons specific to jazz music, such as jazz chords or swing rhythms.

### Customized exercise

In *Customized exercise* mode, you will be able to configure the activities extensively in order to match specific requirements you may have. For instance, if you are having a hard

time discriminating Perfect 5th from Perfect 4th intervals, you could create a customized exercise including only those two intervals.
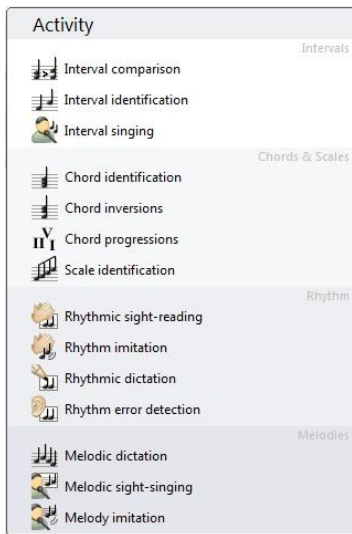
### Open course...
Click on the folder icon to open an EarMaster Course file created by your teacher or downloaded from the EarMaster website.

## Activity

After selecting a training mode, you can select the *activity* that you would like to train with. There are 14 activities available in EarMaster 6 (see illustration).

Which activity to choose or prioritize is very subjective and depends mostly on your current skills, needs and training plan. However, if you really don't know where to start, we could suggest the following:

1. Beginners could choose the Interval Comparison and Rhythm imitation activities as a starting point.
2. After having completed a number of lessons in those activities, you could also include the Interval identification, Melody imitation and Rhythmic Sight-Reading.
3. Later on, you could also include Chord Identification, Scale Identification and Rhythmic Dictation.
4. Finally, include the remaining activities to your training routines.



Activity

*Intervals*
- Interval comparison
- Interval identification
- Interval singing

*Chords & Scales*
- Chord identification
- Chord inversions
- Chord progressions
- Scale identification

*Rhythm*
- Rhythmic sight-reading
- Rhythm imitation
- Rhythmic dictation
- Rhythm error detection

*Melodies*
- Melodic dictation
- Melodic sight-singing
- Melody imitation

Note: Perseverance and regularity are the key to success! Training intensively once in a while will not work as well as training every day for 5-20 minutes. We recommend therefore that you use some or all of the activities that you are working with for a few minutes every day. Believe us, this is the best way to set your aural skills in overboost mode!

# Exercise Window

The *Exercise Window* of EarMaster is the area where your ear training and sight-singing practice is done. The layout and content of the window will change depending on the activity you have selected and the answer input methods you are using.

The main structure of the *Exercise window* is as follows (from top to bottom):
1. Home button (takes you back to the Home Window), Toolbar, zooming tool and Help button.
2. Instructions bar, which displays questions, instructions on how to use the current activity, and evaluations of your answers.
3. Control buttons (New question, Play Answer, Evaluate, Stop, etc.) to operate the activity.

4. Visual interfaces (staff, piano, guitar, solfege keyboard, etc.): the interfaces displayed depend on the current activity and answer input methods you have selected in the Answer Input menu.
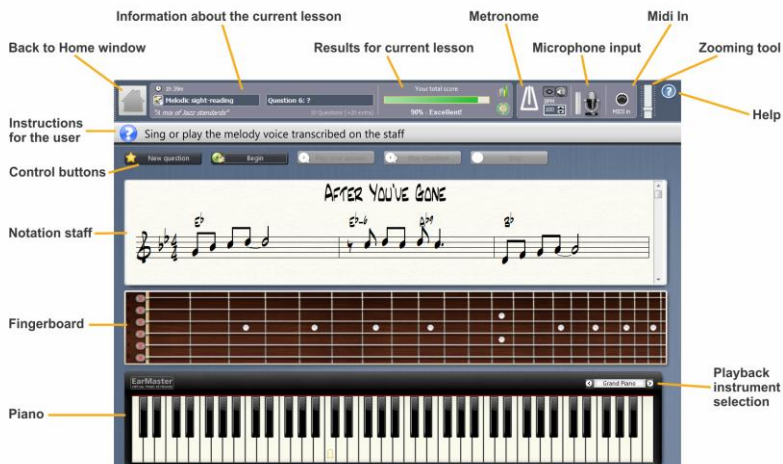


## Exercise settings

In the *Exercise settings* menu, you will find a list of settings for the activity currently in use. These settings control how the activity is working. The content of the *Exercise Settings* menu changes for each activity. For example, some options that are only relevant for rhythmic disciplines will be hidden in harmonic disciplines, and replaced by other settings that apply to exercises that involve chords. Below is a description of some of the options available in the *Exercise Settings menu*:

### Auto new question
Get a New question automatically after a question has been answered. The delay can be set in seconds. You can set that option to be only active when you answered correctly, so that you may review your mistakes before obtaining a new question.

### Auto replay question
Repeats a question with an interval until it has been answered.

### Play question limit
Set how many times a question can be played.

### Answer time limit
This limits the available time to answer a question.

## Auto "Evaluate answer"
Set EarMaster to evaluate your answer automatically when the selected conditions are met.

## Play lead-in
Plays a lead-in bar with the metronome before playing the question or playing your answer.

## Hear with metronome
Activates the metronome while playing a rhythm or a melody with rhythm.

## Record with metronome
Activates the metronome while clapping a rhythm or playing a melody. If it is not checked, you still must clap or play in the correct tempo, but you can begin anytime you want.

## Evaluate note length
Forces EarMaster to evaluate the length of the notes in rhythmic exercises. This means you must hold tones as given by their note values. If that option is activated, the sound used to play back rhythms will be the preset selected for *Rhythms (Sustained)* in the Preferences of EarMaster.

## Answer identification
Specify how EarMaster should interpret your answer:
Absolute: The pitch of the tones must be exactly the same as the question.
Any octave: The name of the tones must be the same as the question, but they may be transposed to any octave.
Relative: You may transpose your answer freely (e.g. if the question was the perfect fourth interval C-F, you may enter the tones D-G as the correct answer).

## Tone naming
Choose between standard tone naming (C, D, E, etc.), solfege (Do-Re-Mi-...) with fixed- or movable-Do, or numerals (Arabic or Roman).
Fixed-Do means Do is always C, no matter what key the question is in. Movable Do means Do is always the root of the key.

## Clef
Choose the clef used on the staff: Treble (G clef), Bass (F clef) or Alto (C clef). This is also where you specify whether you would like to use a S*ingle Staff*, or a Grand Staff.

## Play tone on mouse click
If activated, the notes you enter in the visual interfaces (staff, instruments) will play sounds.

## Show first tone
Choose whether the first tone of the questions should be indicated automatically.

## Show claps
If activated, dots will be shown under the staff while you are clapping to indicate in real-time the precision of your performance.

## Show pitch curve
This option will make EarMaster draw a pitch curve in real-time on the staff in the singing exercises so that you may visualize your performance more precisely.

### Note articulation
Specify what type of articulation should be used to play tones: Legato, staccato, or sustained

### Metronome clicks
Specify which metronome beats should be audible: first beat, compound, or all beats.

## Answer input

The activities included in EarMaster can be used in multiple ways. To answer the questions of a lesson, you may use several input methods available from the *Answer Input* menu:

### Staff
- To enter a tone, press the left mouse button. The note will not be inserted before you release the button, so its pitch may be changed by simply moving the mouse up or down while holding the mouse button down.
- The pitches of the tones can be changed at any time by dragging the notes with the mouse.
- To delete a tone, choose the eraser tool from the note toolbar to the left or by using the eraser keyboard shortcut, hover over the note until it gets grayed-out and click on it.
- To cycle through the note values available in a given lesson, use the right mouse button (Windows) or <Ctrl> + Click (Mac OSX), use the Note Toolbar, or use the keyboard shortcuts assigned to note values.
- To add accidentals, you can use the Note toolbar, keyboard shortcuts, or hold the mouse button down and move the pointer sideways to make a tone sharp or flat.

### Strings (fingerboard)
The fingerboard interface is what you may call a "shape shifter". Depending on the setting and tuning you select, it will turn into a guitar, a bass, a violin, a cello, a mandolin or a banjo. The tunings and presets can be changed from the Answer Input menu, under "String tuning".
- To enter a tone, press and hold the left mouse button. Move the mouse around on the fingerboard while holding the mouse button to insert the tone at a different place. Release the button to insert the current tone.
- To delete a tone, you can simply click on it.
- To audition a tone without actually inserting it, use the right mouse button.

### Piano
The number of visible keys depends on your screen resolution and on the size of the window. If your screen resolution is less than 1280 pixels in width, the piano will not be full-sized, but EarMaster will automatically show the octaves in which the questions are located.
A keyhole sign is shown on one of the keys and represents middle C.
- To enter a tone, press and hold the left mouse button. Move the mouse to the left or to the right on the keyboard while holding the mouse button to insert the tone at a different location. Release the button to insert the tone.
- To delete a tone, you can simply click on it.
- To audition a tone without actually inserting it, use the right mouse button.

### Multiple-choice buttons
The fastest way to answer the question is to use the multiple-choice buttons. Left-click the button to give it as your answer. Right-click on the buttons to audition each possible answer and see it transcribed on the staff/guitar/piano.

## MIDI-in

With an external MIDI keyboard (or any other MIDI instrument) you can input tones very quickly and conveniently.

- To enter your answer, press all the tones you want to enter simultaneously on the keyboard and then simply release the keys. This will insert them on the staff/guitar/piano.
- To change your answer, press all the tones of your new answer. This will overwrite your previous answer.

You can also operate most of the functions of the program from your MIDI controller via remote control shortcuts configured in the program's *Preferences*.

If your MIDI instrument doesn't allow you to hold the needed number of tones simultaneously (e.g. a Guitar or Wind MIDI controller), then you can enable the Single Tone Input option in the Preferences to insert the tones one at a time.

## Microphone

A microphone can be used in both rhythm-based and pitch-based activities to sing, clap or play your answers.

1. In the real-time rhythmic activities (Rhythmic Sight-Reading and Rhythm Imitation), you can clap rhythmic phrases in your hands or play them on a drum through a microphone.
2. In pitch-based activities without real-time evaluation (i.e. identification of intervals, chords, etc), EarMaster uses a pitch detection technology to analyze the tones you sing or play into the microphone and interpret them as pitch values.

- To enter a tone, sing it or play it into the microphone. When the correct tone is displayed on the staff, fingerboard or piano, submit your answer in one of the following ways:
  - a) Hold the desired tone for a couple of seconds (the exact duration can be configured in the Preferences, under "Auto Insert Tone").
  - b) Press the <Ctrl> or <Insert> key on the computer keyboard.
  - c) Use the EarMaster MIDI remote control function.

3. In real-time pitched-based activities (Melodic Sight-Singing, Melody Imitation), sing or play your answers in front of the microphone following the on-screen instructions.

Note: Before using a microphone in the activities, you must configure your setup with the Microphone Calibration Tool.

## Computer keyboard

You can insert notes in the staff using the keyboard of your computer. Use the shortcuts listed in the Notes menu and in the shortcuts list to add a succession of intervals.

## Solfege keyboard

The solfege keyboard lets you answer the questions using buttons that represent solfege syllables (Do, re, mi, etc.) or scale degrees (with Arabic or Roman numerals) relative to the root. The solfege keyboard is designed so as to help you visualize the placing of each solfege syllable or scale degree in a chromatic scale, following the layout of piano keyboard. To enter at tone, simply click on the button of your choice. To switch the naming of the buttons (between solfege syllable and scale degrees for example), go to the Exercise Settings menu, and select a different *Tone Naming* option.

## Note names

That option is available in the Melodic Sight-Singing activity. It will display the tones of the evaluated melody voices as text, using the tone naming setting selected in the Exercise Settings menu. This enables you to see and sing melodies with solfege syllables, regular note names or scale degrees instead of reading notes on the staff.

# Chapter II - Setup and configuration

## Preferences

You will find the Preferences of EarMaster under the Tools menu (on Windows) or under the EarMaster Pro 6 menu (on Mac OS). The Preferences let you modify the general settings of the program, such as the audio/MIDI options, the language of the interface, or the remote control settings.

The Preferences window is divided into 5 tabs. Under each tab, you will be able to adjust settings that will affect different functionalities of EarMaster:

**General tab**: Adjust settings such as language, font, notation style, primary profile (affects both sound playback and notation), transposition, etc.

**Audio tab**: Select the different audio input and output settings, activate/deactivate sound effects, and set the delay for the auto insertion of answers via microphone input.

**MIDI Devices tab**: Select the MIDI In and Out devices (a soundcard with MIDI connections, a MIDI Keyboard, a sound module, etc.), and manage SoundFonts.

**MIDI Instruments tab**: Define the instrument sounds used throughout the program, and adjust their volume.

**Remote Control tab**: Activate/deactivate the MIDI remote control function, and define the actions performed by each MIDI value. (See section on "Remote Control" for more details.)

## Microphone Input Setup

You can use a microphone with most of the activities to sing, play or clap your answers instead of clicking on the staff or the instrument interfaces.

EarMaster's pitch and rhythm detection technology is very advanced. It will interpret your answers and evaluate them instantly. However, keep in mind that the quality of the results depends highly on the quality of the microphone used, and on how you have set it up. It is therefore very important that you follow the next setup guidelines to the letter.

To use a microphone in EarMaster, follow these simple steps:

1. Plug a microphone into your soundcard.
2. Select your soundcard in the audio preferences of EarMaster
3. Run the *Microphone Calibration Tool* from the "Tools" menu
   (the Microphone Calibration Tool will also run automatically the first time you activate *Microphone* as an answer input).
   The Microphone calibration tool will ask you along the way to sing notes and make sure that they are recognized correctly by EarMaster. It is very important that you do not leave the calibration tool before the notes are recognized accurately by the program.
4. In the Exercise Window, click on the microphone icon to activate audio input, or choose it from the *Answer Input* menu.

## MIDI Input Setup

MIDI controllers such as MIDI keyboards, guitars or drum pads, can be used to answer questions in EarMaster by playing chords, intervals, scales, rhythms or melodies on them.

Most newer MIDI controllers are plugged directly into the computer via USB, but some are plugged to the MIDI connections of a MIDI interface.

To use a MIDI controller in EarMaster, please follow these guidelines:

1. Plug a MIDI controller into your computer via USB or into a MIDI interface.
2. Select your MIDI controller or MIDI interface in the MIDI Devices preferences of EarMaster
3. In the Exercise Window, click on the MIDI In icon to activate MIDI input, or choose it from the Answer Input menu.

## Remote control

You can control several functions in EarMaster with your MIDI device. For example, you can activate the large control buttons (New question, Play Answer, Stop, etc.) at the top of each exercise. You can also undo your actions or insert a tone while you sing it into the microphone.

For each remote control function, you can define what MIDI message (*value*) it should correspond to. This is done by setting the Channel, Type and Value for each function:

**Channel**: The MIDI channel EarMaster should listen to. * means all channels.
**Type**: Can be set to Tone (note on), Program (instrument/program change) or Controller (special MIDI functions, for example a Sustain pedal).
**Value**: If Tone is selected for the *type*, you can set exactly what tone should be assigned to it. If Program or Controller is selected, then you can set what program number or controller number it should correspond to.

## User properties

The user properties window includes 3 options:

**Full name**: The name of the current user.
**Default export email**: The email address to which exported are sent to by default (usually your teacher's email address).
**Vocal range**: Your voice type, which is determined by the deepest and the highest pitches you can sing. There are several presets in the list (soprano, bass, tenor, alto, etc.), but you can also customize the range to match your voice.

# Chapter III - Using the Activities

## Interval Comparison

EarMaster plays two intervals: Interval A and interval B. You will have to point out which one was the larger of the two.

An interval is the tonal distance between two notes. The size of an interval is therefore measured by the distance between those two notes. Finding out the larger of two intervals is identifying the interval where the distance between its two tones is the biggest. For example, the interval C-E (Major 3rd) is larger than C-D (Major 2nd).

Note: The Interval Comparison exercise does not require any knowledge of music theory, it is therefore an excellent starting point for beginners.

## Interval, Chord and Scale Identification

EarMaster plays an interval, a chord or a scale (depending on the activity currently in use) and asks you to identify it by its name using the multiple-choice buttons, or to transcribe the tones on the on-screen interface of your choice: staff, piano, guitar, bass, violin, solfege keyboard, and more.

Note: It is also possible to answer the questions using the Audio and MIDI input options of EarMaster.

## Interval Singing

EarMaster plays a tone and asks you to sing or play an interval above or below it.

Example: The note D is played, and the following text is displayed in the top bar: "Sing the Perfect 5th above D." You will then have to sing the perfect 5th above D, which is A.

Note: You can also use that exercise with Fixed- or Movable-Do solfege to sing solfege syllables

## Chord Progressions

EarMaster plays a chord progression and asks you to identify it by its name using the multiple-choice buttons, or to specify the step (I, V, bIII etc.) and quality (Major, minor, 7, sus4, etc.) of each chord.

Note: Becoming acquainted with different types of progressions and cadences will help you understand how songs are structured and anticipate chord changes when playing along with other musicians.

## Melodic Dictation

EarMaster plays a melodic phrase, and your task is to transcribe it on the notation staff. To do that, you can use the note toolbar at the left of the screen to select the different note values that you would like to enter, or use shortcuts.

The melodic dictation can be either rhythmic or non-rhythmic, depending on the settings selected for each lesson.

Notice that this activity may also be used to test your absolute pitch skills by deactivating the "*Play tonic of the key*" option in *Customized* training mode.

Note: This exercise is quite challenging and involves your skills at identifying and transcribing intervals, scales and rhythms. But it is really worth it, as practicing with the melodic dictation will help you pick up songs by ear more easily.

## Rhythmic Sight-Reading

EarMaster shows you a rhythm notated on the staff, and asks you to clap it while following the metronome.
You can answer the questions by clapping your hands in front of a microphone, tapping the rhythm on the space bar of your computer keyboard, or play it on a MIDI instrument.

If you activate the "*Evaluate Note Length*" option in the Exercise Settings, EarMaster will also take into account the duration of the note values you play.

You can wait any number of bars before clapping your answer, but it is very important that you start your performance on the first beat of the metronome, and not in the middle of a bar.

Note: This exercise not only improves your sight-reading skills, but it also makes you work on your timing!

## Rhythmic Dictation

EarMaster plays a rhythm and asks you to transcribe it on the staff.

You can use the note toolbar at the left of the screen to select the different note values that you would like to enter, or use shortcuts.

If you activate the "*Evaluate Note Length*" option in the Exercise Settings, EarMaster will also take into account the duration of the note values you play.

Notice that sometimes, the questions may allow different correct answers depending on how the modifications can be interpreted: A half note played by a clap sound may also be interpreted as a quarter note followed by a quarter rest. But if the "*Evaluate Note Length*" option is activated however, only one answer can be given.

Note: Training with this exercise will give you more proficiency at transcribing note values, and will make it easier to write down music or use notation software.

## Rhythm Error Detection

EarMaster shows you a rhythm notated on the staff, and then plays it with a few changes. Your task is to identify these changes by highlighting on the staff the note values that are different from those you heard.

There can be two types of changes:
- A note has been removed
- A note has been divided into two notes

By using this detective-like activity, you will improve your ability to identify rhythmic variations.

## Rhythm Imitation

EarMaster plays a rhythm and asks you to clap it back following the beat of the metronome.

To answer the questions, you can clap your hands in front of a microphone, tap the rhythm on the space bar of your computer keyboard, or play it on a MIDI instrument. See the section on Answer Input options for more details.

You may wait any number of bars before clapping your answer. But as with the Rhythmic Sight-Reading, Melodic Sight-Singing and Melody Imitation activities, it is very important that you start your performance on the first beat of the metronome, and not in the middle of a bar. If you start in the middle of a bar, your answer will be out of sync with the evaluation, and your answer will be counted as wrong.

Note: This exercise doesn't require any knowledge in music theory. All you need to do is to listen, memorize, and perform with as much dexterity and precision as possible

## Melodic Sight-Singing

EarMaster displays a melodic phrase on the notation staff or as a list of solfege syllables, and asks you to sing it or play it while following the metronome.

You can answer the questions by singing the melody in front of a microphone, by playing it on an musical instrument connected to a soundcard, or by playing it on a MIDI instrument.

While you are singing or playing your answer, EarMaster can optionally draw a curve on the notation staff to illustrate your performance and show the accuracy of your answer in details.

You may wait any number of bars before clapping your answer, but it is very important that you start your performance on the first beat of the metronome, and not in the middle of a bar. If you start in the middle of a bar, your answer will be out of sync with the evaluation, and your answer will be counted as wrong.

## Melody Imitation

EarMaster plays a melodic phrase and asks you to sing or play it back following the beat of the metronome.

You can answer the questions by singing the melody in front of a microphone, by playing it on an musical instrument connected to a soundcard, or by playing it on a MIDI instrument.

You may wait any number of bars before clapping your answer, but it is very important that you start your performance on the first beat of the metronome, and not in the middle of a bar. If you start in the middle of a bar, your answer will be out of sync with the evaluation, and your answer will be counted as wrong.

Note: This exercise doesn't require any knowledge in music theory. All you need to do is to listen, memorize, and perform with as much pitch and timing accuracy as possible

# Chapter IV - Tips

## Using Songs to Memorize Intervals

A common way to recognize intervals is to associate them with reference songs that you know well. For example, the song *Amazing Grace* begins with a perfect fourth. So when you hear an interval that sounds like the beginning of *Amazing Grace*, you can easily identify it as a perfect fourth.

Here is a few song examples that may come in handy to start getting acquainted with melodic intervals:

| Interval | Ascending | Descending |
|----------|-----------|------------|
| Minor 2nd | Jaws theme (Movie) | Für Elise (Beethoven) |
| Major 2nd | Happy Birthday to You | Yesterday (The Beatles) |
| Minor 3rd | Greensleeves (Traditional) | Star-Spangled Banner (US national song) |
| Major 3rd | Oh, when the Saints (Gospel) | Summertime (Gershwin) |
| Perfect 4th | Here comes the Bride/Wedding March (Wagner) | Eine Kleine Nachtmusik (Mozart) |
| Tritone | The Simpsons theme (TV series) | Black Sabbath 1st-3rd tone (Black Sabbath) |
| Perfect 5th | Twinkle, Twinkle Little Star (Lullaby) | It Don't Mean a Thing (Duke Ellington) |
| Minor 6th | When Israel Was In Egypt's Land (Gospel) | Love Story theme (Movie) |
| Major 6th | My way (Frank Sinatra) | Man In the Mirror; chorus (Michael Jackson) |
| Minor 7th | The Winner Takes It All (Abba) | Lady Jane; Chorus (The Rolling Stones) |
| Major 7th | Take on Me; chorus (A-Ha) | I Love You (Cole Porter) |
| Octave | Somewhere over the Rainbow (Wizard of Oz) | Willow Weep for Me (Ann Ronell) |

You will find a unique interval song chart generator on the website of EarMaster. It features a very rich list of reference songs from all styles and eras that you can use to create your own tailored song charts in a print-friendly format. Each song from the list features a link to a YouTube video so that you may hear the interval right away.

You will find the Interval Song Chart Generator at www.earmaster.com/intervalsongs.

# What are the Benefits of Ear Training?

Ear training is the process of connecting music theory (notes, intervals, chords, scales, melodies, etc.) with the sounds we hear. In other words, studying ear training is building a bridge between the language of music and the sounds that are designated by that language. The more we train our ear to recognize this connection, the better we get at playing music, because we learn to understand what we play and to anticipate musical structures.

Here is a typical example: You are in your rehearsal room with some friends, and the bassist starts a bass line as an invitation to jam. If your ear is not trained, you would have to interrupt everything and ask what is being played, or try to find chords that sounds good with the bass line without really knowing what you are doing. But if you have been training your ear regularly, hearing the bass line a couple of times should be enough to enable you to create a great matching chord progression or melody.

Ear training is essential to interacting with other musicians, transcribing melodies and chords by ear, composing music, singing in pitch, adding improvisation to your performance, improving your rhythmic skills, tuning your instrument, and acquiring more musicality.

Most music schools and conservatories have requirements in aural skills for prospective students, and are devoting a great part of their curriculum to ear training. But even if you are not planning to enroll at a music school, training your ear will widen your understanding and mastery of music as a whole, and will simply help you become a better musician.

# EarMaster Training Tips

Here are a few tips that will help you get the most out of your training sessions with EarMaster:

1. Don't strain your ears - 5-20 minutes of practice every day gives much better results than a long session once every now and then.
2. Hang on! You will experience the first results within a few days!
3. Practice with all the activities, they will improve your skills each in their own way.
4. If you find the lessons too difficult at some point, try to keep your instrument at hand to check the answers before entering them in EarMaster.
5. Remember to also challenge your skills in real-life situations (in the rehearsal room, together with friends, etc.)
6. Perseverance is the key! Your aural skills must be kept in shape, so remember to use EarMaster regularly to preserve your current level at worse, or to become even better at best.
7. You are going on vacation, great! But don't think your ears can be set to stand-by. Take your laptop with you and try to do some ear training once in a while to keep those aural skills in shape. You won't regret it!
8. Sing, sing, sing! Try to sing as much as possible when using the exercises as it is the most efficient way to internalize sounds and give you the necessary skills to become a true "ear (training) master"
9. Tap, tap, tap! When practicing with rhythms, try to mark the strong beats or the pulse with your foot, by nodding your head for example in order to get into the rhythm and get a feel of it.
10. Try to use movable-do solfege as soon as possible. If you are not familiar with that system, use the Standard Course with the Interval Singing activity. The lesson progression is a great introduction to movable-do solfege.

# Chapter V - FAQ & Troubleshooting

Here are the most common questions received by our support staff. If you are experiencing a problem in EarMaster, please make sure that the answer to your question is not already addressed here before contacting us.

## EarMaster is crashing when a sound is about to be played. What can I do?
Try to reboot your computer. The sound playback may cause the program to crash on systems that haven't been rebooted in a long time.

## There is no sound
Go to the Tools menu and choose *Preferences*. On the MIDI Devices tab you can choose among different Output devices. Choose one from the list, set the volume to max and click the Play button. If this doesn't produce any sound, try to choose another from the list. At least one of them should produce some sound. In some situations, it may cause problems if other programs use MIDI at the same time as EarMaster. Please try to restart Windows/OSX and run EarMaster as the only program using MIDI.

## MIDI IN does not work
To make MIDI in work, do the following:
1) In the EarMaster *Preferences*, under *MIDI,* choose the driver that should be used for MIDI Input. If no driver is listed, then you need to install one that works with your sound card, MIDI interface, or MIDI controller.
2) Enable the MIDI in from the "Answer input" menu or by clicking the MIDI In icon in the toolbar of the main window.
3) Make sure that no other programs using MIDI Input features are running.

## The microphone input is not working
First, make sure that you have activated the microphone input option by clicking on the microphone icon in the toolbar. The volume meter next to the icon should be moving if sound is detected by the program. If the tones are not recognized properly, you should run the *Microphone Calibration Tool* again to adjust the microphone settings. It is very important not to leave the *Microphone Calibration Tool* before the tones you sing and the beats you clap are recognized correctly by EarMaster. If it doesn't work in the calibration tool, it won't work in EarMaster.

## The sound is delayed in the rhythm exercises [Windows only]
The delay you experience in EarMaster depends widely on the performances of your system. Fortunately, EarMaster can compensate for the delay caused by your computer. Go to the *Tools* menu and choose *Preferences*. Find the *MIDI devices* tab to adjust latency settings for the MIDI Output devices in use (the devices used to play back sounds).

## How can I keep records of for multiple users?
The program is keeping records of your settings, your results and your progression automatically. EarMaster user profiles are linked to user accounts in Windows/Mac OSX. If you log into the computer with your Windows/OSX user account, all your results and settings will be loaded and saved for that specific account. If a friend or a member of your family would like to have his own results and settings on the same computer, he/she she will have to use his/her own Windows/OSX user account when using EarMaster.

*Tip: Can't find the answer to your question? Check out the support area of EarMaster.com*

# Chapter VI - Keyboard Shortcuts

## Exercise control

| Windows | OSX | Function |
|---|---|---|
| F5 or Alt+N | F3 | New question |
| F6 or Alt+P | F4 | Play/repeat question |
| F7 | F5 | Third button |
| F8 | F6 | Fourth button |
| F9 or Alt+S | F7 | Stop |
| Ctrl+F7 | CMD+F7 | Play tonic of key |
| Ctrl+Z or Delete | CMD+Z or Delete | Undo |
| Ctrl or Insert | Ctrl | Insert the tone played/sung in the microphone |

## Options and functions

| Windows | OSX | Function |
|---|---|---|
| F1 | F1 | Help on current subject |
| F3 | CMD+F3 | Customized exercise setup |
| Ctrl+R | CMD+R | Statistics and Results |
| Ctrl+H | SHIFT+CMD+H | High score |
|  |  |  |
| CTRL+O | CMD+O | Open (activity setup) |
| Ctrl+Alt+O | ALT+CMD+O | Open (Course) |
| CTRL+S | CMD+S | Save |
| CTRL+P | CMD+P | Print |
| F5 | F5 | Refresh (results or user lists) |
| Ctrl+A | CMD+A | Select all (chords or users) |
| Ctrl+D | CMD+D | Deselect all chords |
|  |  |  |
| F11 | CMD+F11 | Midi In (toggle) |
| Ctrl+F11 | ALT+CMD+F11 | Midi In remote control (toggle) |
| F12 | CMD+F12 | Microphone (toggle) |
| Ctrl+F5 | CMD+F4 | Auto new question (toggle) |
| Ctrl+F6 | CMD+F6 | Auto replay question (toggle) |
| Ctrl+<Left/right arrow> | CMD+<Left/right arrow> | Chord progressions, move bar cursor |

## Note input

| Windows | OSX | Function |
|---------|-----|----------|
| - | - | Eraser |
| NUM 6 | NUM 6 | Whole note (semibreve) |
| NUM 5 | NUM 5 | Half note (minim) |
| NUM 4 | NUM 4 | Quarter note (crotchet) |
| NUM 3 | NUM 3 | Eights note (quaver) |
| NUM 2 | NUM 2 | Sixteenth note (semiquaver) |
| NUM 1 | NUM 1 | 32nd note (demisemiquaver) |
| NUM 0 | NUM 0 | Rest toggle |
| . | . | Dotted toggle |
| * | * | Triplet toggle |
| / | / | Tied toggle |
| NUM 7 | NUM 7 | Flat |
| NUM 8 | NUM 8 | Natural |
| NUM 9 | NUM 9 | Sharp |
| | | |
| | | Add interval |
| CTRL+1 | CTRL+1 | Unison |
| CTRL+2 | CTRL+2 | Second above |
| | | … |
| CTRL+8 | CTRL+8 | Octave above |
| CTRL+9 | CTRL+9 | Ninth above |
| | | |
| ALT+2 | ALT+2 | Second below |
| ALT+3 | ALT+3 | Third below |
| | | … |
| ALT+8 | ALT+8 | Octave below |
| ALT+9 | ALT+9 | Ninth below |

# Chapter VII - LICENSE AGREEMENT
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*Should you have any questions concerning this agreement, or if you desire to contact us for any reason, please write to the manufacturer. The manufacturer is:*
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# Credits

EarMaster 6 was developed by EarMaster ApS

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Pitch detection algorithm by **Mu Technologies**

The whole EarMaster team would like to thank the many Beta testers who have been so kind as to send us their test reports to help us finalize EarMaster 6. Your support is very much appreciated!

For more info about EarMaster, please visit www.earmaster.com