TUNING TRAINER v.1.1b

Sinewaves in just intonation
By Antonio Della Marina

Tuning Trainer is a tone generator in just intonation. It can play up to 40 sinewaves simultaneously. Every pitch is tunable independently with whole number ratios related to a common fundamental. You can store and save presets into files that can be shared between users.

I made it for practicing myself with intervals and tunings and for playing JI drones. Since it came to a fairly stable version, I decided to make it available for musicians who might find it useful.

I don't think there's a lot to explain about how it works. The interface is quite simple, in any case here are some basics.

The player unit

There are 40 player units at sight, they work all the same way.
Its use is intuitive, so I will just list the parameters and explain the few tricks/shortcuts.

✓ **ON/OFF**

✓ **Solo**
   mute all the other players (that are ON and not solo-ed)

✓ **The ratio**
   Set the ratio starting from the numerator (harmonic). You can select and write or click and drag to change values. The denominator will change automatically to give you the 1-to-2 interval. It is then possible to change the denominator as desired.
   The little "u" drop-down menu under the line is the undertone base function. It's set to 1 by default and can be changed to any odd number up to 63 (reducing the ratios to the u-to-2u interval) or it can be set to **f** (=free) to let you set the ratio freely and independently. alt-ctrl-click to change all the "u" menus at once
   Two small white numbers will popup if the ratio is factorable and a small black "p" will popup when a numerator is prime.

✓ **Octave transposer**

✓ **Volume**
   single tune volume. Double click to set it to 0db

✓ **Pan**
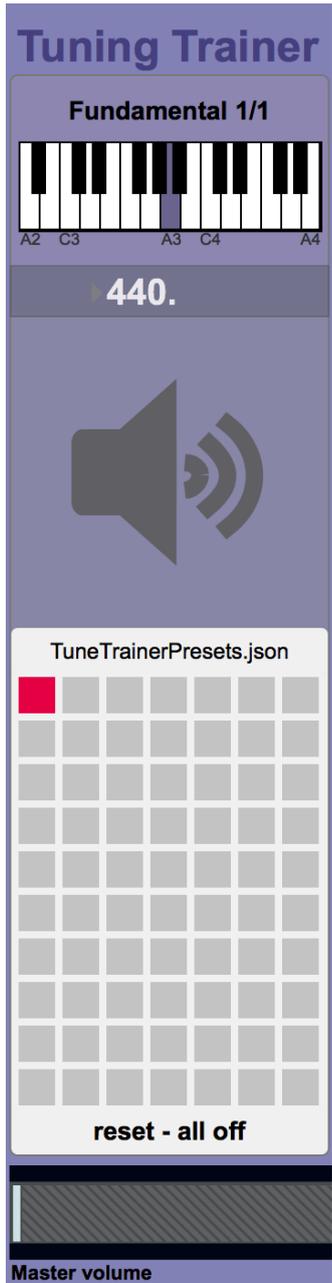   left/right distribution. Click on the triangle to reset

✓ **Frequency in Hz**
   read-only

✓ **Corresponding A440 equal-tempered pitch with cents deviation**
   read-only

Main controls

Tuning Trainer

Fundamental 1/1

A2 C3   A3 C4   A4

▸440.

Fundamental frequency in Hz
Here you can set the fundamental. You can either enter the number directly or you can choose a pitch from the equal tempered keyboard (A3 @ 440Hz by default).

Audio engine on/off
For the audio preferences see the Options menu

TuneTrainerPresets.json

70 Presets to store
Shift-click on a square to store and name a preset.
Click to recall it.
Red squares indicate the active preset, gray squares are empty slots. Busy slots are green. The mouseover will show the names. Presets can be overwritten or cleared with shift-click.
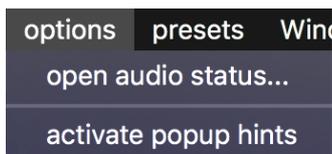On top the grid is the name of the loaded preset file, below is the name of the preset you last recalled.
Preset 1 with all-reset values is stored by default.

reset - all off

Master volume

Master volume with meter
shift-click to make a 10" ramp. Note that the master volume is NOT saved with presets

the options menu

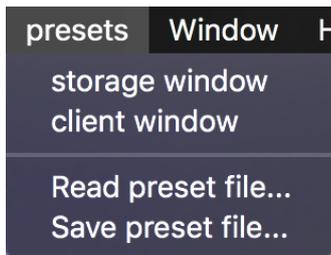options   presets   Wind
    open audio status...
    activate popup hints

✓ **open audio status** to access the audio device options
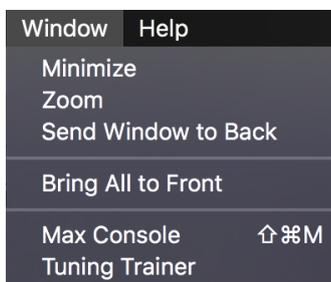✓ **activate popup hints** if you want mouseover assistance

the presets menu

✓ open **storage windows** to "take a look" at your saved presets and to do temporary changes (experiment at your risk)

✓ open **client window** to configure the preset recall priorities (idem)

✓ **read preset file** to import a saved preset file (.json file)

✓ **save preset file** to save your presets on a file (.json file)

the window menu

✓ open the **Max Console** to get infos about possible errors and debugging aid. All the rest is standard apple windows managements.

Aknowledgments

Tuning Trainer is a standalone application made with Max | Cycling '74.
It includes externals made by Fredrik Olofsson and Stefan Tiedje - who also made some improvements to the app.
I also want to thank my friend and artist Werner Durand for his precious suggestions and debugging.

as-is

Tuning Trainer is provided "as is" without warranty of any kind. This release is a beta version

Closing (and yet very important) note

The app is free, but if you use it and you think it's a good tool, please consider to make a donation via PayPal at http://www.fades.net/donate.html
This will allow me to improve this application and also to provide better support, upgradings and eventually customization.
In any case it would be great to hear from you and to know about your music.

For any question/suggestions/feedback please contact me at

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