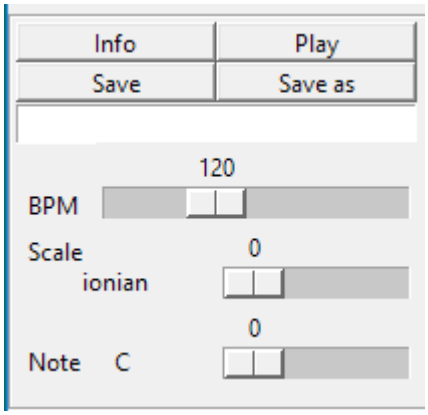
MIDI DADO CREATE 15

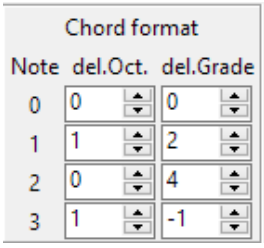
Python 8.5 programming language
Graphical Interface - **tkinter**
Midi- **Mido interface**

Create MIDI file type 1, with 5 channels
Create 10 tracks: Track 0, Bass, Piano, Vocal1, Vocal2 and 5 for Drum
Maximum number of Measures = 9
Fixed data: 4/4 (numerator=4, denominator=4)
Minimum note length = 1/8
Maximum note length = 8/8

Parameters

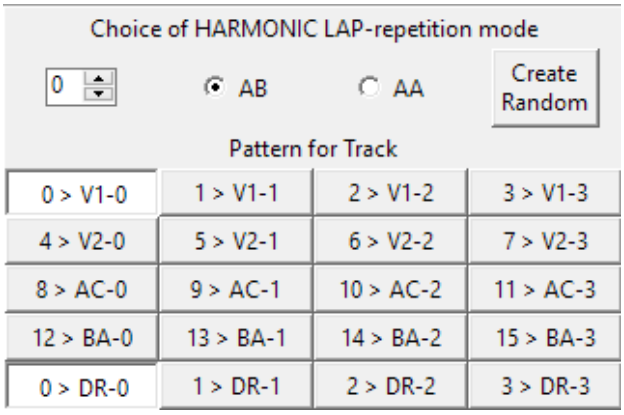


Info button = shows information in English (text in Italian attached)
Play button = play the created song (to stop playing, select the **BLACK window** and press CTRL+C.
Save As button = save song as
Save button = save the song without asking for the name if it already exists
BMP = Beats Per Minute, song execution speed
Scale = Choice between different types of scales (editable in json file)
Note = Choice of the basic note of the song (between 0 and 11 (CB)
Scale and **Note** variations vary the visualization of the song on the Piano Roll (which is stopped)



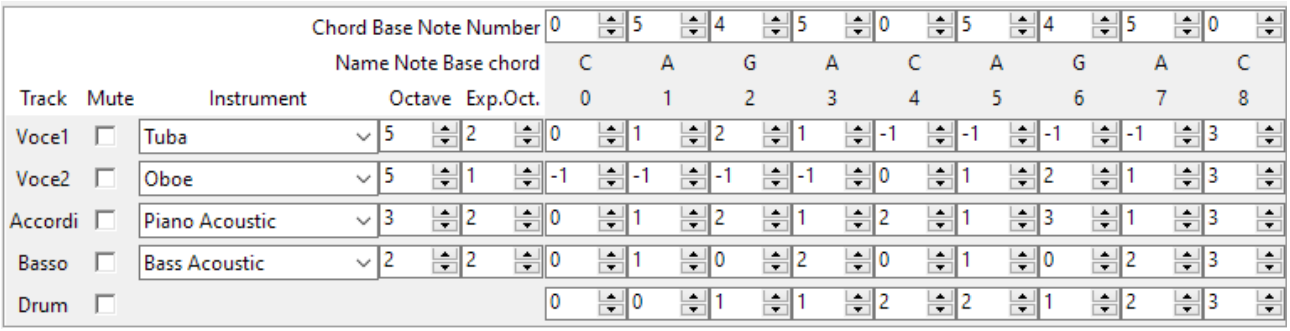
Chord format = Chords can be composed of 1 to 4 notes
For each note of the chord you can choose the octave and the degree (distance from the tonic = 0 which refers to **Notes**)
The chord is built on the chosen **scale**.
Example: 0, 2, 4, -1 (C, E, G, note not played).

Harmonic ride
Choice of harmonic turn (0-4) of 4 notes (chords) that are repeated in the form
AB = ABCD-ABCD-A or
AA = AA-BB-CC-DD-A.



Pattern for Track
At the beginning and every time you press **CreateRandom** 20 patterns are created, taken from patterns stored within the program.
There are 4 patterns for each track. Pattern with ending **0** is suitable for a beginning while with ending **3** for an ending. The others are suitable for an intermediate position.
V1 for Voice 1
V2 for Voice 2
AC for Chords
BA for Bass
DR for Drum
When one of the buttons in the grid is pressed, the selected pattern is displayed in the editing window.
The number a before > is the pattern reference for copying and editing.

Chord Base Note and Tracks

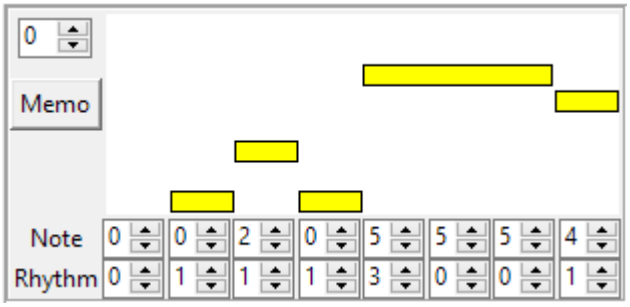


Chord Base Note Number
When making a choice of the **harmonic turn the Chord Base Note Numbers** are filled in and the notes are displayed taking into account the previously selected **Note** and **Scale.**
Chord Base Note Number can be varied individually.
Each variation is instantly displayed on the Piano Roll.

For each **Track** it is possible
1) **Mute** it out (track muting)
2) with **Instrument** choose the instrument
3) with **Octave** select the octave (1..6)
4) with **Exp.Oct.** select the octave range (1..2)
5) for each measure (9 in all) you can choose which of the 4 patterns to use. (0-3). If the track shouldn't play in that measure, choose (-1)

Editing Pattern Length and Height Note

Edit Melodic Patterns (Voice1, Voice2, Chords, Bass)



The pattern consists of eighth notes or combinations thereof.
Rhythm, durations and rests, valid values are from 0 to 8.
Example for **Rhythm:**

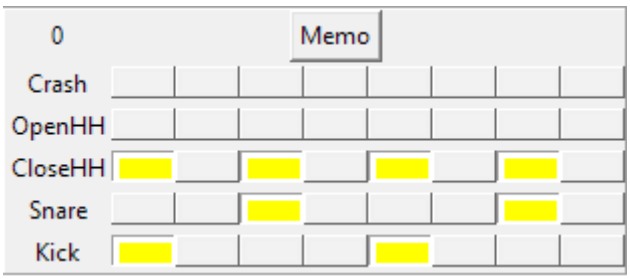
pos	Value	Meaning
1	0	It does not sound
2	1	Duration of 1/8
3	1	Duration of 1/8
4	1	Duration of 1/8
5	3	duration of 3/8
6	0	Continuation of pos 5
7	0	Continuation of pos 5
8	1	Duration of 1/8

Notes, degrees on the scale, valid values are 0 to 7.
Example for **Notes:**

pos	Value	Meaning
1	0	It would be grade 0 Tonic but it doesn't play because the tempo is at 0
2	0	Grade 0 Tonic (C in the scale of Cmaj)
3	1	Grade 2 (E in Cmaj scale)
4	1	Grade 0 Tonic (C in the scale of Cmaj)
5	3	Grade 5 (A in scale of Cmaj)
6	0	Grade 5 but it is irrelevant, use the note at pos.5
7	0	Grade 5 but it is irrelevant, use the note at pos.5
8	1	Grade 4 (G in Cmaj scale)

Press the **Memo button** to memorize the Pattern variations.
The number above **Memo** indicates the destination pattern.
If we don't modify it, the varied pattern overwrites the original pattern.
If we change it, the modified pattern will replace the pattern indicated by the number.

Edit Rhythm Patterns (Drum)



The pattern is made up of 1/8th notes.
Press on the box corresponding to the instrument and time to select or deselect it.
(Yellow is active)
Press **Memo** to save the change.

Project situation
As soon as he was born he was already dead.
This was my first attempt at making jingles with Python.
The initial settings chosen by me, which ones to use are known as 1/8 ¼ ½ and 1/1, not to manage the volumes, and many others, have facilitated my task, but have limited the possibilities of development and use.
I had fun programming it and…

Thanks
Phython community who have put their software and advice online.
Special thanks to the authors of **Mido** who made the possibility of creating music software using python.