Gmorgan

Documentation
Release 0.58

by Josep Andreu
Documentation by Josep Andreu & Gilles Maire
Copyright (c) 2003 by Josep Andreu

Modified by Robert Vogel 2013

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A good technical documentation is a documentation you can read in your bed or under the shower or elsewhere but without the product in front of view.

Marylin Monroe

Gmorgan and this documentation is GPL licensed. It is free software available at sourceforge.com where you will find links to video demos.

This documentation is made with OpenOffice in sxw format.

You can convert it to HTML, MS Word, PDF, or Text format.

Open Office is Open Source, (http://www.openoffice.org)

I believe music is freedom

I - Introduction

This version of gmorgan (0.58) runs only in Linux.

Gmorgan is a midi processor. It can be voiced using Linux synths, midi connected equipment, or using one or more of the many soundcards available. It is best to use a velocity sensing keyboard so that voices can be layered but it also possible to use the computer keyboard in an accordian-like mode or a piano style, the mouse can specify chords.

It recognizes chords being played on the keyboard, and on the background terminal prints the input notes in both numeric and alpha form. See the Youtube video links from the sourceforge home page.

Other features include a rhythm arranger, a style based sequencer, midi recorder.

Jack recognizes it, so you can hook it to other synths.

It uses scheduled events in ALSA sequencer, and is based on a miniArp.c from Matthias Nagorni. In addition to a midi keyboard, you can also use a soundfont compatible soundcard or a software synthesizer like fluidsynth or Timidity(++).

This program was first developed in a debian PIII 933 with emu10k1, also was tested in a debian PII 300 with a old SB16 ISA card with timidity with kernels 2.6.0-test11 2.4.23. It runs well in Ubuntu and in various Linux distributions, but Planet CCRMA is currently the best. See http://ccrma.stanford.edu/planetccrma/software/

For some excellent, platform independent, free software see impro-visor at http://www.cs.hmc.edu/~keller/jazz/improvisor/ and its large collection of leadsheets.

In this version, 0.58, there is a converter (ls2gmod) that will convert impro-visor songs to gmorgan format. If you convert them, you may need to supply patterns. The Chordtable resolves most of the notation differences. It is easy to change the Chordtable for any other notation differences.

The official web page of gmorgan is:

http://gmorgan.sf.net

Thanks to Guy Daniel Clotilde, the webmaster.

Thanks to Gilles Maire for the Documentation of this program.

This English documentation has been updated some although the screen shots need to be brought up to date.

http://gmorgan.sf.net

Subscribe to the mailing list gmorgan-user for bug reports, support, announcements, questions, suggestions, and comments.

Please, if you enjoy this program, send your patterns or other ideas.

II - Installation

II.A -Requirements

Use the standard install procedure for gmorgan: configure, make, install as root.

If you do not install, files will not be in their expected places, so you will need to move them. For example, the Chordtable will have to be moved to your user directory. Otherwise it will not run.

Before you install, be sure you have:

- Linux.
- ALSA.
- FLTK Fast Light Toolkit.

Voicing :

You need to adjust gmorgan to the sound generating facilities you are using. You can change the midi channel, velocity, keyboard range, volume, or pan of any voice, and you direct that channel to any of a wide variety of internal or external devices. With a good enough computer you can also use a sound card, timidity, hydrogen, synths, csound, and others in combination. Jack recognizes it.

For best results use a good velocity sensing Midi Keyboard.

Older computers may have trouble keeping up or not sound too good.

Sometimes the exported MIDI files don't run good in Muse ... i checked with pmidi and rosegarden4 and +/- works, but still problems with muse.

II.B -Before you start

If you have a sound card with wave table support, like a SoundBlaster, you need to load a Sound Font file.

For a emu10k1 or awe compatible soundcard, use the command:

```
sfxload 'SoundFont file'
```

available in the awesfx package from Takahasi Iwai in:

http://mitglied.lycos.de/iwai/awedrv.html

If you don't have a sound card, you need a virtual Sound Font synthesizer like Timidity.

Start this programs like a sequencer ALSA client in this way :

```
timidity -j -iA -B2,8 -Os -EFreverb=0
```

you need also write a /etc/timidity.cfg file with this format

```
soundfont  'SoundFont file'
```

Also you can use fluidsynth another softsynth, start this program in this way:

```
fluidsynth  -m alsa_seq  'SoundFont file'
```

Unfortunately fluidsynth changes the banks with banklsb midi message, you need to edit all the patterns, change BankMSB 128 to BankMSB 1 in the drum channel. That's because seems the bank change are not standardized.

The "Sound Font file" contains the sampled sound, is the sound what you hear, personally i use the GM Sound Font file "8RealGS20.SF2" available in :

ftp://ftp.lysator.liu.se/pub/awe32/Sound Font s/8RealGS20.zip

Is not the best but is smaller 8MB and sounds pretty good. If you use another one, sure can sound better, but you will need to remix many patterns. You can find other SF2 files on sites like http://www.hammersound.net.

II.C -Command line syntax

When you first start gmorgan, it is possible, but not necessary to use the command line. The gui panel, explained below, can set defaults more easily.

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... modifications by Robert Vogel 2013

Usage: gmorgan [OPTION]

```
 -h     --help                    display command-line help and exit
 -d File, --drump=File            loads the drum map file list
 -p File, --preset=File           loads the preset file list
 -l File, --load=File                loads the Styles
 -b File, --bank=File                loads the Sound Bank
 -r File, --rhyt=File                loads the Patterns
```

Example files are located in your source directory in the data folder, and /usr/share/Gmorgan, but it is better to run and load files from your source directory because you can update or save them when you need to without being admin.

An example of command line to start Gmorgan overriding the config files:

```
    ./gmorgan -l MisStyles.gms -b MisProgs.gmo -r MisPat.gmp
```

II.D -The settings menu

Rather than using the command line, when you first start Gmorgan, you can establish default settings, save them, and restart Gmorgan. After that connect to your devices without entering much on the commad line.

Example files are located in /usr/local/share/Gmorgan in the default installation, but are also in the source data directory. It is better to use your source directory, because you can modify and save them without admin privileges.

First go to settings → globals path and you will see the panel below:
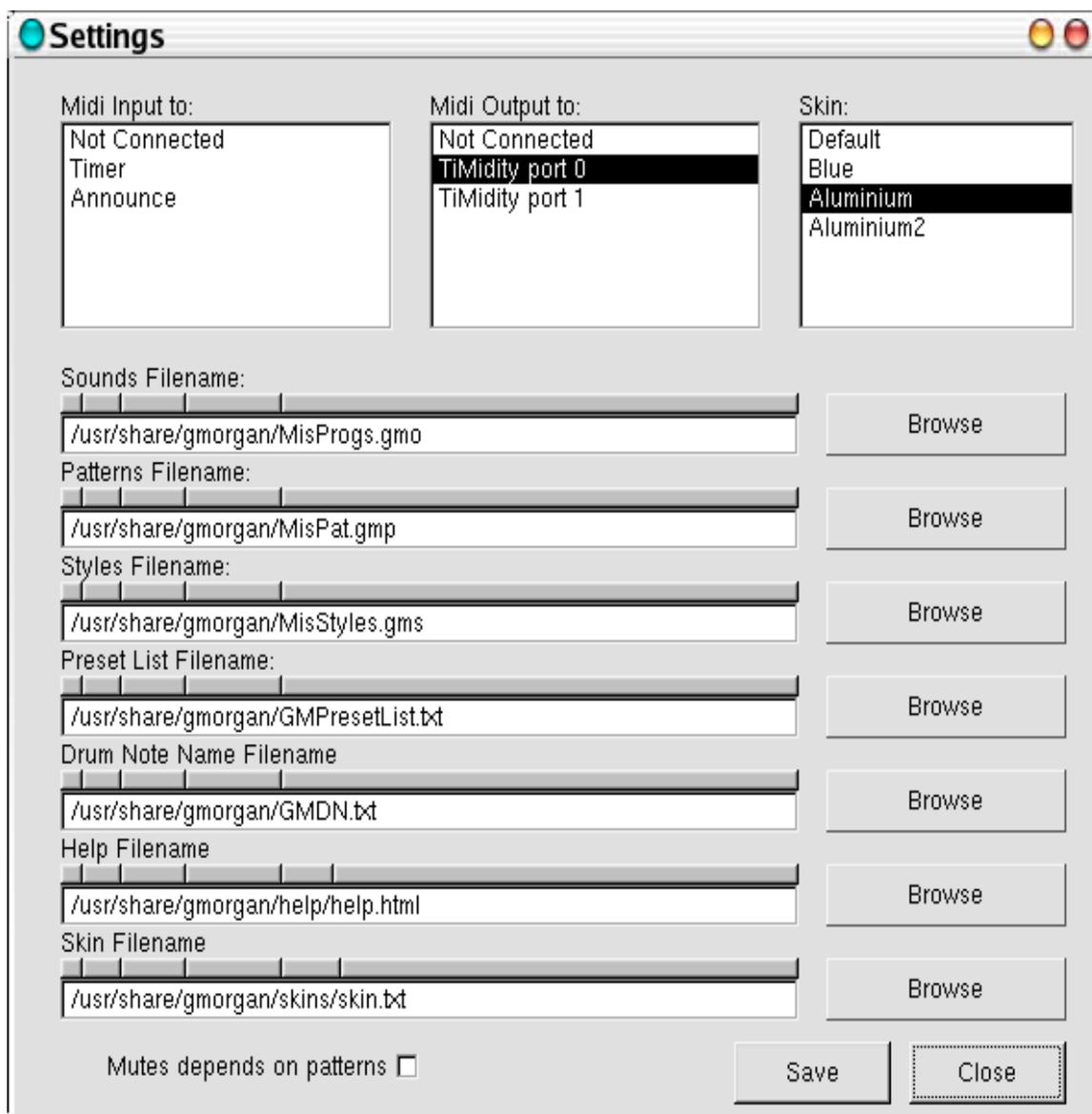
II.D.1-Global item

Two browsers of ALSA sequencer Midi Ports are shown in this window, one is for MIDI In an the other one is for MIDI Out.

Select one device in each one, when you restart Gmorgan, it will connect to the specified devices in your configuration.

For example if you use timidity you can choose MIDI Output to timidity port 0.

Browse your paths and select the files to load when it starts, the files are located in the [source]/data directory in the default installation.

Skin file are located in /usr/local/share/Gmorgan/skins in the default installation.

The Preset file is named "GMPresetList.txt".

The Drum Note Name File is named "GMDN.txt".

The Help file is located in /usr/local/share/help/help.html in the default installation.

The Skin file is named "skin.txt" and is located in the default installation in /usr/local/share/Gmorgan/skins/, then you can select a skin name. To change skin, edit this file.

Mute pattern dependent, check this box if you want the patterns control the mute (On/Off) of each accompaniment channel.

II.D.2- The Preset Files
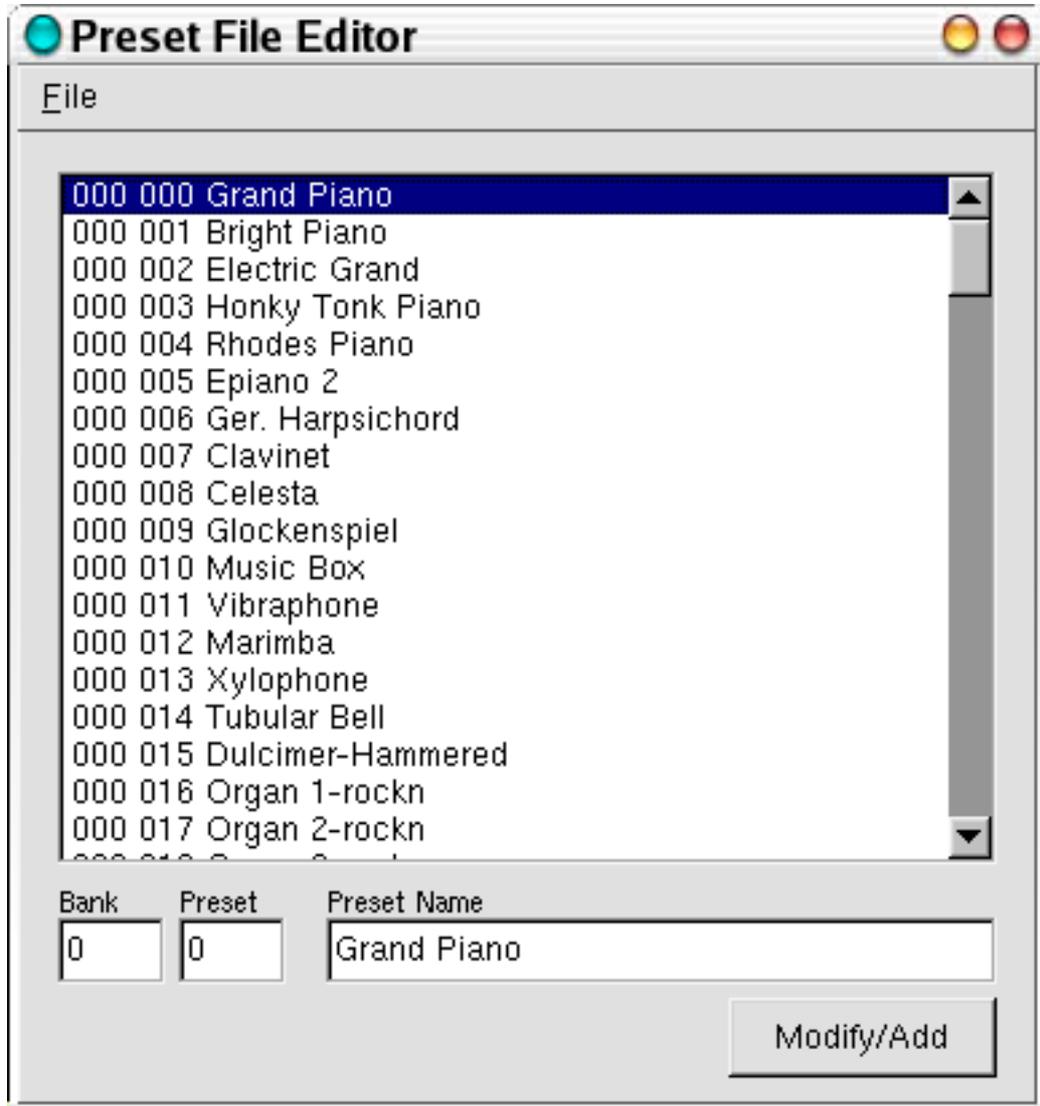
Gmorgan uses two files with the preset names, one for the bank-sounds names, and another for the drum-notes-names, Gmorgan install this two files in /usr/share/Gmorgan and are called GMPresetList.txt and GMDN.txt. You can add your Sound Font preset names by editing these files. Gmorgan loads both when start, or edit your own ones and load with a command line parameter.

The format of Preset list is exactly the same as a small utility that comes with a wonderful program of Takashi Iwai called *vkeyb*, the utility is called *sftovkb*.

The format is :

```
Bank Program Name

0    0       Piano
```
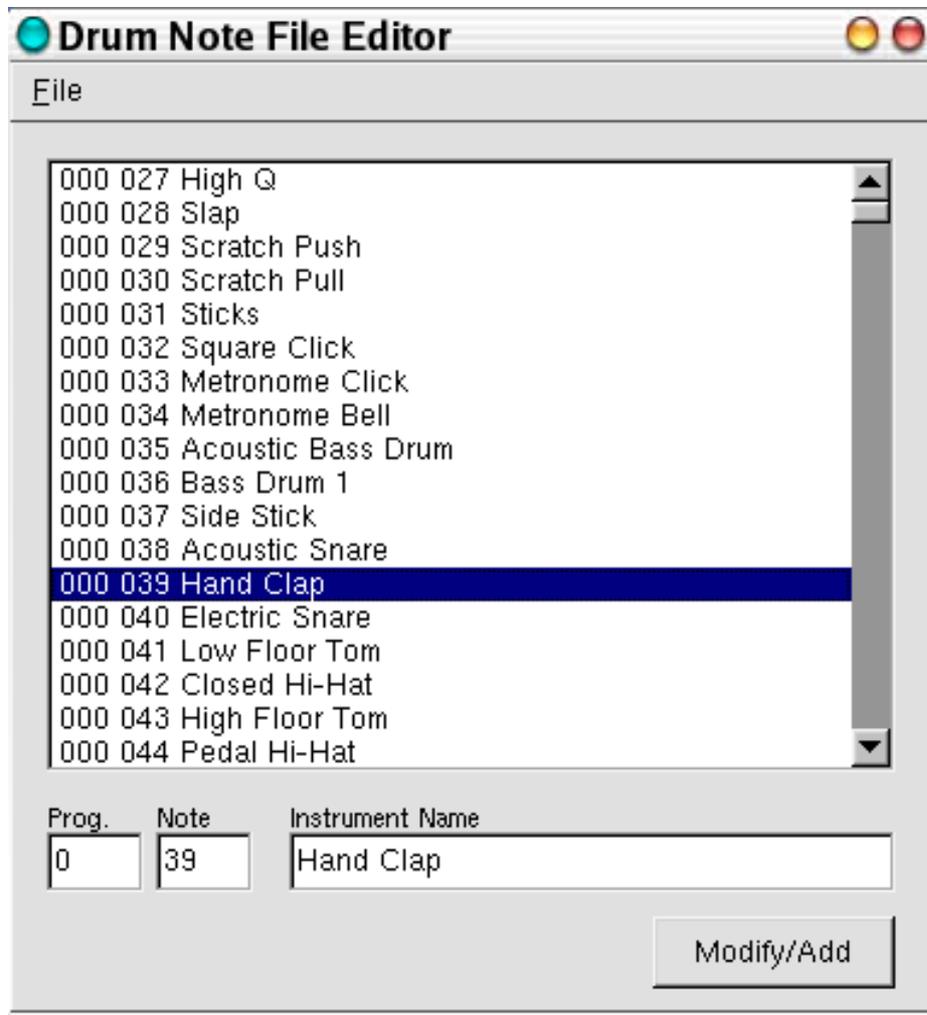
The format for Drum note file list is from my own . The format is:

```
Program Note Name

0 44 Pedal Hi-Hat
```

Don't forget to save the editor by the file/save menu at the end of your own modifications.

II.D.3- The Drum note file

Modify the selected Program-Note Name or adds new ones.

II.E -Some definitions

II.E.1- Sounds
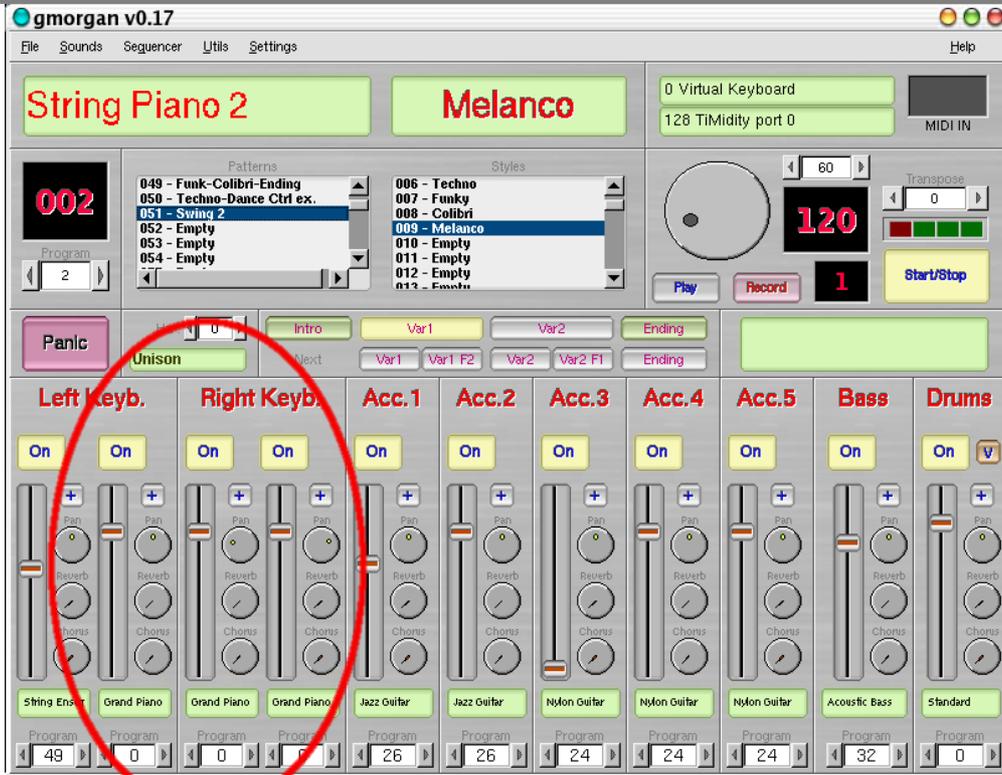
Sounds are the four first channels in the mixer, your left and right hand, Gmorgan can load 100 sounds with the settings of the mixer. Also can be changed with MIDI program change, if you wanna change when you play, or with Alt-B shortcut open the Bank window and you can select or store in it, then you can save the whole bank or sound by sound.

II.E.2- Patterns

Are the most important thing, Gmorgan can load 500 patterns, each pattern contains the rest of the mixer, Acc1, Acc2 ,Acc3,Acc4,Acc5, Bass & Drums and of course the musical pattern. You can select with left click in the browser or edit with right click. Also you can save the whole, or one by one.
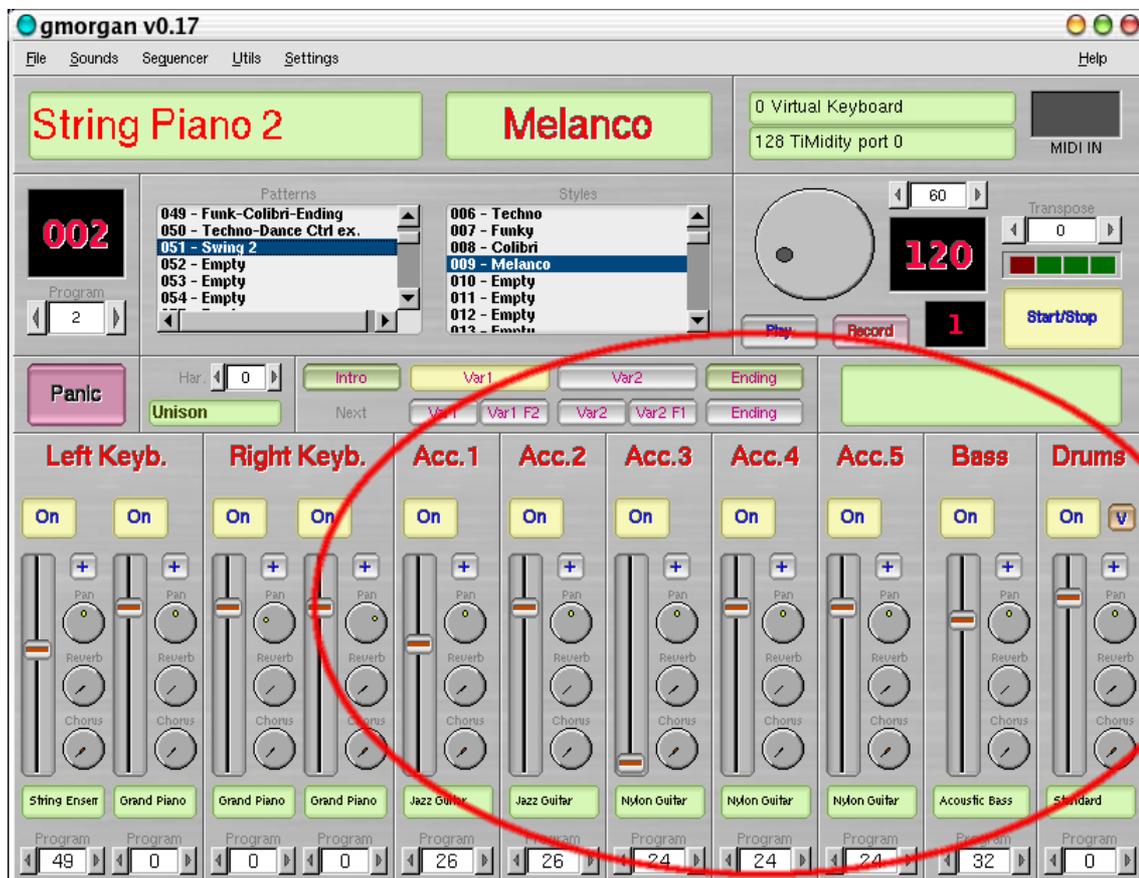
Patterns parameters i will explain in the Pattern Editor.

All changes made in the mixer pattern section are stored in the pattern, and be carefully because if you save the file, this changes will be saved.

Remember in General Midi, drums are assigned to Bank 128, you need to change the Bank MSB parameter to 128 in the Extra Params win (+) if you use General Midi Sound Font s. Empty Patterns are "harcoded" to use the 128 Bank for the drums section, but you need to change it if you don't use General Midi.

II.E.3- Styles

Styles are groups of pattern.

Styles only store the *number* of each pattern for Var1 Var2 Fill1 Fill2 Intro and Ending, the tempo selected and the sound program selected.

A style has a name like swing or waltz, and in each style you will find patterns.

Also you can save the whole, or one by one.
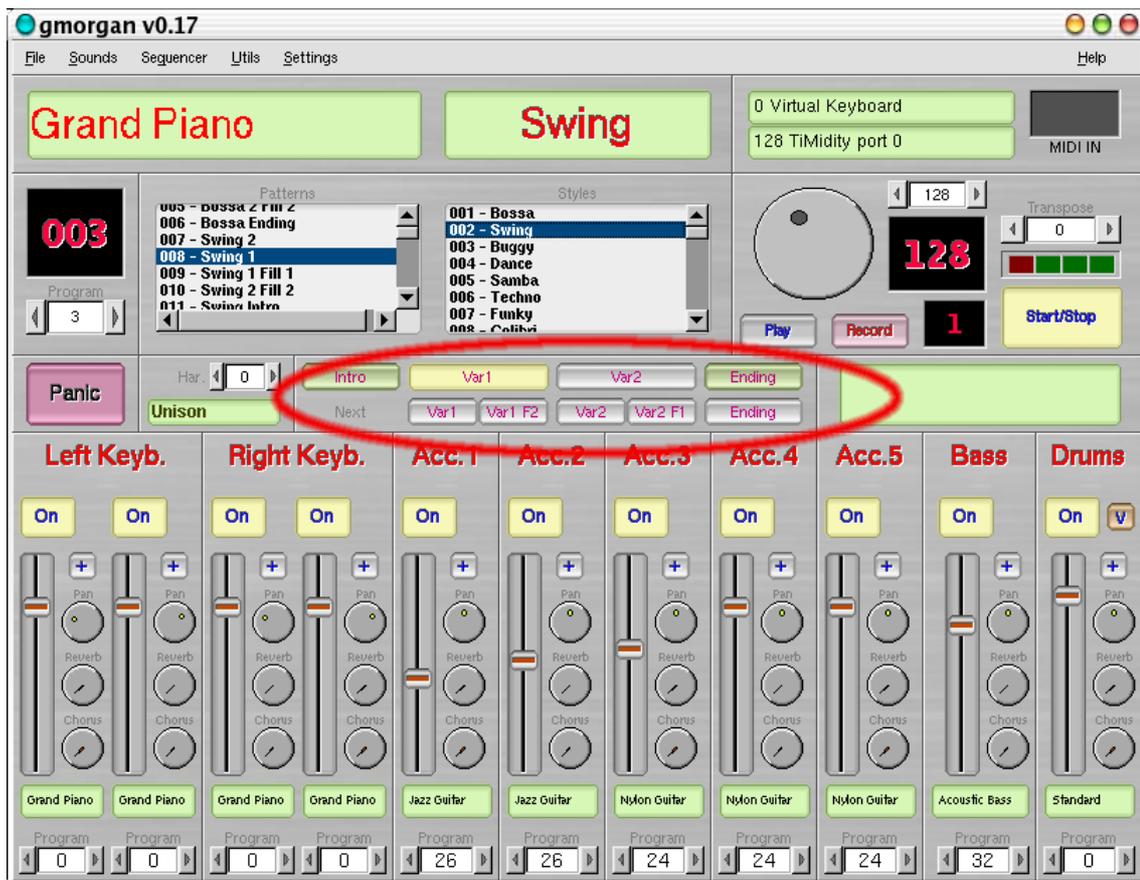
III - Using Gmorgan

III.A -The Main Window
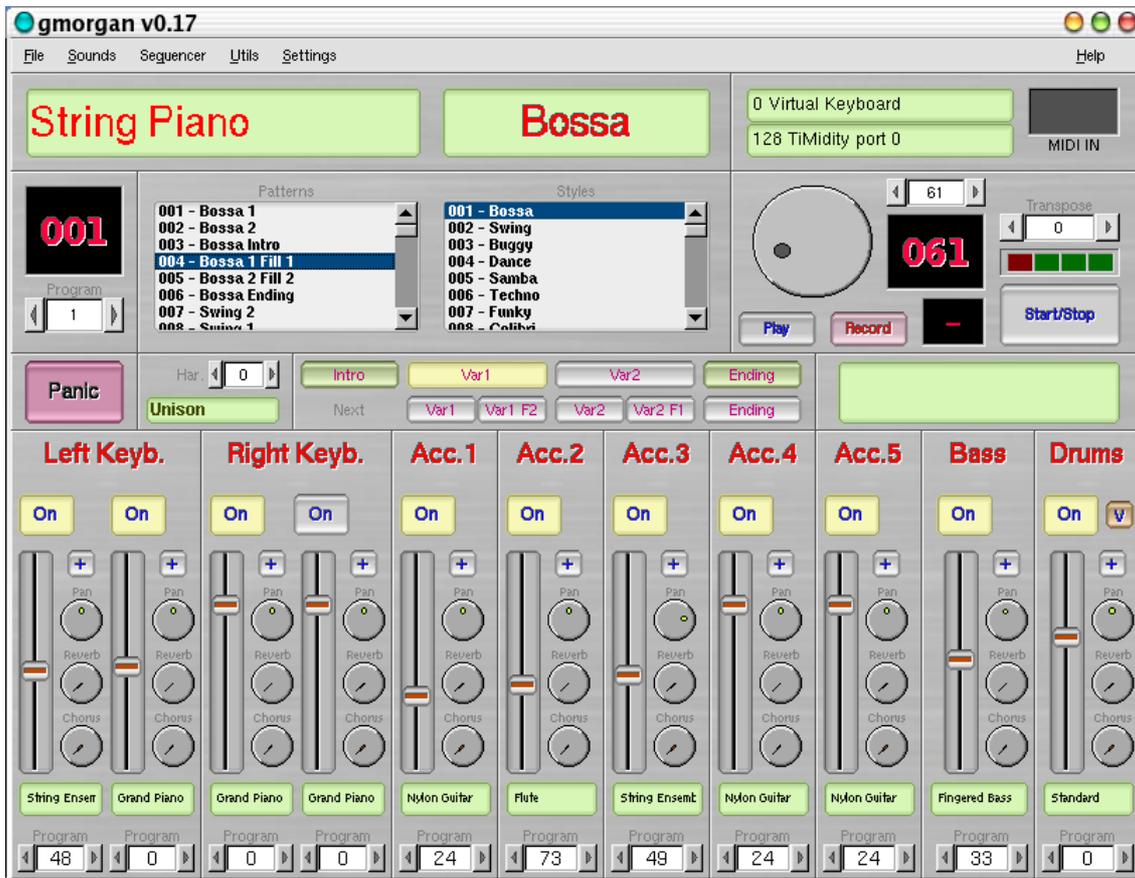
III.A.1-The information area

This information area show first you the instrument selected for your MIDI keyboard. Here it is String Piano.

The second area show you the style of music (here the Bossa)

After you have the name of the MIDI keyboard attached to your channel and the name of the MIDI synthesizers (here 128 Timidity port 0).

The last area **MIDI IN** is enlighten when you play on your keyboard.

III.A.2-Intro

Only few thing need to be explained.

Two   lines   of   buttons

named **Intro** and **Next** can only be used when you select a style, the line Pattern changes in real time the played pattern, the Next Pattern line changes the pattern when they finish, button

Var1 F2 and Var2 F1 changes the pattern playing the "F" (Fill) pattern before start the next pattern,

REMEMBER to edit your Fill1 and Fill2 patterns with minus bars than the Var1 or Var2 Pattern.

Shortcuts

Press F1 for Help.

Pattern:

- 1 -> Var1The Main Window

- 2 -> Var2

- i -> Intro

- e -> Ending

Next:

- z -> Var1

- x -> Var1F2

- c -> Var2

- v -> Var2F1

– b -> Ending

The Next line also can be controlled with a MIDI Pitch Bend, try ... is not easy.

III.A.3-Panic - Hmode

The HMode controls how the right keyboard is harmonized:

- mode unison doesn't harmonize,

- the rest are third, sixths, triad 1, triad 2, soli 1 (block chords), soli 2.

  Carefull with the polyphony of your devices because, the soli mode uses 5 notes for each note played , and -> 4 notes * 2 channels = 8 notes for each note played. If you play four .... = 32 notes, many devices don't support that polyphony.

- You can also use Hmode for the Accompaniments described below. (Try Blue Spoon for an example.)

  The input area or the > or < button allows you to change the program for your MIDI keyboard.

  The **Panic** button allows you to turn off all the sound produced by the MIDI keyboard. It will **mute** the entire MIDI keyboard.

III.A.4-The mixers

The mixer controls parameters of each channel of gmorgan.

You can set each mixer with the same kind of mixer settings with an extra setting for the drum mixer.

First, the button **On** when it is enlighten set ON the instrument, you can set/unset by clicking with the left button of the mouse.

Use the vertical slider to increase or decrease the volume of each instrument.

The **Pan** button can be turned by mouse action and of course sets the direction of voice using the right and left channel.

The **Reverb button** in the same manner sets the reverb effect.
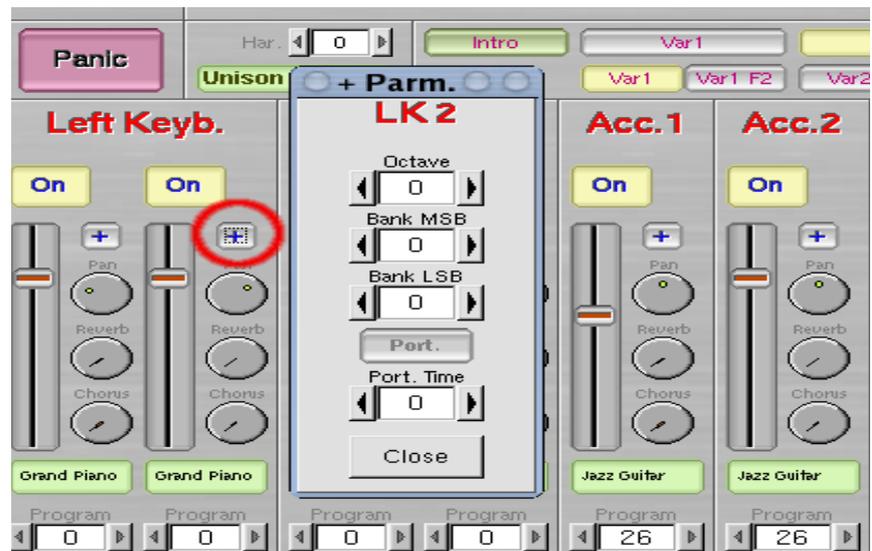
The **Chorus** button has the same effect.

Not all the devices recognize (Reverb and Chorus).

The green area displays the name of instrument selected by click on < and > symbol on the bottom of the mixer.

The button "+" for each channel in the mixer open a window with extra parameters for this channel.

Octave is to change the musical octave using positive or negative values.

Bank MSB changes Banks (0-127) and **Bank Lsb** changes 127*Bank Lsb. + Bank MSB.

The MIDI message of Bank change seems not be most standardized, gmorgan brings the possibility to send BankMSB 128 for compatibility with some devices.

PORT means portamento, portamento makes glissando between two notes. Some instruments can't do that : the piano, and other can like the violin. Portamento has two values : the first is On/off button and the second is the time of portamento. All the synths don't accept Portamento :

timidity yes but no the AWE sound blasters.

III.B -The Play/Stop Area

The big mouse clickable button and the input area (marked 61), allows you to select the tempo of your song. This tempo is displayed in red char on black background.

The other red/black just beside area show you the bar in style while music is played.

This buttons Record and Play what you play in the organ, also in the menu you can Save/Load or Export as Midifile.

Gmorgan record also all Pattern/Sound changes or whatever you change in the mixer during recording.

In this Play Mode the organ and the sequencer operation is disabled, but you can "play" with the mixer to correct volumes, this changes in play mode can not be recorded, is only for monitoring.

You can record 64.000 events, a large song :)

The Export Midifile of this events is a "little" bit slow ... be patient, I will improve in future versions, also .. I'm not very happy with the resolution, and maybe that's a buggy part of the program.

The big **Start/Stop** button allows you to play the whole style without playing keyboard.

The **Transpose** area allows you to transpose the melody.

 Hints for Recording

Is extremely hard to click on record and start play, but you can use a special trick: edit your favorite style and put as intro a count or a empty pattern, then select this style click Intro in the current Pattern line and Var1 in the Next Pattern line ... then click "Record", Gmorgan starts with the Intro pattern and then will change to the Var1 pattern.

Also, when you Record, Gmorgan writes in "bar 0" the actual "Sound", if you want to record with new "sound" contents you need to write a new "sound".

III.C -The Pattern area and style area

By selecting a line with the left mouse button inside the pattern area you select the pattern.

If you select a line with the right button, you will see the pattern editor Window explained below.

The Style pattern allows you to select the style of music you want to play. To select the style, click with the left button of the mouse.

By clicking with the right button of you mouse, you get the style definition window.
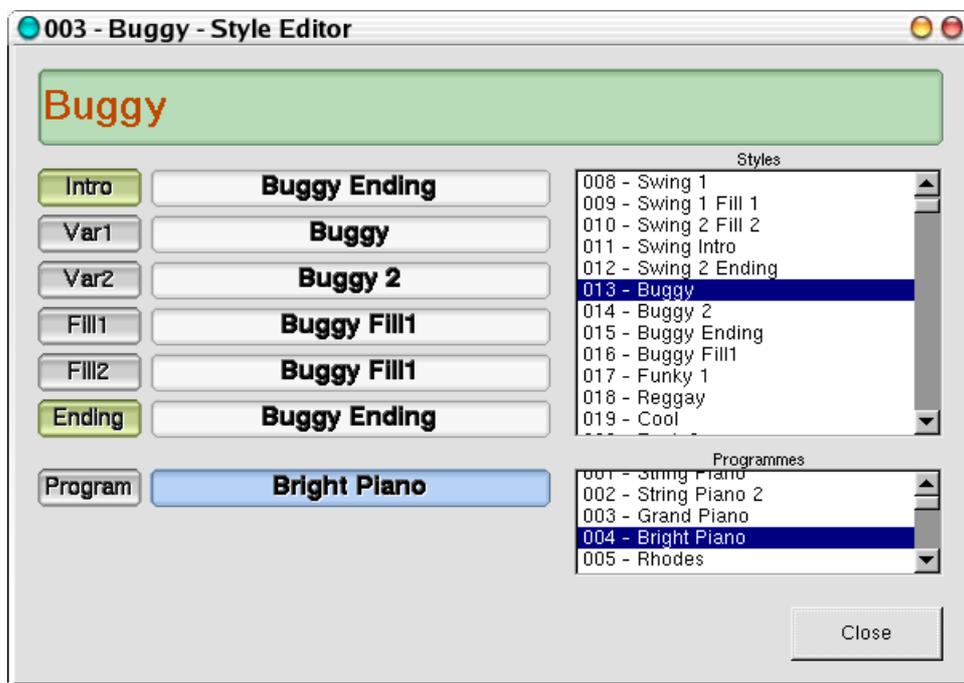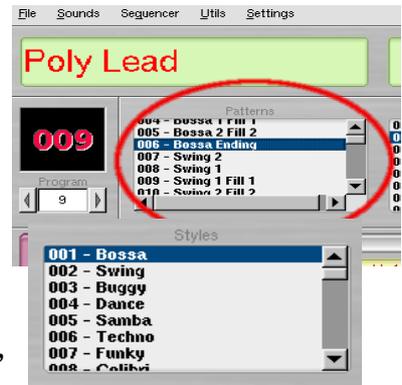
By this window, you can select the Intro by clicking on the left button of the first line and selecting the style in the right area.

You can repeat the selection on each the button (Var1,Var2 until Ending).

The program button allow you to select the instrument played by your MIDI keyboard. You will see the instrument in the two first mixer on the main window.

Don't forget to change the name of the style by clicking on the green area (here buggy) to write your own style name.

III.D -Edit Pattern Window

All the groups of four input area who fill the window, are 16th of note. We will study the whole window step by step.
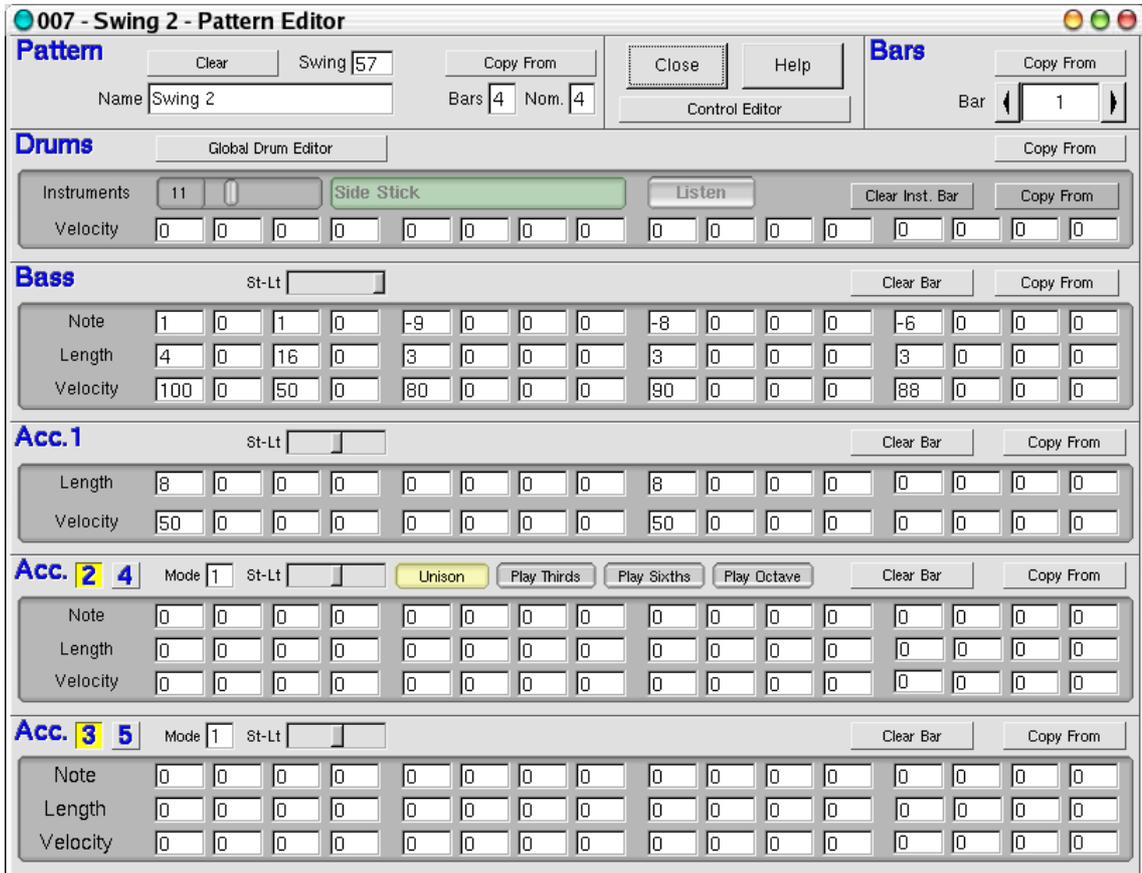
You can get this window when you click with the right button of you mouse in the Pattern definition zone in the main window. You can edit the pattern and listen at the same time.

All the patterns can be edited in Major tone, because all the changes what Gmorgan made when you play is referenced to the major chord. If you play in minor chord, Gmorgan will convert major mode to minor mode.

The Help Button will display values for notes and lengths.

Remember that... the number of vars of the fill patterns needs to be minor than the Var patterns.

III.D.1-Pattern item

The first parameters are the name, the number of bars, (1 to 8) and the Nominator, nominator means the "nominator bar" 3/4 4/4 -> 3 for Waltz, 4 for Disco .. etc.
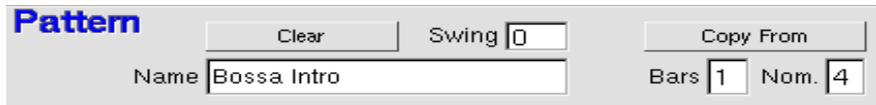
The swing parameter of course is the amount of what each second eight note for each black note in the whole pattern delays. That's swing. :-)

The button **Copy From**, copies the whole contents of a pattern in the selected pattern. When you click on the **Copy From** button, you see a small windows asking you the name of the pattern you want to copy.
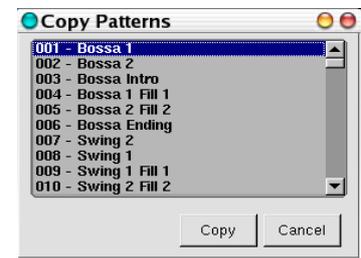
The button **Clear** reset the pattern to a "Empty" state.

III.D.2- The Bars item

This counter, selects the bar of the pattern to be edited.

The Copy button in this section, copies the selected bar for all the

sections in the pattern.
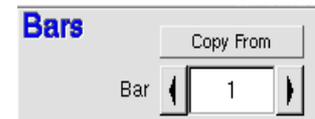
III.D.3-The Drums

The **Copy** Button in this section, copies a bar, for the whole drum notes.

In the subsection, the slider select the drum note you want to edit, also you can hear with the button listen, If you load non GM standard Sound Font s, you need to edit a file with drum note names, that is explained later.

The **Listen** button allow you to listen the selected drum.

The **Copy** button, copies only the selected instrument. The button Clear, clear the bar for the selected instrument.

The groups of four inputs values are 16th notes for the bar, in the case of the drums, you select the note in the slider, the length is fixed, and only you need to put the velocity. (0-127).

By clicking on *Global Drum Editor* button you get a window with the definition of all the drums.
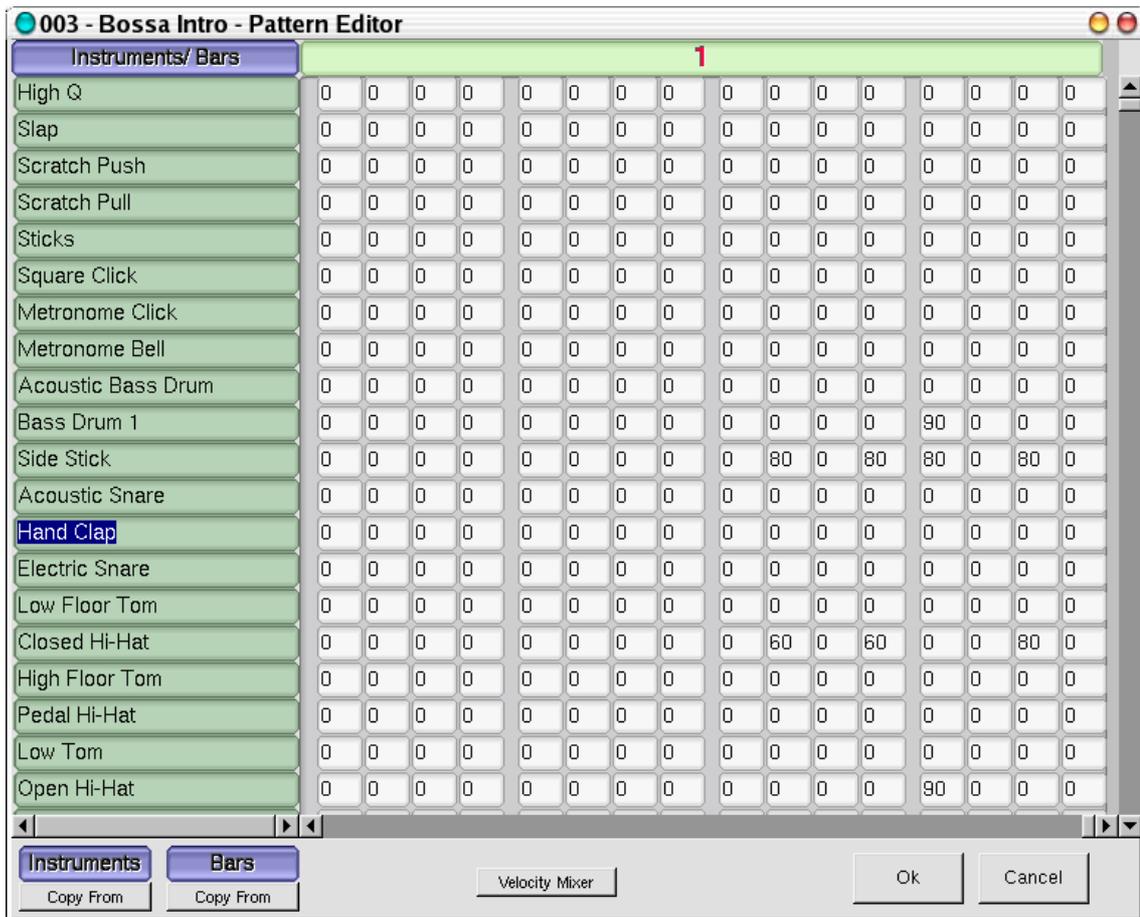
You can click on the name of a drum to listen the sound produced by the drum.

Don't forget to scroll the list of drum to choose the instrument you want.

On each line you see the name of the drum instruments. After this name, you have many input areas. Don't forger to use the horizontal browse bars in bottom of the window to see all the bars. At top of the window you can see the bar number (red number on green color). Each area is 1/16 of tempo and you need to put a value :

- 0 : no sound

- 1 : min volume

- 127 : max volume.

of course all the values between 1 and 127 are possible.

You can change the value by dragging the mouse around the input area.

By clicking on the *Velocity Mixer* button, you get the following window :

For each drum you can modify the velocity of the instrument.

Don't forget to click on **Apply Changes** button to make the changes running.

III.D.4-The Bass

The St-Lt slider means "Stacatto/Legatto", this affects the length of the

note.

The Copy Button in this section, copies a bass bar.

The Clear Button clears bass notes in the selected bar.

Here you need to specify the note, the length and the velocity.

The note is referenced to the fundamental of the chord. In the major tonality.

Value	Note
-12	2º grade flat
-11	2º grade
-10	3º grade flat
-9	3º grade
-8	4º grade
-7	5º grade flat
-6	5º grade
-5	6º grade flat
-4	6º grade
-3	7º grade flat
-2	7º grade
-1	
0	No sound
1	Fundamental
2	2º grade flat
3	2º grade
4	3º grade flat
5	3º grade
6	4º grade
7	5º grade flat
8	5º grade
9	6º grade flat
10	6º grade
11	7º grade flat
12	7º grade

Value	Note
13	8º grade

The Length is the same valor as ALSA sequencer

Value	Length
1	whole bar
2	white note
4	black note
8	Eight note
16	sixth note

also you can use the intermediate values for do a "dot" note ..

The Velocity is like in the drums .. (1-127) remember, velocity means "Velocity Sensitivity", some thing like a volume of the note.

III.D.5-The Acc1

You can only specify a single lead note for Acc1. Is a "soli" accompaniment whit the note what you play with you left hand,

The parameters are Length and Velocity exactly like in the bass section.

The St-Lt slider means "Stacatto/Legatto", this affects the length of the note.

The Clear Button clears Acc1 notes in the selected bar.

The Copy button copies bars like in the other sections.

III.D.6-The Acc2 to 4
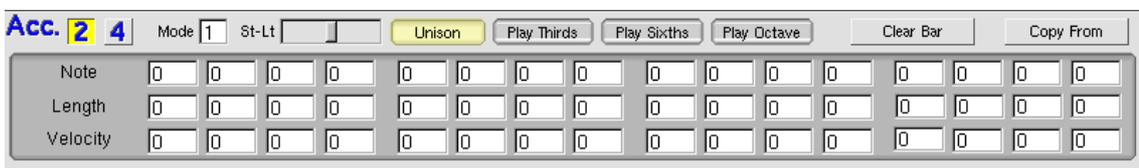
Edits **Acc2** or **Acc4**.

Is a melodic accompaniment, the parameters are much the same as the Bass section.

The **Mode** parameter is the same as on the main panel.

The **St-Lt** slider means "Stacatto/Legatto", this affects the length of the note.

The **Play Octave** button plays also one octave bellow the same note.

The **Thirds** button plays in "thirds" with the notes chords, maybe sometimes are forth..

The **Sixths** button plays in "sixths" edit the notes chords, and maybe sometimes are fifth..

The **Clear** Button clears Acc2 notes in the selected bar.

The **Copy** button copies bars like in the other sections.

III.D.7-The Modes

Gmorgan now uses the harmonic modes to play the melodic accompaniments. Each one produces the same results as described for Hmode on the main screen

If you want to use the Batch Player, you can copy the pattern to an empty pattern and change the mode, in this way you have, the same pattern copied with different melodic accompaniments and you can select the most appropriate for each bar in the sequence.

Mode 0

This mode transports the melody to the fundamental of the chord what you play of course changing the chord notes for harmonize a little bit. Exactly like the bass. Be carefully with your melodies because the use of some grades cant be harmonized by Gmorgan.

Mode 1

This mode try to harmonize the melody in a most sure way than mode 0, but the changes what Gmorgan makes in the melody are substantial big than the mode 0.

This mode is a little bit hacked, takes the first chord played as the tonality and relativity all the melodies to this tonality, use it if your song starts with the tonality chord, otherwise you can obtain unexpected results.

Mode 2

This is the safe mode, moves the notes of the melody to the nearest chord note. Use this if you plan to put notes higher than twelve.

III.D.8-The Acc3 5

Edits **Acc3** or **Acc5**.

Is a melodic accompaniment harmonized with the chord notes, also has mode, but that is a sure way to harmonize. The parameters are the same like always.

The **St-Lt** slider means "Stacatto/Legatto", this affects the length of the note.

The Clear Button clears Acc3 notes in the selected bar.

The **Copy** button copies bars like in the other sections.

III.D.9-The Acc4

Exactly same than **Acc2**.

III.D.10-The Acc5

Exactly same than **Acc3**.

III.D.11-The Control Editor

By the **Control Editor** button you get the following window :
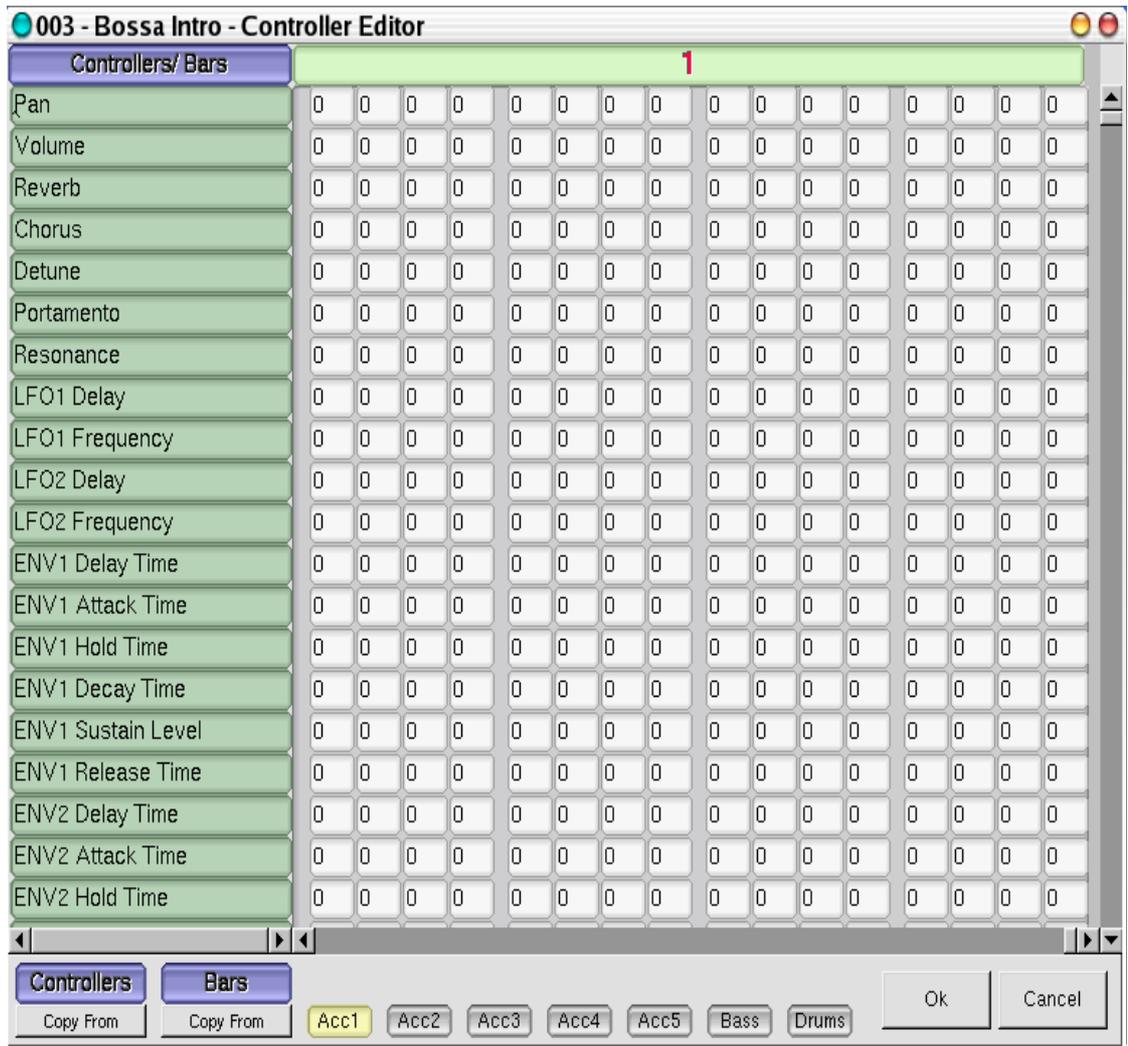
This window edits control midi messages in the patterns, more of the controls only works on a awe or emu10k1 devices, each controller needs different values, but Gmorgan relativity all the controls to (1-999) values.

Use this window with extremely carefully because they change parameters in the sound and you can obtain unexpected results if you don't know what are you doing.

You might need to restart Gmorgan, or reselect the program to return to the original sound.

Value 0 don't send nothing.

See Pattern 50 for a example, compare with Pattern 29 (the original without controls), Acc2 Pan changes, and LFO to Pitch, this only runs on a emu10k1 or awe device. Also Acc1 Resonance changes during the pattern.

III.D.12-The help of Pattern Editor

The help give you a contextual help about the value and the kind of chord like is shown by the following screen copy :
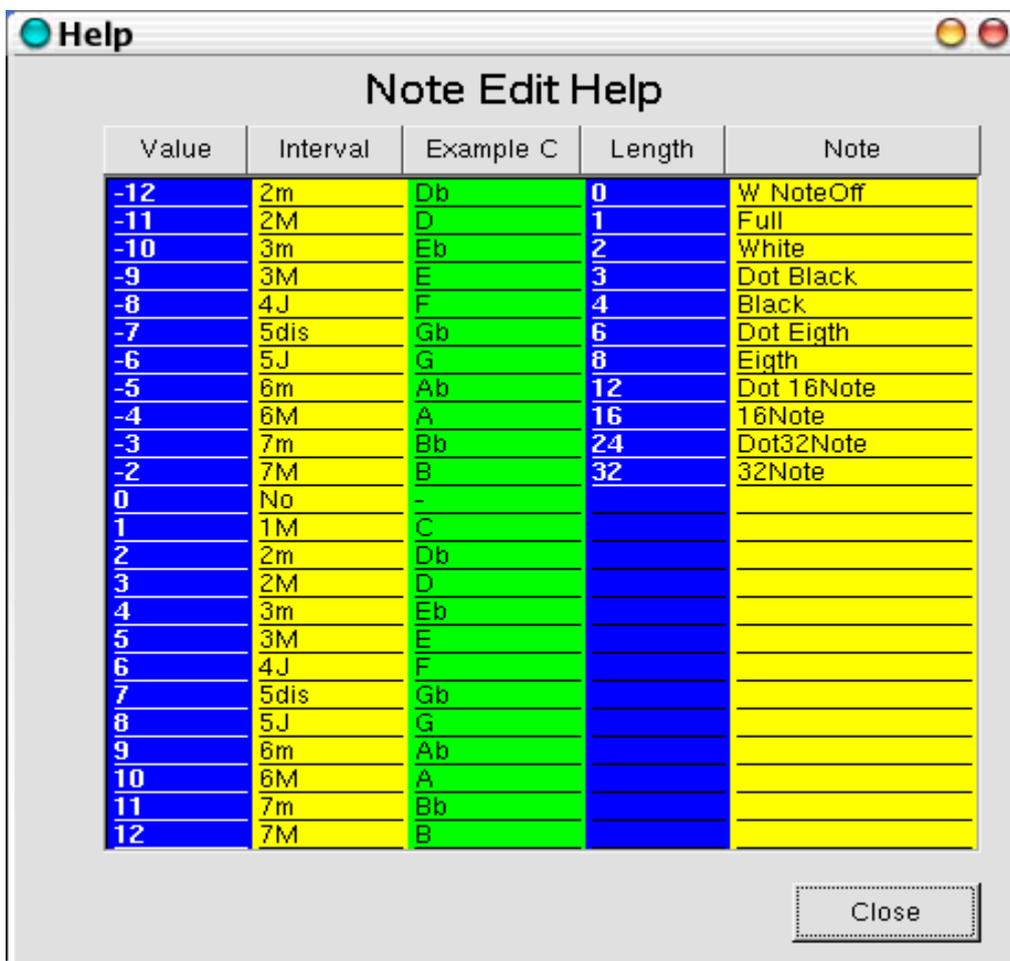
Note Edit Help

Value	Interval	Example C	Length	Note
-12	2m	Db	0	W NoteOff
-11	2M	D	1	Full
-10	3m	Eb	2	White
-9	3M	E	3	Dot Black
-8	4J	F	4	Black
-7	5dis	Gb	6	Dot Eigth
-6	5J	G	8	Eigth
-5	6m	Ab	12	Dot 16Note
-4	6M	A	16	16Note
-3	7m	Bb	24	Dot32Note
-2	7M	B	32	32Note
0	No	-		
1	1M	C		
2	2m	Db		
3	2M	D		
4	3m	Eb		
5	3M	E		
6	4J	F		
7	5dis	Gb		
8	5J	G		
9	6m	Ab		
10	6M	A		
11	7m	Bb		
12	7M	B		

Close

III.E -The Sounds Bank
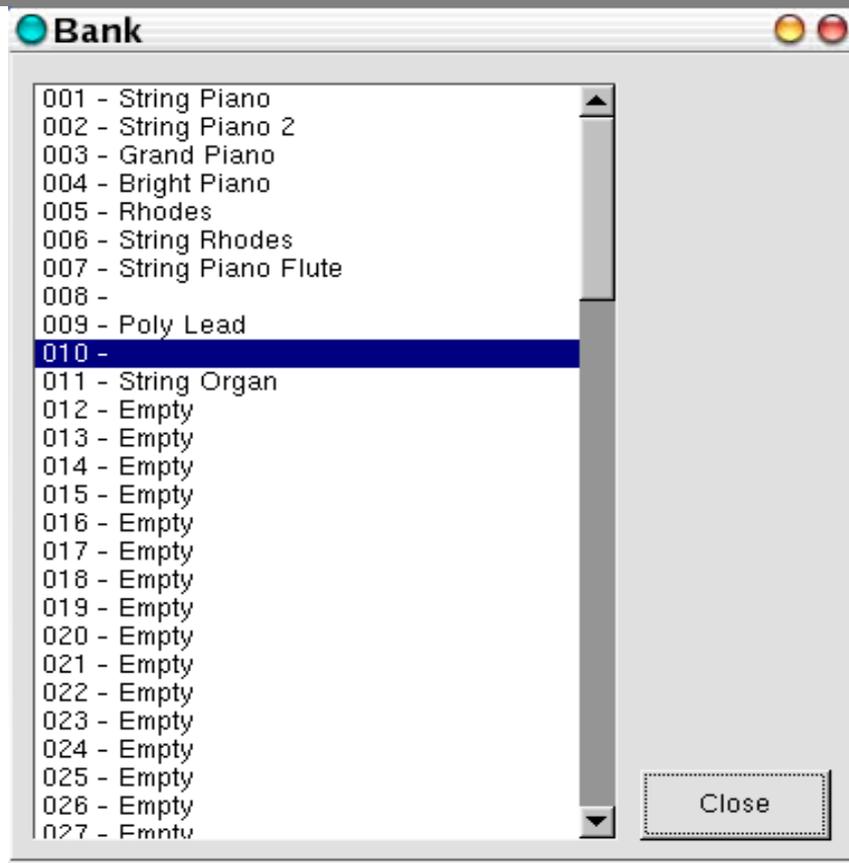
This window is got by the sound menu on main window ; it allow you to select the sound in the left and right hands.

Like always, left click to select and right click to store the changes.

Remember to save your files.

III.F -The Velocity Window

Opened with the small "v" button in Drums mixer channel from the main window.

That is an attempt for facilitate mix the drums when you use different sound fonts, remember that only reduce/-increases the velocity sensitivity of each note. You can save your settings for each different sound font.

III.G -The Sequencer Song
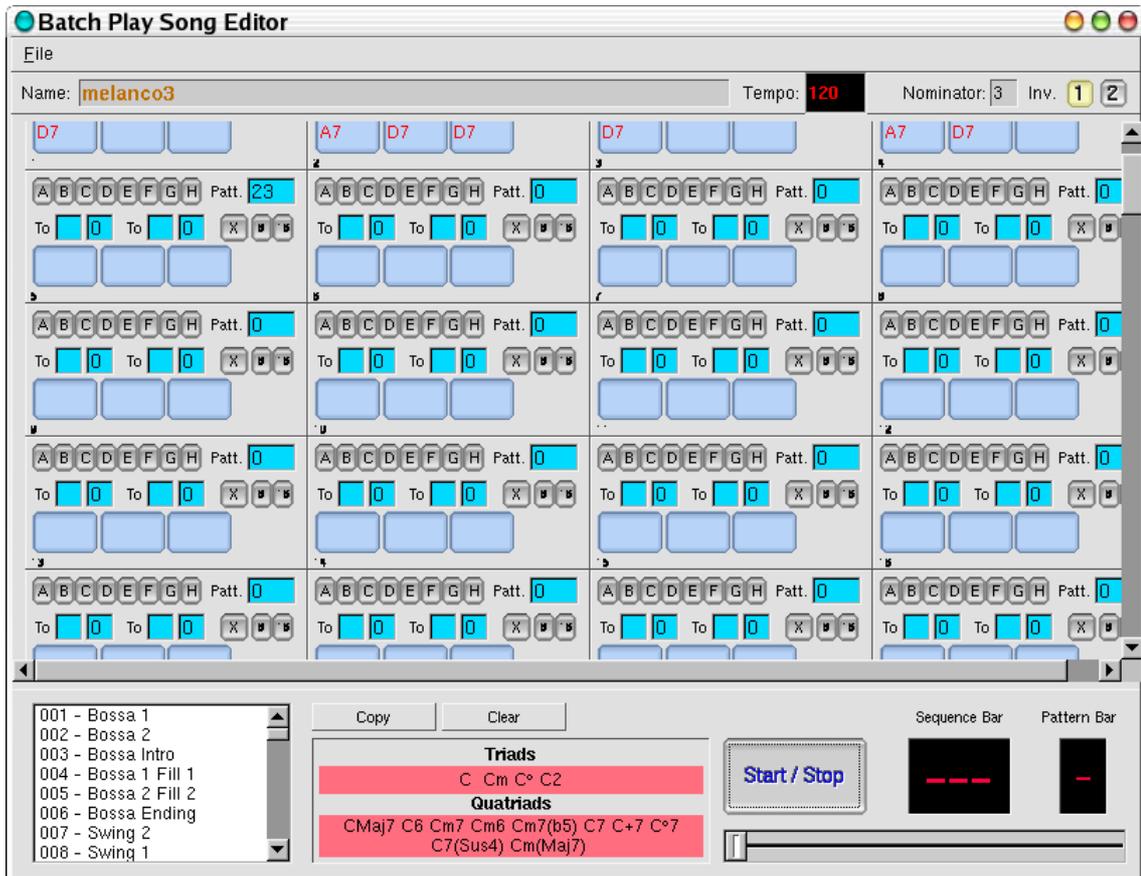
The screen above has changed, but still has the same functions.

You open the sequencer by clicking in the Sequencer menu in the main window. If you have been playing in the main screen, your changes will appear here. That can be a way to enter your changes.

Go to File and select the source data directory to find sample songs that you can try. The samples are also in the /usr/share/local directory, but, unless you are admin, you can't modify and save them there, so use the data directory instead.

At the moment no denominators bar changes can be in the song, the denominator is for all the song, and you have the responsibility to put patters with the same denominator, maybe can run, but the display numbers of the bars will mistake at this moment, i need to think about that.

The denominator can be changed to 2 3 or 4 to allow 2/4, ¾ or 4/4.

The Inv. buttons are the fist inversion played for the ACC1 ... value 1 for the first inversion of the chord and 2 for third inversion, thats only in the start moment, because Gmorgan "try" to change the inversions in real time to do a natural accompaniment.

III.G.1-The Scroll

128 bars for each song, each blue box is a black note in this bar, if their are blank.. last chord is played. The available chords are defined in the chord table, which you can modify to any specification you like. Take a look at the chord table file using your favorite editor to see how it works.

Please load the "Mendigation" song for see an example ... You can load it by the file menu from this window (AND NOT from the file menu of the main window).

The diminished (ejem ...) chord C°7 is with the "grade" symbol. Other notations can easily be incorporated using the chordtable file.

° -> Shift + Alt-Gr + 0   in my keyboard.

The eight buttons **A,B,C,D,E,F,G,H** are markers. only one bar in a song can be selected with the eacj marker. You have to click on a letter to turn the marker on.

The first of these pairs of values, The Go input value ..... can be filled with A B C D ... Gmorgan check that before play the bar, the next blank input value are the times the sequencer goes to the marker, after this times the sequencer plays the bar.

The second Go input value .... can be filled also with A B C D ... and means ... "go after x times" ... the next blank input value is the times.

That is for emulate the first and second endings ... -1-----   -2----- in a score pentagram.

The Pattern, is the number of pattern is played in this bar, if number is 0 the last pattern is played. Change the accompaniment by changing the

patterns in any measure. On a slow machine, there can be interruptions in rhythm caused by pattern changes. On a recent machine it shouldn't be a problem.

The **X** Button ends the song, Gmorgan stops when finds a **X** button enabled, also stop here when exports a Midi File. Otherwise the song continues to eternity, but not when Gmorgan export a MidiFile, if X point is not present Gmorgan stops in sequence bar 128.

Please see the song FourAntiR.gmsong for an example.

The slider selects the bar position for start the song, carefully with this because if the selected bar does not contain a pattern number, Gmorgan search for the last pattern number, but that can produce unexpected results because starts with the first bar of the pattern in the selected bar, anyway at the next pattern change it will be correct.
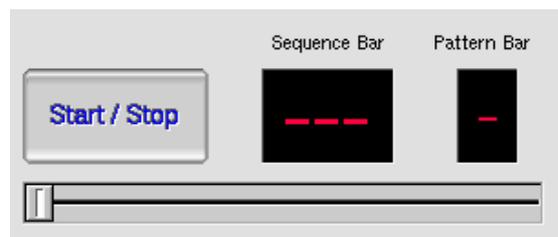
The 8 and 16 buttons means "rhythmic" anticipation, Gmorgan plays the chord in the next bar in the las 8 or 16 position of the bar. Of course that has effect if the pattern has rhythmic anticipation in their music contents.

III.G.2-Global Drum Edit

This window is a mix of scrolls, and sometimes are not perfectly graphic buffered, maybe will be better in future versions.

Click on the instrument note to select and hear the instrument.

Click on a grid and drag to change the value or use the keyboard to enter the desired value.

Instrument Copy: Copy bars form the selected instrument only.

Bars Copy : Copy bars from-to.

III.H -Utils

These menus are get from the Utils menu of the main Window.

III.H.1- The Keyb Window

To use this I have the mouse in my right hand. So I cannot readily play the midi keyboard that I normally use.

To get around this problem, there is an accordion mode (from the selector panel) that maps the computer keyboard to frequently used chords. See notes about this.
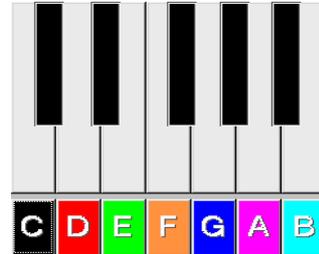
You can still use the "funny" chord virtual keyboard. Is divided in two sections, a musical keyboard and a box keyboard. That's the "clicked chord" :-)

In the musical keyboard part, click on the note.

- Left Click -----------> Maj7
- Right Click ----------> °7
- Shift + Left Click ---> 7
- Shift + Right .Click -> 7(Sus4)
- Ctrl + Left Click ----> m7
- Ctrl + Right Click ---> m7(b5)
- Shift+Alt+Left Click -> +7
- Shift+Alt+Right Click > 6

In the box keyboard use left and right click for obtain the different notes.

- Left Click -----------> Maj7
- Rigth Click ----------> bMaj7
- Shift + Left Click --> 7
- Shift + Right Click -> b7
- Ctrl + Left Click ----> m7
- Ctrl + Right Click ---> bm7

III.H.2- The Selector

Select what kind of values you wanna change (Sounds, Patterns or Styles) then enter in the computer keyboard the selected value and pres Return, Gmorgan changes the Sound. Pattern or Style to the desired value.
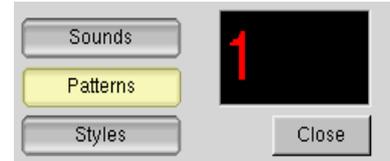
Note that an accordion mode has been added to this panel. See notes.

Numbers are assigned to some keys in this way:

Key	Value
A	1
Z	2
E	3
R	4
T	5
Y	6
U	7
I	8
O	9
P	0

Backspace and Del keys clear entry even the entry displays the actual sound, pattern or style. Also the Arrows are available:

- "J" or Left Arrow Value -1

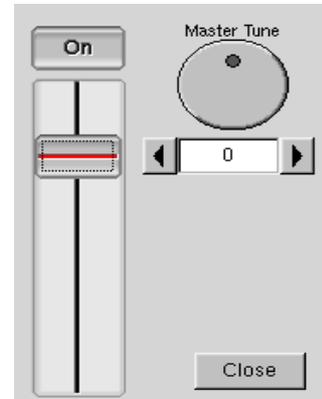- "L" or Right Arrow Value +1

- "K" or Up Arrow   Tempo +1

- "M" or Down Arrow Tempo -1

III.I - The Master

III.I.1-Volume

This is a MIDI volume, when is activated adds a percentage volume to the "saved" volume of each channel, in fact multiply (0-1.25) the volume of each channel.

III.I.2-Master Tune

This changes the global tune on Gmorgan only in emu10k1 devices.

IV - FAQ

gmorgan seems to be more than an organ. What can do gmorgan ?

Well gmorgan is a pattern based sequencer, a drum box ... and also can drive a synthesizer .

What is the difference between gmorgan and a commercial rhythm stations ?

In fact most commercial rhythm stations .. has ways to play in 1 finger mode chord ... gmorgan is more easy than that .. has a on click chord .

Is gmorgan for beginners only ?

But also is useful for the professional musicians ... well .. gmorgan is for a non professional .. and for a professional .. you be the judge.

what are the other tools useful to have a good musical station under Linux ?

Ardour for recording, audacity for wav and mp3 recording/editing, Jackd for the connection, timidity or qsynth for the synth. There are many others including Hydrogen, AMS, zynaddsubfx and many others.

Where can I find libraries files for gmorgan like pattern ?

Impro-visor (google it) has an imaginary book (see the ls2gmod conversion tool) which can be converted to gmorgan. Pattern files stilll may need to be hand coded.

V - Technical issues

V.A -The skins

My first attempt to skin something. Skins only work for the main window. See the fltk documentation for details.

You need to know the name of the fltk widgets of Gmorgan and some patience to do new skins, run fluid (the Fast Light GUI Toolkit) and load Gmorgan.fl located at the src in the sources package, and you can obtain the names. Bear in mind that code generated by fluid has been modified so that it cannot be readily regenerated.

The skin file contents is located in the default installation directory and contains the skin changes in this format:

- {SkinName1}

- changes ...

- changes ...

- changes ...

- {SkinName2}

- changes ...

- changes ...

- changes ...

- .

- .

- .

Don't use blank spaces in the SkinName.

The changes are the functions implemented in this format:

WidgetName Function Value Value

Example:

TECLADODE 1 345

That changes the color for the TECLADODE widget to the value 345 (Fltk RGB function).

Here the list of functions and values implemented:

Function	Description	Value1	Value2
0	Hide	-	-

Function	Description	Value1	Value2
1	Color	Number	
2	Box type	Boxtype (see bellow)	-
3	Label Color	Number	-
4	Label Font	Number	-
5	Label Size	Number	-
6	Label Type	Labeltype (see bellow)	-
7	Position	Pos x	Pos y
8	Size	Height	Width
9	Selection Color	Number	-
10	ImageLabel	Path to a file	-
11	Align	Aligntype (see bellow	-

Box Types

Put this text as Boxtype, hope you understand what is what, anyway you can check each one.

```
FL_NO_BOX, FL_FLAT_BOX, FL_UP_BOX, FL_DOWN_BOX, FL_UP_FRAME,
FL_DOWN_FRAME, FL_THIN_UP_BOX, FL_THIN_DOWN_BOX, FL_THIN_UP_FRAME,
FL_THIN_DOWN_FRAME, FL_ENGRAVED_BOX,
FL_EMBOSSED_BOX,FL_ENGRAVED_FRAME, FL_EMBOSSED_FRAME,
FL_BORDER_BOX, _FL_SHADOW_BOX, FL_BORDER_FRAME, _FL_SHADOW_FRAME,
_FL_ROUNDED_BOX, _FL_RSHADOW_BOX, _FL_ROUNDED_FRAME,
_FL_RFLAT_BOX,  _FL_ROUND_UP_BOX, _FL_ROUND_DOWN_BOX,
_FL_DIAMOND_UP_BOX, _FL_DIAMOND_DOWN_BOX, _FL_OVAL_BOX,
_FL_OSHADOW_BOX, _FL_OVAL_FRAME, _FL_OFLAT_BOX,
_FL_PLASTIC_UP_BOX, _FL_PLASTIC_DOWN_BOX, _FL_PLASTIC_UP_FRAME,
_FL_PLASTIC_DOWN_FRAME,  FL_FREE_BOXTYPE
```

Label Types

Put this text as Label type, hope you understand what is what, anyway you can check each one.

```
FL_NORMAL_LABEL, FL_NO_LABEL, _FL_SHADOW_LABEL,
```

```
_FL_ENGRAVED_LABEL, _FL_EMBOSSED_LABEL, _FL_MULTI_LABEL,
_FL_ICON_LABEL, _FL_IMAGE_LABEL, FL_FREE_LABELTYPE
```

Align Types

Put this text as Align type, hope you understand what is what, anyway you can check each one.

```
FL_ALIGN_CENTER, FL_ALIGN_TOP, FL_ALIGN_BOTTOM, FL_ALIGN_LEFT,
FL_ALIGN_RIGHT,  FL_ALIGN_INSIDE, FL_ALIGN_TEXT_OVER_IMAGE,
FL_ALIGN_IMAGE_OVER_TEXT,   FL_ALIGN_CLIP, FL_ALIGN_WRAP,
FL_ALIGN_TOP_LEFT,FL_ALIGN_TOP_RIGHT,   FL_ALIGN_BOTTOM_LEFT,
FL_ALIGN_BOTTOM_RIGHT,   FL_ALIGN_LEFT_TOP,   FL_ALIGN_RIGHT_TOP,
FL_ALIGN_LEFT_BOTTOM, FL_ALIGN_RIGHT_BOTTOM,  FL_ALIGN_NOWRAP
```

Some Hints about the images

Gmorgan can load .png or .jpg files.

Remember in fluid images are image-labels, if you plan to put images, first you need to put the labeltype of the widget as a FL_NORMAL_LABEL, and align the image inside the widget putting the widget align to FL_ALIGN_CLIP and then the image function.

Another important thing is the main window is re sizable, and the images are not tiled, is your responsibility to put a image with reasonable size in each widget.

See the skin examples.

V.B -Documentation release note

V.B.1-Initial 0.17

Doc made with several screen copies from the README file and with Open Office for the check spelling.

V.B.2-0.17-2

Pattern edition windows documentation improved.

- Help file added for pattern editor
- screen copy added for drum definition
- screen copy added for velocity of drums
- screen copy added for control editor.

V.B.3-0.58