

# Tutorial

Explain a summary of the dictation work by muDic according to a real workflow.

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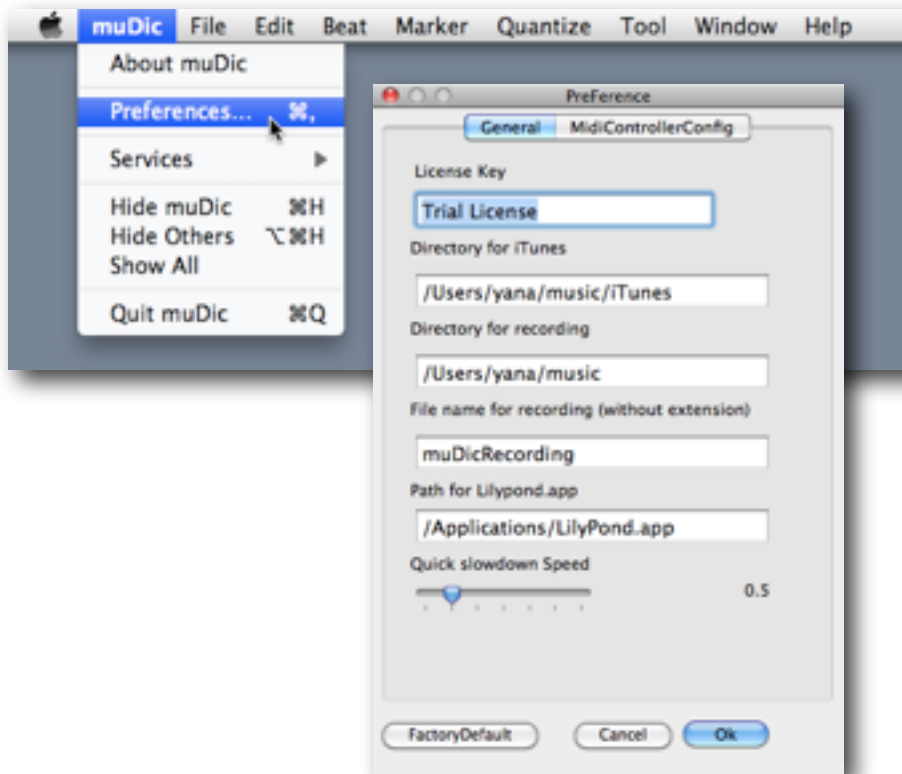
# 1. Preparations for use

## 1.1. Registration of the license

muDic which purchased from the Mac App Store, the license registration is unnecessary.

can upgrade to a product version from a Trial version when register a license.

In order to set the license, select Preference panel on application menu "Preference" and paste license key code sent by our company and click OK button.



**As for the Trial version, the length of the Audio file is limited for one minute.**

## 1.2. Get data to use in a tutorial.

can download data from [http://www.i-yanase.com/dllproducts\\_/muDicTutorial.zip](http://www.i-yanase.com/dllproducts_/muDicTutorial.zip)

Please put muDicTutorial.mp3 to iTunes library.

### 1.3. Install the LilyPond

--- excerpts from the <http://lilypond.org/index> ---

LilyPond is a music engraving program, devoted to producing the highest-quality sheet music possible. It brings the aesthetics of traditionally engraved music to computer printouts. LilyPond is free software and part of the GNU Project.

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muDic can export to LilyPond form.

You can obtain clean score without using expensive Notation Software.

You can download LilyPond from <http://lilypond.org/index>

**Please put LilyPond.app in the /Applications.**

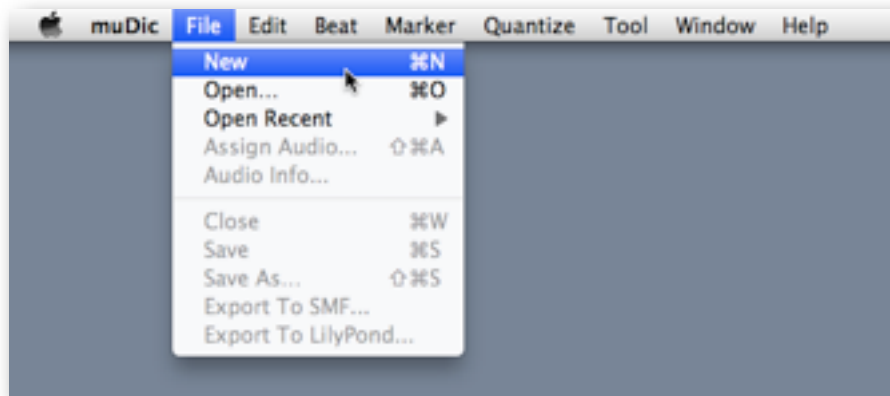
**LilyPond 2.14.x will not launch under OSX 10.7 Lion,  
Please download LilyPond after 2.15.x if you are 10.7 Lion user.**

## 2. Starting-up and make a new Document

Make a new Document on "File" – "New" Menu when document is not displayed.

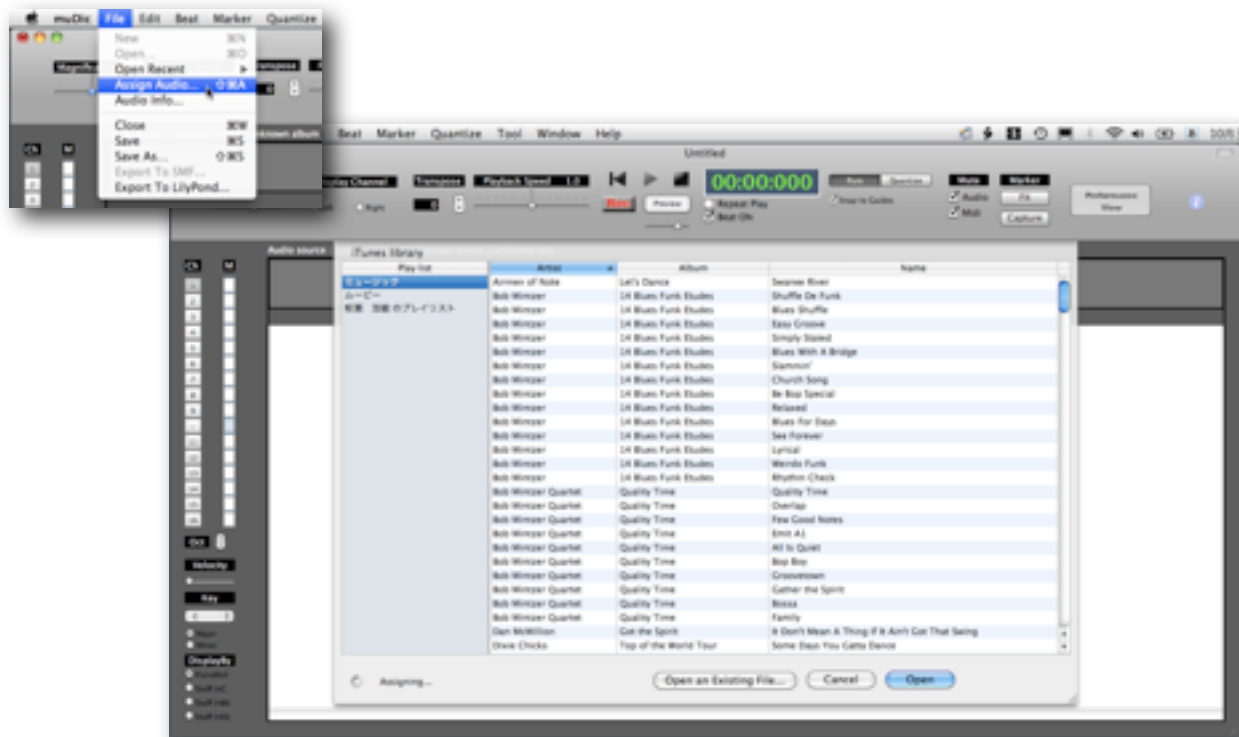
If document is already displayed, "New","Open..." menu will be invalid and new document can not be displayed.

Please close an opening document and try again.



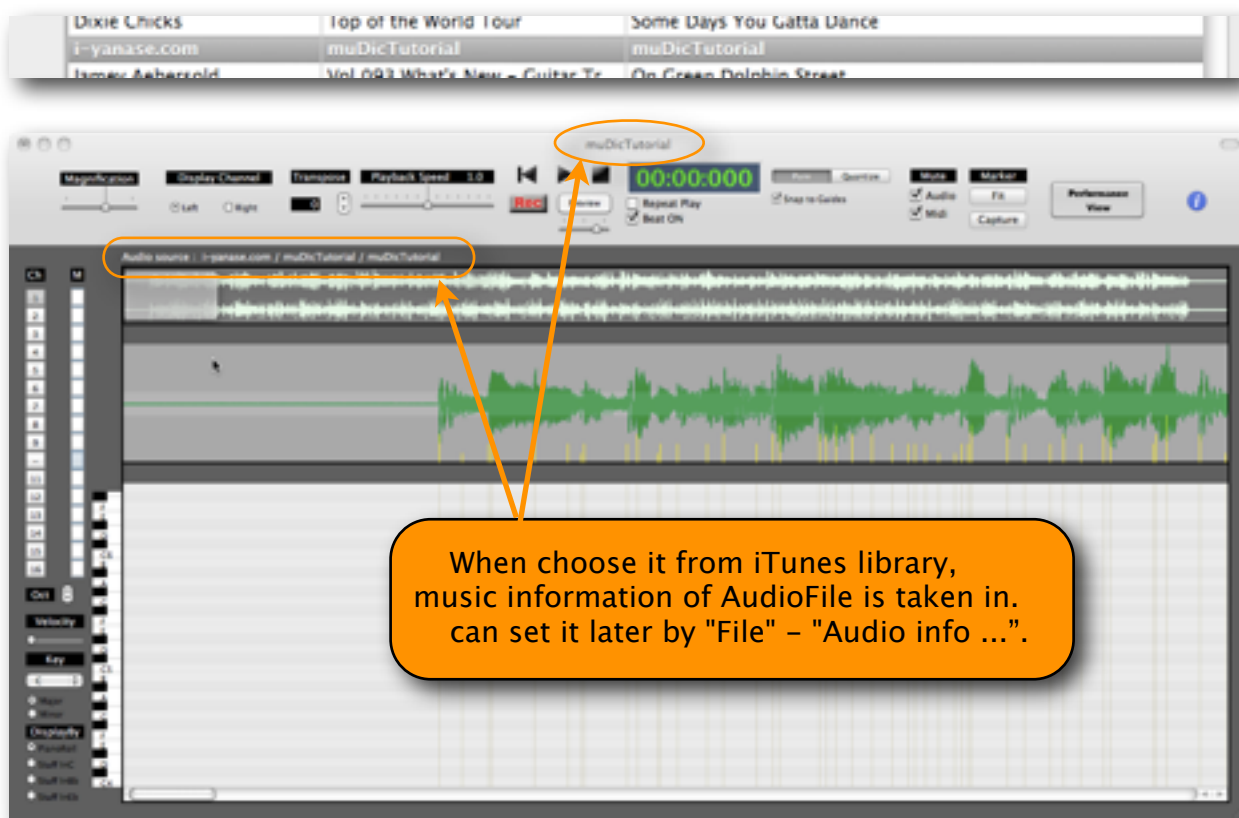
### 3. Assign AudioFile

Assign AudioFile to document on "File" - "AssignAudio" menu.



Audio files managed by iTunes are listed.

If muDicTutorial.mp3 which downloaded for Tutorial is registered with iTunes, Choose a line displayed on a list and order "Open".



Can assign the Audio file which does not register in iTunes by ordering "Open an Existing File...".

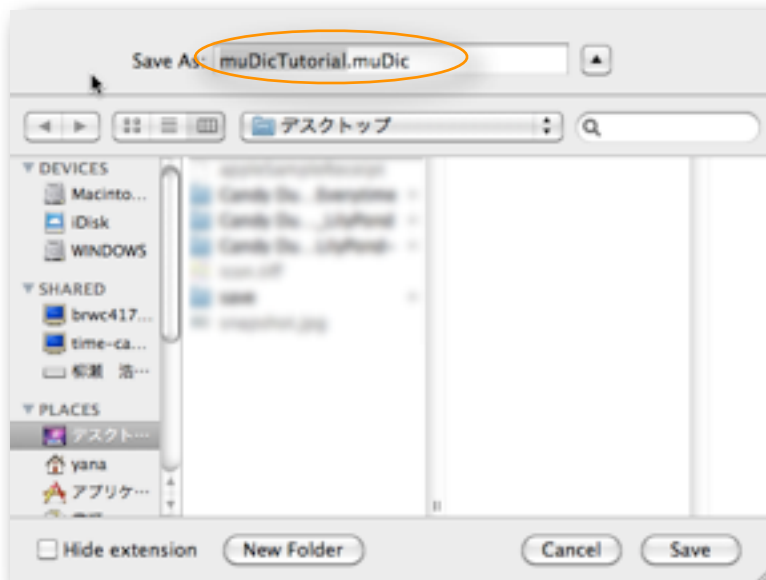
**Cannot assign Audio file (.m4p) protected with DRAM.**

● **How to use .m4p file**

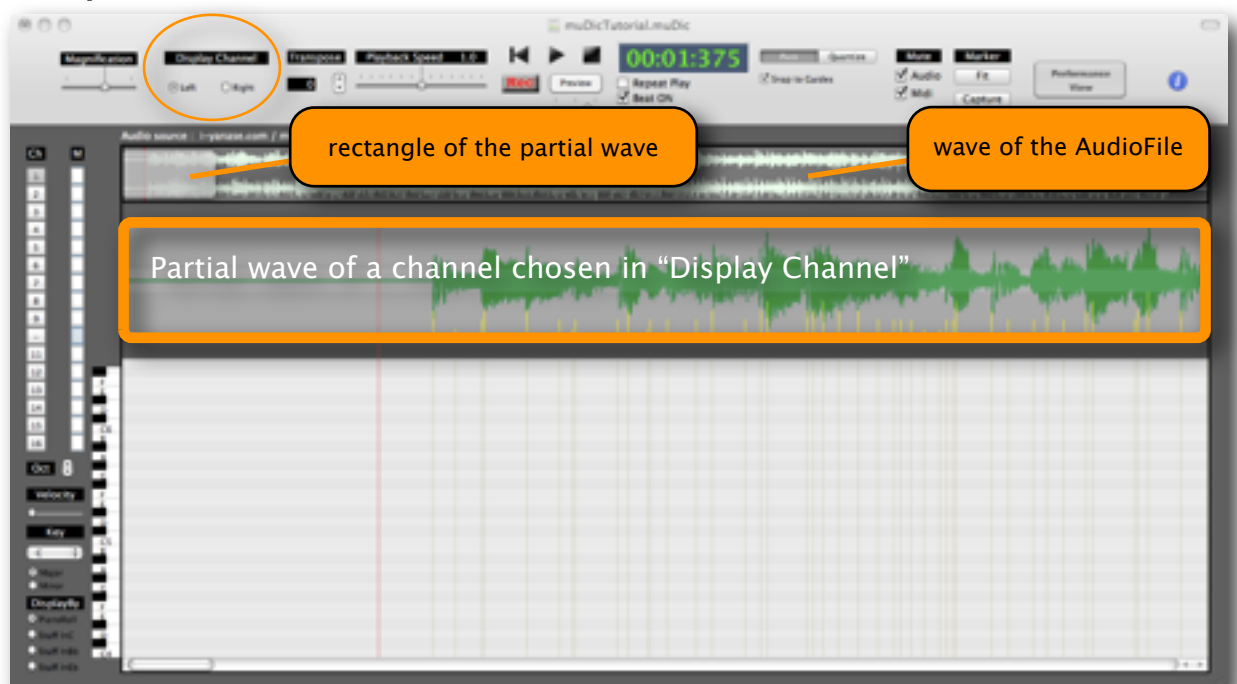
- Burned onto CD by iTunes.(convert .m4p to .aiff)
- Read them to iTunes from a CD.

Please save a document if assign muDicTutorial.mp3.

When choose it from iTunes library, a document name is initialized by title of the tune.

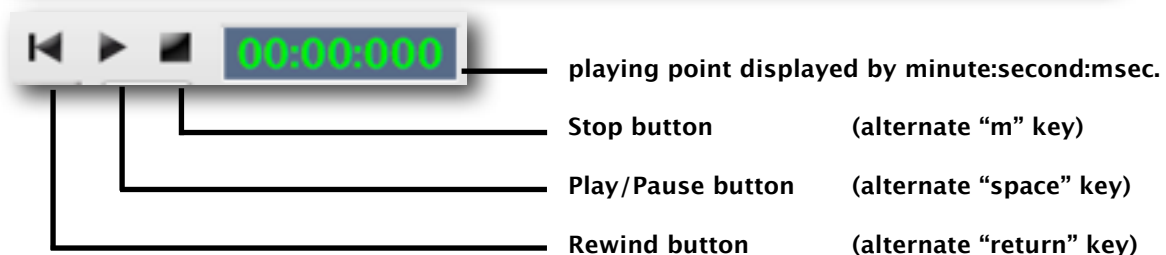
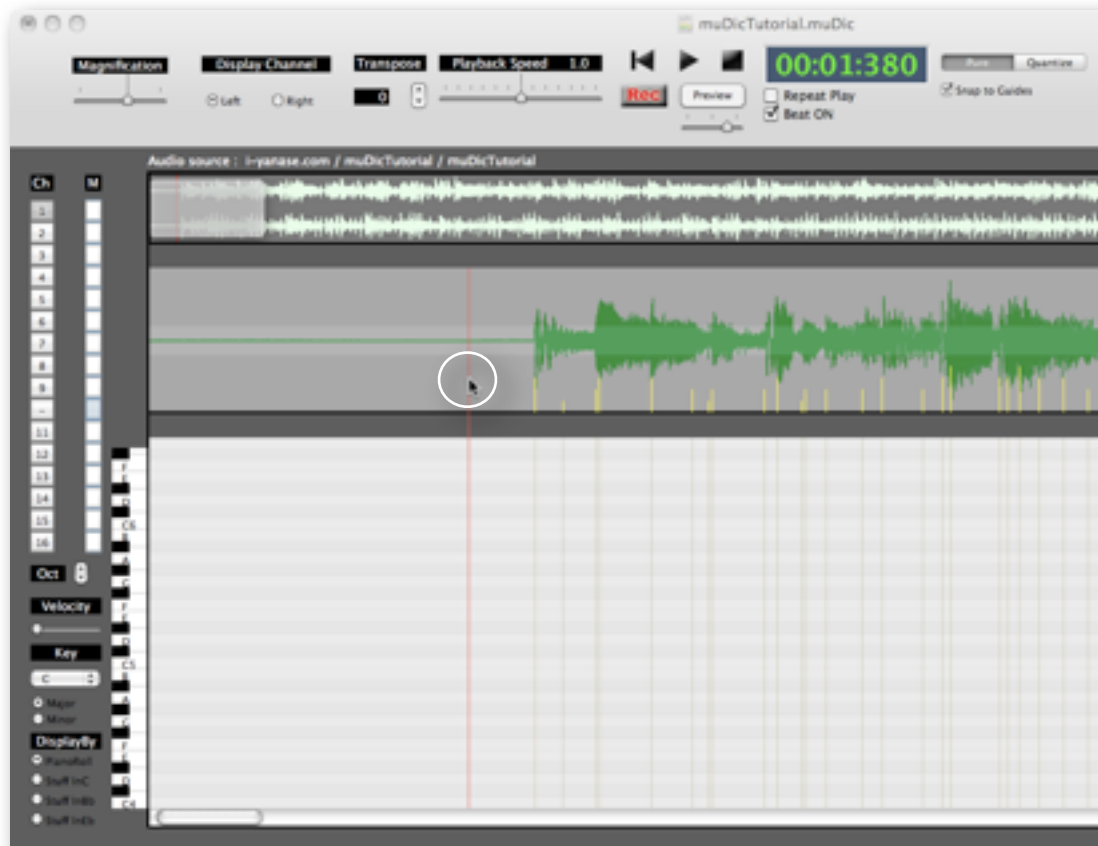


● **Explanation of the wave indication**



## 4. Playback

A red line is displayed for the point when click the area of the Audio wave.  
This red line is the start point of the playback.



Basic operations are ...

- locate the start point of the music.
- playback by "space" key.
- pause by "space" key.
- return to the start point by "m" key.



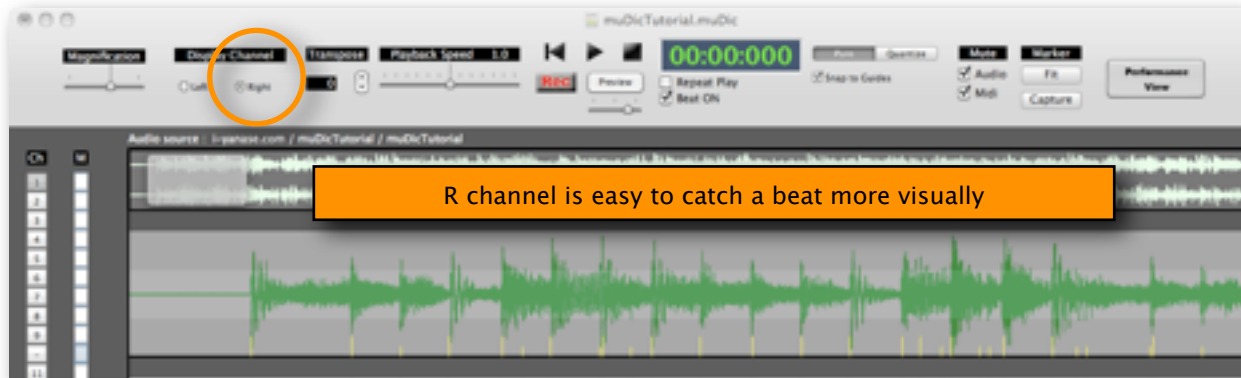
## 5. Setting of bar and beat

Come to be able to perform the dictation of the sound smoothly when set a bar and beat beforehand.

And when export as SMF or export it to LilyPond, the setting of the bar and beat is necessary.

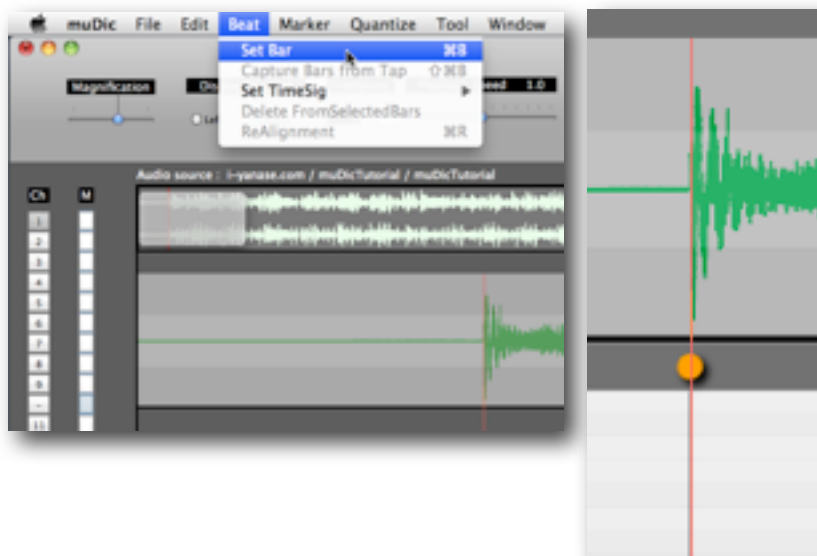
**Choose channel (L, R) which are easy to catch a beat visually.**

(It is R channel in Tutorial)



### 5.1. Set the top bar

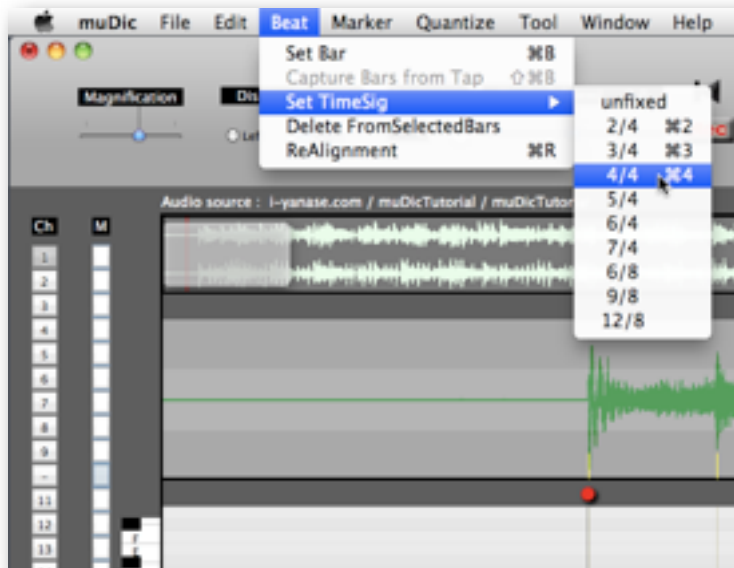
Perform playback in the dictation range and find the start position of the top bar. Move and click a mouse at the position (The red line shows a mouse position). Select "Beat" – "Set Bar" menu, dot (colored orange) will be set at the point.



## 5.2. Set the time signature

Set the number of the beats included in one measure.

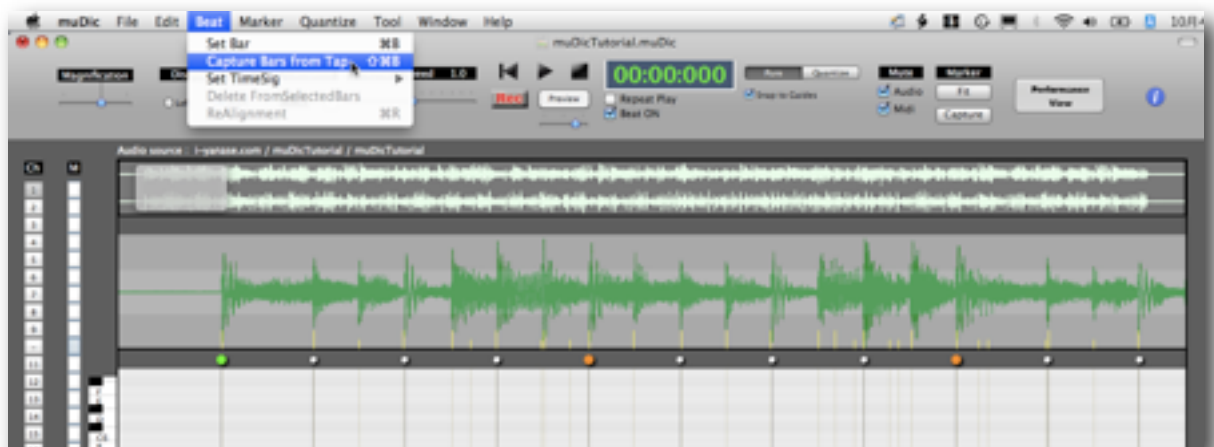
- Click dot of the top bar and turn red on and off.
- Select "Beat" - "Set TimeSig" - "4/4" (In the case of four beats)
- dot becomes green.



## 5.3. Capture following bar in real time

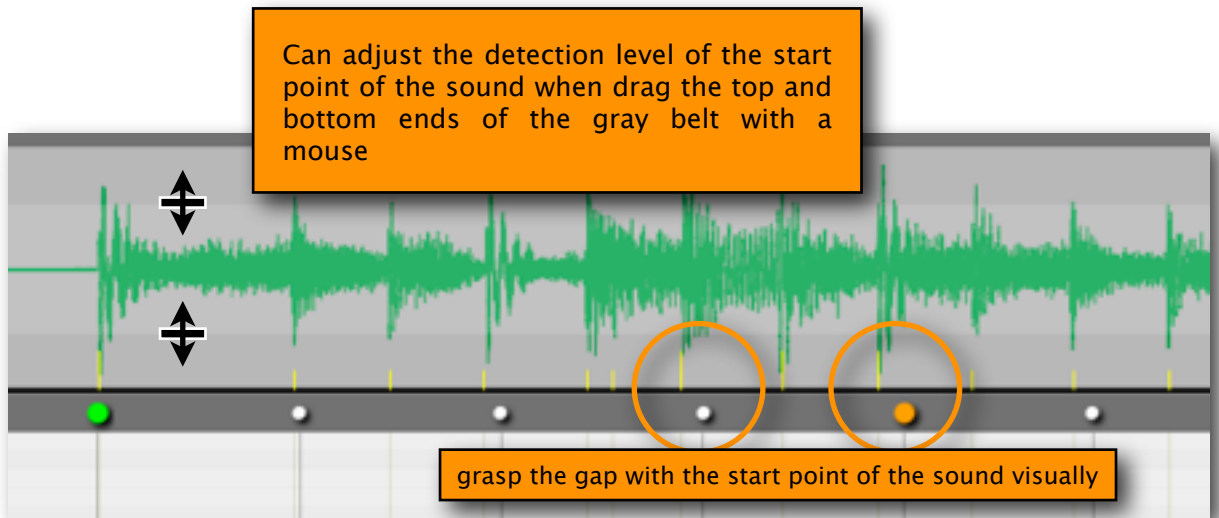
- Playback from the position before a little of the top bar.
- When felt the top of the After 2nd bar, Push the "B" key.
- Stop the playback if pass the dictation range.
- Select "Beat" - "Capture Bars from Tap".
- Bar(orange dot) and beat(white dot) which captured are written in.

When a "B" key was pushed at the time of the playback, the "Capture Bars from Tap" menu becomes effective.



## 5.4. Adjust a bar position

- Playback from the position before a little of the top bar.
- Confirm the position gap of the bar that captured.
- The difference with the yellow line (express the start of the sound) serves as a reference visually.



### 🎧 Adjust the position of one bar and beat

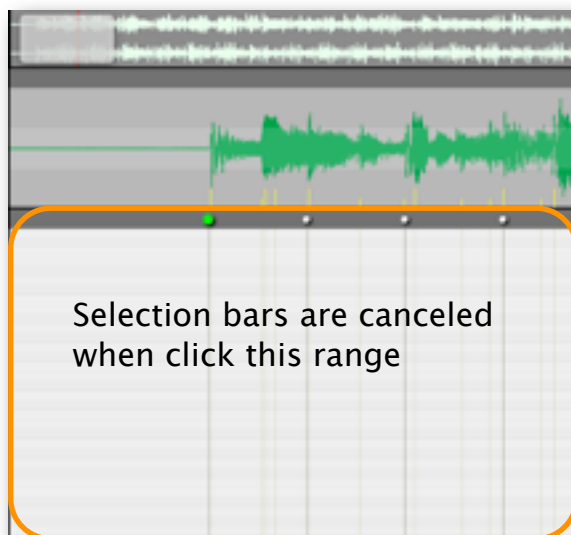
Click dot of the bar that want to coordinate and drag it in front or back.  
Click with shift key, The following bar moves, too.

### 🎧 Appoint two bars and arrange a bar of the meantime equally

- Choose two bars put at the right position and click two dot.  
(1st dot become cyan and 2nd dot become blue)
- Select "Beat" - "Realignment" menu.
- bars between two bars are repositioned equally.

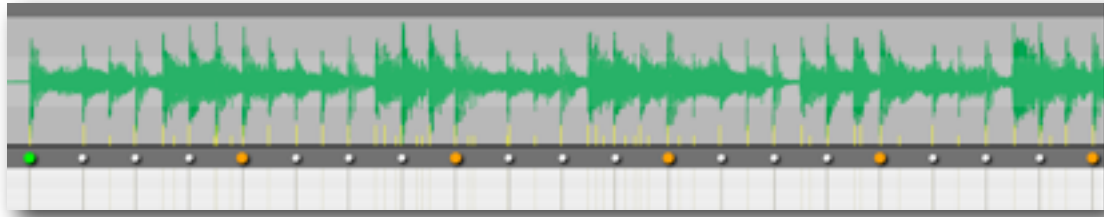
The distance of two bars had better not open out.  
Because there is the rolling of the tempo.

### 🎧 Cancellation of the selection bars



## 5.5. Completion of the work

When the adjustment of the bar position is over, Should become like this.  
If do Playback, and there is not sense of incongruity, work is completion.



“Tutorial Beat Dictation.muDic” of the Tutorial folder which you downloaded is the snap shot of this work.

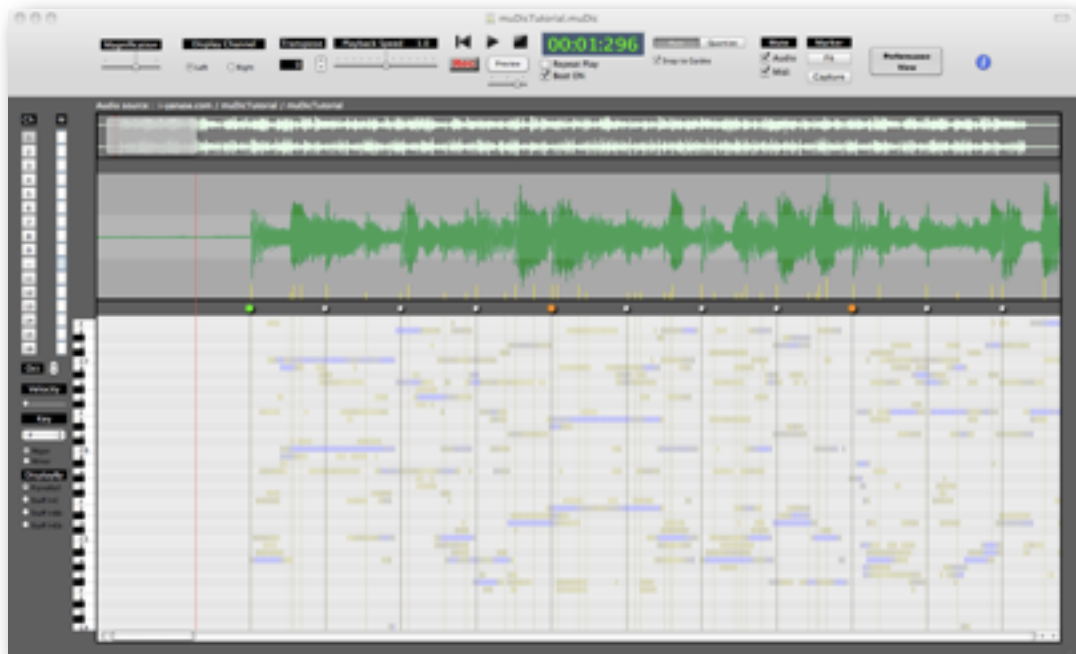
## 6. Interval analysis of the Audio file

Choose channel (L, R) which are easy to catch a Phrase visually.  
(It is L channel in Tutorial)

### 6.1. Display analysis results

- Playback from the position before a little of the top bar.
- Select "Edit" – "Analyze" menu.

Analysis results for about 10 seconds is displayed in the piano roll area from the position.



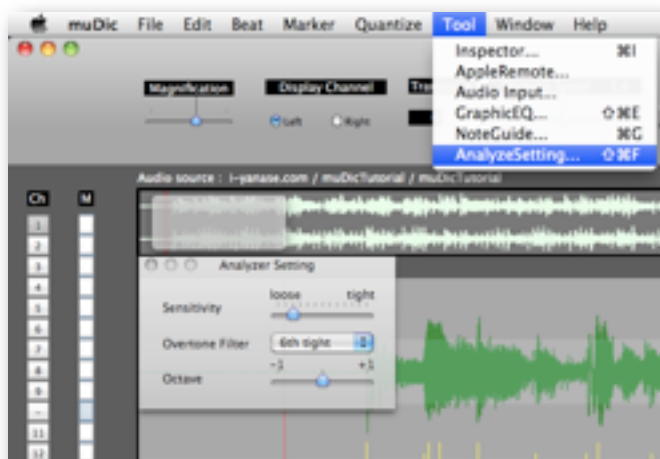
The interval that was strongly detected is strong in cyan color, and it is displayed the light and shade.

Playback the interval and an Audio File sound for 4096 frames at the same time when click the result.

### 6.2. Adjustment of the analysis

Sensitivity adjustment is possible by "Tool" – "AnalyzeSetting..."

A primary harmonic overtone is strongly detected depending on a musical instrument. In such a case an octave moves result indication by Octave selector and can display it.

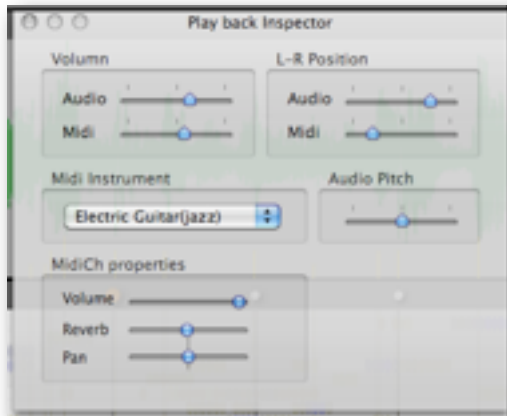


## 7. Adjustment of the playback sound

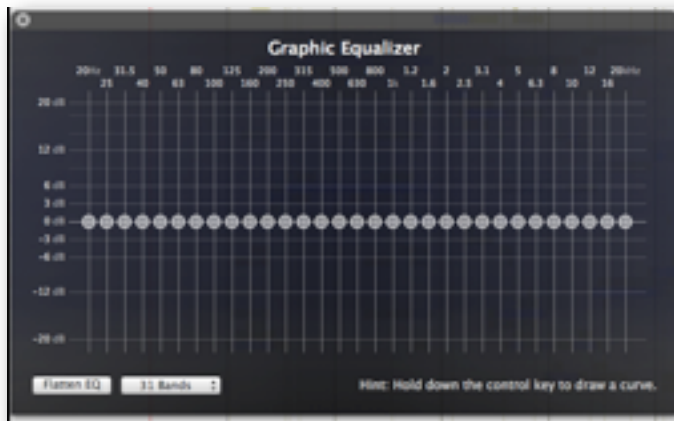
Display “Play back Inspector” from a “Tool” – “Inspector...” menu.

And coordinate a tone and volume, the balance of right and left to be easy to compare the playback sound.

When dictation a wind instrument; I recommend tone is "Electric guitar(Jazz) ".



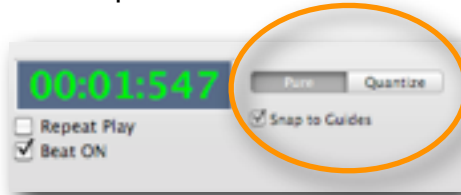
Can correct an Audio File sound with a graphic equalizer to be easy to come to hear a phrase.  
( "Tool" – “Graphic EQ...” menu)



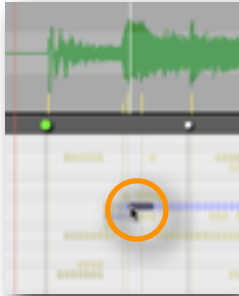
## 8. Perform dictation

**Perform the dictation of the sound in Pure layer.**

A start point of the sound becomes a guide when check "Snap to Guides".



### 8.1. Write a dictation note



A note is written in at the position by double-click a mouse on a piano roll area.

The position is decided by referring to...

- analysis result
- audio wave
- start point of the sound
- beat position.

### 8.2. Proofreading of the note

- Playback from the position before a little of the note position.
- Hear an Audio File sound and compare it with the sound that wrote in.

#### Editing of the duration



Mouse cursor changes for note duration when put mouse together in the terminal of the note. Drag a mouse in right and left in this state and can change the duration of the note.

#### Editing of the position

Click the note.

Drag a mouse in right and left in this state and can change the position of the note(Click with shift key,Apply to a multi selected notes)

#### Editing of the interval

Click the note that wrote in.

Drag a mouse in up and down in this state and can change the interval of the note. (Click with shift key,Apply to a multi selected notes)

#### Delete of the note

Click the note.

Select "Edit" - "Delete" menu or press the "delete" key.

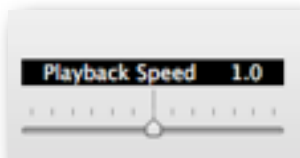
### 8.3. Technique of the dictation

- 🎧 refer to a start point(yellow line) of the sound.

Can obtain a right timing when refer to a start point of the sound.



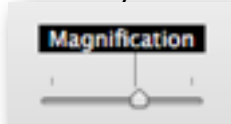
- 🎧 Can hear a complicated phrase when slow Play back speed.



Can change default low speed in “Preference” and current speed when push the “s” key.

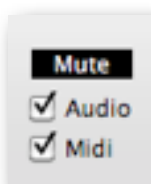
- 🎧 Coordinate the magnification

It is easy to come to consider a close phrase to coordinate the magnification.



- 🎧 Do mute in turn and hear it and compare an Audio File sound, note sound.

You May find an incongruous sound when you do mute in turn.



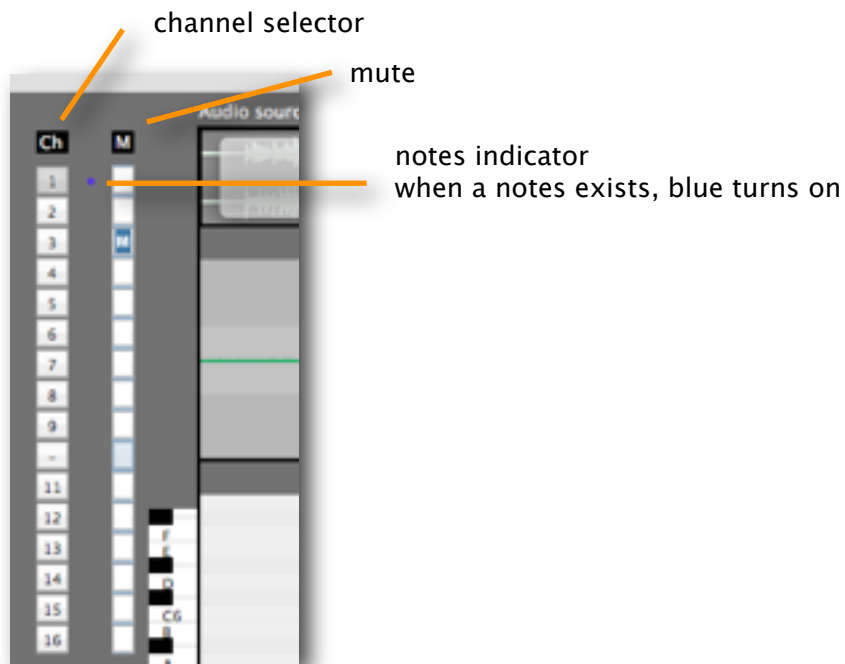


## 8.4. MIDI channel of the dictation note

The dictation note is written in at a channel chosen with a channel selector on the screen left side.

Only these notes in a channel chosen with a channel selector are displayed.

All the sounds of the channel which is not performed a mute are reproduced .



## 8.5. Completion of the work

“Tutorial Note Dictation.muDic” of the Tutorial folder which you downloaded is the snap shot of this work.

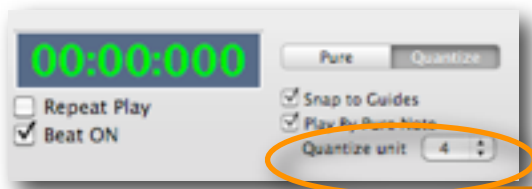
## 9. Quantize for notation

I think that you got notes by past work . However , it will usually become the complicated music notation. The notation becomes concise by doing quantize operation.

### 9.1. Change layer to Quantize layer

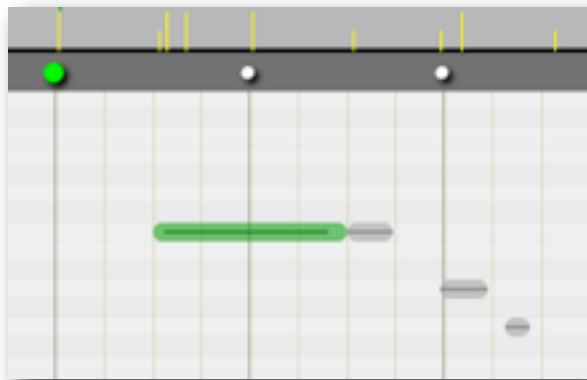
Can perform the quantize operation in Quantize layer.

Please check "Snap to Guides".



display one beat of number of partitions and choose it.  
2,3,4,6,8,16 equal portion is possible.  
This division unit becomes the unit of quantize.

#### Representation in the Quantize layer



Quantized note is displayed green.  
The black line is the pure note.  
The gray bold line expresses the state that is not made quantize.  
parting are displayed in one beat.

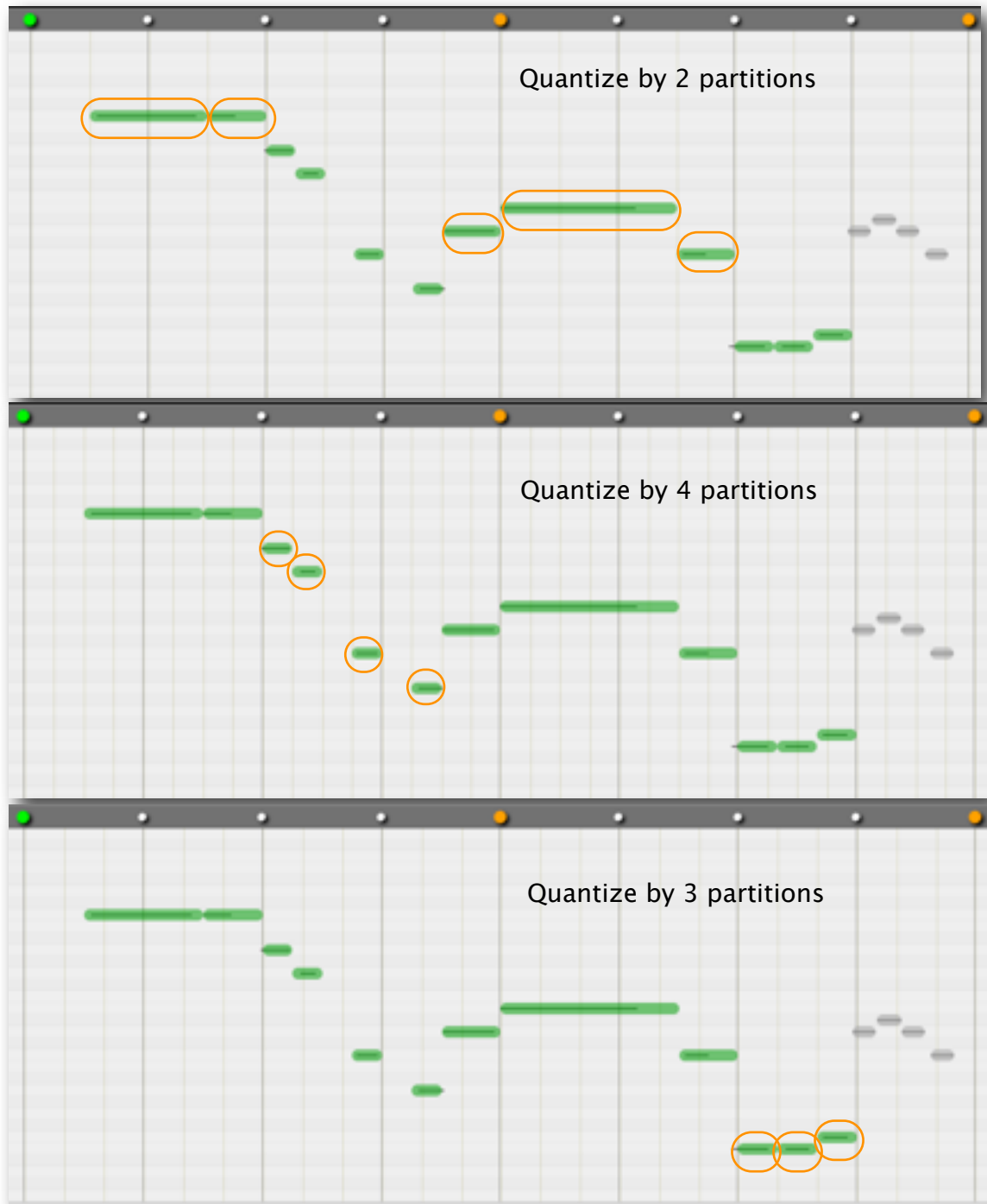
#### Work to be able to perform in Quantize layer

- Can perform only the quantize operation.
- **Cannot perform Write a note,delete,interval change.**

## 9.2. Quantize operation

The setting of the bar and beat is necessary for this operation.

- Choose appropriate quantize unit.
- select a note and order "Quantize" – "Quantize" menu.
- The position adheres to a near parting when adjust the position.
- The end position adheres to a near parting when adjust the duration.

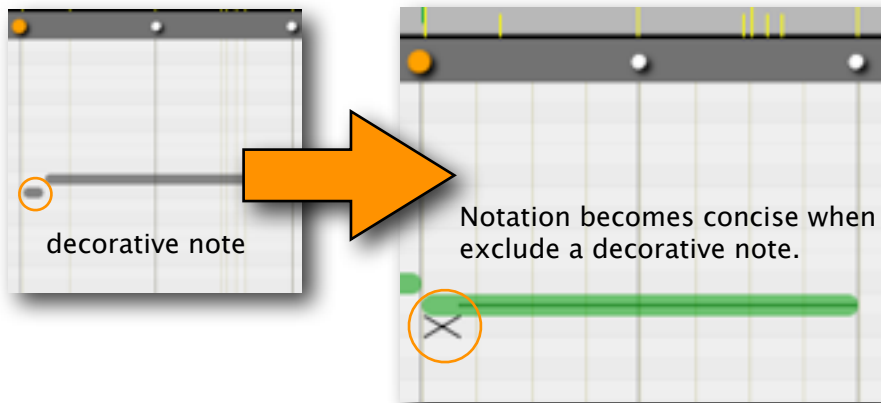


### 9.3. Exclude a decorative note

Notation becomes concise when exclude a decorative note.

The exclusion of the note select a note and orders "Quantize" – "Omit Note" menu.

The excluded note becomes the x indication on Quantize layer.



### 9.4. Matters that require attention of the quantize operation

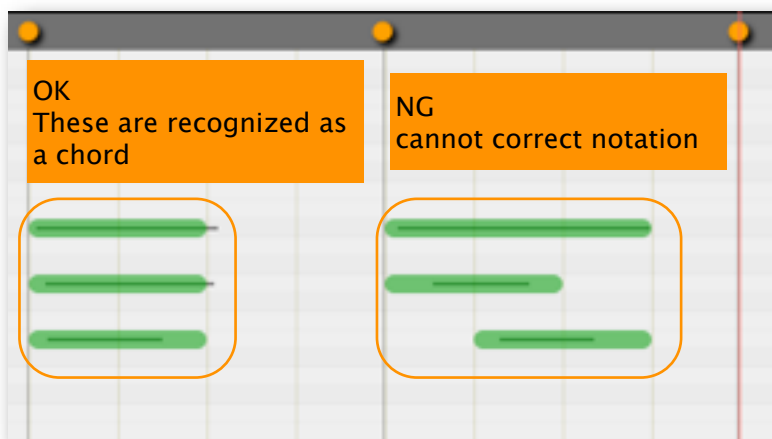
#### ● Operation that Quantize is reset to

**Quantize is reset to the note to be affected by the following operation.**

- Adjust the position of a bar and a beat
- Note position change in the Pure layer

#### ● About cord recognition

**When notes occur at the same time imperfectly, it is not possible for right notation.**



### 9.5. Completion of the work

"Tutorial complete.muDic" of the Tutorial folder which you downloaded is the snap shot of this work.

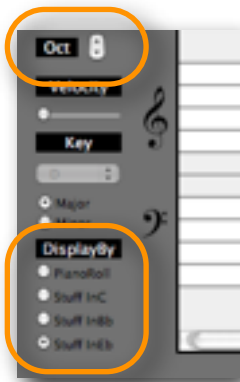
## 10. Display notes in a staff notation

**muDic cannot display a sheet of music.** But muDic can display notes in a staff notation form.

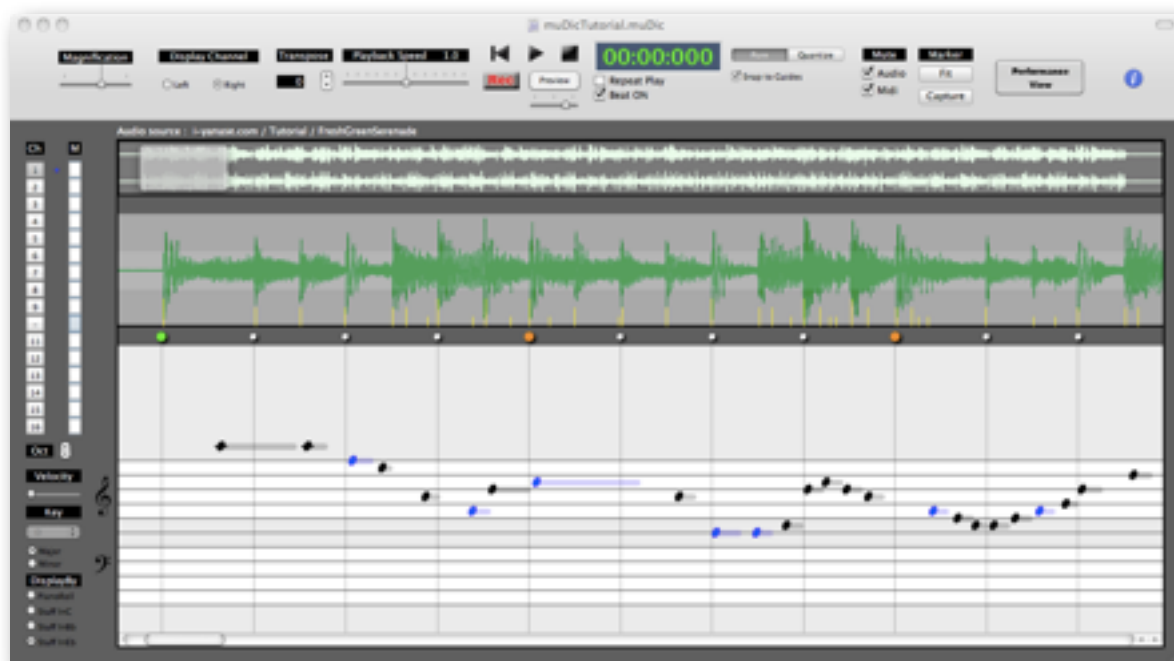
It may be said that I can be superior to a sheet of music when this form expresses a feeling of groove of the performance.

Choose it with an form choice button of the screen lower left.

**The editing of the note is possible only by "PianoRoll" indication.**



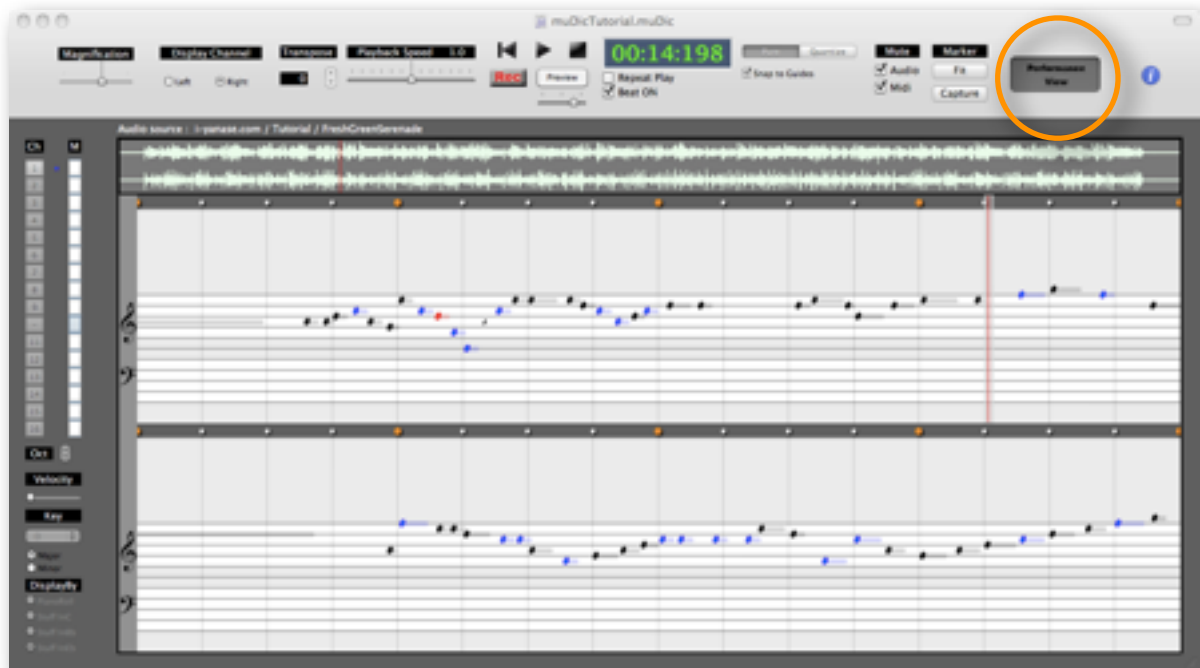
Please adjust the octave position by "Oct" stepper.



Blue is “#” Red is “b”

## 11. Display by Performance View

By a demand to want to catch a forthcoming phrase next in the edge of eyes, I prepared for an indication form called "Performance View".



stuff is displayed to two in "Performance View" and displays it for top and bottom alternation so that the next stuff is always displayed to playback.

Please adjust the number of the bars that are displayed to one stuff by coordinating an magnification.

**When an magnification is too big, "Performance View" is not accepted.  
In this case please move the magnification.**

## 12. Transpose

Can reproduce a transposition in  $\pm 1$  octaves by "Transpose" stepper.



## 13. Make a sheet of music

### 13.1. Make a sheet of music

**muDic cannot output a sheet of music.**

By the order of the "File" – "Export To LilyPond..." menu, You can get a sheet of music (pdf documents) by LilyPond.

Export as a standard MIDI file by a "File" – "Export To SMF..." menu, You can get a sheet of music by notation software.

### 13.2. Get a sheet of music by LilyPond.

If LilyPond(after 2.14.x) is installed, You can get a beautiful sheet of music using LilyPond.

Order a "File" – "Export To LilyPond..." menu, and order the place for ".ly" form file for LilyPond.

And start LilyPond automatically and display the sheet of music of the pdf form in preview.app.

AudiInfo.Name

AudiInfo.Album

depend on the setting of "DisplayBy"

Midi Instrument

AudiInfo.Artist

muDicTutorial

muDicTutorial

Alto Sax in Eb

i-yanase.com

"Tutorial complete\_LilyPond" of the Tutorial folder which you downloaded is the snap shot of this work.



- Place for LilyPond.app

Put by default it in the "application" folder.

When put it in the different place, please appoint it with Preference panel.

- Quantize

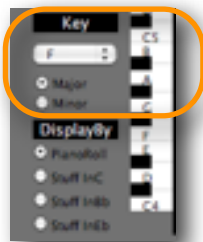
All notes between top-last bar have to be done quantize .

- Setting of the tonality

When make a sheet of music, setting of the tonality is necessary.

**muDic isn't support it about the judgment of the tonality.  
Please judge it in own from a dictation result.**

Please judge it from a state of #, b and a root in the cadenza.



A state of "DisplayBy" is "PianoRoll" or "Stuff in C", Setting of the tonality is possible.

If the state of "DisplayBy" is "Stuff in Bb" or "Stuff in Eb", Setting of the tonality is Impossibility.

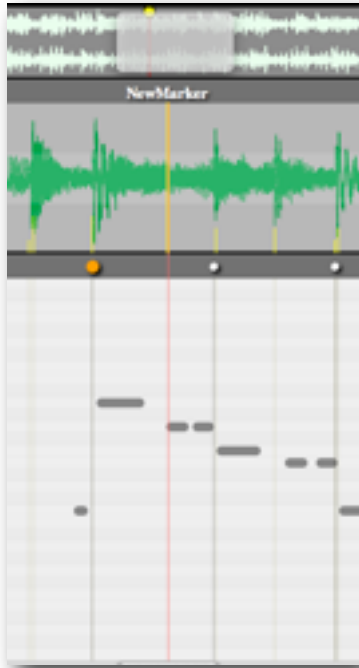
## 14. Use Marker

With a marker, can memorize a performance position.

Can appoint a performance range with a start marker and an end marker.

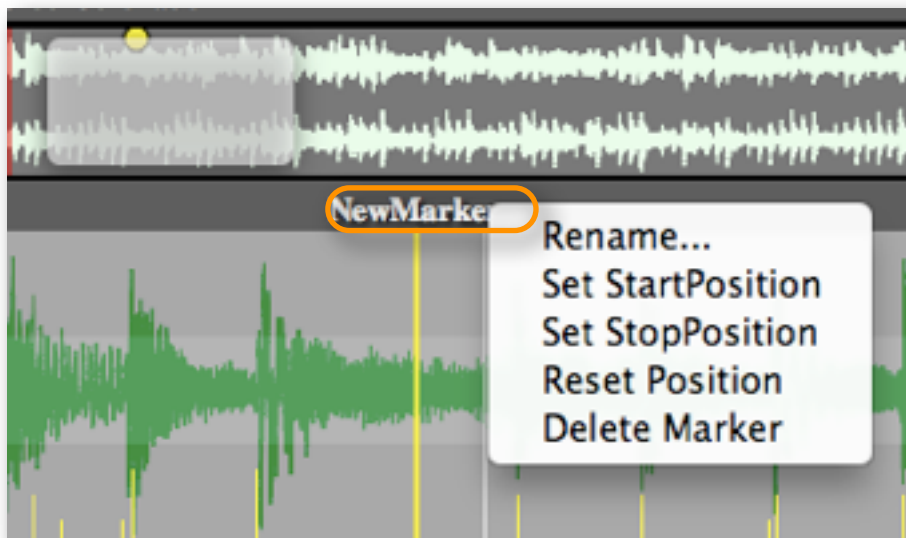
### 14.1. Setting of the marker

A marker is set at the current position (red line) when order "Marker" – "Set Marker" menu.



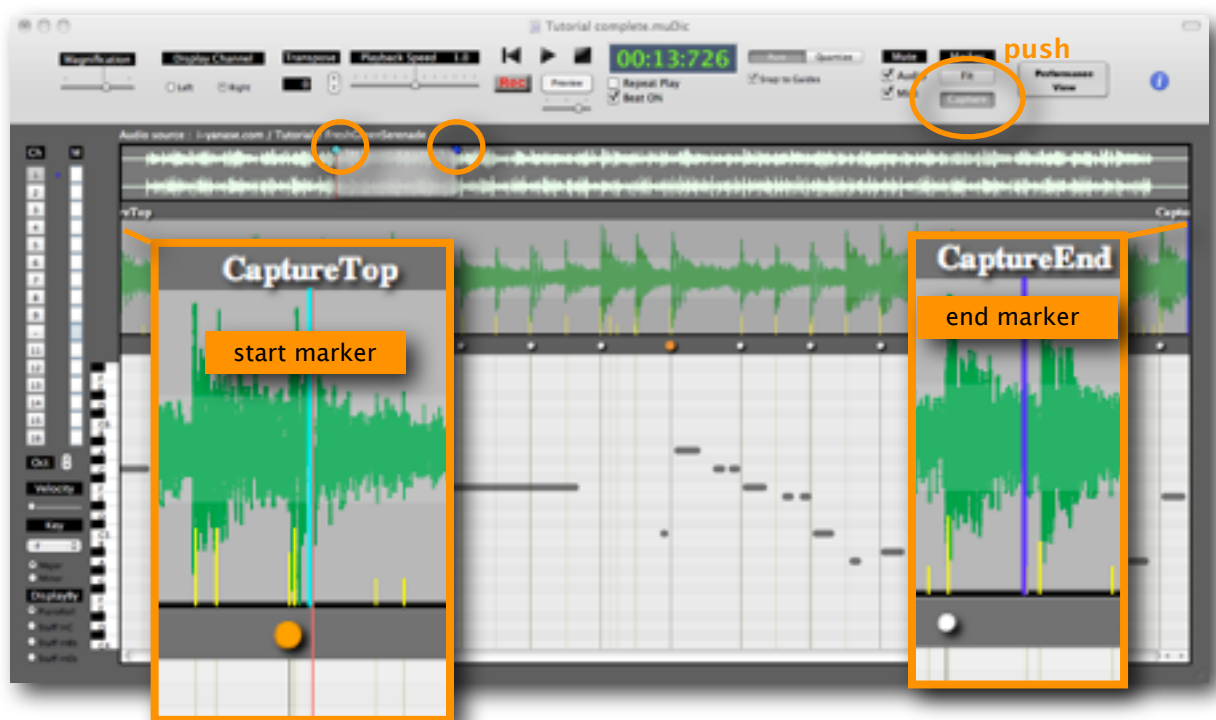
### 14.2. Setting of the marker attribute and delete the marker

Display a context menu on the name of the target marker and can perform the setting of the attribute and the deletion of the marker.

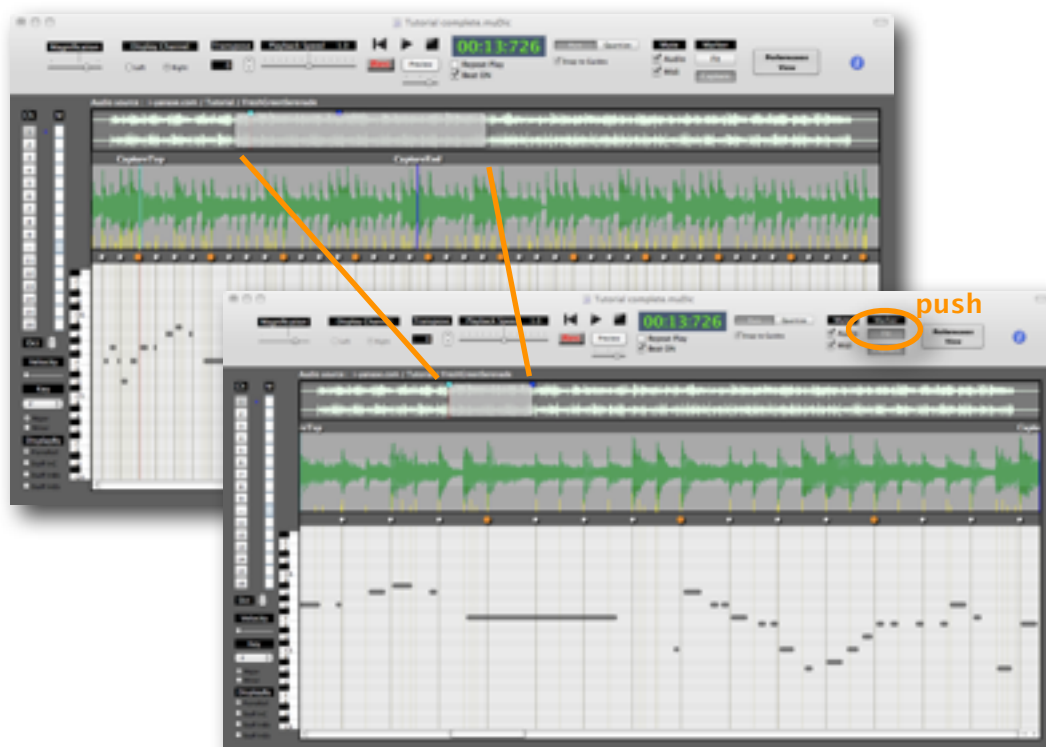


### 14.3. Capture of the marker

A start marker and an end marker are set in the current partial wave display range.



### 14.4. Fit display range with a start marker and an end marker



#### 14.5. move a start position to marker position

Can start position movement to a marker by “page up” key and “page down” key.



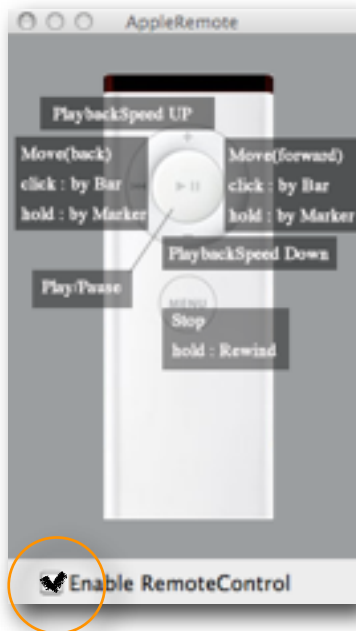
With the “home” key and “end” key, Can move by a bar unit.

## 15. Remote control of Play

### 15.1. Remote control of Play by Apple Remote controller

If your Mac is AppleRemote controller corresponding model  
The Apple Remote controller can control remotely.

Order "Tool" – "AppleRemote...", display the "AppleRemote" panel, and check "Enable RemoteControl".



When you use Apple Remote in Mac OS X 10.6, please install candelair.

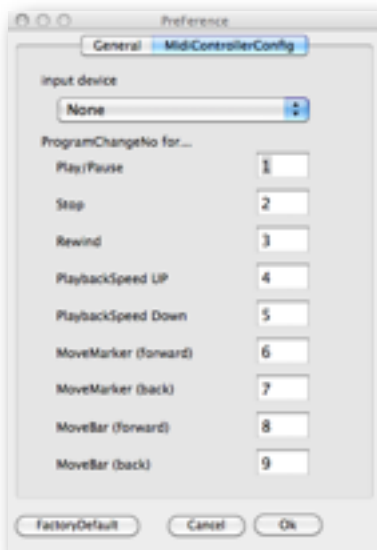
<http://www.iospirit.com/labs/candelair/>

### 15.2. Remote control of Play by MIDI ProgramChange message

It is possible to control remotely if there are Midi equipment (Midi foot controller etc.) that can send the Midi program change message and Midi I/F.

display the Preference panel from "Preference..." of the application menu, and set the selection of input Midi device

and program change message No. corresponding to each remote operation in the "MidiControllerConfig" tab.



## 16. Use Audio Input

if the "Tool" – "Audio Input..." Menu is valid, the Audio input can be used.

When "Audio Input..." is directed, "Audio Input" panel is displayed.

set the input volume, pan, and the reverberation with this panel and take the balance with the playback sound.

- if the "Tool" – "Audio Input..." Menu is invalid

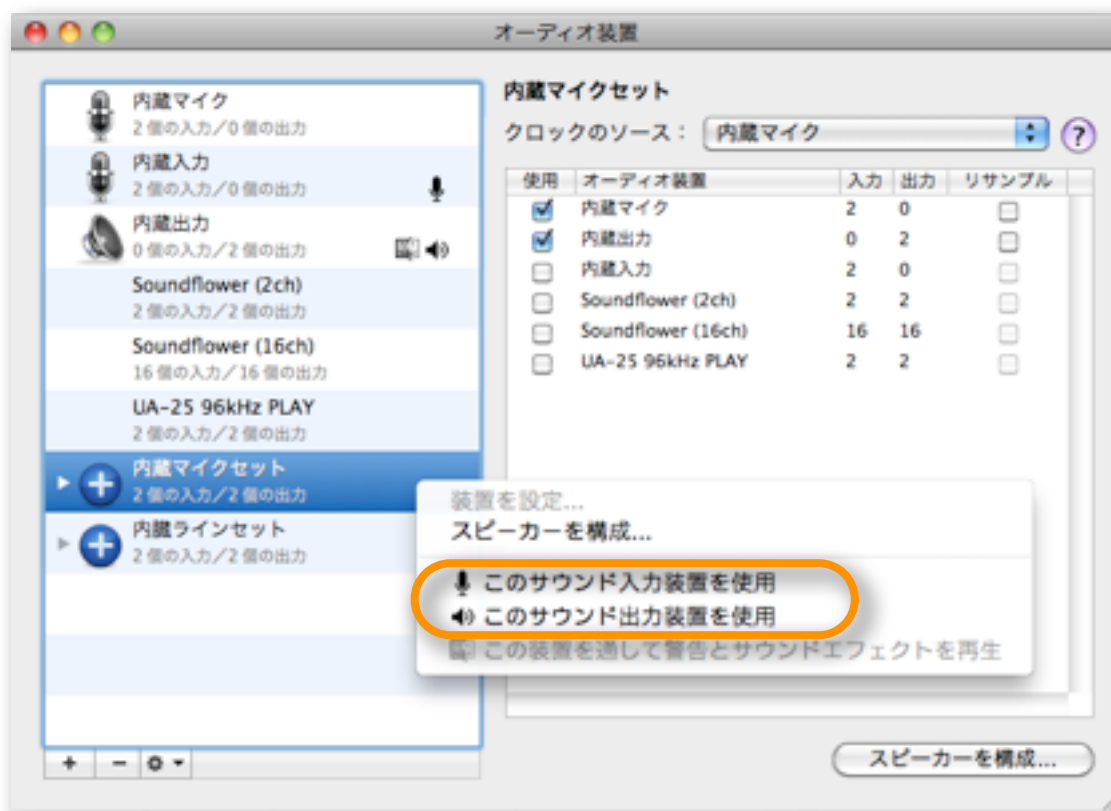
In Intel processor Mac, the built-in Audio device is composed of three equipment "Built-in microphone", "Built-in input", and "Built-in output".

And, "Built-in microphone" is assigned to "Default Input" as for a general setting of "Audio MIDI Setup", and "Built-in output" is assigned to "Default Output".

In this case, Audio input function in muDic cannot be used, because the input equipment and the output equipment are different.

therefore, define in this case, "Built-in microphone" and a built-in output" as an "Device set" of one, and assign the "Device set" in "Default Input" and "Default Output" by "Audio MIDI Setup".

Afterward, Do muDic restart.



## 17. Record of the playback

Can record the playback sound by a m4a format.

Every time a "Rec" button does playback in a pushed state, it is done record by overwrite.

Can hear the recording file which is stored when push the "Preview" button.

The recording file sets a place and a name with a "Preference" panel.



It is easy to make the audio file that did a transposition if use the recording function.