

MusicWriter™ User's Guide

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MusicWriter Version 5.2

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1. Installation and Activation

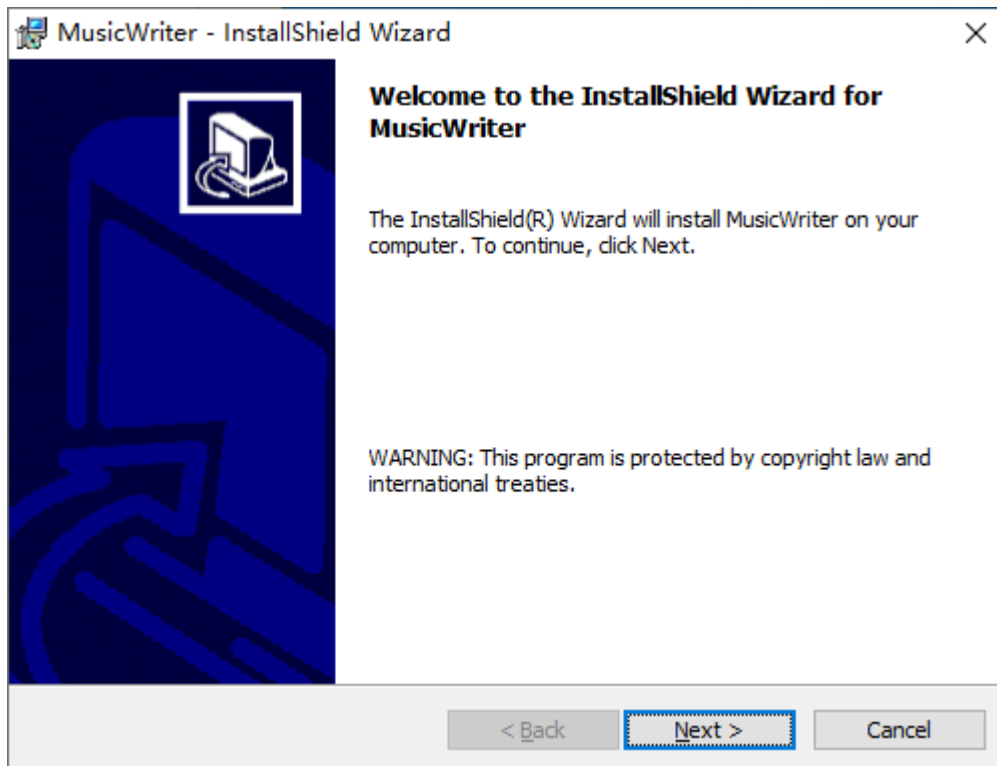
1.1 Installation

This software comes with a standard Windows installation disk. You can either get a physical CD disk, or download the software from following web:

<http://musicwriterxu.com/>

Step 1. After download the program from Web, you probably got a zipped file. You need first use WinZip or other compatible utilities to unzip the file and put all files into a temporary folder. You should be able to download WinZip on the web for free. After all files are unzipped and saved into a temporary folder, open that folder and you should find a executable file called “MusicWriterXX.exe”, here XX represents the version number. Run that program by double click on it.

Step 2. You should see a screen like:



Click on “Next” all the way through the installation until it finishes. You can accept all default settings until you have a reason to change them.

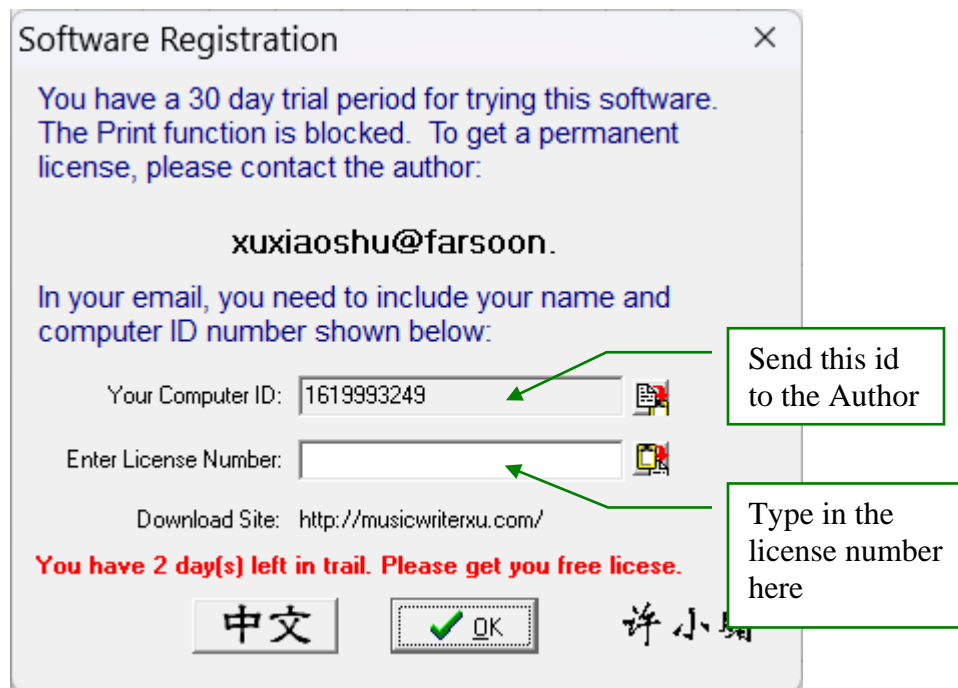
1.2 Activation License

This software is protected by license. If this is the first time you install the software, you will get a 90 day free trial. The trail version has all the functionality except it cannot print the music. You need to get a permanent license after 90 days otherwise the software will stop to run.

If you do not have a legal license, when you start MusicWriter, a Software License window will pop up first (see below). You need to send (email) the computer id which is shown on the screen to author. The author will then email back the license number. You type in the license number in the same window below the computer id to finish the license installation. **This software is free for all music lovers.**

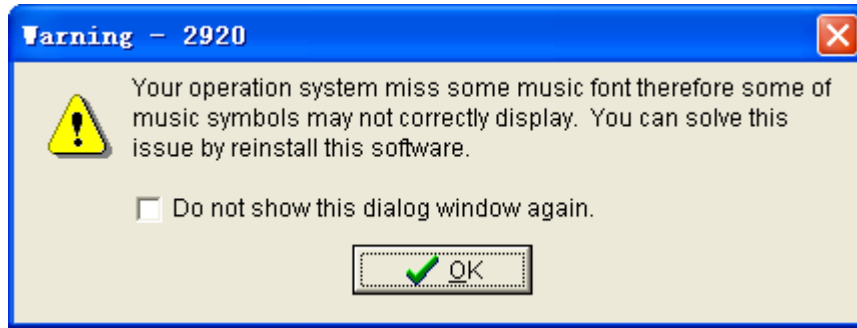
The computer id is a 10 digit number (last two digit is your current version number) and the license is 8 digits numbers. The licenses are unique to each computer and cannot be transfer to other computers. If you reinstall the operating system, or change to a new computer, you need to apply for a new license. However, you do not need a new license if you just install an update.

The Software License window can be displayed in either English or Chinese . Click on button “中文” or “English” to switch .



1.3 Install Music Fonts

In order for the program run perfectly, we need some music fonts. These fonts will be installed automatically during installation process. However, if there some reason the fonts are not installed correctly, program will still run correctly though some advanced symbols may not be shown or shown incorrectly. In such case, the following window will pop up when program starts:



2. Introduction

2.1 Music Notation System

The numbered music notation system, also called cipher system, was believed to be introduced by Jean-Jacques Rousseau in 1742 but is widely used in China and other Asian countries today. It has a Chinese name called “Jianpu”, which means simplified notation. Throughout this software and documentation we will call it “Simplified Notation”, or “Simplified”. In contrast, we will call the modern music notation system “Western Notation” or “Western”

For more information about numbered music notation system, please visit the Wikipedia entry about it

http://en.wikipedia.org/wiki/Numbered_musical_notation#Musical_note

Or if you prefer the Chinese version, go to

<http://zh.wikipedia.org/wiki/%E7%B0%A1%E8%AD%9C>

This software is designed to create music in both the numbered notation system as well as in the modern music system. Even though it is specially designed targeting to the numbered notation system, it has all needed functions to create Western notation music piece, see [Chapter 10](#) for details.

2.2 Terminology Used in Simplified Notation

This documentation is not intended to explain the Simplified notation system. But to make the documentation easier to read, we need to standardize the English terminologies used in this software. Fortunately, most of the terminologies used in Simplified notation are the same as in the Western notation, such as chords, grace notes, measure, bars, repeat bars, etc. These terminologies are already standardized in English and also have a standard Chinese translation. However, the ones that are unique to the simplified notation often do not have standard English translation and we need to define them here.

Music Note

Also called Note, is the number 1, 2, 3, 4, 5, 6, 7 and 0. Letter x and X can also be used as special note for percussion instruments such as drums. We also allow the “*” sign as a special note. The “*” is used in some Chinese instrumental music pieces.

High and Low Octave Dot

It also called High and Low Dot. They are used to indicate an octave higher or lower. It is marked directly above or below the note. A note can have more than one high or low dot but it cannot have both high and low dots at the same time.

Underline

Marked directly under the note, it is used to indicate the time length. A note can have more than one underline. A note without any underline is a quart note. Each additional underline will reduce the time length of the notes by half. For example, 2 will be an eighth note. The underline is very similar to the “note tail” in western notation system.

Dash

Also called Extend Line, it is a short line after a quarter note. It is used to extend the time length (duration) of the quarter note another quarter beat. A quarter note can have more than one dash. Each additional dash extends its length another one quarter beat.

Appended Dot

Also simply called Dot, is a dot after a note. It is used to extend the note half of its original time length. A note can have more than one appended dot. The second dot extends the note additional one fourth of its original time length, and so on. This is very similar to the “dotted note” concept in western notation system.

Key Signature

We will always use the “1 = X” format to mark the key signature. For example, 1 = G means key G. Key signature should appear before the first note in the music, or where the key changes in middle of the music. The key symbol should always be marked above the music line. Occasionally people uses 6 = X. In this program we do not suggest that form.

2.3 Simplified Notation Format Guideline

There is no universal format standard to writing simplified notation music. Here are some guidelines we used in this software. You do not necessarily need to follow the guidelines. But if you do not, some tasks may not function correctly, such as converting between Simplified and Western Staff, breaking individual component from the composed music, or play the music, etc.

Bar Line

Bar Lines are used to divide the measure. There should be no bar line at the start of the music line when the music piece is for a single instrument (part-book, 分谱). For example:

6 – | 6 . 53 | 2 1 2 | 3 21 | 2 . 1 | 6.1 23 |

Double Bar line

Double bar lines should be used at the end of the music. Sometimes double bar line can also be used at the end of a section for music that has multiple sections. For example:

223 53 | 223 53 | 223 50 | 235 3217 | 666 66 | 60 0 ||

Full Scores Music

Full scores music (总谱) consists of music for multiple instruments/vocal, and/or two hands of the same instrument, such as piano. One should use brackets or braces to group the instruments at the beginning of each music line. The following example uses bracket:

笛	}	0	⁵⁶¹ <u>6</u>	<u>266</u> <u>65</u>	<u>655</u> <u>53</u>	<u>223</u> <u>53</u>	<u>235</u> <u>3217</u>	<u>666</u> <u>66</u>	
弹		>	6	0	<u>266</u> <u>65</u>	<u>655</u> <u>53</u>	<u>223</u> <u>53</u>	<u>235</u> <u>3217</u>	<u>666</u> <u>66</u>
二		>	6	0	<u>266</u> <u>65</u>	<u>655</u> <u>53</u>	<u>223</u> <u>53</u>	<u>235</u> <u>3217</u>	<u>666</u> <u>66</u>
中		>	6	0	<u>2</u> <u>65</u>	<u>6</u> <u>53</u>	<u>2·3</u> <u>53</u>	<u>235</u> <u>3217</u>	<u>666</u> <u>66</u>
阮		>	6	0	<u>2</u> <u>65</u>	<u>6</u> <u>53</u>	<u>2</u> <u>1</u>	<u>7</u> <u>35</u>	<u>6</u> <u>0</u>
打		>	X	0	<u>Xxx</u> <u>xx</u>	<u>Xxx</u> <u>xx</u>	<u>Xxx</u> <u>xx</u>	<u>Xxx</u> <u>xx</u>	<u>Xxx</u> <u>xx</u>

The following example uses braces:

二胡	}	$\frac{4}{4}$	<u>06</u> <u>5643</u>	2 - <u>2·3</u> <u>112</u>	3·5 65 <u>6561</u>	5·3 <u>553</u> <u>26</u> <u>5612</u>
钢琴		$\frac{4}{4}$	<u>0·6</u> <u>5643</u>	$\frac{2}{4}$ - <u>2·3</u> <u>112</u>	3·5 65 <u>6561</u>	5·3 <u>553</u> <u>26</u> <u>5612</u>
		$\frac{4}{4}$	<u>mp</u>	1 <u>63</u> <u>5</u> -	1 - <u>5</u> -	1 <u>7</u> <u>5</u> -

Normally, the bracket is used to combine the group of similar instruments while the brace is used for the both hands of the same instrument.

2.4 Overview of Program Interface

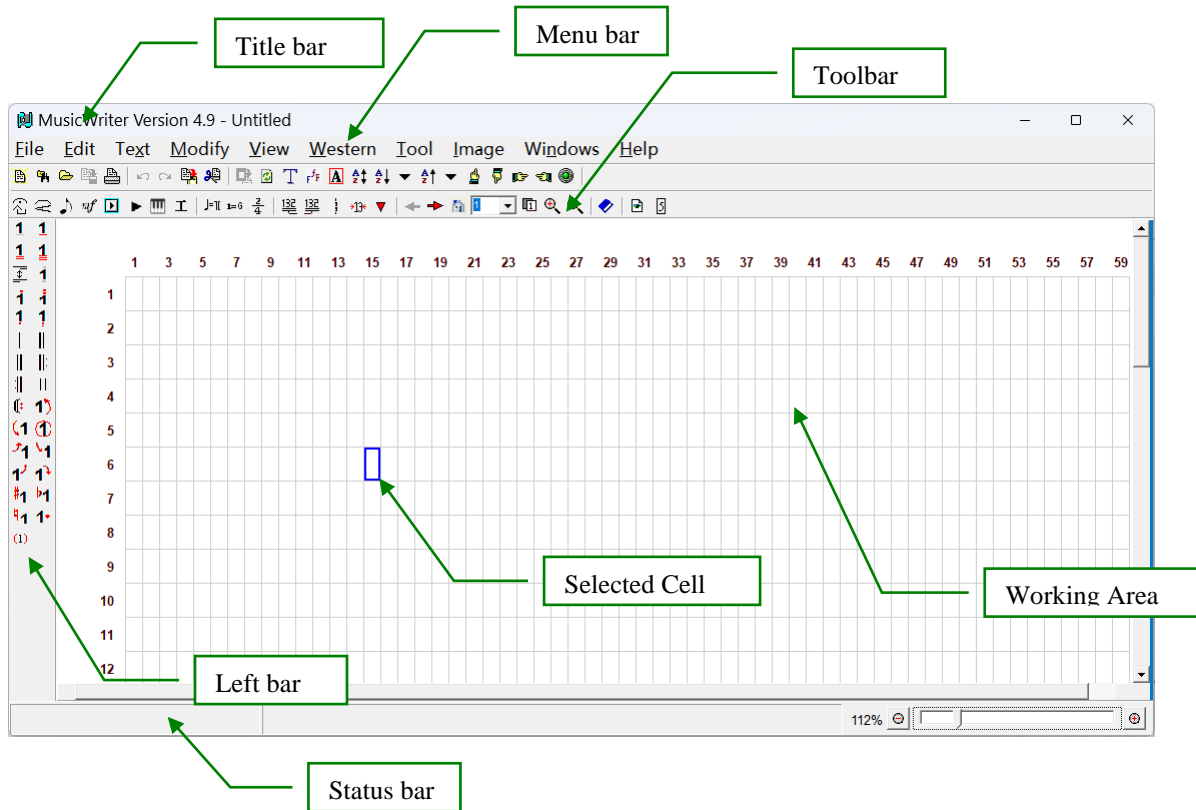
The program interface is designed using standard Windows application conventions. At the very top is the program title bar, which also shows the program version number.

The next line down is the Menu bar. It contains 10 menus: File, Edit, Text, Modify, View, Western, Tool, Image, Windows and Help. The individual items under each menu are called the menu items. Some menu items also contain sub items.

Next line down from the Menu bar is the Toolbar. The Toolbar contains icons to launch the most frequently used actions, such as open file, save file, etc. All functions in the toolbar can also be found in the menu.

On the left side of the window there is a Left Bar that also contains several often used functions, such as add underline, high and low octave dot, etc.


At the very bottom there is a Status Bar. The status bar displays information such as the page number, file name and other information as it is available to the use.



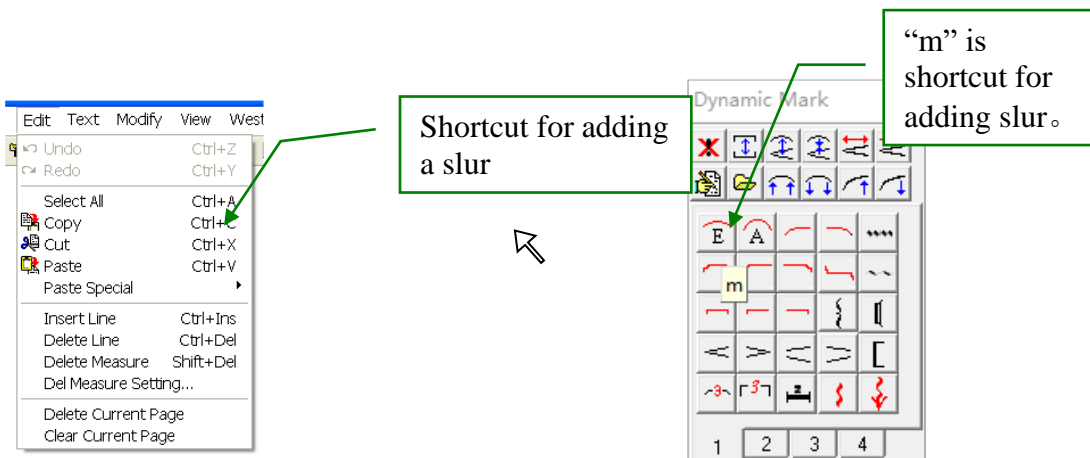
There are six floating windows that supply many additional objects and functions for you to use. They are:

- Special Symbol Floating Window – this window contains many useful symbols.
- Dynamic Mark Floating Window – this window contains all marks that you can add to the music.
- Western Notation Floating Window – this window contains objects to create Western notation music.

- Text Symbol Floating Window - It contains commonly used text symbol, such as *pp*, *f*, *rit*, etc. Though you can always using text to add these symbol, this window gives you a quick way to do so.
- Play Music - This window will open allow you to play currently opened music. Details see [Chapter 15](#).
- GongChi - GongChi is a traditional Chinese music notion system. It still used today on some Chinese Opera and other cases. When this Window opens, the software enters so called GongChi mode and will allow you choose the GongChi characters and symbols from it and add to the music. Details see [Chapter 17](#).

The float windows can be hidden or visible. To show or hide the floating windows, click on the icon  from toolbar respectively, or select the corresponding menu items from the Windows menu.

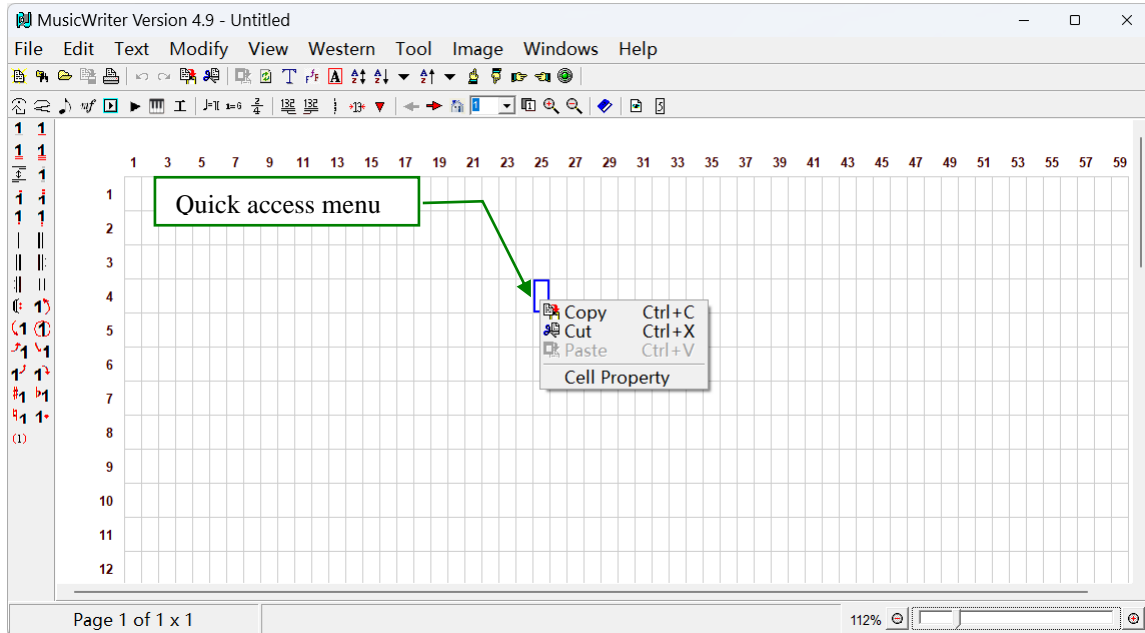
Many menu items or icons have a shortcut key. You can quickly execute these functions by simply pressing the shortcut keys. To view the shortcut key for menu items, open the menu and looking for the key symbol on the right side of the menu item. For the icons on the left bar and on the floating windows, you can hover the mouse point over the icon and a popup hint box will display the shortcut key.



In the middle of the screen is the work area. The work area is divided into grids. Each individual unit is called a "Cell". User can select a single cell or blocks of cells. The border of the selected cells is highlighted in blue. All user input will apply to the selected cells.

If you click on the right mouse button when the mouse point is in the working area, a so called quick access menu will popup that will allow you access to some commonly used

functions. The contents in the quick access menu may be different depending on what is currently selected.



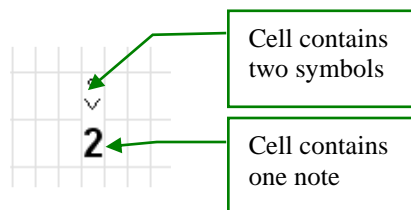
2.5 English and Chinese Display

The software can be displayed in either English or Chinese. To switch between these two languages, you can simply press F7 key, or choose “Use Chinese Version” or “Use English Version” menu item in Help menu.

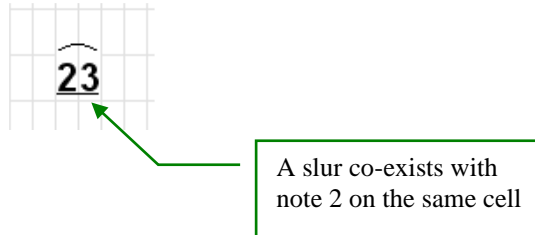
Please note that if you are running English version of Windows OS, you need to setup your environment correctly in order to run Chinese version. Please see document “How to Setup Chinese for MusicWriter.doc” for details. If you are running Chinese version Windows OS or using Windows 8 and later OS, you should be able to run the software in Chinese without additional work.

2.6 Cells

A Cell is the basic unit of the music sheet. Each cell can contain one note (including append dot and dash), or 1-3 symbols arranged vertically. For example:



A cell cannot contain a note and a symbol at the same time except for certain cases which will be explained later. However a dynamic mark (e.g. slur) can co-exist with note and a symbol in same unit. A dynamic mark can co-exist with a note or symbol at the same cell. For example:



At above example, the slur mark is co-exists with note 2 on the same cell even though the slur is displayed above the cell and cross two cells. We will explain this phenomenon later in section [3.4](#).

A cell can also contain a text string. A text string can be any English or Chinese character string. Though it can run much longer then the cell width, a text string actually also belongs to a single cell where the text starts. We will discuss the text in more detail in section [3.7](#).


The cell always has a 1 to 2 width to height ratio. The size of all objects on the music is automatically determined by the cell width, which includes notes, symbols, marks and texts. You can change the cell width in the preference dialog, see section [8.1](#).

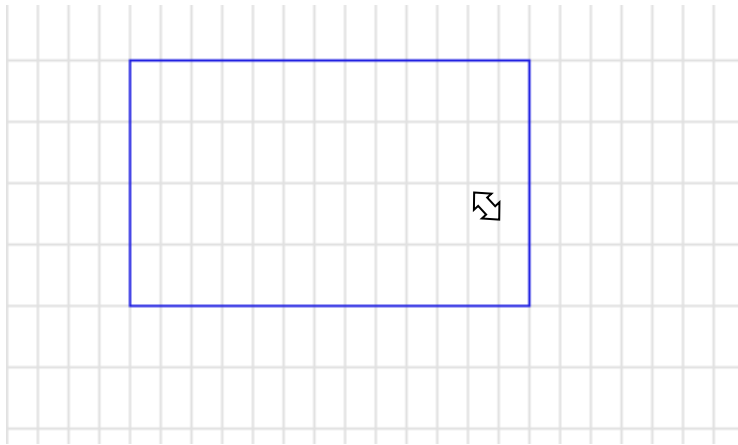
3. Create Basics Simplified Music


Note: Before creating a new music piece, please make sure your paper size and cell size is set properly. Even though you can change the paper size and cell size later but that can be painful after data is entered. You can set these parameters in the Preference dialog, see [section 8.1](#) for details.

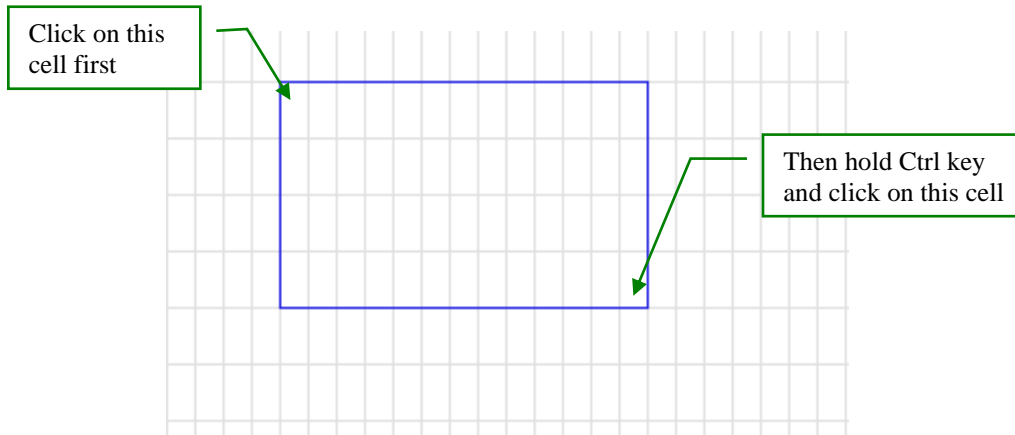
3.1 Select Cells

You need first to learn how to select cells because almost all operations are applied to the current selected cells.

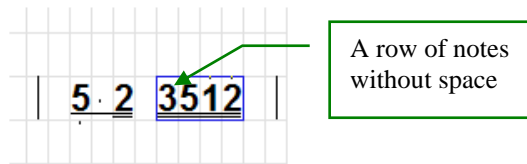
1. To select a single cell, simply put the mouse cursor on that cell and click the left mouse button.
2. If you put the cursor on the bottom-right corner of selected area, the cursor will change to a diagonal arrow shaped like . Now you can drag the mouse while holding the left button to expand the selected area. Similarly put mouse on bottom or right edge can expand the area on one direction.





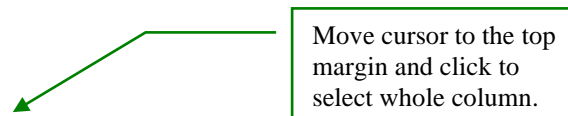
3. You also can use the arrow key on keyboard to move the selected area.
4. If you put the cursor on the top-left corner of the selected area, the cursor will change to a cross arrow shape . Now you can drag the mouse while holding the left button to move the selected area. However using this method the contents of the selected area will also moves.
5. Another way to select a block cells is to select the top-left cell as mentioned in method 1, then hold the Alt key and click the left mouse button on the bottom-right cell.



6. Yet another way to select a block cells involves no mouse. Simply holding the ALT key and pressing one of the arrow keys the selected box will be extended along the direction of the arrow.
7. There are two quick ways to select a row of notes that are separated by space: simply holding the Alt key and click on any note in that block. Or you can simply double click on any note in that block.



8. There are two quick ways to select a single row or column:
 - a. Holding the Shift key and click on any cell on that row.
 - b. Move cursor to the left or right margin of the page, the cursor shape will change to a hand sign like . Click the mouse left button to select that row.
 - c. Move cursor to the top or bottom margin of the page, the cursor shape will change to a hand sign like . Click the mouse left button to select that column.



1 = C $\frac{4}{4}$ 牧羊女 No. 8802

Click on top-left corner to select whole page










Move cursor to the left margin and click to select whole row






Hold Shift key and click on any cell on the row.


9. There is a quick way to select entire page (all cells on the page) by simply pressing Ctrl + A, or choosing menu item Select All in Edit menu. You can also select the whole page by click on the top-left corner of the margin.

You can move the selection box by pressing the left, right, up or down arrow keys on the keyboard.

3.2 Add Basic Object

- To add a music note, select the cell and type a number between 0 and 7, *, or x and X for percussion instruments. The default note font is used here. You can set the default note font (and other fonts) in Preference dialog, see [8.2](#). Using the change font icon  on tool bar can change font and color of an individual note.
- To add a dash (extend) line, select the cell and type “-”(the minus key on the keyboard.)
- To add the appended dot, select cell and type “.” (The period key on the keyboard).
- To add the underline for the note(s), select the note(s) and then type “_” (the underscore key on the keyboard) or “=”. If you keep press key, additional underline will be added to the notes. After the number of underlines reaches 3, it cycles back to 0. To enter more than 3 underlines, use the menu item “add underline” from the quick access menu. You can also use the icons from the Left Bar ( ,  ,  , ) to add/remove the underline.
- To add low octave dot, select the note(s) and then type “,” (the comma key). If you keep pressing the comma key, additional low octave dot will be added. After the number of dots reaches 3, it cycles back to 0. To enter more than 3 dots, use the menu item “Low Dot” from the quick access menu. You can also use the icons ( ,  ,  , ) from the Left Bar to change the low octave dot.


- To add high octave dot, select the note(s) and then type “'” (the apostrophe key). If you keep pressing the apostrophe key, additional high octave dot will be added. After the number of dots reaches 3, it cycles back to 0. To enter more than 3 dots, use the menu item “High Dot” from the quick access menu. You can also use the icons (, , ) from the Left Bar to change the high octave dot.
- To add the bar line, select the cell(s) and press the “|” key. You can also use the icons on the Left Bar to enter the single bar, double bar (like ) , or repeat bar (like ).

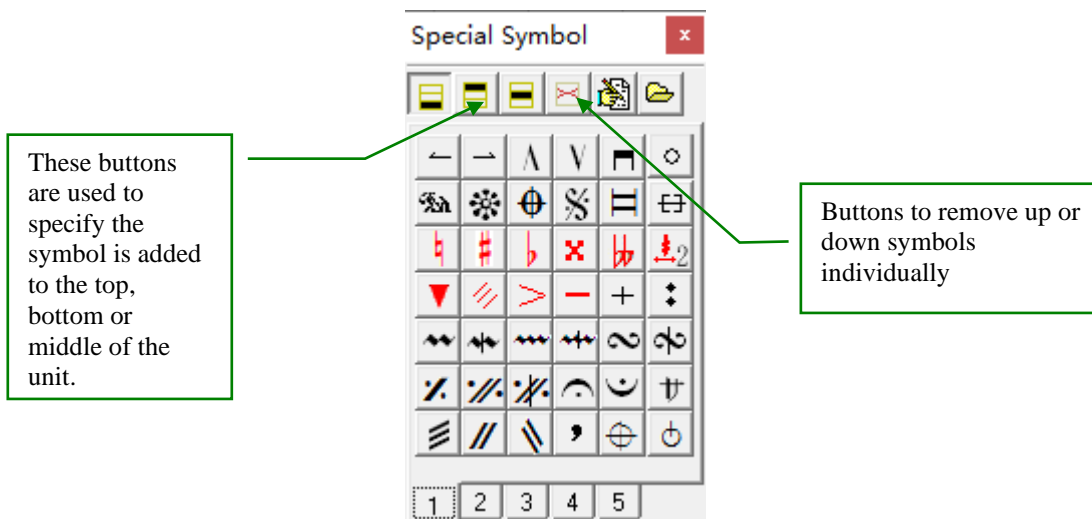
You can have a repeat bar that has three dots for repeating three times like . First add a normal repeat bar, then select the bar and press the ‘ key (the apostrophe key on the keyboard). This will change the repeat bar to three dots. Type the ‘ key again will change the repeat bar to one dot, then cycles back to 2 dots. You can also use the quick access menu. Selecting a repeat bar, then right-click on mouse to bring up the quick access menu. Select Increase, Decrease, or Reset from the menu to change the number of dots on the repeat bar.

Note: Bar and repeat bar must add at main layer. See [Chapter 14](#) for definition of main and back layer.

- To clear all contents of a cell, select the cell or block of cells then press the DEL key.

3.3 Add Special Symbols

All special symbols are located in the symbol floating window. To make the floating window appear or disappear, select the  icon from the Toolbar or select Special Symbol menu item from Windows menu. This is what the floating window looks like:

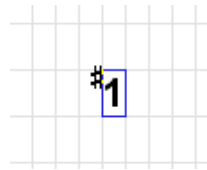


On the top of the float window contains 5 editing buttons. The first three buttons allow you to specify the symbol will be added to top, bottom or middle of the unit. The forth button is to delete a symbol specified by the first three button. The last two buttons is used to customize the symbol locations, which we will discuss them later.

The main portion of the float window contains multiple pages; each page contains many symbol buttons. Click on the symbol button on the Symbol window will add the corresponding symbol to the bottom of the selected cell. To add a symbol at the top of the cell, hold the Alt key while clicking on the symbol button, hold the Ctrl key will add the symbol at the middle of the unit.

To remove the symbol, press the DEL key, both top and bottom symbols will be removed. To remove only the top symbol, press Alt + DEL. You can also click on the buttons on the top of the window to remove top or bottom symbol individually.


The alternation symbols, such as flat, sharp and nature symbol, are shown in red, they can co-exist with notes. Selecting a note cell and clicking on one of the alternation icons will add the corresponding sign to the front of the note. If the selected note already has the alternation associated, this will remove the sign. This is a better way to associate the note with a alternation rather than add the alternation in the cell before the note.

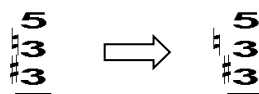


Sharp symbol
associated with the note

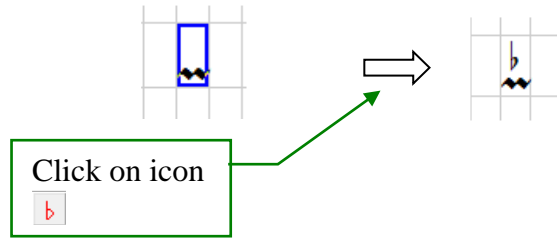
Using the icon **#1**, **b1**, or **1** in the left tool bar can do the same thing. You can also use the same way to add flat, sharp and nature symbol to individual notes inside a vertical (chords), shrink, or grace notes. We will discuss them in details in [Chapter 6](#). For example:



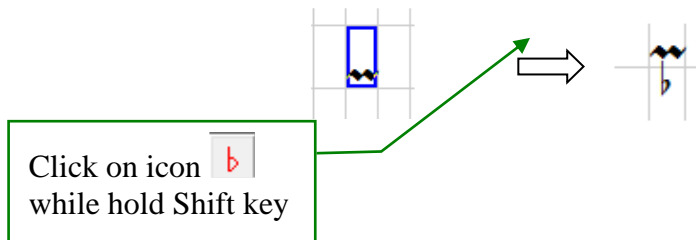
When a vertical note has multiple alternations, their position may interfere each other. In such case you could press icon  To adjust their position.



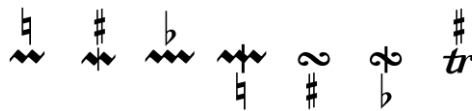
The alternation symbols shown in red also can be used on tile or similar symbol. For example:



To add it below the tile symbol, you just hold the Shift key:




Following are all symbols can be applied in such way:



Note: that this will only works when only a single cell is select and the applied symbol is on the bottom position.

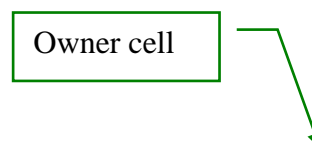
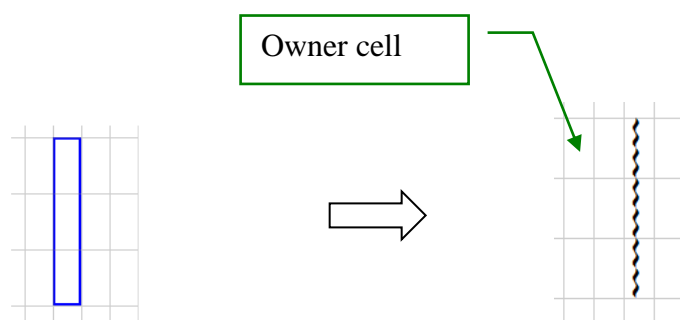
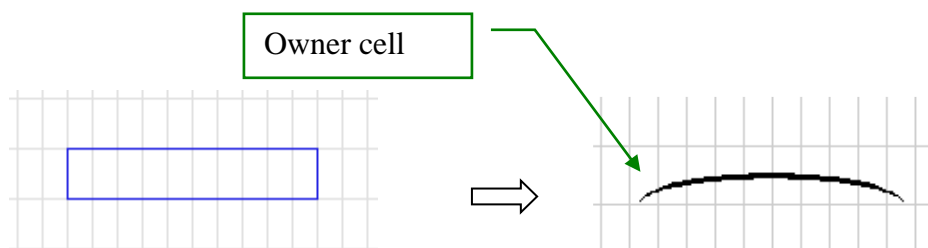
Hint: Any symbol in the float window that is colored in red can be added to an existing note, include the Dynamic Marks discussed next. Their position related to the note will be adjust accordantly.

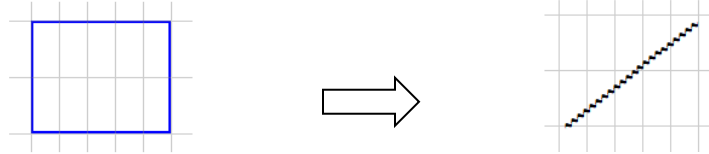
3.4 Add Dynamic Marks

Marks, also called Dynamic Marks, are located in the Dynamic Mark floating window. To make the floating window appear, select the  icon from the Toolbar or select Dynamic Mark menu item from Windows menu. Similar to the Special symbol window, it also has a top strip that contains several editing buttons. This is what the floating window looks like:

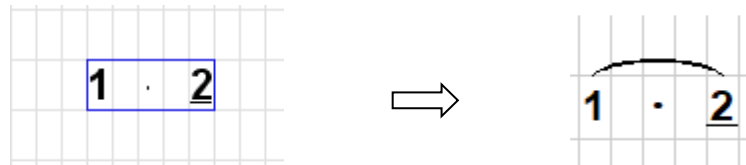




Most of time a dynamic mark will be displayed across several cells, though it actually only occupies one cell. To add a mark, first select a block of cells, and then click on the corresponding mark icon from the floating menu. The top-left corner cell of the selected block is the owner cell of the mark. For example:





Though the marks can co-exist with notes in the same cell, some marks will change its default position when co-existing with a note. These marks have their icons shown in red. For example, when the slur mark co-exists with a note, it will show on the top of the note instead of at the bottom of the cell such as its default:

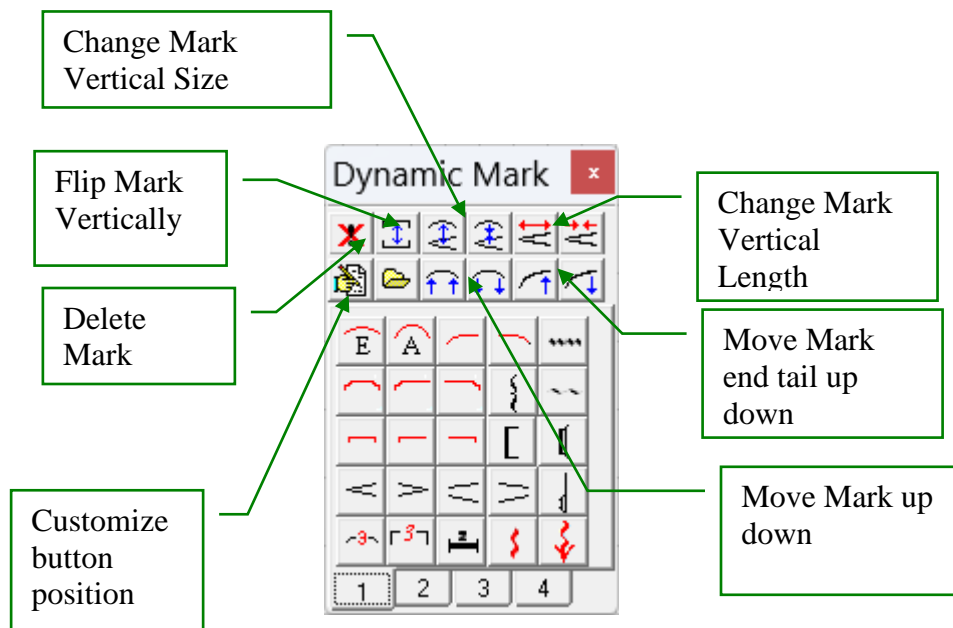



Note: There are two types of slur,  is a elliptical slur while  is a arc slur. Following sample show the difference. Which to use is your choice.



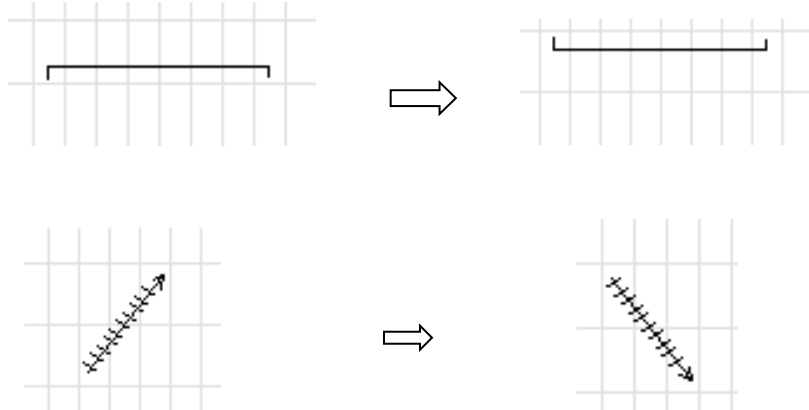
Edit Dynamic Mark Shape


There are many editing buttons on the bottom row of the float menu.

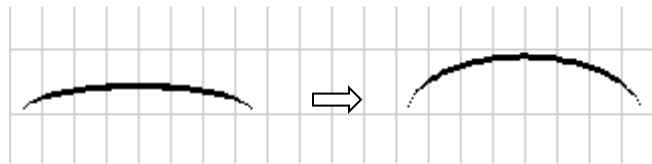


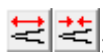
: clear mark only. You can always press key to clear the mark, but that will clear all objects that co-exist in the same cell as well.

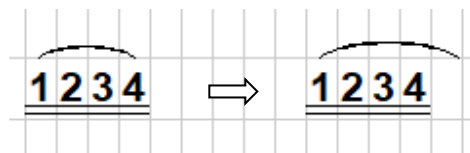
: flip the mark vertically. For example:

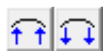


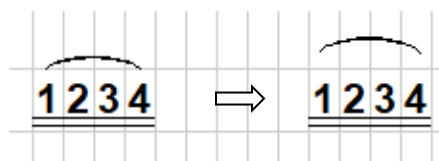
: increase/decrease the vertical size of the mark:





: increase/decrease the horizontal length of the mark:

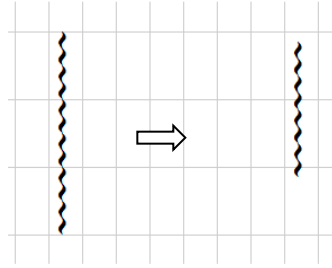


: move the mark up and down :

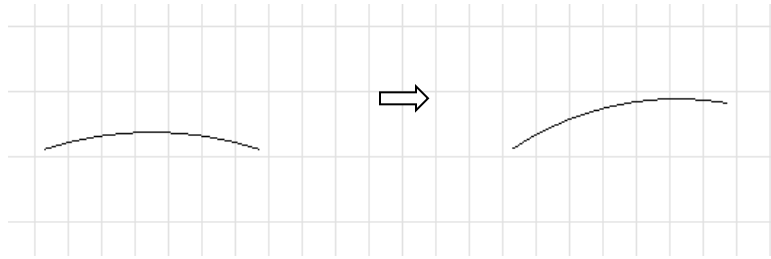



Though you can also use  to move the mark up and down (see section 5.6), but that will also move everything in the cell, include the note. This button will only move the mark up and down.

: move the end tail of the mark up and down:




It can also be used to move the tail of diagonal and some horizontal marks (such as slur).



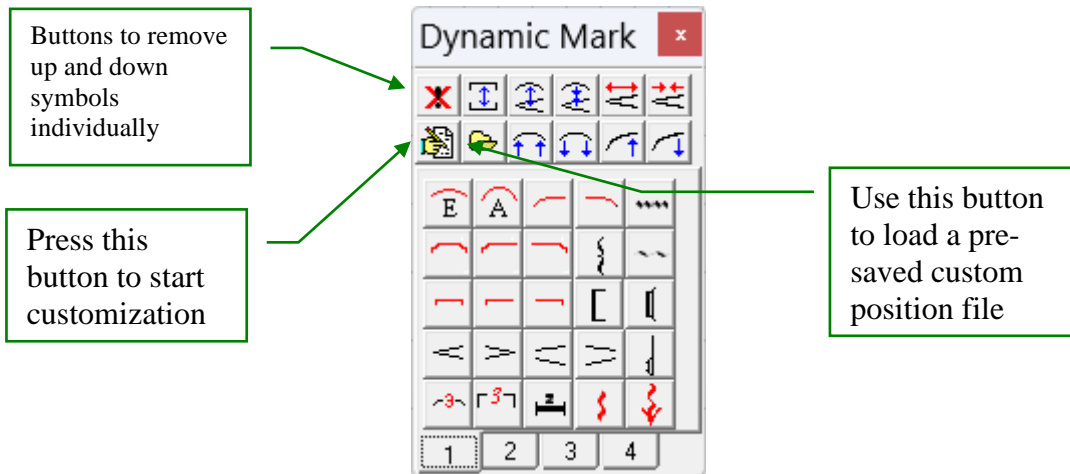
To reset the mark to its original position and shape, simply click on icon .

3.5 Customize the Symbol and Mark Floating Window

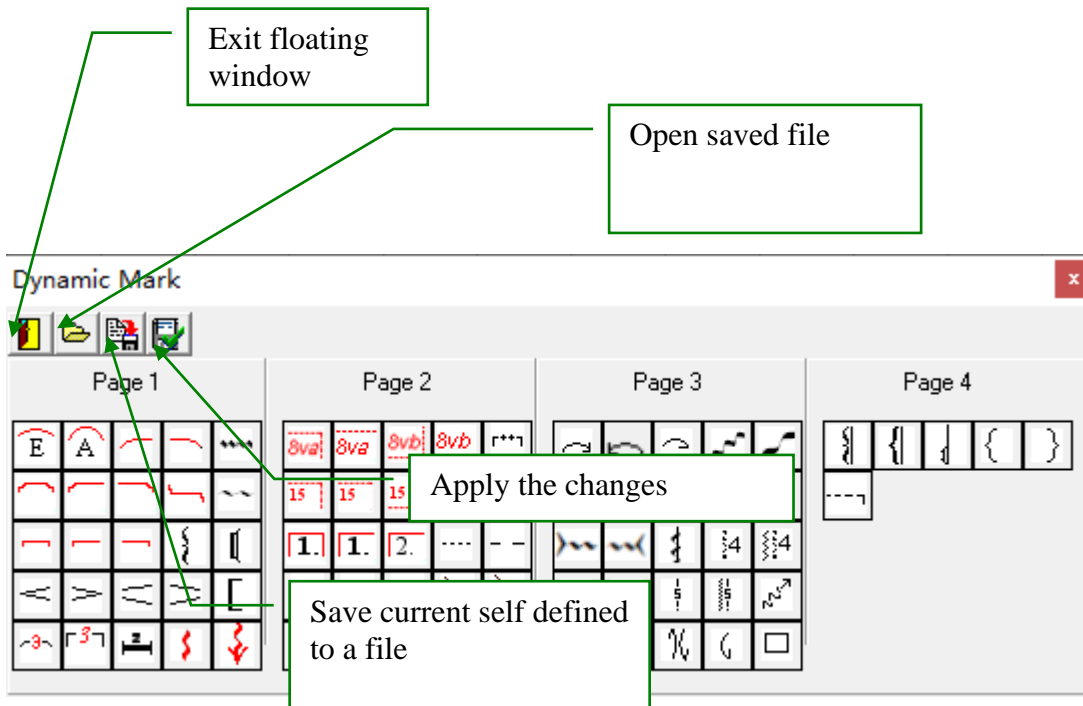
There are tens or even hundreds buttons on the Special symbol and Dynamic Mark floating window. These buttons are located on different pages. The customization will allow you to have relocated some commonly used marks and symbols to the first page. You even can have many different layouts saved, e.g. one for Erhu and one for Zhen. These saved custom position then can be loaded later using icon , which located at the top of the floating window.



This is how the customization works:

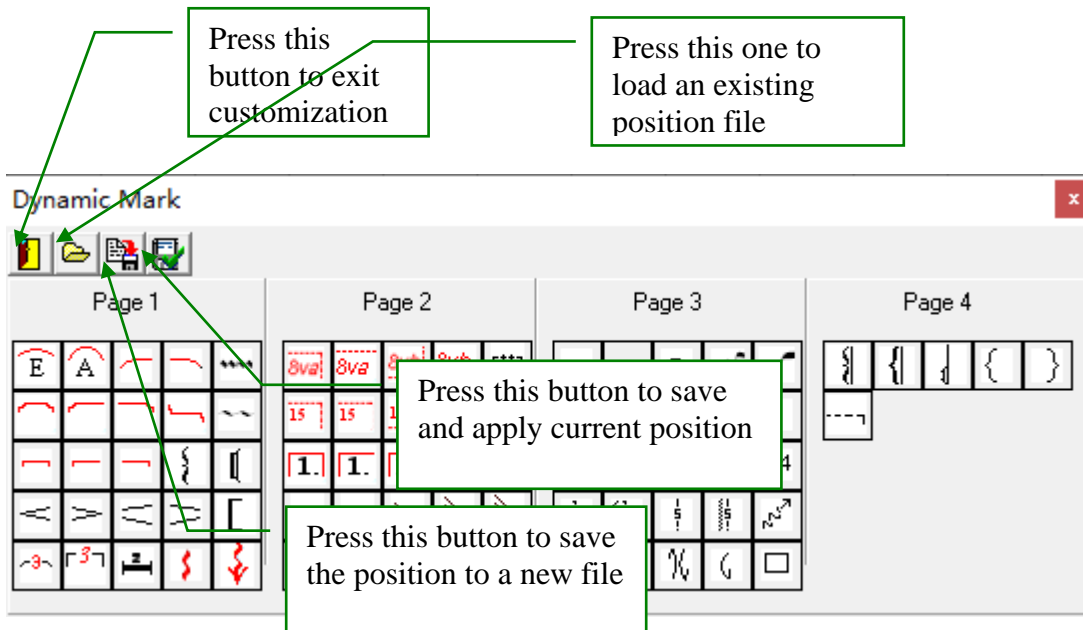
1. Start customization by click on the button  from the top of the floating window.




2. After enter the customization, the floating window changes to:



3. Move the mouse cursor to the icon that you like to move its position. Then press the mouse left button and drag the icon to the new position, then release the button. The icon will then be moved to the new position.
4. Use button  to save the customized position to a new file, Button  to save and apply this position.



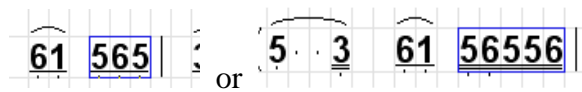
5. When all down, press button  to exit the customization. The float window will restore its original appearance.

Note: You may have to redo the customization after you upgrade the software.

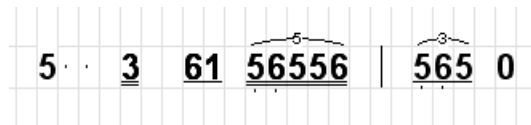
3.6 Triplets and Multi-lets

You can use the  icon on the Dynamic Mark window to create triplets and multi-lets.

1. Select the block of notes that will be the triplets or multi-lets. e.g.





2. Click on the  button in the Dynamic Mark floating window. A triplet or multi-lets slur will then be added:

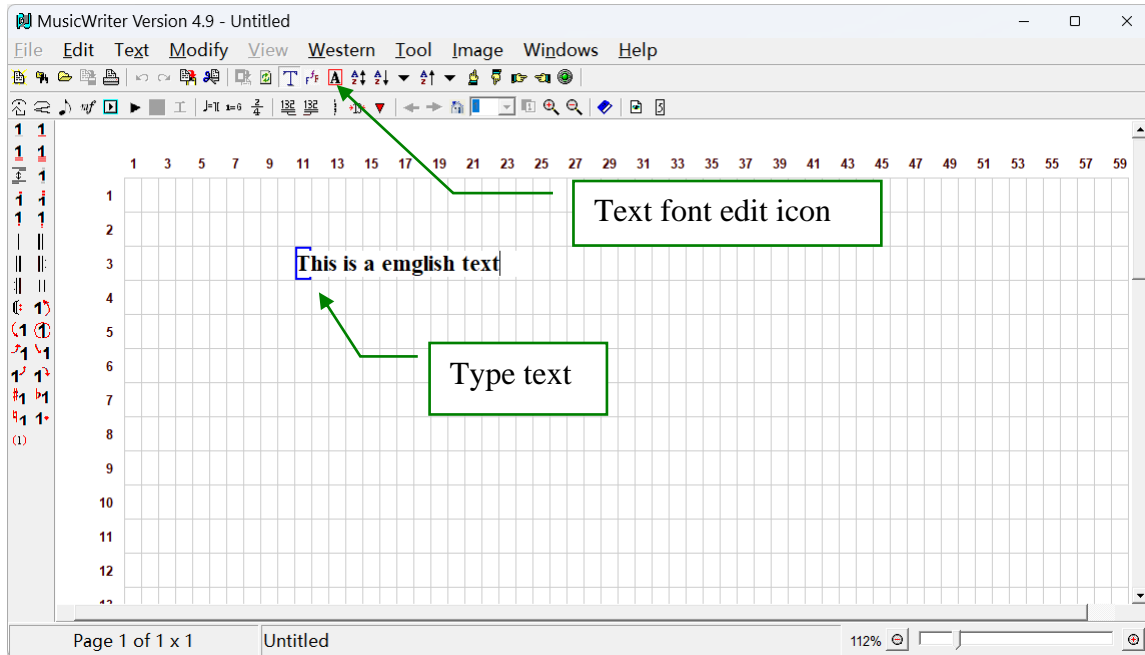


If necessary, you can also create the triplet or multi-let marks by combining the slur and text.

3.7 Add Texts

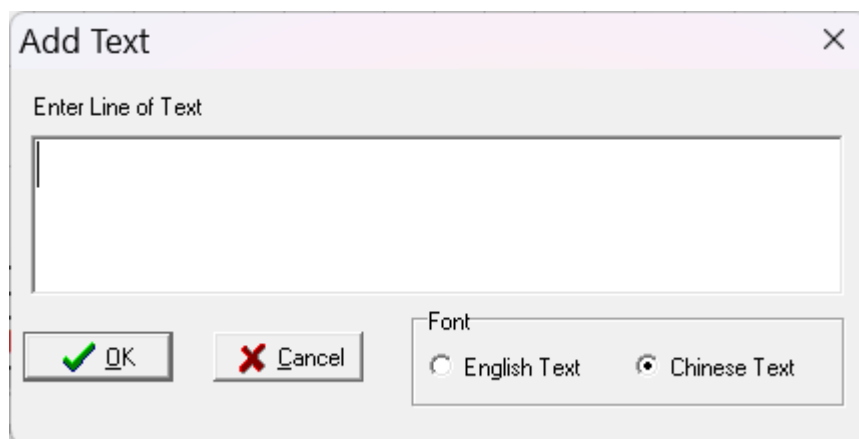
Like marks, the text occupies one cell no matter how long it is. Starting from version 3.9, we have added a new way to enter text while still keep the original method.

Method 1. Click on the icon  on tool bar will let the program entering a so called "Enter Text" mode meanwhile the icon will displayed as pushed down. You will first need to choose to enter English or Chinese text. You can then type the desired text in the selected cell, and then enter RETURN key to complete. The program will stay in the "Enter Text" mode so you can continue to enter text by select other cells. To exit this mode, simply click on the icon  again.




Method 2: We still keep the original way to enter text. To add text in this method, first select a cell that is the start location of the text, then choose “Add Text” from the Text menu. The Add Text window will pop up (see below).

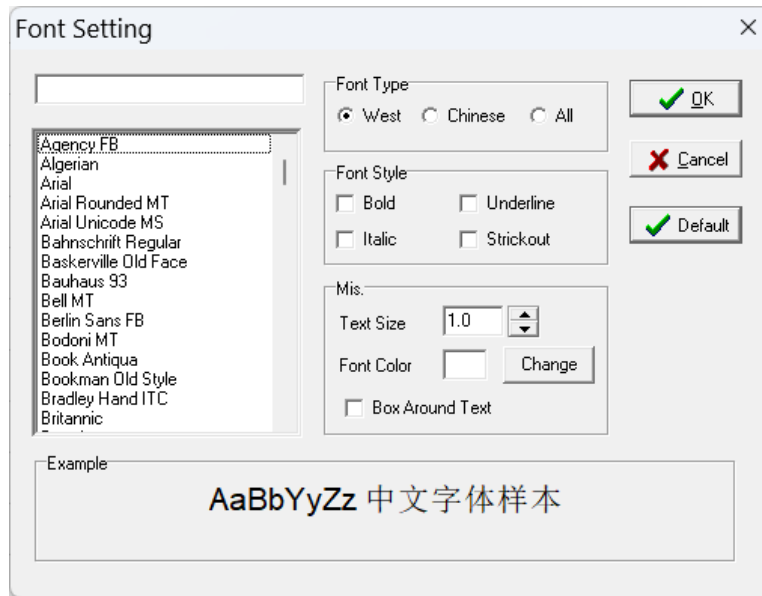
You can enter a single line or multiple line of text at a time in either English (or other Latin languages) or Chinese. If multiple lines of text are entered, each line of text will occupy one cell after the selected cell. In this case, you can later move each line of text to the correct place. This can be convenient when enter the music words.



If you like to enter Chinese text, you must check the Chinese radio button and make sure your current input method in the OS is compatible to Chinese. For detail on how to set up a Chinese input environment, see document “How to Setup Chinese for MusicWriter.doc”.

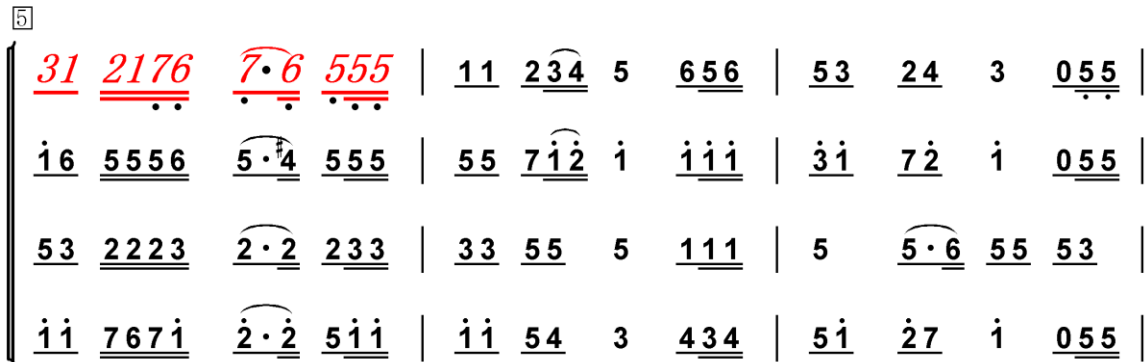
All text, English or Chinese, will be shown in the default font defined in the Preference dialog (see 8.2). If you change the default font in the preference, all texts entered using the default font will be changed to the new font. This is an easy way to make all texts look different. For example, one can use this method to switch between simplified Chinese and Traditional Chinese. Therefore, unless you have a special reason, you should stay with the default fonts.

You can change the settings of individual text by click the icon  on tool bar. The text font edit menu see as below:



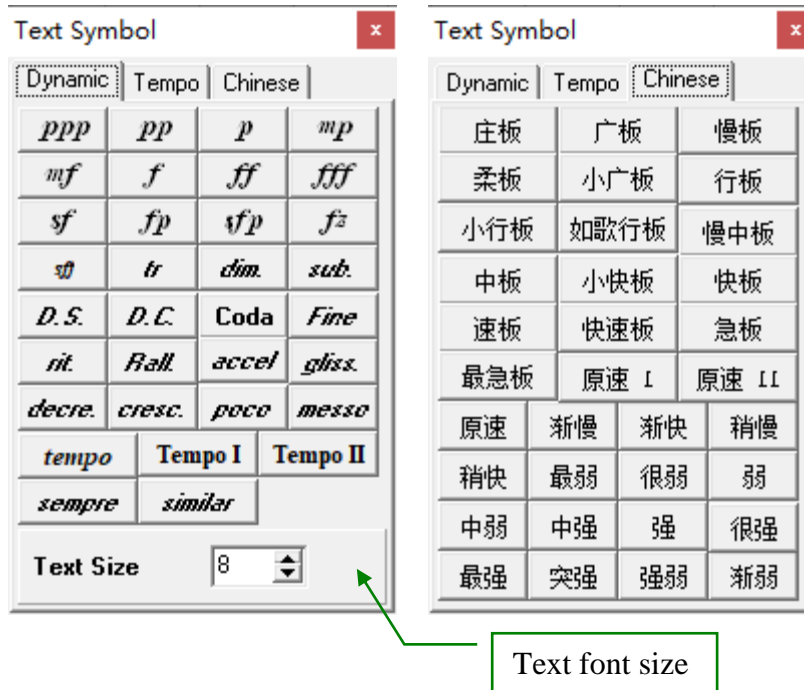
You can use this window to change the font of selected text, including its color and size.

Hint: You can also use this window to change the font size, color, and other style for notes, see example below:



3.8 Add Commonly Used Text Symbol


Using the Text Symbol float window, shown above, allows you to add some commonly used text symbol to the music.

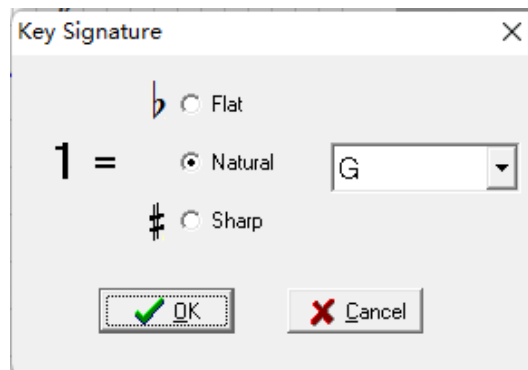


Note: Text size only applies to dynamic symbols, such as *f*, *p*, etc.

3.9 Other Misc. Items

Key Signature:

In simplified music one uses “1=X” to represents the Key. For example “1=G” means the piece is played with G key. The icon  on toolbar can be used to create the Key Signature.




You can also use the Text to create key signature. In such case one should following the suggested key signature format such as “1 = G”.

Normally you must have one key signature at the beginning of the music, if not it assumes to C key. You can also change the key in the middle of the music, in such case the new key signature must show just above the music line. The following example the music changes its key from G to D.

The example shows two staves of musical notation. The first staff begins with a key signature of G (1 = G) and contains notes with fingerings: 3, 1, 2, 2, 3, 3, 1, 2, 2, 1, 5, 6, 3, 5, 3, 2, 3, 4, 6, 6, 6. Dynamic markings include *mp* and *mf*. The second staff shows a key change to D (1 = D) and contains notes with fingerings: 3, 2, 3, 6, 5, 3, 1, 5, 6, 1, 5, 7, 6, 5, 3. Dynamic markings include *mp*, *f*, and *mf*.

Note: Key Signature must be added to the Main Layer (See Chapter 13 for the definition of Main Layer and Back Layer.)

Time Signature

Click on the  icon from the toolbar to add a time signature. There should be at least one time signature before the first music note. A music can have different time signature in different place. It also can add all used time signature at beginning of the music piece.

彩 云 追 月


任 光 曲

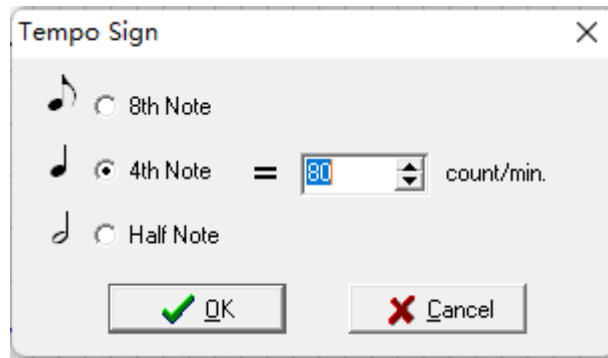
1 = G 4/4 2/4

The example shows two staves of musical notation for the piece '彩云追月'. The first staff is labeled '二胡1' and the second '二胡2'. The notation includes numbered fingerings (1-5) and dynamic markings (*p*, *mf*). A key signature of G (1 = G) is indicated at the top left. The time signature is 4/4 for the first part and 2/4 for the second part. A repeat sign is used in the first staff.

Note: Again the Time Signature must be added to the Main Layer (See Chapter 13 for the definition of Main Layer and Back Layer.)


Tempo Sign

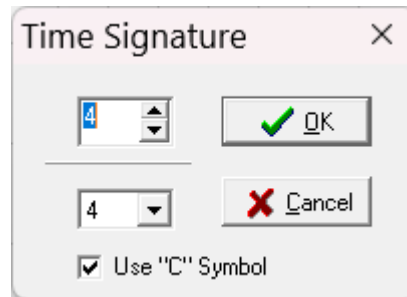
Click on the  icon from the toolbar to add a tempo sign.



Note: Again the Tempo Sign must be added to the Main Layer (See Chapter 13 for the definition of Main Layer and Back Layer.)

Time Signature (also called Meter Signature)

Click on icon  on toolbar to bring up Time Signature dialog:



Time signature will be add to current cell. If current line is a staff line, you can also use “C” symbol for 4/4 or 2/2 symbol.

3.10 Work with Images


You can add bitmap or jpeg based images to the music.

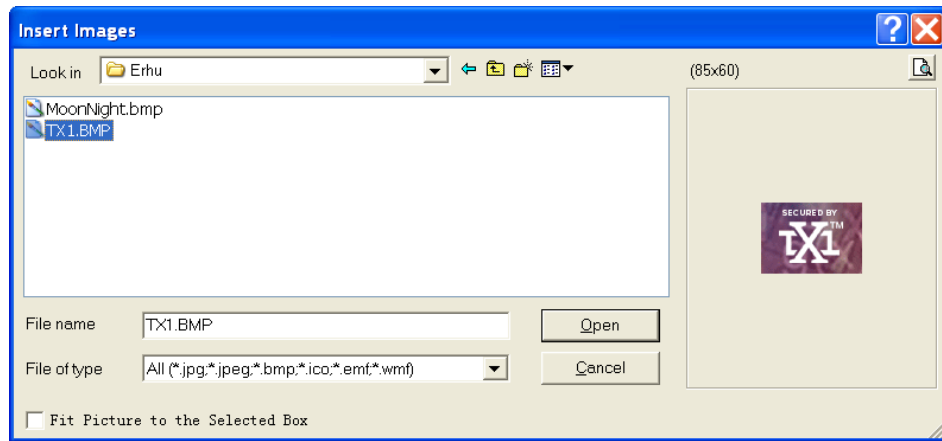
1. Select a block of cells where you would like the image to be embedded.

花儿与少年
(四季调)

5

<u>6</u>	<u>65</u>	<u>655</u>	<u>53</u>	<u>223</u>	<u>53</u>	<u>235</u>	<u>3217</u>	<u>666</u>	<u>66</u>
<u>6</u>	<u>65</u>	<u>655</u>	<u>53</u>	<u>223</u>	<u>53</u>	<u>235</u>	<u>3217</u>	<u>666</u>	<u>66</u>

2. Click on the  icon from the toolbar, or use the menu item Insert Image from the Image menu. An image selection dialog will pop up. You can choose BMP or jpeg file types.



3. If you check the Fit Picture to the selected box, the picture will be stretched to fit the selection box, otherwise it will fit the width of the selection box and adjust its height to keep its original perspective ratio.
4. Click on Open button to add the image.

3 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69

花儿与少年
(四季调)


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<u>65</u>	<u>655</u>	<u>53</u>	<u>223</u>	<u>53</u>	<u>235</u>	<u>3217</u>	<u>666</u>	<u>66</u>
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3.11 Create Your Own Symbols

You can use the Insert Image function to create your own symbols. To do so, simply create a bitmap (BMP or JPEG) file of the symbol. Keep the image width to height ratio as the same as the cell, that is 1:2. To ensure the best printing quality, the image should be at least 60 pixels wide. To add the custom symbol to the music, select a single cell and then insert the image.

3.12 Import Scanned Music

You can import an entire page of scanned music as a bitmap image by clicking on the  icon from the toolbar, or choose menu item Add Whole Page Image from Image window. A scanned image will be added to the entire page. You cannot edit the scanned image, but you can add additional symbols, marks, and other notations.

3.13 Background Image

You can add a background into your music. The background is a BMP or JPEG image that covers entire page and apply to every page (unless you choose to stop it), see example below. Under Image menu, there are three items related to background image.

- **Add Background Image:** Allow you to select an image file to use as the background. The background image will apply to all pages from current page and beyond. Therefore you can have different background at different page. For example, you can at page 1 choose an image, and then go to page 4 and choose another image. The music will have one background from page1 to 3 and different background from page 4 and beyond.
- **Remove Background Image:** This function removes the background image.
- **Stop Background Image:** The background image will be stopped from current page and all pages after.

文件(Z) 编辑(Y) 文本(X) 修改(U) 视图(V) 五线谱(W) 工具(T) 图片(S) 视窗(R) 帮助(Q)

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59

1
2
3
4
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六月船歌

Barcarolle 柴可夫斯基

Andante cantabile

p

p *mf*

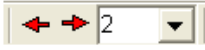

dim. *poco f*

第1页, 共5页

D:\ans\MusicWriter\Music\Piano\1.mus

4. Viewing Options

4.1 Navigate Through Pages

A music piece normally has more than one page. The icon group  on the toolbar can be used to navigate through the pages. Use the dropdown box to go to specific page, or use the arrow icons to go back and forth. If you are at the last page and the last page is not empty, clicking on the  key will append an empty page.

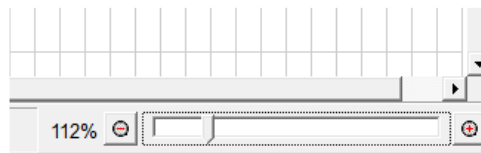
Page up and down keys can also be used to navigate through the pages just like the arrow icons.

You can always see the current page number and total page number on the status bar.

4.2 Zoom

There are various zoom options. These options can be found under the View menu.

- Using menu item Zoom in the View menu, you can zoom the view from 50% all the way to 400%.
- Using Ctrl+F1, Ctrl+F3, and Ctrl+F4, you can zoom the view to 100%, 300%, and 400%, respectively.
- Full View option in the View menu will make the page fit to the entire work area.
- Switch View will switch back and forth between current view and previous view.
- Using slide bar on the right-bottom corner to zoom in or out.




- Select Slice View option will fit the page to the entire screen. The title bar, toolbar and others are all hidden. Clicking right mouse button will go one page forward while clicking the left mouse button will go backwards. To quit from Slice view, simply press the <ESC> key. If you have a wider screen, there will be two pages side by side shown in the same time (See following screen). The slice view is a read only mode and no editing function is allowed. The slice view is the perfect for reading the music or directly playing from the computer screen.

The image displays two pages of a musical score created in MusicWriter. The score is titled '二泉印月' (Erquan Yin Yue) and is attributed to '阿丙' (A Bing). The notation is in a simplified notation system, featuring numbers and symbols for notes, rests, and dynamics. The left page (Page 1) shows the first system of notation, and the right page (Page 2) shows the second system. The notation includes various musical symbols, notes, and rests, with a grid background for editing.

When you zoom in, the software will always make sure that the current selected area is visible in the view window.

The zoom value is persistent. That means that after you set a zoom value it will stay in that value even when you exit and re-enter the program until you change it.


4.3 Other Misc. View Options

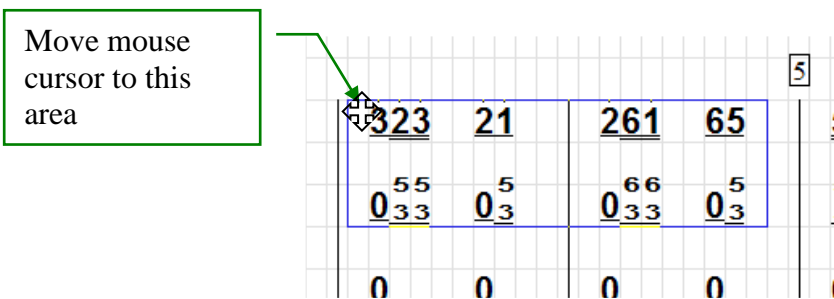
- Show Grid – turns the grid on and off
- Refresh – Repaints the entire page. Sometimes after editing, there is an old piece of data that still displays on the screen. This is because only the editing area, not the entire screen is repainted. These artifacts can happen when the editing object is shifted out of position. Clicking on the refresh icon  will solve this problem.
- Clear Highlight – After some operations, such as converting between Simplified Notation and Western Notation, some cells may be highlighted to indicate potential errors during the operation. Select this menu item will clear up the highlights

5. Editing

5.1 Move

There are two ways to move the content of selected blocks to a new location. The first method is to use the mouse:

1. Select an area whose contents you would like to move.
2. Move the mouse point close to the top or left edges of the selection box. The mouse cursor will change to a cross arrow shape  to indicate you can start to drag.





3. Holding the left mouse button and dragging the mouse will move the selection box accordingly.
4. After the selection box has been moved to the desired location, release the mouse button. The content of the selected area will be moved to the new location. The original content in the new location will be erased.


The second method is to use the copy, cut and paste functions. See next section.

5.2 Copy, Cut, Paste and Clear

Like most Windows software, you can copy, cut and past the selected content.

To copy or cut:

1. Select an area that you would like to copy or cut its contents.
2. For copy, click on the  icon or press Ctrl + C. For cut, click on the  icon or press Ctrl + X. The selected content then will be copied or cut to the clipboard.

To paste from clipboard, select a cell that will be the top-left corner for the to-be-pasted contents, then click on the  icon from the toolbar, or press Ctrl + V.

After you have placed content into the clipboard, you can open a new music piece and paste the content to the new music piece.

You can also only paste the dynamical mark, font or offset of the copied cell to the target cell without change other contains of the target cell. These special paste functions can be found under “Special Paste” menu item.

You can also paste the contents to another Window's application, such as MS Word and Excel. The contents pasted into other Windows applications will be high resolution bitmap based images. You can even adjust the bitmap resolution using the “Copy to Clipboard” quality parameter, which is specified in the preference menu.

If you would like to clear the contents of selected area, you can simply press the DEL key. The content in the selected are will be cleared but will not copied to the clipboard.

5.3 Delete and Insert Lines

You can easily delete a line or insert a line into the music. To do so, choose menu item Insert Line or Delete Line from the Edit menu. You can also use the short cut keys Ctrl + INS and Ctrl + DEL.

When a line is deleted, all contents after this line will be moved up by one line. When a line is inserted, all contents after this line will be moved down one line.

5.4 Delete and Insert Cells

You can easily delete cells or insert empty cells into the music. To do so, select a cell, then choose menu item Insert Cell, a new empty cell will be inserted at this location. If you choose Delete Cell from the Edit menu, the selected cell will be deleted. You can also use the short cut keys Ctrl + I and Ctrl + D.

When a cell is deleted, all contents on the same line after this cell will be moved left one cell. Empty cell will be appended to the end of the line. When an empty cell is inserted, all contents on the same line after this cell will be moved right one cell. The content in the last cell will be lost.

5.5 Delete and Insert Measures

Delete Measure

You can delete a measure. First select the cell within the measure you would like to delete. Then choose the menu item Delete Measure from the Edit menu, or use the short cut key Shift + DEL. The measure will be deleted from the music and all measures after it will be shifted up coordinately.

The delete measure can also apply to the full score music (the music with multiple parts.)

The delete measure works best if all the measures have the same number of cells. If you have a cell which has significantly more cells than the previous measure, the software may have trouble fitting all the objects in this measure to the previous one. In such a case, the operation will stop here and the measure that has trouble continuing will be highlighted with a yellow background color. You can manually resolve this conflict then continue the “Delete measures” operation from where it stopped. This is an example:

This measure will be deleted.

The image shows a musical score on a four-staff system. The first staff contains measures with notes 661, 6535, 6, 6, and a measure highlighted with a blue border containing 661, 6535, 6, 6. The second staff contains measures with notes 661, 653, 223, 53, 235, 3217, 6, -, 661, 653, 2, 2. The third staff contains measures with notes 0, 0, 633563, 633563, 661, 653, 2, 3, 53, 235, 3217, 6, -. The fourth staff contains measures with notes 0, 6561, 2, -, 2, 1, 6, -, 6, 1, 20, 0. A green arrow points from a text box to the blue-bordered measure in the first staff.

After pressing the Shift + DEL key, we have:

The measure has been deleted

Error - 1035
Cannot complete deleting measure because uneven measure size exists. This could result in lose of data.
OK

But we have conflicting.

The image shows the same musical score snippet as before, but the measure highlighted in blue in the first staff is now empty. A green arrow points from a text box to this empty measure. Another green arrow points from a text box to the measure containing 633563, 633563 in the third staff, which is now highlighted with a yellow background. An error dialog box is overlaid on the score, with a red 'X' icon and the text 'Error - 1035: Cannot complete deleting measure because uneven measure size exists. This could result in lose of data.' and an 'OK' button.

We can now manually solve the conflicts by shrinking the notes in the long measure:

<u>661</u>	<u>6535</u>	6	^{>} 6	6	^{>} 6	66	<u>265</u>	<u>666</u>	53	<u>661</u>	<u>653</u>
<u>223</u>	53	<u>235</u>	<u>3217</u>	6	—	<u>661</u>	<u>653</u>	2	2	0	0
<u>633563</u>	<u>633563</u>			<u>661</u>	<u>653</u>	<u>2.3</u>	53	<u>235</u>	<u>3217</u>	6	—
0	<u>6561</u>	^{tr} 2	—	^{tr} 2	1	^{tr} 6	—	6	1	^{>} 20	0

Conflicting solved and this empty measure needs to be deleted.

Then continue to delete the measures afterwards by pressing Shift + DEL again.

<u>661</u>	<u>6535</u>	6	^{>} 6	6	^{>} 6	66	<u>265</u>	<u>666</u>	53	<u>661</u>	<u>653</u>
<u>223</u>	53	<u>235</u>	<u>3217</u>	6	—	<u>661</u>	<u>653</u>	2	2	0	0
<u>633563</u>	<u>633563</u>	<u>661</u>	<u>653</u>	<u>2.3</u>	53	<u>235</u>	<u>3217</u>	6	—	0	<u>6561</u>
^{tr} 2	—	^{tr} 2	1	^{tr} 6	—	6	1	^{>} 20	0		

Insert Measure

There is no direct function to insert a measure because when conflicts happen, as we explained above, we may lose data. However, there is a way to insert a measure by using the delete measure function. This is an example:

Where a new measurement needs be inserted here

1. First, insert few empty ines after the line where the measure needs to be inserted so that you have enough space to copy the line as described in the next step:

2. Then make a copy of the line that you would like a measure to be inserted:

Copied line

- The third step is to clear all objects in the duplicated measures so that it will look like you have inserted multiple empty measures into the intended position:

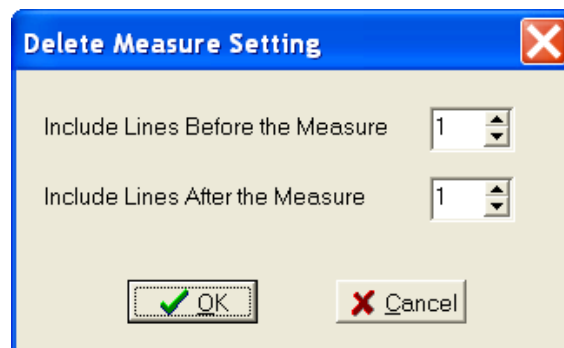
The screenshot shows a musical score with 17 staves. A green arrow points from a text box labeled "Copied line with duplicated measure cleared" to a measure in the 7th staff. The score contains various musical notations, including notes, rests, and dynamic markings like *tr* and *>*.

- Now use the Shift + DEL key to delete unwanted empty measures until you get the desired result:

The screenshot shows the same musical score after deleting empty measures. The measures have been shifted up, and the score is now more compact. The 7th staff now contains the measure that was previously cleared.

Delete Measure Options




As we have seen, when you delete a measure, the measures after it will be shifted up. In many cases, you may like to shift not only the measures, but also the symbols and marks above and below the line together. You can specify this option by choosing the Delete Measure Setting from the Edit menu. This is the Delete Measure Setting dialog:



This dialog allows you to specify how many lines above and below the measures will be shifted together with the measures.






5.6 Change the Size and Position

Change Size

All the notes, texts, images and some of the symbols can be resized. To do so, select the object and click on the  icon (decreases the size) or  (increases the size). You can also select an actual scale value from the pull down menu by clicking on the arrow beside the icons. Click on the  icon can reset the size back to the default. As usual, there are corresponding menu items that can do the same thing that are found under the Modify menu.


Even though you can resize the notes, if you have to resize many notes you may need to change the cell size instead of using the resize option. The resize should only be used in special occasions.

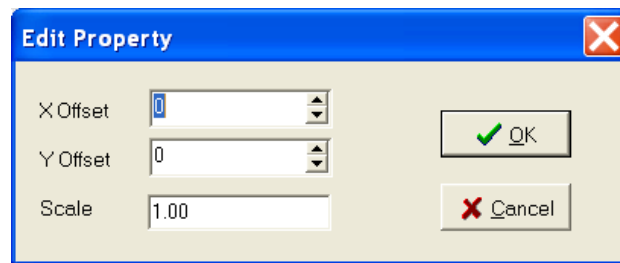
Move Position

You can move any objects up, down, left or right using     icons. Each click shifts the object about 1/5 of the cell width. If you press Shift key while clicking on those icons, it will only move 1/15 of the cell width. The icon  will reset its position to the default. You can also use the arrow key short cuts to move items, they are: CTRL + UP, CTRL + DOWN, CTRL + LEFT and, CTRL + RIGHT arrow keys.

If an object is moved too much from its default position, it will not be easy for users to know where its owner cell is. There is a menu item called “Show Owner Cell” under the View menu. If this menu item is checked, a red arrow will be drawn from the shifted object to its owner cell for the objects that has been moved.


Properties


Being able to change the size and position of objects gives the user great flexibility to design music that looks right. The size and position of an object is called the property. You can numerically change the object's property using the property dialog. To do so, select the object, click on the  icon which will bring up the property dialog and you can then change the values.



1 unit offset equals to 1/5 of the cell width.

5.7 Undo and Redo

Like most other Windows programs, you can always undo any editing you have done. The  icon in the toolbar allows you to undo, or you can simply press Ctrl + Z for undo.

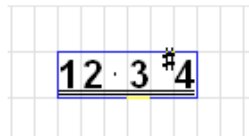
After undo, you can also to redo the undo by pressing Ctrl + Y or use the  icon in toolbar.


6. Shrunk Notes, Vertical Notes and Grace Notes

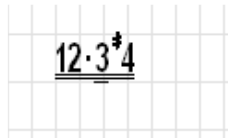
6.1 Shrink Notes

In some cases there is not enough space in a measure to fit in all the notes. For example you may have a lot of 16th or 32nd notes in one measure. In such cases you can shrink these notes horizontally. To shrink a row of notes, you need do:


1. Select the row of notes you would like to shrink, it should contains at least two notes.

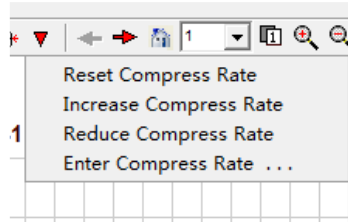


2. Click on the  button in the toolbar, or choose menu text->Shrink Notes, or simply press F10. The selected block will be shrunk to about the half the size in the horizontal direction.



Note:

1. The shrink should only be done occasionally since it requires extra steps to edit the shrunk notes (see 6.4). If you have to shrink too many notes, you may want to either increase the size of each measure or you may even want to reduce the size of the cell.
2. To reduce possible editing in the future, make sure the notes have correct form before shrink them, including the high/low dot, appended dot, underline, sharp, flat and nature signs.
3. The shrunk notes actually occupy only one cell, which is the first cell of the block though it appears in more than one cell.
4. The shrunk notes can only include notes (include append dot) and space.
5. You can change the amount of shrinkage. First select the shrunk notes, then click on the dropdown arrow beside the  button and choose Increase, Decrease, or Reset menu items.

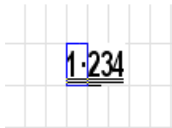


6. Once the notes are shrunk, it can be unshrinking if you select it and click on Shrink icon again. The program will try to find enough space original space to hold these unshrinking notes. However, if there is not enough space, it may cause some data to be lost.

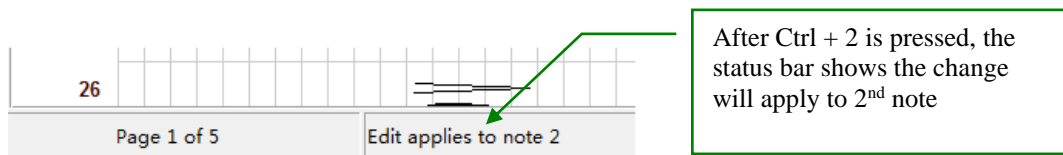
6.2 Edit Shrunk Notes

After a row of notes has been shrunk, it cannot be directly edited as normal notes. You need to first let the system know which notes need to be edited since all notes occupy a single cell.

1. Select the shrunk notes, you only need select the first cell, since shrunk notes block only occupies one cell which is the first cell (but it does not hurt anything by selecting more than one cell).



2. Click on Ctrl + <number>. Here the number is the key 1 to 9, indicating which note is about to be edited, for example Ctrl + 3 is for editing the third note. If Ctrl + 0 is pressed, the edit will apply to all notes in this shrunk block. A text will show up in the status bar at the bottom of the window to indicate which note will be edited.



3. Then type the changes as you normally do. The keys that are valid in this case are: numbers 0 to 7, comma (for low octaves dot), apostrophe (for high octaves dot), period (for dot note), underline (for note length) and SPACE. You can also click on the corresponding icons that change the underline, high dot or low dot. You can also add or remove the sharp, flat or nature sign of the specified note. You can replace the note with empty space but you cannot delete a note from the shrunk block. However, you can always clear the shrunk block and redo it.

There is also another quick way to edit the individual shrunken note:

- Hold the Alt key while typing or clicking on the proper key/menu items will modify the first note.
- Hold the Alt + Ctrl keys while typing or clicking on the proper key/menu items will modify the second note.
- Hold the Alt + Shift keys while typing or clicking on the proper key/menu items will modify the third note.
- Hold the Alt + Ctrl + Shift keys while typing or clicking on the proper key/menu items will modify the fourth note.
- The “_” key will not work with this key combination since you have to hold the shift key to type the “_” which will cause a conflict.



You can edit vertical notes (chords) and grace notes in similar way.

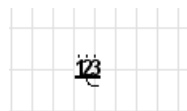
6.3 Create Grace Notes

You can create a pre and post grace notes similar to the shrunken notes:

1. Create the notes in the normal way. Make sure they are in the correct form; include their underline, high/low dot, appended dot, sharp, flat and nature signs. For example:

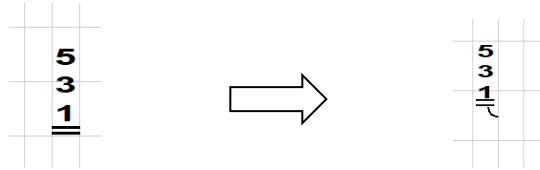


2. Select the entire block, then click on the  icon (for pre- grace) or  (for post-grace) from the toolbar (You can also use menu items “Pre Grace Notes” and “Post Grace Notes” from the Text menu.) The selected block will change to the proper grace notes, e.g.:



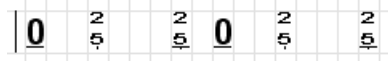
Like shrunken notes, the grace notes also occupies one cell which is the first cell of its original notes. You can still modify and unpack the grace notes similar to the shrunken notes. See Section [6.2](#) “Edit shrunk notes”.

The vertical notes that will explain next also can convert to grace note:



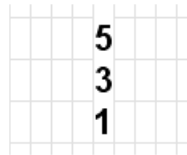
6.4 Create Vertical Notes

Vertical notes are blocks of notes listed vertically. For example:




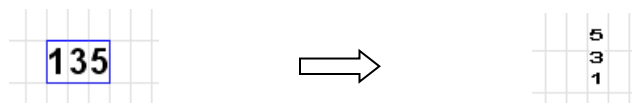
Most of the time, vertical notes are used to present the chord notes. Sometimes it can also be used to presents multiple part of the musical instruments. For example, the top notes for Erhu 1 and bottom notes for Erhu 2.

You can certainly create the vertical notes by typing them separately in adjacent cell like:

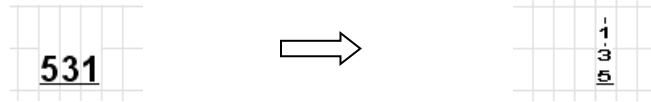


But not only will this make it look too tall, but also the notes are not recognized as a group of notes and will not convert correctly when we try to convert the music to the western notation, or break the music into multiple parts, or when you play the music. The best way to make a chord notes is to create a vertical note block.

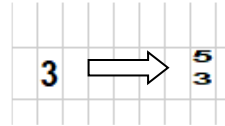
Similar to shrunken or grace notes, to create vertical notes, you first type the notes in a row that you want to be part of the vertical notes block. Make sure they are in correct form, including high-low dot, appended dot, sharp, flat and nature signs. Then select the block and click on the  icon, or select the menu item Vertical Notes from the Text menu, or simply press F9.



The system will make sure that the upper note is always higher than the lower note during the process. For example, if you type 531, it will convert to 5, 3 with one high dot, and 1 with 2 high dots:



Another quick way to create vertical notes is to press Ctrl-Z, this will add an additional note on top of current note (so it become a vertical note if not already is). The added note is two steps higher than current note.



Also Ctrl-X key can be used to delete top note from a vertical note.

Like shrunken notes, the vertical notes will occupy one cell which is the bottom cell of the vertical note. You can modify and unpacked the vertical notes similarly to the shrunken notes. See “How to edit shrunken notes”. The only exception is the underline. You can not specify the underline for individual notes. The underline for the vertical notes only applies to the entire block. You can edit the underline like a normal note.

6.5 Create Two Parts in One line

For Jianpu, sometimes you need write two parts of the music in one line. For example:




Same duration of two parts.

Different duration of two parts.

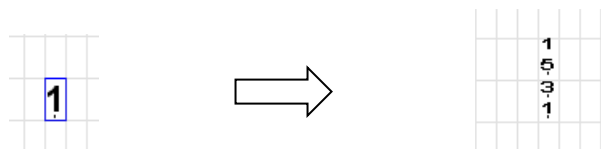
If the duration of two parts is the same, you can simply use the vertical notes to create them. If the duration is different you must use back layer to handle it. See [section 13](#) for how to use back layer. We will explain how to create two parts when the time is different.




6.6 Use Pre-Defined Chord

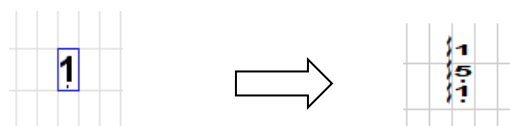
There are several predefined chords to choose, which all defined in the dynamic mark window. To select a predefined chord:

1. Enter the root note of 1, 2, 3, 5, or 6 with proper high or low octave dot.
2. Select the cell and click on the  button (for 3 note chord),  (for 4 note chord), or  (for 7 note chord) from the Dynamic Mark window.

This is a 4 note chord example:



If you want to add a arpeggio symbol on the left side of the chord, choose , , or  button instead. The following is a 3 note chord example with arpeggio symbol:



7. Files and Print

7.1 Create New Files

To create an empty file, you can choose New from File menu. If you want to create a sheet with predefined template, you can first create a music line with your desired measurement lines, then use Copy/Paste function to reproduce it in entire page. Then you can copy this page to the following page to create multiple empty page with the same template.

You can also save an empty page with desired template to a file and use it later.

Create a desired empty music line:



Then copy/paste to reproduce the line to entire page.

7.2 Save, Load and Share Music Files

Using Save or Save As from File menu, the music can be saved as a MusicWriter file that has extension “mus”. Though you can use other letters for the file extension, we strongly suggest you stay with the default extension.

After the file is saved, it can be loaded back to the MusicWriter using the Load menu item from the File menu.

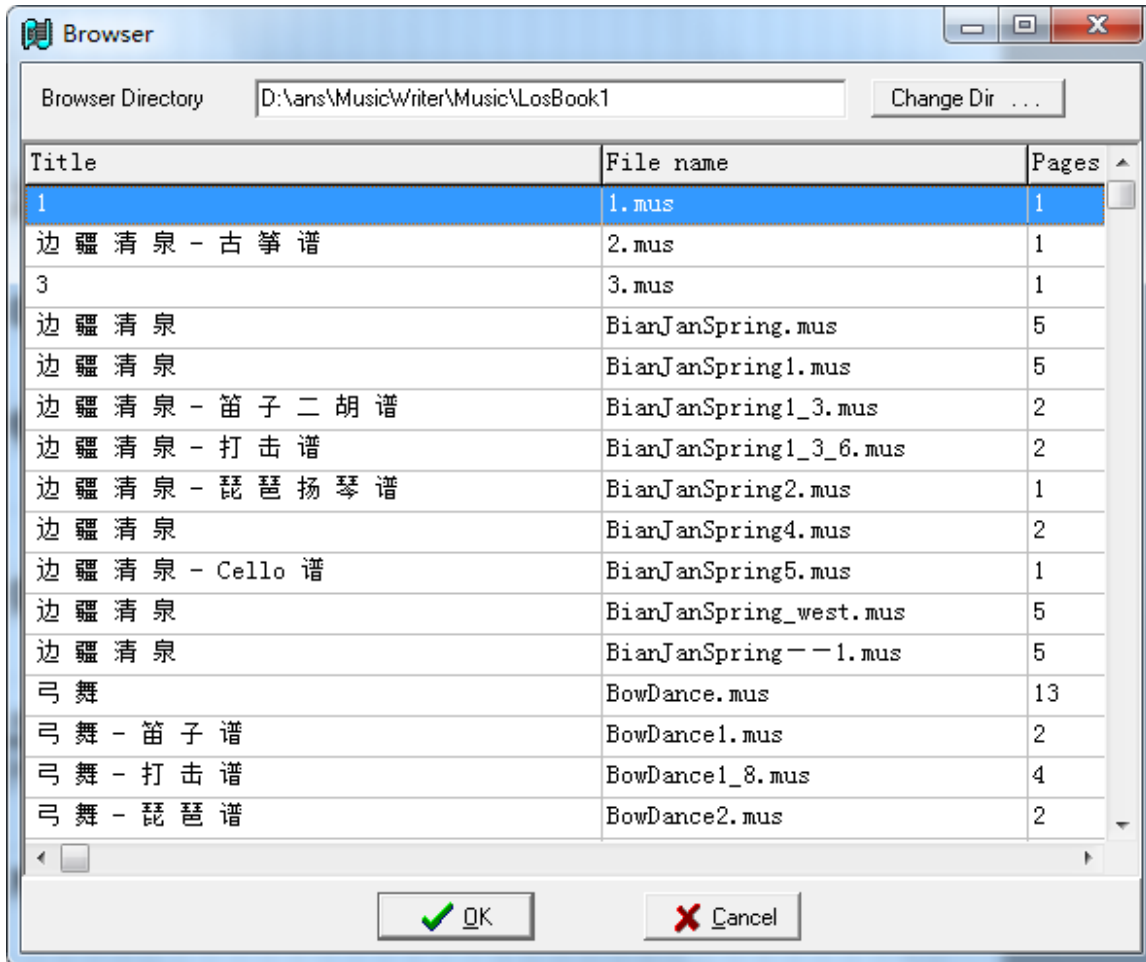
The MUS file is a self-efficient file (except for large image >10MB). That means you can share the MUS file with other people who has MusicWriter by sending them the MUS file. There are a few notations:

- Depending on how the default fonts are setup on the computer, the MUS file loaded may look different in fonts from its original font when it was created. This can be an advantage. For example, one can create the music in Traditional Chinese. Another person can open it in simplified Chinese without make any changes.

- If the MUS file contains large images that is more than 10MB, the actual images are not contained in the MUS file, and only the location of the image file is saved on the MUS file. In such case, you also need to share the image files.

7.3 Browser Music Files

The Browse function in File menu allows you to browse a directory and list all music files by its title, file name and number of pages. This function helps user to easily locate the correct music piece to open.

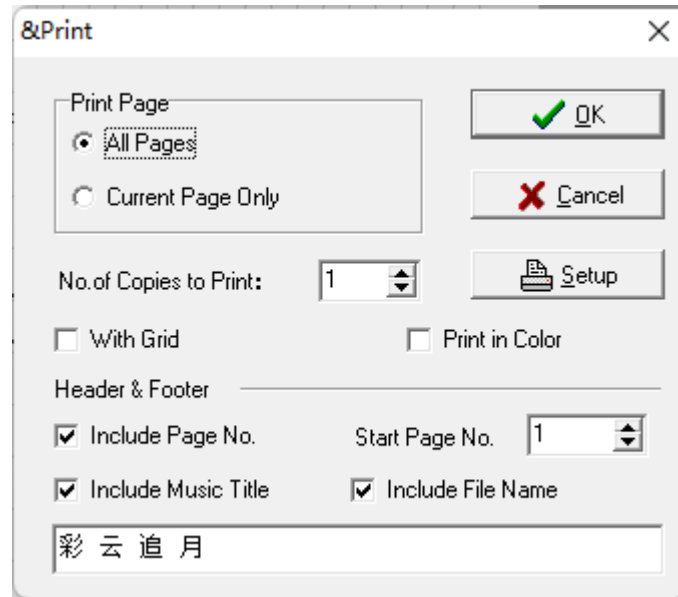


Determination of Music Title

The title of a music piece is determined by the following rule: The first text string within the first 10 lines of the music that contains at least 1 Chinese character, or 5 English characters. If a title string cannot be found, the file name will be used as the title. For this reason, one should always put the title text as the first text in the music.

7.4 Print Music Files

To print current music, choose Print from File Menu. The print dialog will open like:

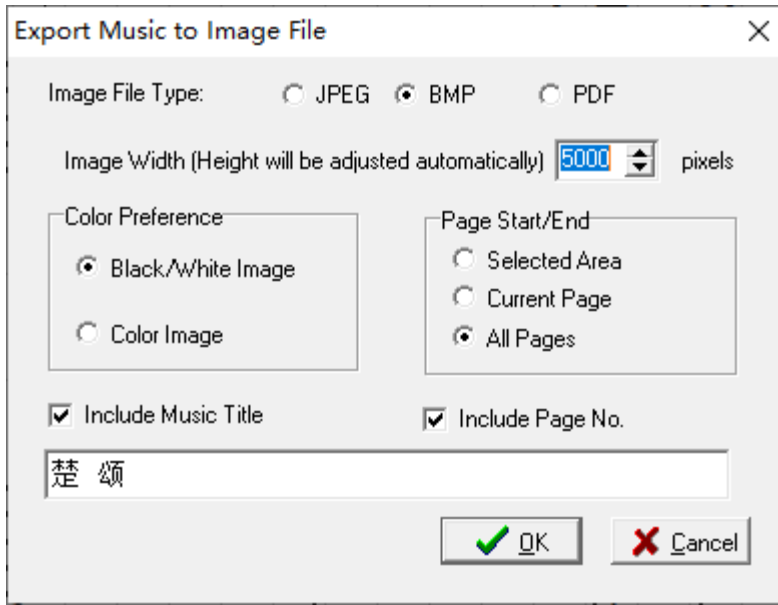


You have several options to choose and all are self-explanatory.

7.5 Save Music to Image File

You can also save the music as an image file. You can save as either a JPEG or BMP file format. The JPEG is preferred since it is a compressed format and will take less disk space than BMP. You can use image files to share music with others who do not have the MusicWriter software.

To create the image file, choose Export menu item from the File menu, the Save to Image File dialog will pop up.



You need specify image file width. Larger the width is the bigger the file and better the resolution will be. If the image width is too large, the computer may not have enough memory to create the file and in such a case an error window will pop up to ask you to reduce the image width. In general, the up limit of BMP file is larger than JPEG file. Therefore if the width of a JPEG file is too larger, you can try to change to BMP format.

For BMP format, there are two types of color schemes: Black/White or Color. The Black/White image will take much less space than the color image. For JPEG file, you can choose Gray Scale or Color. There is no difference in file size.

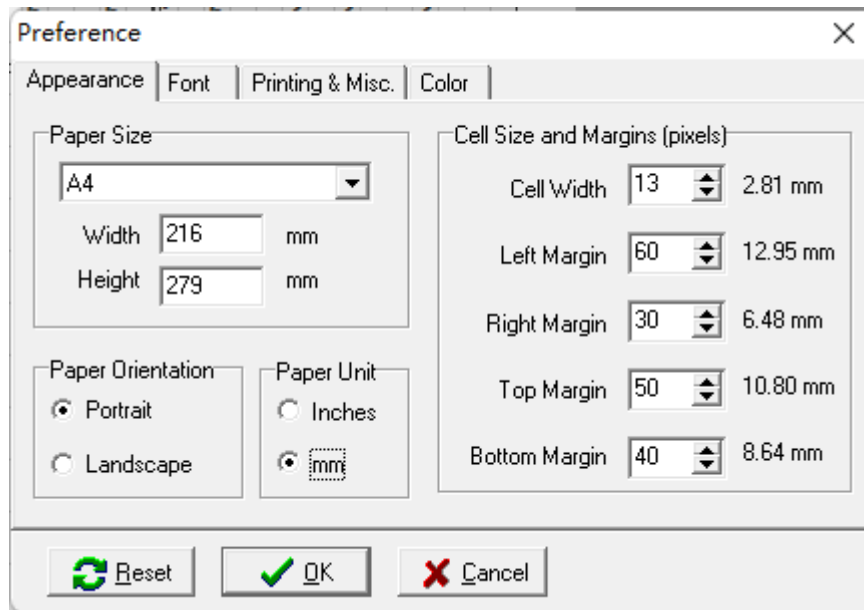
If the music has more than one page, there will be multiple image files created, one for each page. The image file names in such case will be the file name that the user specified appended with “_N”, the N is the page number.

7.6 Save Music to MIDI File

Under File menu you can find “Save As MIDI File” option, this can save your current music to a MIDI file.

8. Preference

The preference dialog allows user to set up several key parameters. To open the Preference dialog, choose Preference from Help menu. All parameters in this dialog are persistent, that means they will not change its value even you reenter the program.



8.1 Appearance

Paper Size and Orientation

The MusicWriter is designed to fit any size of paper. You can either select a pre-defined paper size, or directly enter the paper size in inches. You can also choose to lay the paper in portrait and landscape.

Cell Size and Margins

The standard paper shown on screen will always be 1000 pixel wide. The user should use the Preference dialog to set up the Cell width accordantly. Cell height will always be twice the cell width. All other sizes, such as the size for notes, texts, symbols and marks will be automatically adjusted based on the cell width.

You can also set up margins in the Preference.

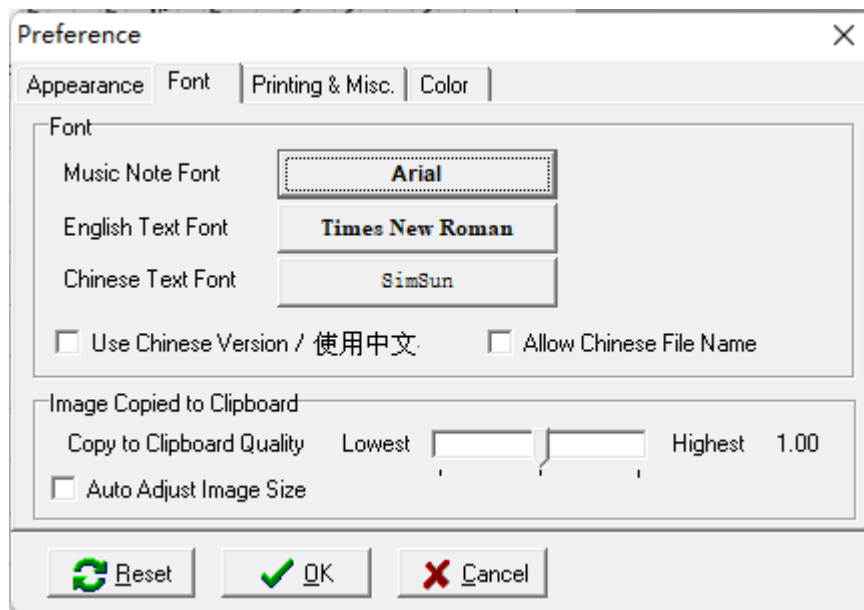
Cell width and margins are all defined in pixels.

Note: The pixels here are not the same pixels of the screen. It is an internal unit I used to define the size. A print paper is always defined to have 1000 pixels at its short side no matter the size of the paper or the resolution of the rent device.

If there is music opened and the paper size, orientation, cell width or margin is changed, the music will be adjusted to fit the new size. In such case, some of the information on the music may be lost if the number of cells per row or per column decreases. If the number of cells per row or per column increases, you may need to rearrange the position of the data to fill the extra spaces. Anyway, we strongly suggest that you set these parameter properly based on your preference before enter any data.

MUS file includes the paper size, orientation, cell width and margins that are used to create this file. Therefore when you open a file, it may be created using different parameters and these parameters will be reset from the file. This does not mean the default values of these parameters have been changed. If you create a new file, the default parameter will still be used.

8.2 Font Setup



Default Font Setup

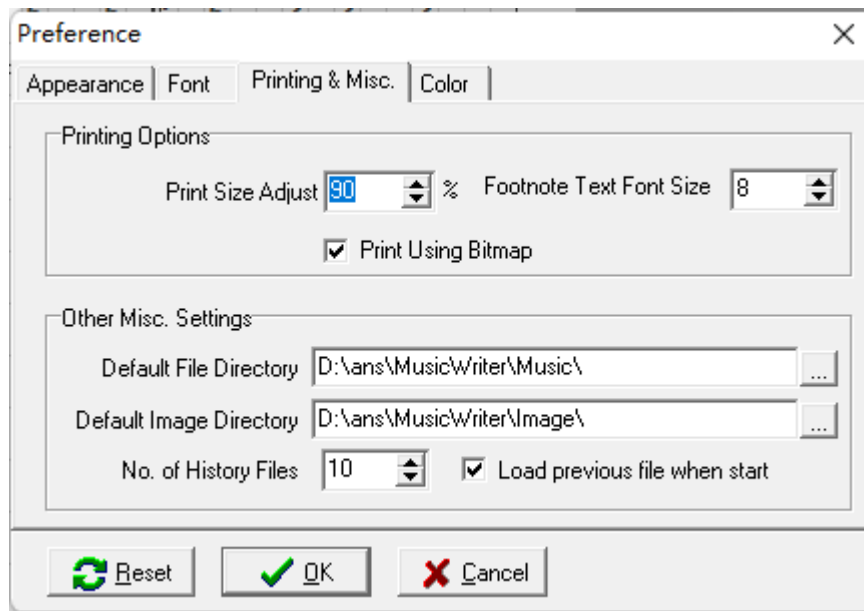
There are three default fonts: one for the notes, one for the English texts and one for the Chinese texts.

If you check the “Use Chinese Version”, the software will display almost all interface texts in Chinese, such as the menu, dialogs, etc. You can also uses the short cut key F7 to quickly switch between Chinese and English version. See section [2.5](#) for details.

Please note that if you are running old English version of Windows OS (such as Windows XP or Vista), you may need to setup your environment correctly in order to run Chinese version. Please see document “How to Setup Chinese for MusicWriter.doc” for details. If you are running Chinese version Windows OS, you should be able to run the software in Chinese without additional work.

On this page, you can also set up the “Copy to Clipboard” quality. MusicWriter uses standard Windows Clipboard to store the copied image in a bitmap format so you can paste it to other Windows application. Higher the quality is, higher the bitmap resolution will be used. However, if the resolution is too high, you may not have enough memory in the clipboard to store the image.

8.3 Printing and Other Misc. Settings



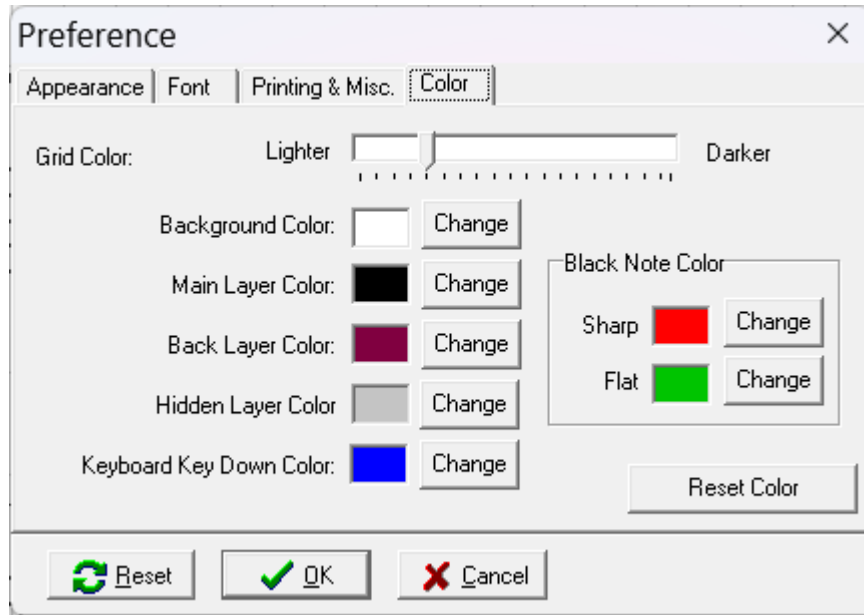
In the Printing & Misc. page, you can set other options:

- **Print Size Adjust** – Sometimes a printer is slightly different in terms of its printed text size, the Print Size Adjust is a percentage of the adjustment of the note font when printed. If you see a font size difference between the printed copy and the viewing on screen and dissatisfied with the printed result, adjust this value.
- **Print Line Width** – again, due to the difference between printers, the line thickness (such as the under line, dash, point, etc.) may look too thin or too thick on the printed copy. Adjust this value to achieve desired line thickness.
- **Footnote Text Font Size** – There are optional footnote on the print page that can show the music title, book title, and file name. This parameter determines the size of the footnote text.

- Default File Directory – Where you commonly store your music files.
- Default Image Directory – Where you commonly store your image files.

8.4 Color Setup

In the color page, you can set color scheme used in the software:



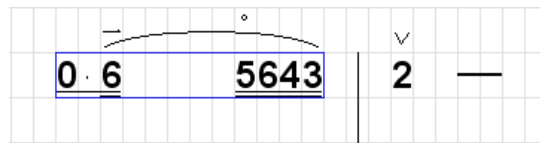
- Black Note Color – In west style, on the staff software can make the note in different color if this note will play on black key on the keyboard.
- Keyboard Key Down Color – On virtual keyboard (see [Chapter 15](#)), use this color for the pressed-down key.

All other color settings are self-explained.

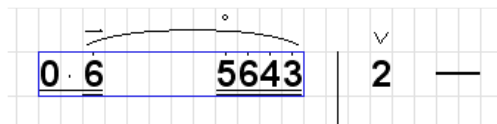
9. Tools

9.1 Move Note Up or Down

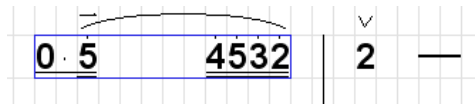
You can easily move the note by one step or by a whole octave. First select the notes that you want to move, then use Move Note Up/Down menu item in the Tool menu. There are short cut keys as well. Shift + F8 shifts them whole octave higher. Ctrl + F8 moves them whole octave lower. Shift + F1 moves them one step higher. Ctrl + F1 moves them one step lower. For example:



After move one octave higher, it becomes:



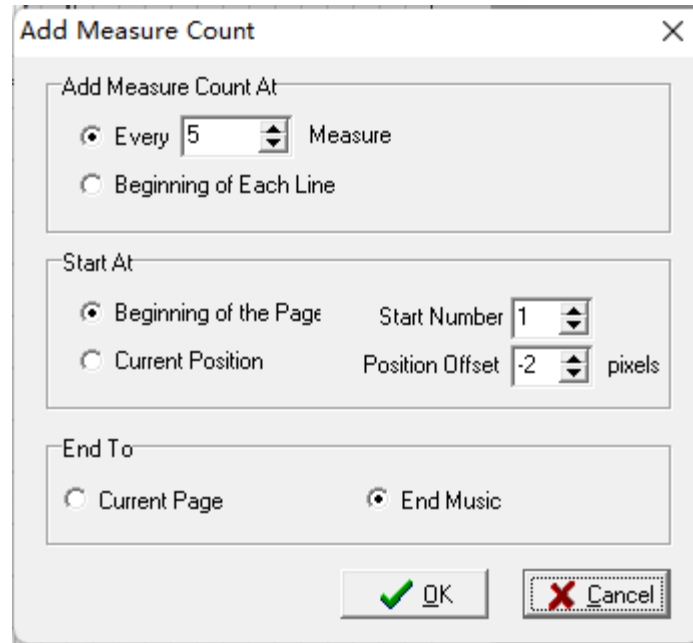
After move one step lower, it becomes:



Note: move note will ignore half step. For example, if move 1va up, 1 will be 2, but 3 will be 4, not #4.

9.2 Add Measure Count

The measure count can be added automatically. Selecting Tool -> Measure Count will pop up the Add Measure Count dialog:



The first group in the dialog window allows you to specify how often the measure count will be added. The second group of parameter allows you to specify where to start and the start number. The Position Offset is an offset in pixels that the measure count text will be displayed. Using a negative offset will allow the measure count text slightly above the bar line so it will look better. Finally you specify if the measure count will be added to this page only or to all following pages.

When measure count is added, any old measure count, if exists, will be removed. This is an example of a music piece that has measure count added:

笛	{	0	6	266	65	655	53	223	53	235	3217	666	66
弹	{	>	0	266	65	655	53	223	53	235	3217	666	66
二	{	>	0	266	65	655	53	223	53	235	3217	666	66
中	{	>	0	266	65	655	53	223	53	235	3217	666	66
阮	{	>	0	266	65	655	53	223	53	235	3217	666	66
打	{	X	0	Xxx	xx	Xxx	xx	Xxx	xx	Xxx	xx	Xxx	xx


Automatically added measure count

笛	{	0	0	0	0	0	0	0	0	0	0	0	0
弹	{	0 ³	0 ³	0 ³	0 ³	0 ⁶	0 ³	0 ¹	2 ⁰	0 ⁶	0 ⁶	0 ⁶	3 ⁰
二	{	0	0	0	0	36	3632	3217	6	661	6535	6	6
中	{	0	0	0	0	36	3632	3217	6	1	—	6	—
阮	{	66	36	66	36	60	30	61	20	60	30	63	60
打	{	Xx	Xx	Xx	Xx	Xx	Xx	Xx	X0	Xx	Xx	Xx	X0

9.3 Verify

The verify function will check for any inconsistency of the beat count in each measure in regards to its time signature. The inconsistent measures, if they exist, will be highlighted in yellow for you to examine in more details.

In order for this to work correctly, you must follow the common practice of setting the time signature. That is:

- Always use the Time Signature icon  from toolbar to add time signature.
- Always use the multi-let mark in Dynamic Mark floating window to mark the triplets and multi-lets.
- You must have at least one time signature before the first note starts.
- If the time signature changes in the middle of the music, you need to either mark the new time signature where it changes or list all applicable time signatures before the first note is started. See the following examples:

Add new time signature to where it changes:



Example 1: A musical score titled "花儿与少年 - 笛子" (Flower and Youth - Di Zi) in F major (1 = F) and 2/4 time. The score is written on a grid with measures numbered 1 to 69. The time signature changes from 2/4 to 4/4 at measure 25, indicated by a box around the measure number and the new time signature symbol. The notation includes various notes, rests, and dynamic markings.

Or add two time signatures before the music starts:



Example 2: A musical score titled "花儿与少年 - 笛子" (Flower and Youth - Di Zi) in F major (1 = F). The score is written on a grid with measures numbered 1 to 69. The time signature changes from 2/4 to 4/4 at measure 25, indicated by a box around the measure number and the new time signature symbol. The notation includes various notes, rests, and dynamic markings.

9.4 Auto Underline

Underlining all notes correctly can be a lot of work when you create the music. This is a tool that can save you a lot of time.

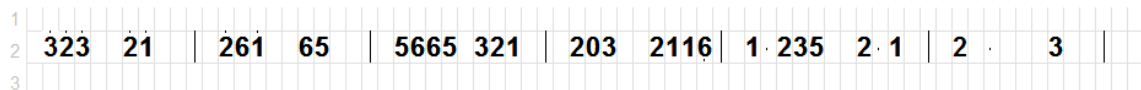
To execute the Auto Underline, you first select a block of cells, and then either choose Tool->Auto Underline, or simply press the F11 key. If you only have one cell selected, the Auto Underline will apply to the entire row, otherwise it will apply to the selected area.

The Auto Underline algorithm uses the following rules. So in order for Auto Underline to work right, you need follow these rules as close as possible.

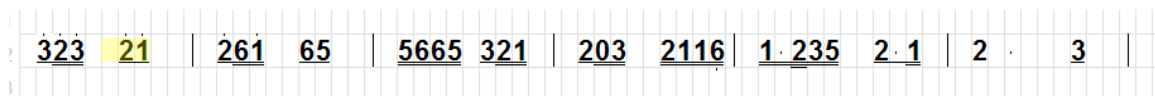
For time signature of 4/4, 2/4, 2/2, please follow the rule below:


1. If 8 or more notes are grouped together without space in between, it will add triple underline to them (so assume they are 32nd notes).
2. If 4 or more notes are grouped together without space in between, it will add double underline to them (so assume they are 16th notes).
3. If two notes are grouped together, it will add a single underline to them (so assume they are 8th notes).
4. If three notes are grouped together, it will add single underline to the first note and double underline to the second and third notes.
5. If an appended dot exists, it will add an additional underline to the following note to reduce its time value by half.

This is a line of music before the Auto Underline applied:



This is the result after Auto Underline:

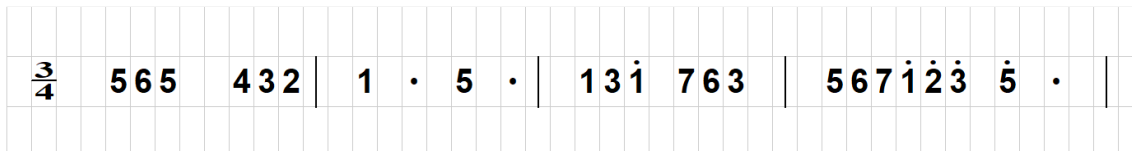


The rule number 4 needs a special attention because when 3 notes are together, it can mean 323 or 323, for example. You may need to fix it manually. But there is an  icon on the left bar that will allow you to switch between these two variations by a simply click. Software will highlight these notes for you to examine.

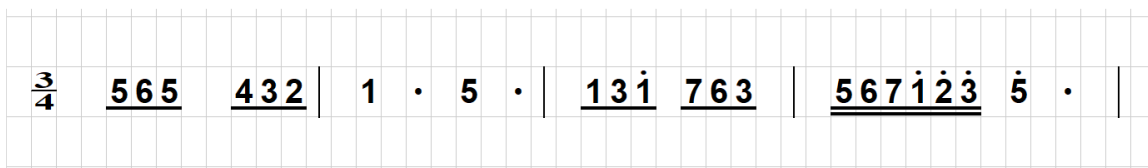
For time signature of 3/4, the following rule will be used:

1. If 6 or more notes are grouped together without space in between, it will add double underline to them (so assume they are 16th notes).
2. If 3 notes are grouped together without space in between, it will add single underline to them (so assume they are 8th notes)。

For example:



The result after apply the Auto Underline:



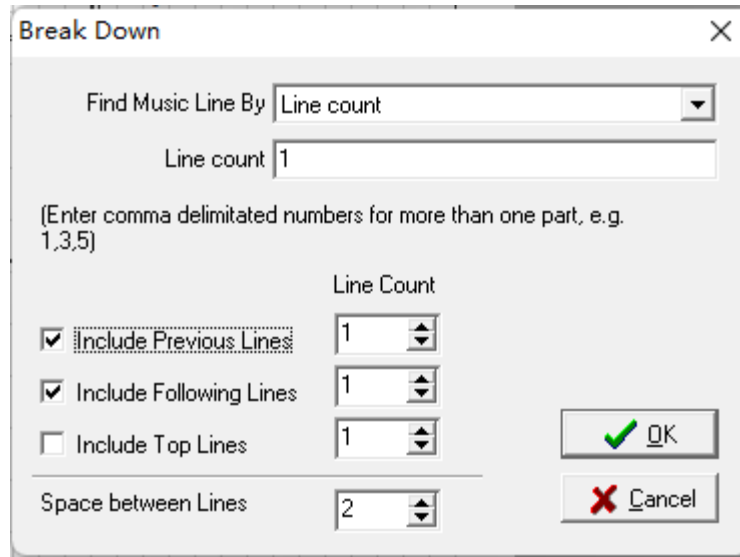
For time signature of 3/8 or 6/8, the following rule will be used:

1. If 6 or more notes are grouped together without space in between, it will add triple underline to them (so assume they are 32th notes).
2. If 3 notes are grouped together without space in between, it will add double underline to them (so assume they are 16th notes)。

The Auto Underline can do most of the job for you if you follow the rules. However, you still need to verify the result after Auto Underline to make sure it is correct.

9.5 Break Full Score Music to Parts

To break full score music into individual parts (分谱), select Break Down menu item from the Tool menu. A dialog will pop up as shown below.



First you need to specify which rule to use to identify the music line of the part you would like to extract. There are 4 different types of rules:

1. By Line Count – Use the line count number to specify the music part. In the following example, 笛子 will have line count of 1. 二胡 will have the line count of 5.

笛子	$\frac{2}{7}$	-	-	-		3	5.6	1.2	615		5.1	6535	2	-		223	76	5.6	12		
琵琶	$\frac{2}{7}$	2	0	0	0		1 1 1 2 3	5 3	1 1 1 2 3	6 3		2 2 2 3 5	6 5	2 2 2 3 5	6 5		6 6 6 1 2	4 2	7 7 7 2 3	5 3	
扬琴	$\frac{2}{7}$	5	0	0	0		3 5 6 1	0	3 5 6 1	0		2 5 6 2	0	2 5 6 2	0		2 4 5 6	0	3 5 6 7	0	
古筝	$\frac{2}{7}$	2	0	0	0		0	1	1	0		0	2	2	0		0	2	2	0	
二胡	$\frac{2}{7}$	-	-	-		3	5.6	1.2	615		5.1	6535	2	-		223	76	5.6	12		
中胡	$\frac{2}{7}$	2	0	0	0		0	5	5	0		0	6	6	0		0	6	6	0	
革胡	$\frac{2}{7}$	5	0	0	0		1	-	6	-		5	-	55	43		2	-	3	5	
Base	$\frac{2}{7}$	5	0	0	0		1	-	6	-		5	-	55	43		2	-	3	5	
打击	$\frac{2}{7}$	0	0	0	0		x	0	0	0		x	0	0	0		x	0	0	0	

2. By Instrument Name – If you have the instrument name at the beginning of every line, you can also use the instrument name to identify the music part. In the above example, you can use text 二胡 to identify the music part for 二胡.

3. By Bracket Count – Since full score music will have the bracket or brace at the beginning of the line to group the music parts, you can also use the bracket (or brace) count to identify the music part. For the above example, the bracket count 1 represents the music line for 笛子. Bracket count 5 represents the music line for 打击. The bracket count 3 will represent music line for 二胡 and 中胡.
4. By Highlighted Lines – You can manually highlight individual lines and ask the software to extract these lines of music for you. To highlight a line, you need click on the margin area of the line (like you select the whole line) while hold the Alt Key. If the line is already highlighted, it will clear the highlight. The following example highlights the 笛子 and 打击 parts:

The screenshot shows a musical score with 13 staves. The 笛子 (Di Zi) staff is the top staff, and the 打击 (Da Ji) staff is the bottom staff. The 笛子 staff is highlighted in yellow, and the 打击 staff is also highlighted in yellow. The 笛子 staff has a bracket count of 1, and the 打击 staff has a bracket count of 5. The score is written in a traditional Chinese notation style with numbers and symbols.

After selecting the rule to use, you then need to enter the parts to be extracted in the edit box. If you like to extract multiple parts, you need to enter the indicators in comma delimited format. For example, if you choose the Line Count rule, and like to extract music for 二胡 and 中胡, you need enter “5, 6” in the edit box.

Finally, you need select which additional lines to be included. Remember the top line may contain the useful information such as the section name, measure count, etc. that you may want to keep.

The following example is the result of Break Down for 二胡 and 杨琴. We have included 1 top line, 1 line above and 1 line below:

1 3 5 7 8 11 13 15 17 18 21 23 25 27 28 31 33 35 37 38 41 43 45 47 48 51 53 55 57 58 61 63 65 67 68

1 = G $\frac{4}{4}$ 梁山泊与祝英台选曲 何占豪, 陈钢曲
(协奏曲) 召人望编配

如歌的慢板 ♩ = 50

A

二胡 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 |

扬琴 0 0 0 0 | 0 0 0 0 | 5 - - - | 5 0 0 0 0 0 0 0 | 0 0 0 0 0 0 |

5

二胡 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 0 05 32 |

扬琴 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 |

10

二胡 1 - 02 76 | 5 - 07 67 | 5 6 #43 2343 5 3 | 2352 3432 1 5 |

p mp mp p

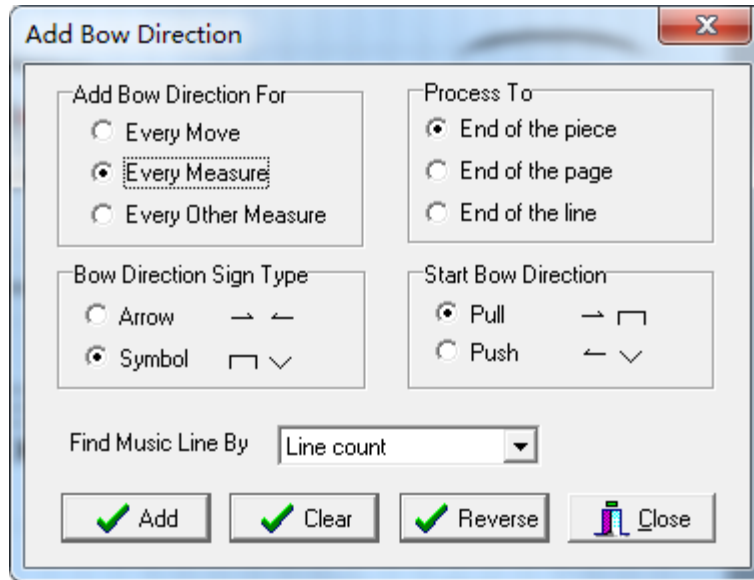
扬琴 1 - - - | 2 - - - | 1 - 6 5 | 3 - - 5 |

As you have seen, though the Break Down has done much of the work for you, you may still need to do some clean up to make the part music perfect.

9.6 Add Bow Direction

The software can add bow direction symbol automatically for string instruments. To add bow direction, you need to follow the following steps:

1. Make sure all the slur marks are correct for your music.
2. Select a cell where you want to start. The selected cell must be on a music line.
3. Select Bow Direction menu item from the Tool menu. The add Bow Direction dialog will pop up:



After specifying all options, click on the “Add” button. All existing bow movement symbols will be cleared and the new bow movement symbols will be added.

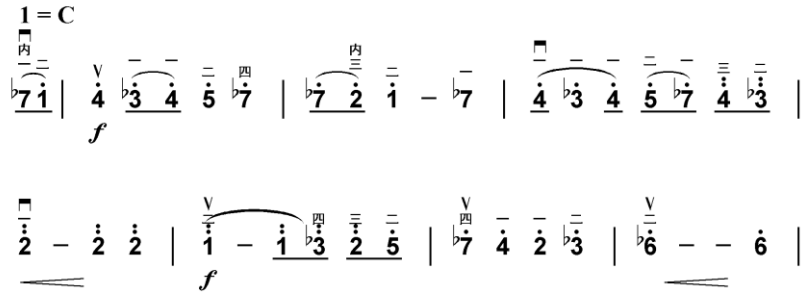
All options on the dialog are self-explanatory except the dropdown box “Find Music Line By”. This option specifies the rule that is used to find music line when dealing with full score music. See section [9.5](#) “Break Full Score Music to Part” for details.

If you click on the Clear button, it will only clear the existing bow movement symbols without adding new ones from where it starts.

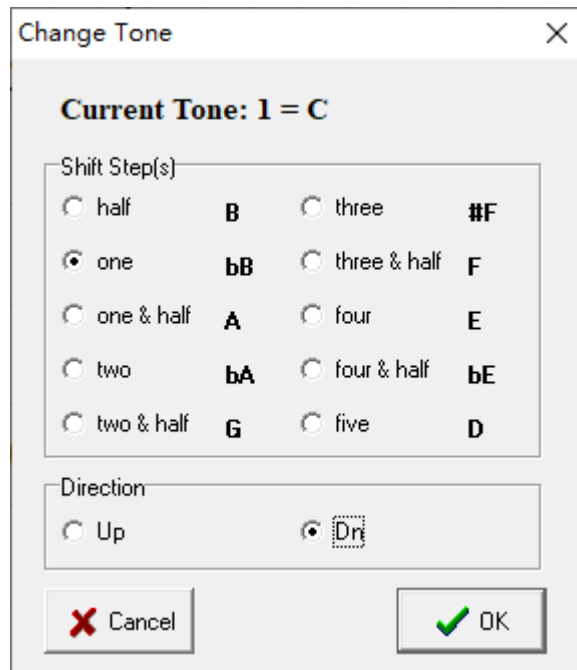
Clicking on the “Reverse” button will reverse all existing bow movement symbols from where it starts.

9.7 Change Tone

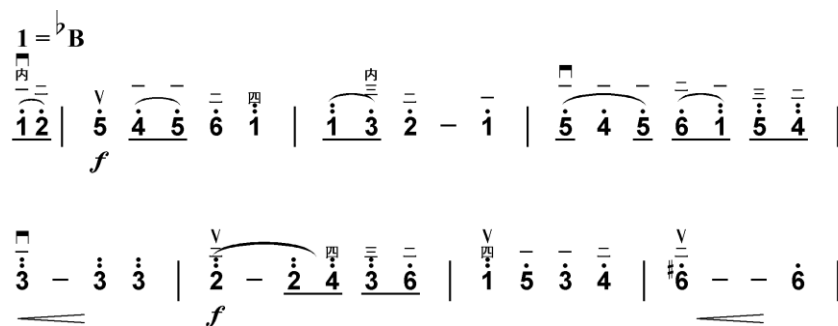
Change tone function will change the tone of the music but keep the same pitch. This is very useful especially when the music is written with fixed tone and you want to make it as a nature tone. Following is an example of a piece music writing in fixed tone:



This piece is written in fixed C tone, however it actually is B flat in natural. We can use this function to convert them to B flat tone. When click on this menu item, a popup window shown below:



You will need to chose correct tone to be changed. In this case, we choose to move down one step, from C to B flat. Click on OK to process:



You can see the piece is convert to B flat and is much more easy to read.

Note: this function currently is only applicable to Jianpu.

10. Create Western Notation Music

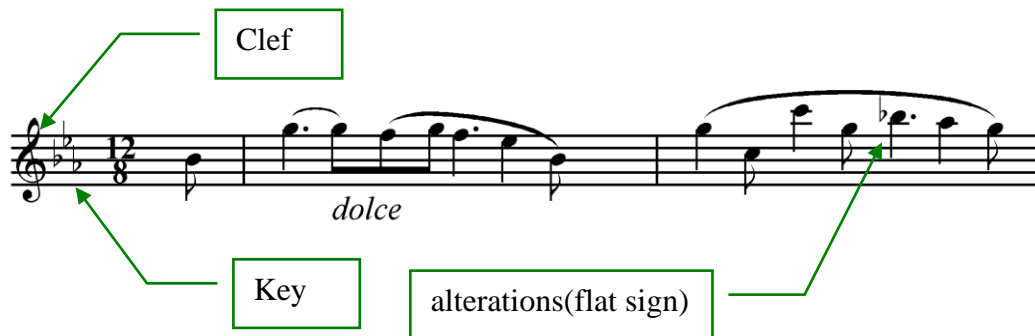
Though the MusicWriter program is designed for Simplified Notation, it contains all the abilities to create the Western notation music. Regarding how to use western notation, please refer to other books. However, here we need to define some terminology used in this document:

Staff: A complete line of music in western notation.

Clef: Clef locate at the beginning of the staff. Clef defines the pitch of the staff. Comment used clefs are: G clef, F clef and C clef. If a staff has a G clef, we call it G staff, and so on.

Key Signature: Also called simply the “Key”. It determines which note(s) need to raise or lower half steps. It applies to entire staff.

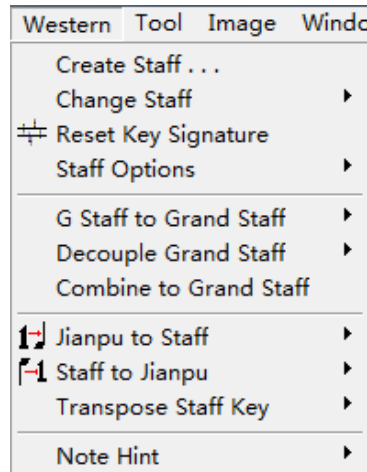
Alteration: temporally raise or lower the note half steps (#, b, etc.). It only applies to its measure.



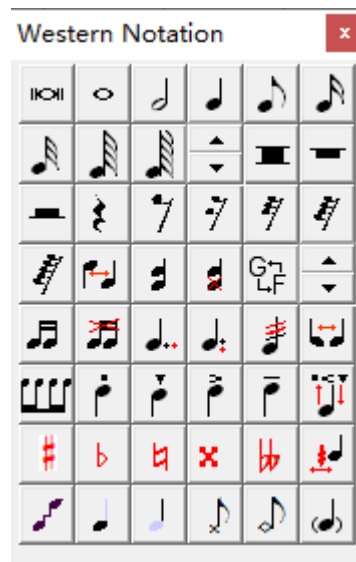
You can use the functions described in this chapter to edit the music that is converted from Simplified Notation, or create a music piece completely from scratch in the western notation.

Most staff related functions are located in “Western” menu and “” floating window.

Here is the “Western” menu:



Here is the “Western Notation” floating window:



10.1 Create Staff

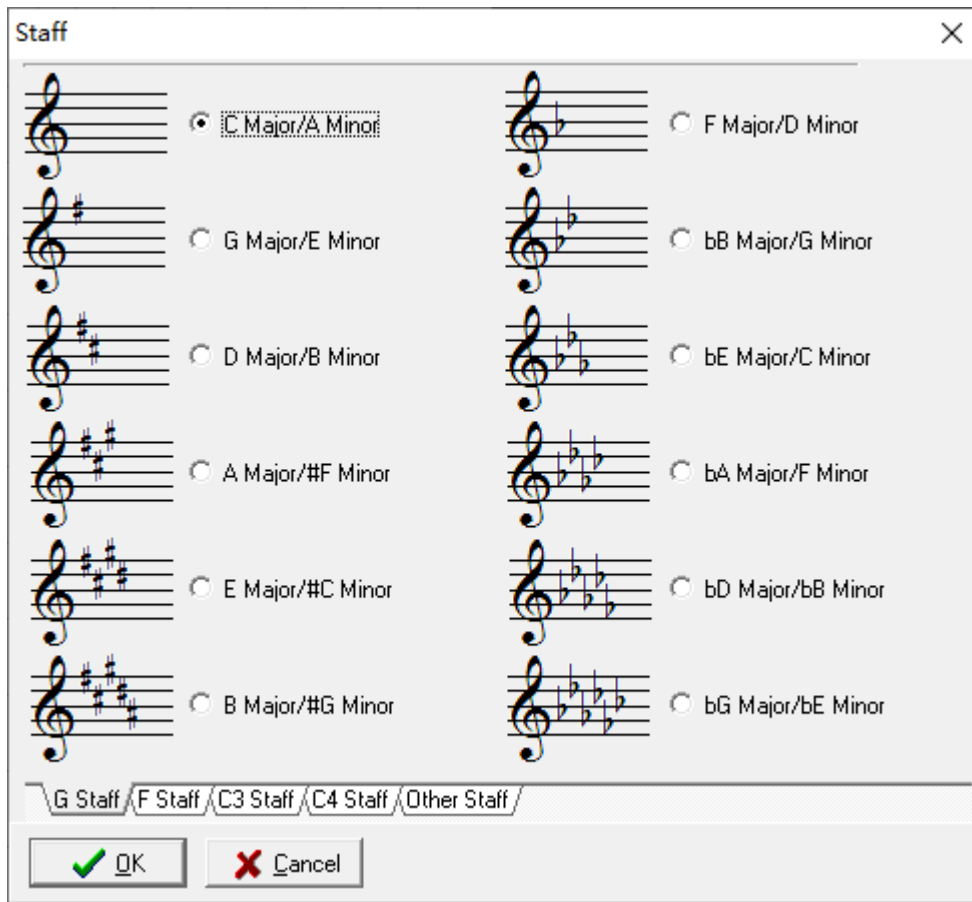
1. Select a block of cells, usually a single row of cells. It needs at least three units long.



Note: Though it is perfectly fine to mix the simplified and western notation on the same piece, it is not a good idea to mix western and simplified notation on the same roll.

2. Choose “Create Staff” menu item from “Western” menu, a dialog will pop up asking you to select a clef and key. You can select G, F, C3 or C4 staff. The “Other Staves”

page includes such as the percussion staff for percussion instruments and other supplementary staves.

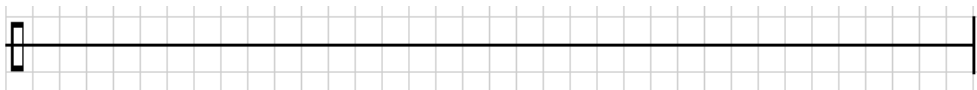


3. After selecting a desired clef, click on Ok, the specified staff will be created.

This is an example of D Major G staff:



This is an example of percussion staff:

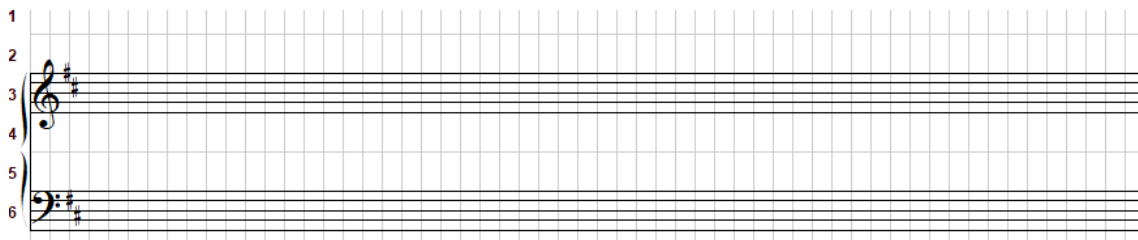


Note: Staff must be added to the Main Layer (See [Chapter 14](#) for the definition of Main Layer and Back Layer.)

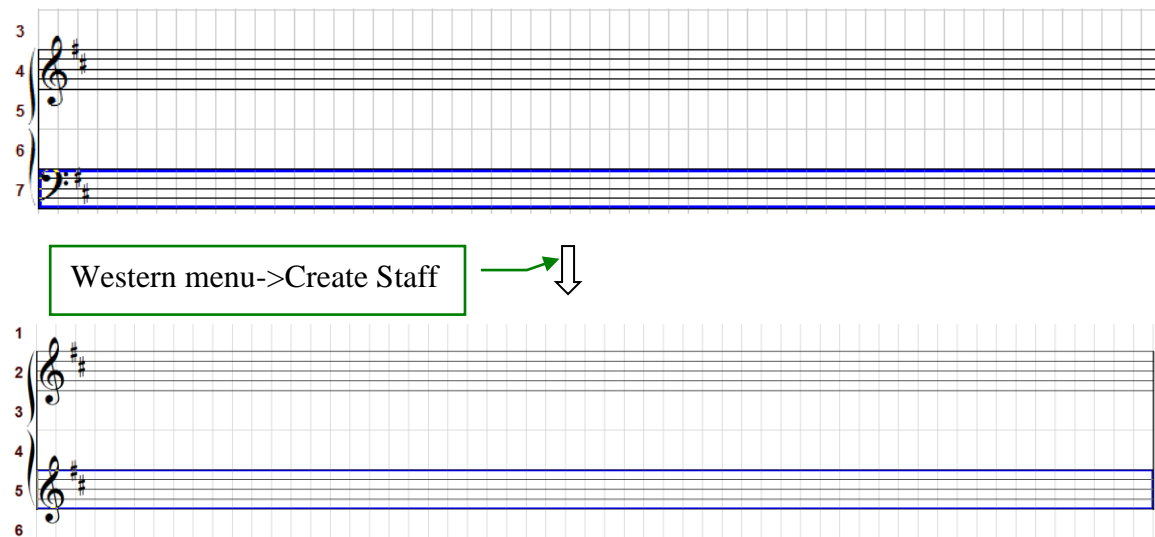
After you create a desired staff, use the copy/paste function to propagate the staff to entire page, and then use copy/paste again to create multiple pages with empty staves.

10.2 Create Grand Staff and Full Score Staff

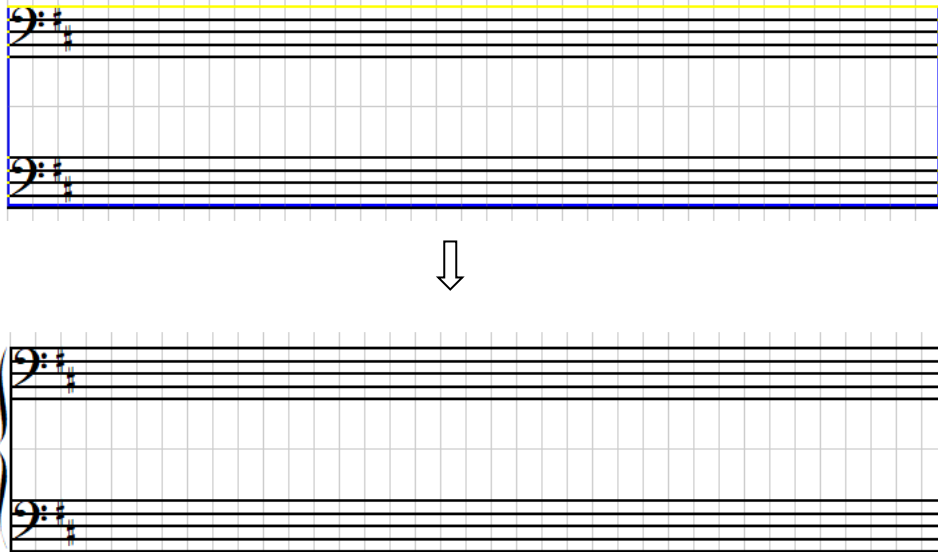
To create a grand staff, you can first create a G staff, then select “Convert G to GF Staff” menu item from the Western menu. Or you can manual create two staves, one G, one F and connect them with the brace. It is better to use the first method, because it is not only simpler but also easier to be edited later. This is an example:




The above method will create a G/F grand staff. If you want to create a grand staff with same clefs, you can select one staff and choose “Create Staff” in Western menu to change one or another:



Of course you can always manually create two staves, select them and click on “Combine to Grand Staff” menu item to create a grand staff:



“Decouple Grand Staff” menu item will break a ground staff into two independent staves.

You can add measure bars and repeat bars just like you do in simplified notation: select the cells and click on the  icon on left bar or press the “|” key.

“

If a clef or key changes in the middle of a row, you can easily do it by select a single cell where the staff changes, then similar to create a new staff, you choose “Create Staff” menu item under the “Western” menu, select desired new staff. See the following example:



Note: You must only select a single unit in this case.

If only clef or key is changed, you can use “Hide Clef” or “Hide Key Signature” (will explain in following section) function to simplify them:



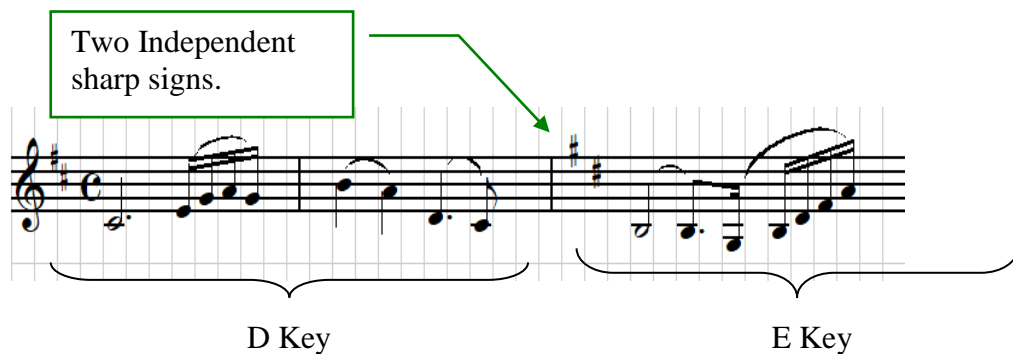
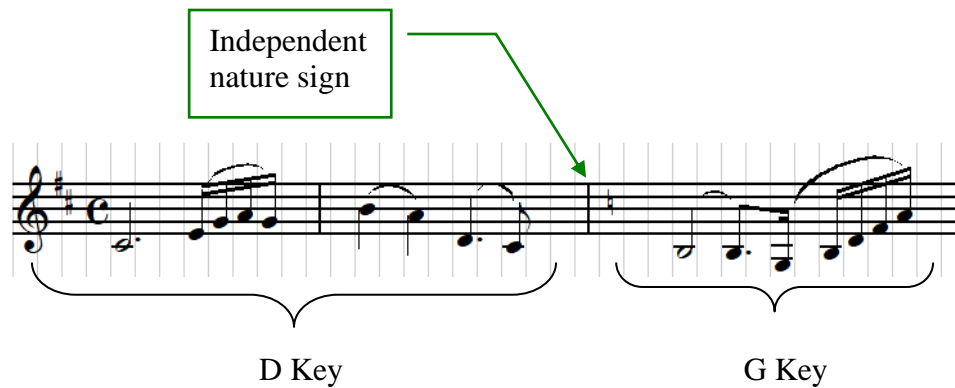


In some practice, one like to first reset previous key before change to new key, in this case the “Reset Key Signature” under Western menu can be used to add the correct nature signs on the cell, see below:

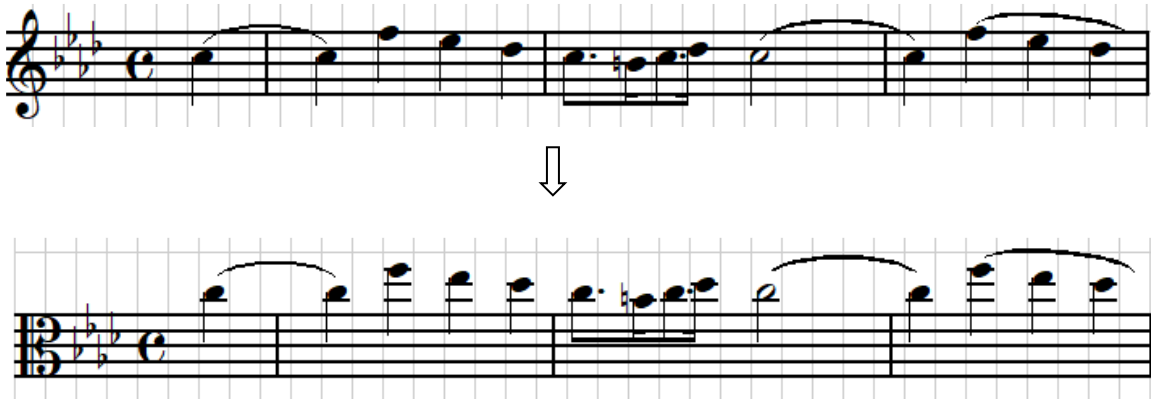


“Reset Key” will reset to all sharp or flat alterations to nature. Sometimes you may only need to reset or add some of the alterations. We can use independent alterations (sharp, flat or nature sign) to do so.

In a staff, if a sharp, flat or nature sign is added to a unit that has no music notes, we call it a independent alteration.



Once a staff is created, you can easily convert it between G, F or C staff. You just need to select the staff and choose “Change Staff”. All notes in the staff will also moved to its new position. Following is an example to convert a G staff to C3 staff.

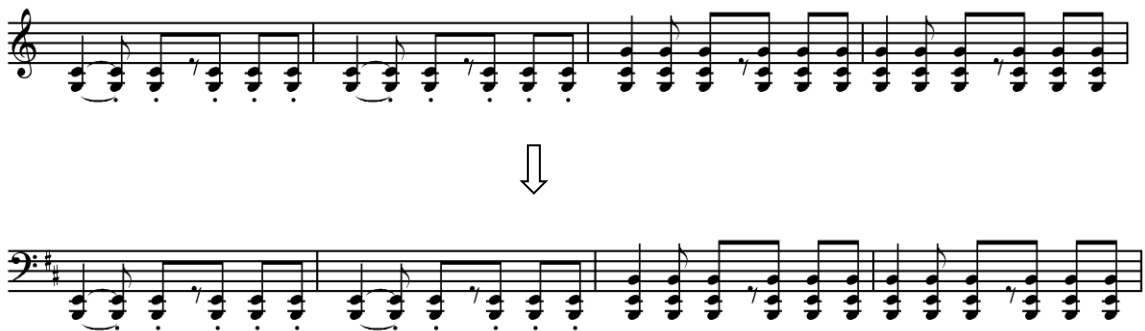


10.3 Edit Staff

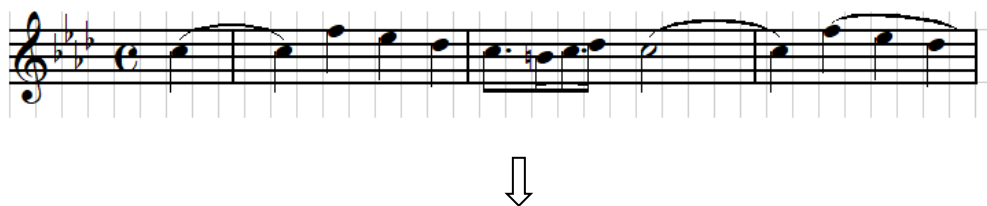
Once setup a staff, you can edit it in many ways.

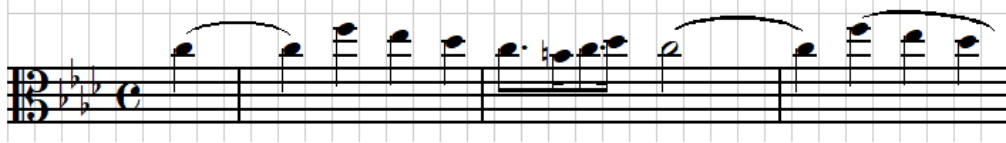
1. Change Staff in the Western menu.

Once a staff is created, it can change among other staves. First you need select the cell that the staff located (note only select single cell). If you only need change the clef or key, you can use “Create Staff” window under “Western” menu to so. See the following example, the music piece changed from G staf C key to F staff D Key and all notes kept in its original position.



If you also want to transfer the music note to new location, You should use the “Change Staff” under “Western” menu. The following is an example to change from G staff to C staff and all the notes also moved to new location:







Hide End Line:

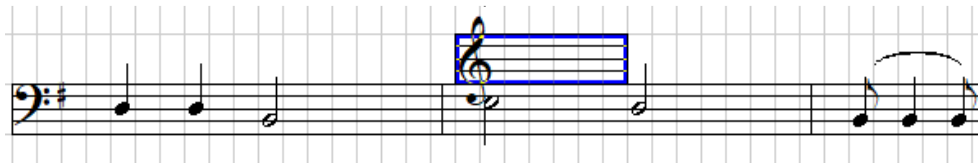


Show Start Line:

Note: To conform to stand, starting from version 5.2, all start line are hidden. If you have needs, use this option to add it.

5. Comment Staff – Sometimes composer need to add comments to explain how the note need to be played. He can add a smaller staff on the top of the note to do so:

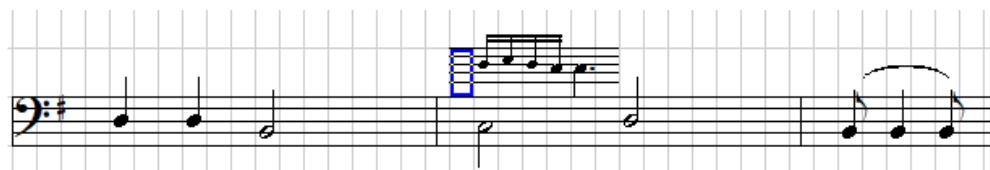
First create a desired staff (C staff is good enough) on top of the note that will need to be commented:



Then write the notes that to be commented:




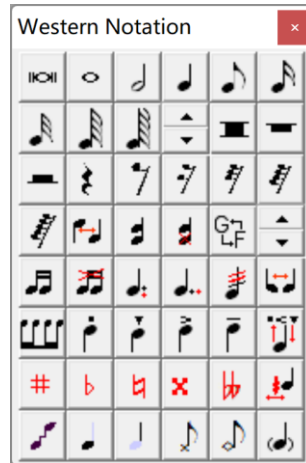
Finally choose “Hide Clef” and then select “Set As Comment Staff”





10.4 Enter and Edit Music Notes




There are several ways to enter the western notes.

Method 1 - Use the icons on the Western Notation float window. To make the floating window appear, click  icon from Toolbar, or select Western Notation menu item from Windows menu. See below:



1. Select the cell or cells on the staff.
2. Clicking on icon  will allow you add the proper rest notes. Just select the cell and click on the proper icon. The rest notes will be place on the required location.
3. Clicking on icon  will allow you to add the music notes with various time durations. The note will be added to the default location (on the center line). This is an example:




The notes entered using this method will have the correct tail (time duration) but not on the correct position. You need to click on the   icons or press UP or DOWN arrow keys to move it up or down. There will be other method that we will discuss later to change their position. Many of the buttons on the float window will have a key shortcut. For example the 4th note button  has shortcut key “r”. You can press key “r” to add the 4th note. To see the shortcut key, simply move the mouse cursor to the button and you will see a popup hint window revealing the shortcut key. If you can memorize the shortcut key, using the shortcut key can speed up your data entry a lot.

Method 2 - Use the Western Notation Letters. Western music notes are denoted as C, D, E, F, G, A and B. For example, to add a C note, you can press the key “C” or “c”. The uppercase “C” will be 1 octave lower than lowercase “c”. You also can use “,” and “”” key to lower or raise the added note octave lower or higher like you do in simplified notation. For example, press key “,” first then press key “c” will make the added note 1 octave lower (equivalent to press key “C”). You can even use multiple “,” or “””.

Method 3 - Use the Simplified Notation Numbers. The simplified music notes are denoted as 1, 2, 3, 4, 5, 6, and 7. It can be transfer into A, B, C, D, E and F based on the current clef. For example, to add a note 4, you can press the key “4”. If current clef is C clef, that will add a note F. Just like in simplified music, you can use “”” or “,” key to make the note 1 octave higher or lower. For example, press key “,” first then press key 4 will make the note added 1 octave lower. You can even use multiple “,” or “””.



The “,” and “”” key can also use to modify the existing notes. For example, press “,” key will make the selected notes 1 octave lower.

The note create using method 2 or 3 will have correct position but they are all 4th notes. You can use the same method like in simplified notation to change it. For example, type underline (_) will change 4th note to 8th note. Press dash (-) key will change 4th note to 2nd note, etc. You also can use either the buttons on the floating window or the shortcuts that have been discussed in method 1 to change its tail (time duration). For example, after select a note, press the icon  on the Western Notation floating window, or simply using the shortcut key “y”, the notes will change to 16th note (the position of the note will stay the same). You can also use the “Auto Underline” tool (see section 9.4) to add the tails automatically for you if you following the rules described in Section 9.4.

Method 2 will make creating western note almost the same as in simplified notation system.

10.5 Edit Music Notes

Move Notes Position. First select the note or notes to be moved.



1. You can use the up and down arrow keys on keyboard to move them up and down.
2. You can always use button   to move them higher or lower.
3. To use western notation position, such as G and g, press key “G” or g. If this is a chord, it will only move the root note to the specified location. Other notes in the chord will adjust accordantly.
4. To move to simplified notation position, such as 3, press key 3. The actually location will be determined based on current clef. This method only works for single note, not chord.

5. To move the note 1 octave higher, press the key “’”. Use key “,” to move it 1 octave lower.


This is an example:

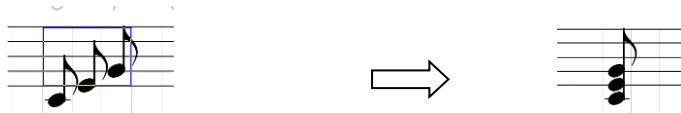
Note: You cannot move the notes up/down that are on the percussion staff.



There are other editing functions on the floating window.

1. The  icon will flip the tail of the selected notes.
2. Press  icon, or type “z”, will add additional notes to the existing note to create a chord. A chord can have two or more notes.





You can also use vertical icon in tool bar to create chord like in simplified notation. To do so, just types the chord in continues cells, then selects all of them and click on the  icon in toolbar. See below:

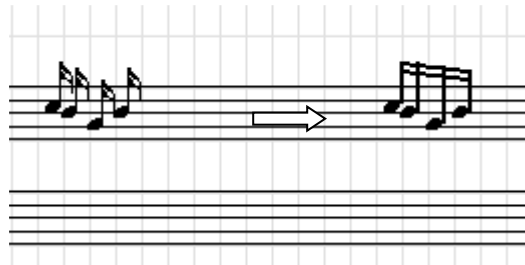


3. To move a specific note in the chord up or down, first select the note, then press a number key 1 to 9. 1 means move the root (lowest) note, 2 means move the second note, and so on. Then click on the   icons or press UP or DOWN arrow keys to move the specified note up or down. When a number key is pressed on a chord note, a text will show up in the status bar at the bottom of the window to indicate which note will be edited (see below). If no number key is pressed, the root note will be moved.

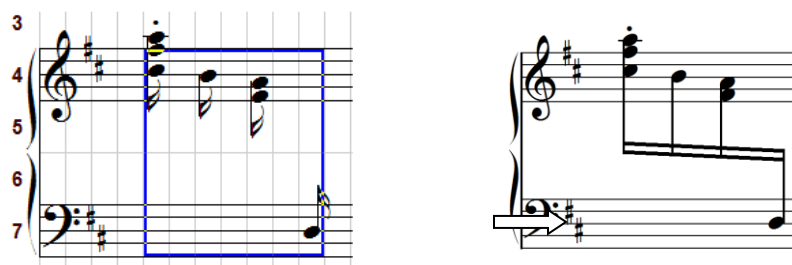
After number 2 key is pressed, the status bar shows the change will apply to 2nd note



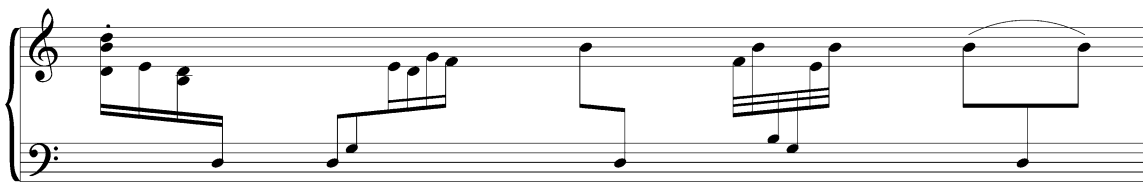
4. You can also use quick keys: hold ALT + UP or ALT + DOWN key to move the root (lowest) note. Hold CTRL + UP or CTRL + DOWN key to move the second note, move the top (highest) note. ALT+CTRL + UP or ALT+CTRL + DOWN key to move the third note. ALT+SHIFT + UP or ALT+ SHIFT + DOWN key to move the forth note. Finally the SHIFT + UP or SHIFT + DOWN key to move the topmost (highest) note.
5. The  icon will delete an individual note from a chord. By default, the lowest (root) note will be deleted. However, if you press number 1 – 9 before clicking on this icon, the corresponding note will be deleted. For example, to delete the second note from the root note, press 2 first then click on this icon.
6. Icon  will connect the tails of the selected notes. For example:




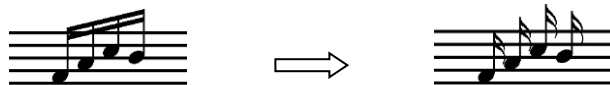
You can also connect the tails of notes that cross the G and F staff. For example:




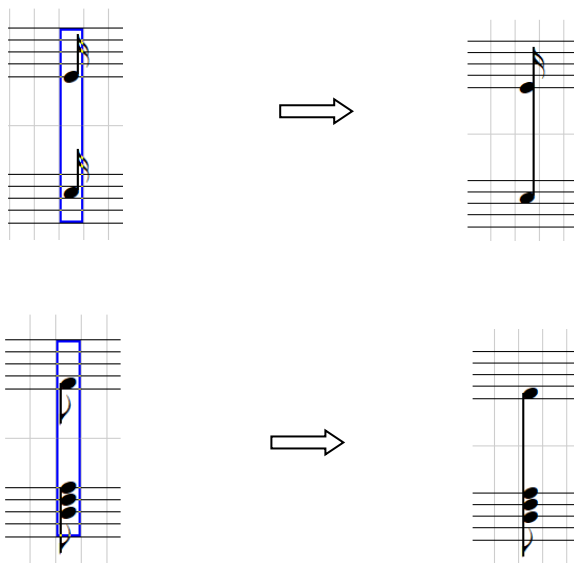
To do so, the notes on the G staff need to have their stem downward and notes on the F staff need to have their stem upward. The following are more examples:



7. Icon  will remove the connected tail:



8. If one notes is in G staff and one is F staff, they are on same column, has same tail and the tails are in same direction, the icon  can connects stems of two notes:
:




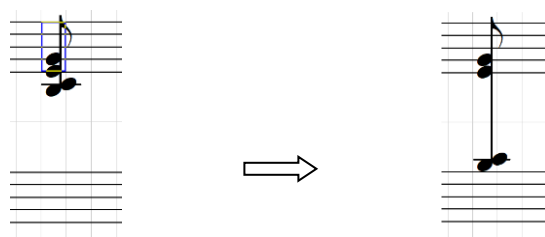
This is function like to move note from up staff into down staff.



Note: The two staves in Grand staff can have same clef, see below example:

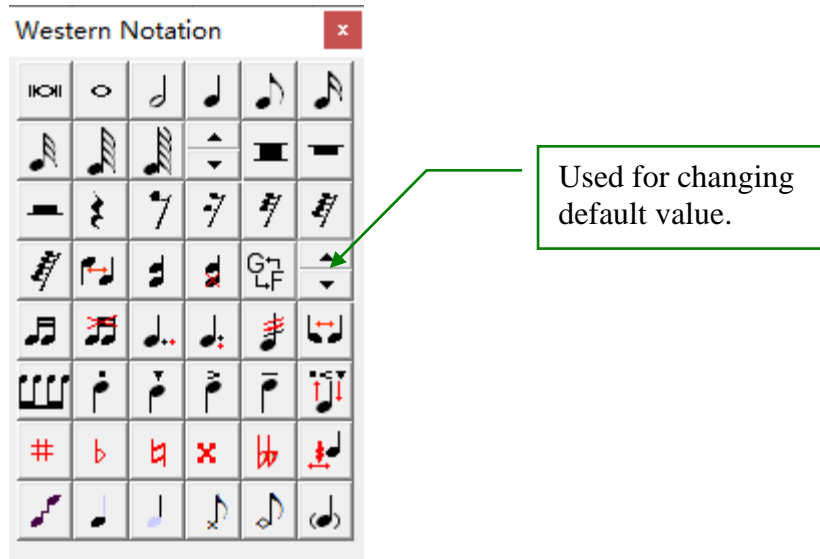


Note: There is another way to move notes between two staves.

9. Icon  will move part of selected notes from G (or F) staff to F staff.



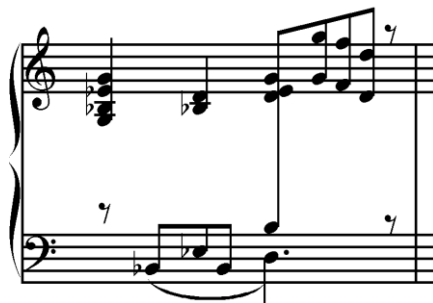
By default, this function will move all notes below (include) center C (or above center C) to another side. However, you can use icon  beside the  to change the default value so more or less note will be moved.



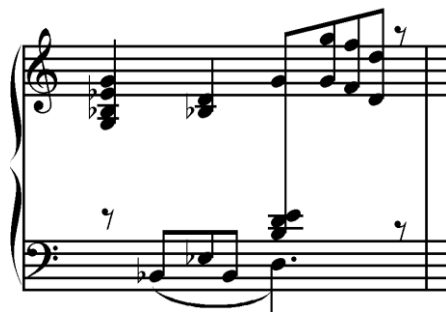
For example, the original piece is:




After apply this function:




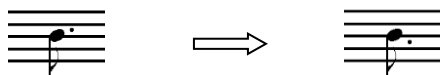
Using can modify the default value to move more notes to F staff:



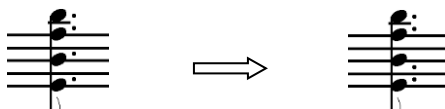
Note: Even though the method 8 and 9 can do exactly the same thing in appearance, they do have a difference: In method 8 the notes always belong to the staff it located but in method 9 the moved notes will still belong to their original staff. Therefore the method 9 will be best to be used in G-F ground staff otherwise it can be very confused.


10. Icons  will add appended dots for dotted notes.

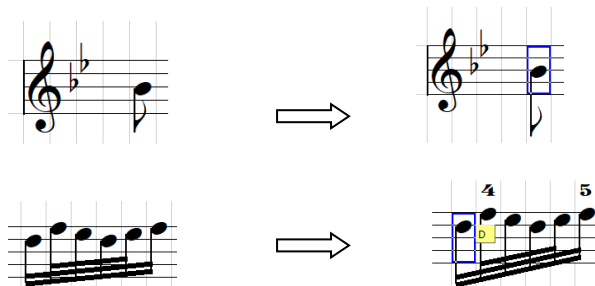
11. Icon  will move the appended dot up or down one space:

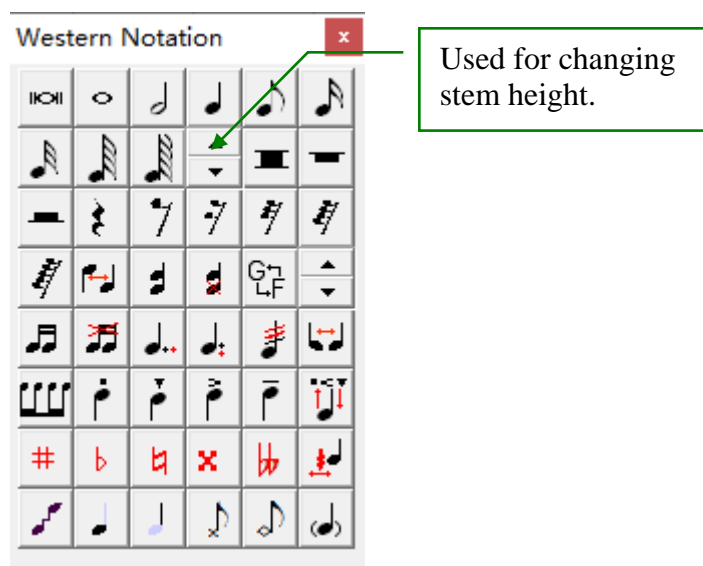



If you want to move specific appended dot in a chord note, press the corresponding number key first:








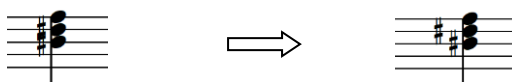
12. Icon  will increase or decrease the stem height:







13. When two alterations are too close together in a chord note, Icon  can be used to move one of them left a little, click again will move even further:


14. Icon  will add staccato dots to the selected notes. Same as icons   .
Icon  can switch the symbol from head side to tail side:

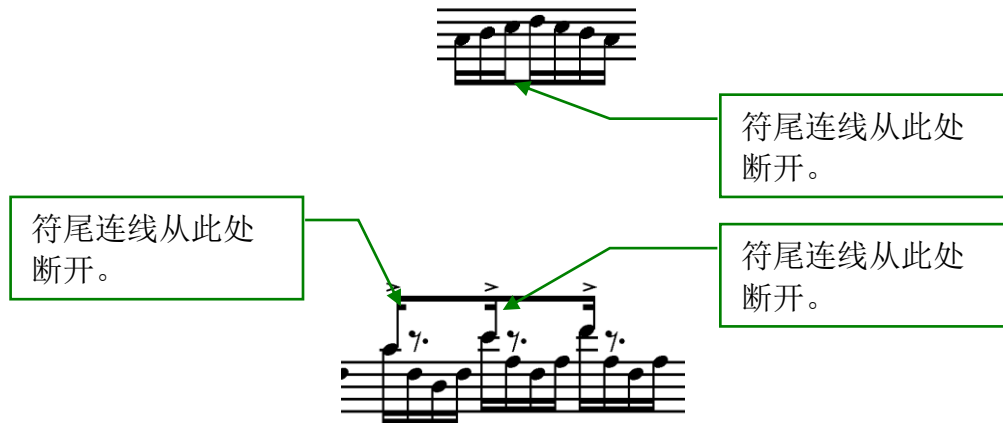



15. Icons  will add one, two or three short bars on the stem of the selected notes.
See below:



16. Icon  will remove the stem of the selected notes.

17. Icon  will break the tail connecting lines. For example:



18. Icon  will remove the head of the selected notes

17 and 18 can be used to create some special music notations. These are some examples:



The first group of notes is a chord without stem. It is constructed by removing its stem.

The second group of notes is created using the following method:

- Create the half note and 4 16th notes normally:



- Remove the head of the first 16th note:



- Shift the half note position right (you may need to hold Shift key for fine adjustment). For better control, zoom in the view:



The third group of notes is created using the following method:

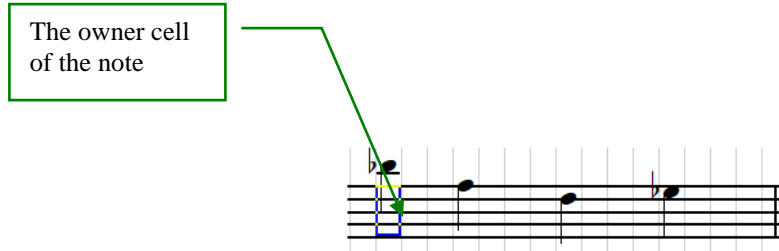
- Create 5 16th notes normally:



- Remove the head and stem of the last 16th note:



The owner cell of any western music note is the cell on the staff although the note itself may be shifted up or down outside the staff. Therefore to select the music note, you must select the cell on the staff line, which is not necessarily the cell that the note appears to be. See the following example:



Use these function you can create very complicated music pieces, for example the following is piece of Beethoven Symphony No 3:

The image displays a musical score for a symphony orchestra, featuring staves for the following instruments: Oboe (Ob), Clarinet in B-flat (Cl. (B)), Bassoon (Fg.), Cor Anglais (Cor. (Es)), Violin I (Vl.), Violin II, Viola (Vla.), and Violoncello/Double Bass (Vc. Cb.). The score includes dynamic markings such as *p* (piano) and *cresc.* (crescendo). The notation is in a simplified style, with notes and rests clearly visible across the staves.

10.6 Symbols and Dynamic Marks

Many symbols and dynamic marks used in Simplified notation can also be used in Western notation. For example, you can add sharp, flat or nature sign to the notes just like in the simplified notes. You can also add slur to connect two or more notes, or add piano paddle marks. Please refer to the sections in chapter 3 for details. The following is an example:


蟠桃会 - 笛子

$\frac{4}{4}$ 1 = D

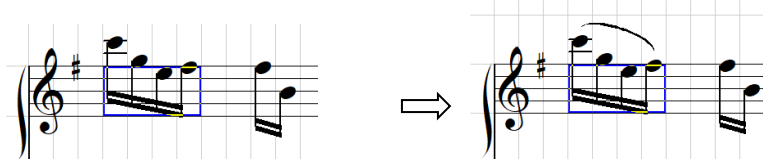
10.7 Slur Marks

Even though most of dynamic symbols in western notation are the same as in Simplified notation, the slur is an exception. Unlike the slur in Simplified notation, which is always laying horizontally, the slur in western note is tied along the notes. See this example:




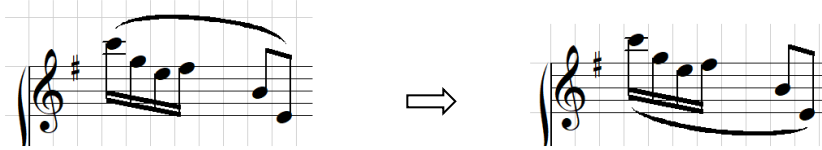
Normally, you add slur in western notation just like you do in simplified notation, that is select group of notes that you like to connect with slur, then press “” button in the Dynamic Mark window. However, there are some special cases we need to point out:

1. Please note that the owner cells are always on the staff lines though the notes themselves may shifted outside the staff. See following example:

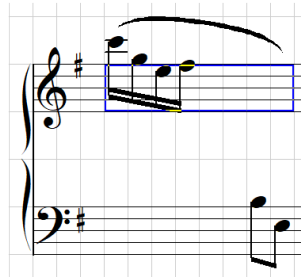






If needed, you can use the dynamic edit buttons to adjust the shape of the slur.

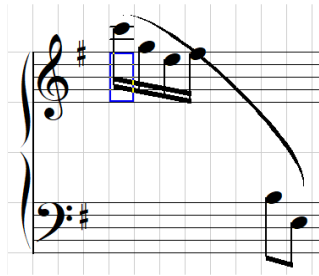
2. Use  to switch the direction of the slur.





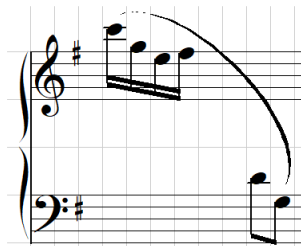
3. Sometimes in grand staff the slur can cross G and F staff. You can use the dynamic edit buttons to make this happen:
 - a. First setup a slur on the G or F staff, make sure the slur has enough length to cover the entire notes (on both G and F staff) that you like to be connected.





- b. Using   and   to move the tail end of the slur to the desired position.



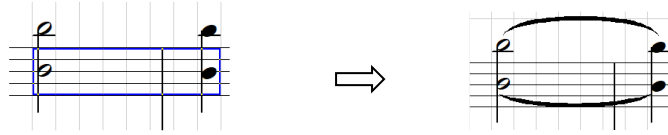
- c. The using   to change the slur curve to a desired shape.





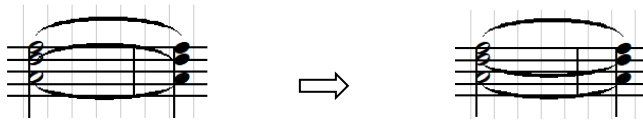
Again  is an elliptical slur while  is a arc slur, see [section 3.4](#).

4. Slurs on the tie chords

System will automatically add multiple slurs for tie chords:



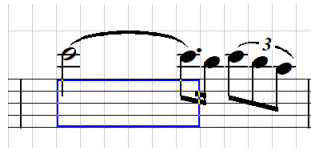
If you use icon  to change the direction of the slur, by default it will change the bottom (root note) slur. If you want to change other slurs on the notes, you need first type a related number key then click on icon . The following example we type number “2” key first, then it will change the second slur direction.



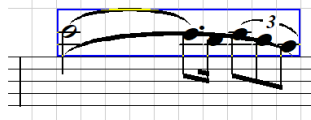
5. Create multiple slurs




Many times multiple slurs on a single note are needed. To do so, following these steps:

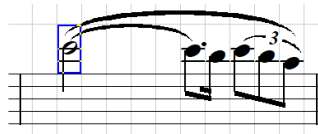
- a. Create a single slur as you normally do:



- b. Using an empty cell above the staff to create a independent slur with desired length:



- c. Then using , ,  to adjust it to the desired location and shape. Similar techniques can be used if more than 2 slurs are used.

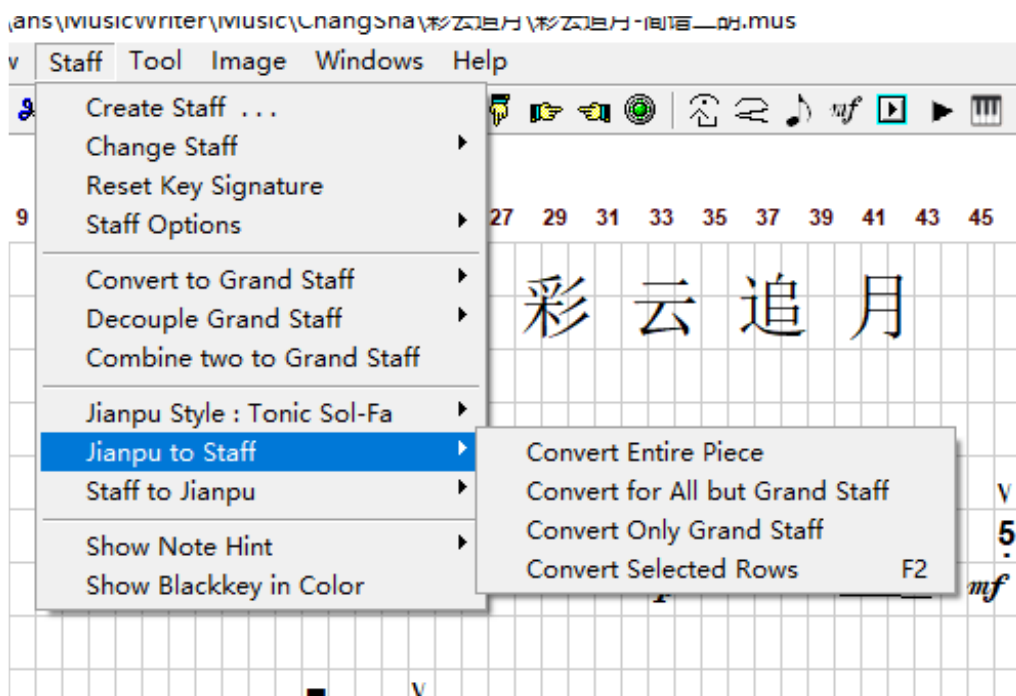


11. Converting Between Simplified and Western Notation

11.1 Convert from Simplified to Western

You can convert music from Simplified notation to western notation:

1. Select Simplified to Western menu item from Western menu. You can choose either convert only the selected area, or from the current selected position to the end.
2. If no key signature is found, a dialog box will pop up to allow you to choose the proper staff for the western notation.



3. There are two types of key in simplified notation: Movable Do and Fixed Do. See [11.4](#) for details.

The following is an example.

Music in simplified notation:

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

二泉印月 - 二胡 阿丙

(二胡古筝二重奏)

1 = G $\frac{4}{4}$

0. 6 5643 | 2 — 2. 3 112 | 3 5' 6 5 6561 |

5. 3 55 3 2 6 5612 | 3 5 2. 351 6235 | 1 — 161 332 |

The same music piece after it converted to Western notation:

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

二泉印月 - 二胡 阿丙

(二胡古筝二重奏)

1 = G $\frac{4}{4}$

Because the western notation has clef and key signature on the front of the staff, the Simplified music needs to have at least 4 empty cells at the beginning of each music line to give enough room for the clef and key signature after it converts to western notation. If a line of music does not have enough empty space on the beginning, a message window will pop up to warn that some data maybe lost due to lack of space.

The shrink and decoration notes will also be converted correctly as shrink and decoration notes. The vertical (core) notes also will be converted correctly.

If there are errors during conversion, the cells that contain the errors will be highlighted after the conversion. If there are simplified notes left, that also indicates possible errors.

However sometimes the error may not be detected by the software and therefore will not always be highlighted. You need to always examine the result carefully after conversion and manually fix any errors.

You can also convert full score music. See the following example:

The music in Simplified notation:

何占豪，陈钢 曲
召人 望 编 配

梁山泊与祝英台选曲
(协 奏 曲)

1 = G 4/4 如歌的慢板 ♩ = 50

A

高胡	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
笛子	0 0 0 0 0 0 0 0 0 0 0 0 <i>tr</i> 5 - <u>5̣1̣</u> <u>6̣5̣</u> <u>3̣5̣2̣3̣1̣6̣</u> <i>tr</i> 5 - <u>5̣6̣</u> <u>5̣5̣5̣5̣</u> <u>5̣5̣5̣5̣</u>
二胡	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
琵琶	0 0 0 0 0 0 0 0 0 0 2̣ - 2̣ 0 0 0 0 0 0 0 0
扬琴	0 0 0 0 0 0 0 0 5 - - - 5 0 0 0 0 0 0 0
古筝	0 0 0 0 5̣ - 2̣ - 5̣ - 2̣ - 5̣ 5̣ 5̣ 5̣ - - - - 5̣ 5̣ 5̣ 5̣ - 5̣ 5̣ 5̣ 5̣
中胡	0 0 0 0 5̣ - - - 5̣ - - - 5̣ - - - - - - - - - -
革胡	0 0 0 0 <i>ppp</i> 5̣ - - - 5̣ - - - 5̣ - - - - - - - - - -
B	5̣ - - - 5̣ - - - 5̣ - - - 5̣ - - - - - - - - - -
打击	<i>tr</i> x - - - x - - - x - - - x - - - - - - - - - -

速度自由的花彩乐段

The same music converted to Western notation:

1 = G 4/4 梁山泊与祝英台选曲 何占豪, 陈钢 曲
 如歌的慢板 ♩ = 50 (协奏曲) 召人望 编配

The musical score is for a piece titled '梁山泊与祝英台选曲' (Liangshan Po and Zhu Yingtai Selection) by He Zhanhao and Chen Gang, arranged by Zhao Renwang. It is in G major, 4/4 time, with a tempo of 50 beats per minute. The score includes parts for various instruments: Gao Hu, Di Zi, Er Hu, Pi Pa, Yang Qin, Gong Zheng, Zhong Hu, Ge Hu, B (Bass), and Da Ji (Percussion). A specific section of the Di Zi part is highlighted in yellow and labeled '速度自由的花彩乐段' (Ad libitum Flower Color Music Segment).

In the above example, you can see that even percussion instruments have been converted accordingly. You can also see the place where been highlighted. These are place that may have not correctly converted and you may need pay attention for it. You may also edit the music to make it looks better.

There are several notes regarding this conversion:

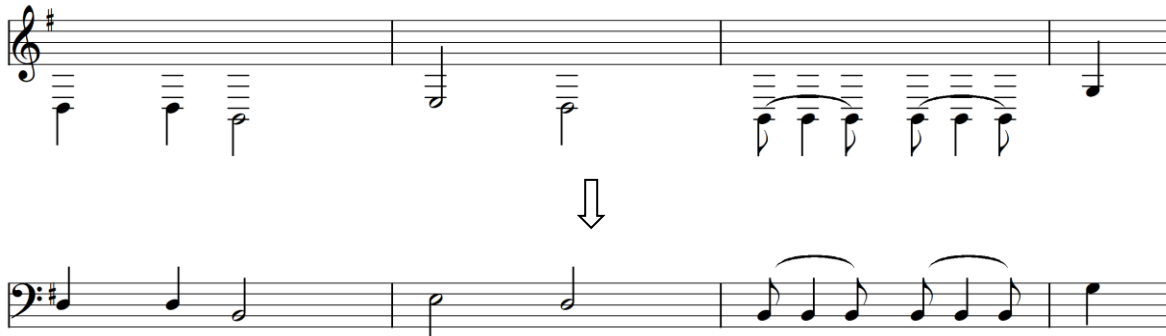
1. The individual dot has to be in the same layer as the associated note.
2. The dash has to be in the same layer as the associated note.

11.2 Change Western Staff

In some case, the staff used by the conversion may not be what you want, for example the Base staff may create with G staff instead of F staff. You can easily change the staff using the menu item Change Staff from Western menu.

1. Select the row that its staff needs to change.
2. Choose menu item Change Staff from Western menu, there will be 4 submenu items can be used. Using them you can change the currently selected staff to G, F, C, or percussion staff. All notes in the staff will be also adapted to the new staff.

The following is the result of converting G staff to F staff:

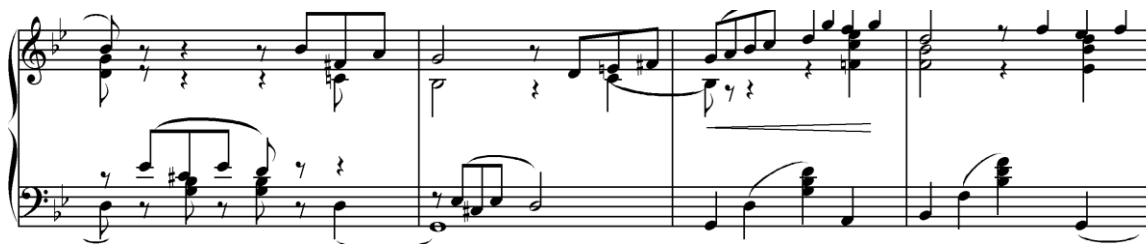


11.3 Convert from Western to Simplified

You can convert from Western notation back to Simplified notation by using the Western to Simplified menu item from the Western menu. The following is an example of converting the same piece above back to Simplified. If any possible error is detected during the conversion, the corresponding cells will be highlighted. Also if you see any western notes left, that will indicate a possible error area. Again, you must manually fix these errors.

There are several notes regarding this conversion:

1. In western, many times it can add two part of the music in the same staff, for example:



Normally the second part of the music is added in the back layer (see section [13](#) for back layer).

Since Jianpu has no easily way to add two lines of music in a single line, we will convert the second music part (shown in back layer) at top of current line in back layer as well. The software will still recognize it as part of the music and all functions such as playing music etc., will work just fine. This is the piece above converted to Jianpu:

- For full and half notes, in west staff they only occupy a single cell but in Jianpu it will show as a 4th note with added dash. When convert these notes, the software will try to find empty space after current note to add needed dash. However, if there is no enough space, it will stop try and highlight these cells to warning you to recheck them. See following example:

This is an example that has no enough space to convert a half note:

- Double alteration: in west notation sometimes double alteration, such as double sharp or double flat. But in Jianpu we normally do not use double alteration. Therefore software will highlight these cells to warning you.

1=G 4/4 梁山泊与祝英台选曲 (协奏曲) 何占豪, 陈钢 曲 召人望 编配

如歌的 散板 ♩=50

A

高胡 0 0

笛子 *tr* ~ 速度自由的花彩乐段 *tr* 5 - 5̇1̇ 6̇5̇ 3̇5̇2̇3̇1̇6̇ 5 - 5̇6̇ 5̇5̇5̇ 5̇5̇5̇

二胡 0 0

琵琶 0 2 - 2 0

扬琴 5 - - - 5 0

古筝 5 - 2 - 5 - 2̇ - 5̇ 5̇ - - - 5̇ 5̇ - 5̇ 5̇ 5̇

中胡 5 - - - 5 - - - 5 - - -

革胡 *ppp* 5 - - - 5 - - - 5 - - -

B 5 - - - 5 - - - 5 - - - 5 - - -

打击 *tr* x - - - x - - - x - - - x - - -

11.4 Movable Do and Fixed Do Key

In simplified music notation, there are two types of key:

Movable Do (also called Tonic So-Fa) Key: The key is defined by key signature, such as “1=G”, in such case the 1 is G, and 2 is A, etc.

Fixed Do Key: The key is always in C, that means 1 is always C, 2 is always D, etc.

These are same piece of music converting in Movable Do key and in Fixed Do key:

Original staff piece:

Nocturne In C# Minor

Opus Posthumous

Frederic Chopin

Lento, con espressione

Movable Do key style:

Nocturne In C# Minor

Opus Posthumous

Frederic Chopin

1 = E

Lento, con gespressioni

First system of musical notation for Nocturne in C# Minor, Opus Posthumous by Frederic Chopin. The notation is in 4/4 time and features a piano (p) and pianissimo (pp) dynamic range. The right hand plays a melody with a trill on the second measure, while the left hand provides a harmonic accompaniment. The notation uses numbers 1-7 for fingerings and natural signs for accidentals.

5

Second system of musical notation for Nocturne in C# Minor, Opus Posthumous by Frederic Chopin. The notation is in 4/4 time and features a piano (p) and pianissimo (pp) dynamic range. The right hand plays a melody with a trill on the second measure, while the left hand provides a harmonic accompaniment. The notation uses numbers 1-7 for fingerings and natural signs for accidentals.

Fixed Key Style:

Nocturne In C# Minor

Opus Posthumous

Frederic Chopin

1 = C (E) Fixed Key

Lento, con gespressioni

First system of musical notation for Nocturne in C# Minor, Opus Posthumous by Frederic Chopin, in Fixed Key style. The notation is in 4/4 time and features a piano (p) and pianissimo (pp) dynamic range. The right hand plays a melody with a trill on the second measure, while the left hand provides a harmonic accompaniment. The notation uses numbers 1-7 for fingerings and natural signs for accidentals.

5

Second system of musical notation for Nocturne in C# Minor, Opus Posthumous by Frederic Chopin, in Fixed Key style. The notation is in 4/4 time and features a piano (p) and pianissimo (pp) dynamic range. The right hand plays a melody with a trill on the second measure, while the left hand provides a harmonic accompaniment. The notation uses numbers 1-7 for fingerings and natural signs for accidentals.

12. Transpose Staff Key

Many functions under “Western” menu are explained above. Here we explain rest of the functions:

12.1 Transpose Staff Key

This function will transpose from one key to another. For example, following is a piece written in key C:



Now we can transpose them to any other tones. Select “Transpose Staff Key”, a popup window will be shown:



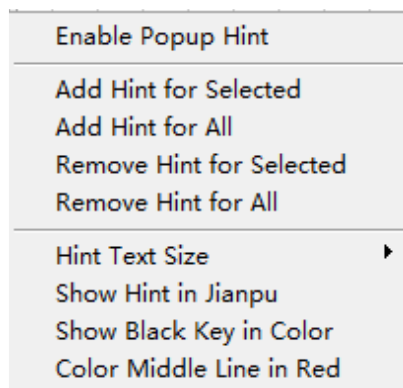
Choose proper key you want to transpose, in this sample choosing one step up to key D.
We get:



Note: In this function program always treat it is a Major music.

12.2 Note Hints

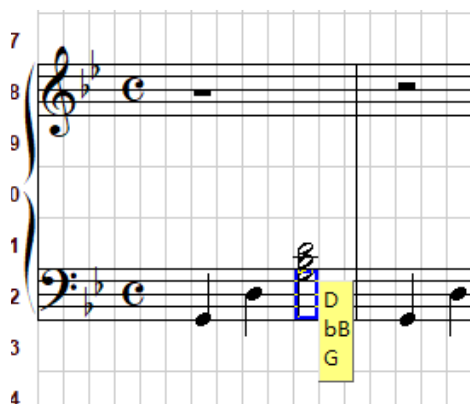
This is the “Show Hint” submenu under “Western” menu:



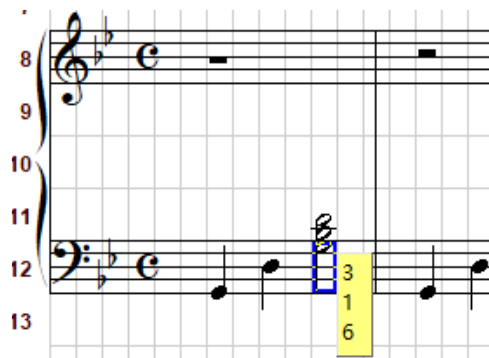
These functions can be used to show the hint for the notes to assist you quickly read the music. The hint is in letter (C,D,E,F,G,A,B) or in number (1, 2, 3, 4, 5, 6, 7). Use “Show Hint in Jianpu” sub menu item to switch between them.

There are two styles of hint.

1. Once “Enable Popup Hint” is checked, a yellow hint box will show when you select a cell that contains a music note:



If you choose to display the hint in Jianpu, it will be shown as:



Jianpu hint can be displayed in Fixed Do key or Movable Do (Tonic So-Fa) key, see [section 11.4](#) for details.

2. You can also add all hints to the selected area or even entire music. In such case the hint will added on top of the note(s):

六 月 船 歌
Barcarolle

柴可夫斯基

Andante cantabile

Or it is shown in Jianpu format:

六 月 船 歌
Barcarolle

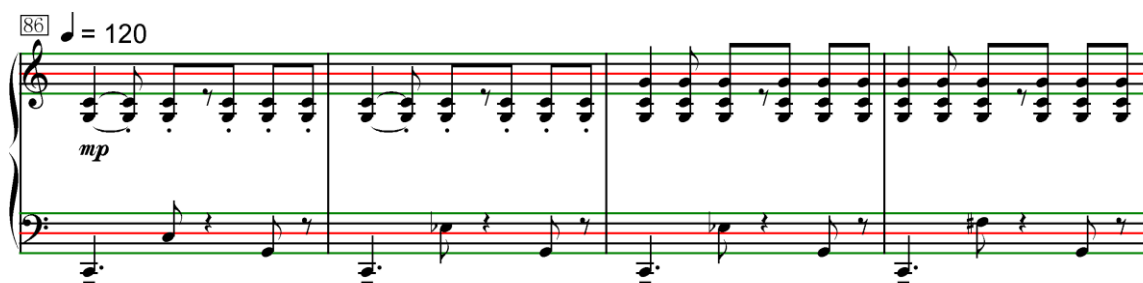
柴可夫斯基

Andante cantabile

You also can use “Hint Text Size” to change the text size of the hint.

There are other functions in this submenu to help you quickly read the music:

1. Color Staff Lines:



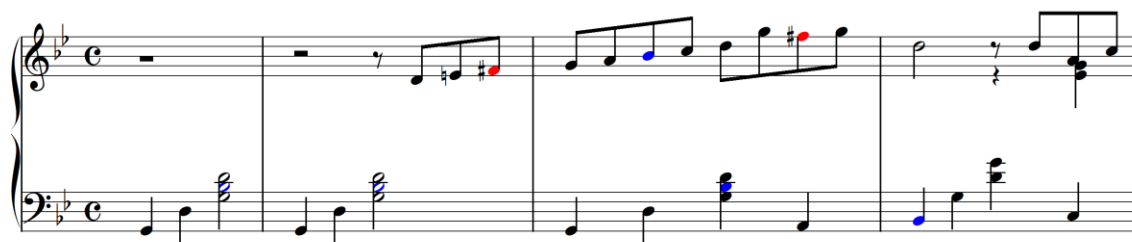
2. Show all black key note in different color. The red color means rise half step and green color means lower half step:

六月船歌

Barcarolle

柴可夫斯基

Andante cantabile




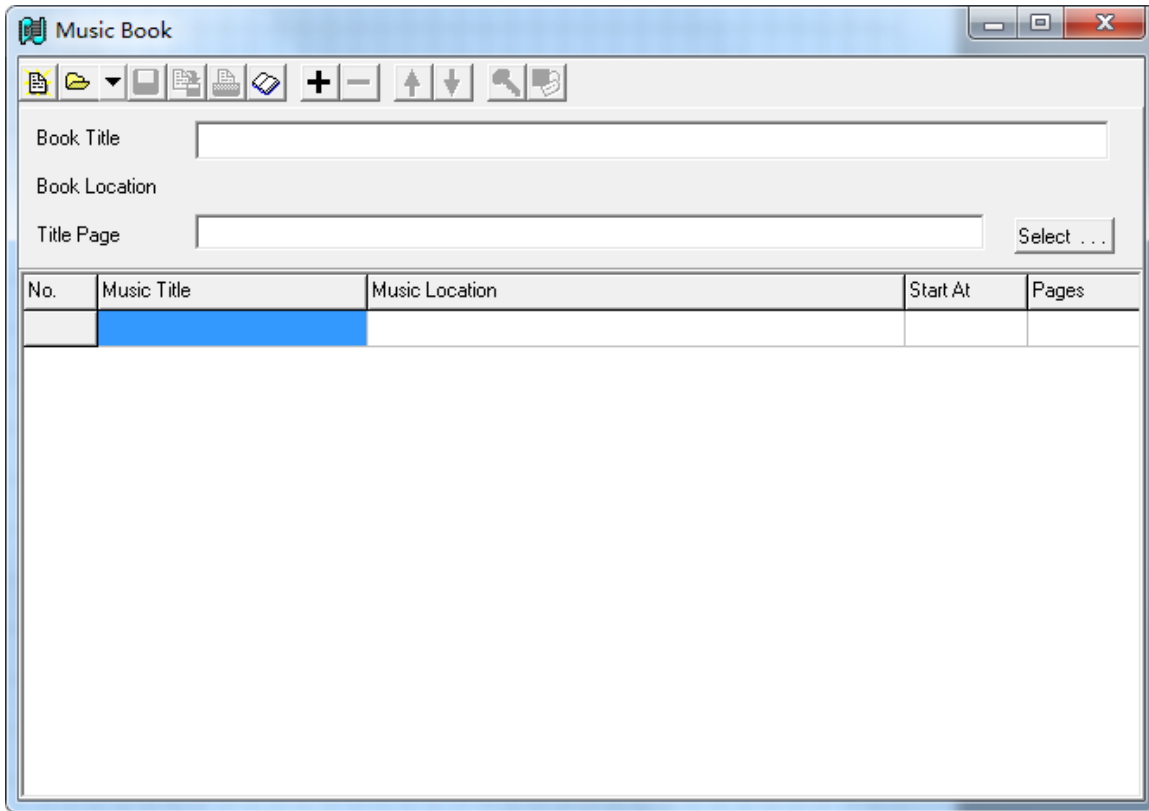
You can change the default color in [Preference](#) window.

Using all needed functions, you can create complicated staves. The following is a example from Beethoven Piano Concerto No.3:


The image displays a musical score for a symphony orchestra, featuring seven staves. The instruments are labeled on the left: Ob (Oboe), Cl. (B) (Clarinet in B-flat), Fg. (Bassoon), Cor. (Es) (Cor Anglais), Vl. (Violins), Vla. (Viola), and Vc. Cb. (Violoncello/Double Bass). The score is written in a key signature of two flats (B-flat and E-flat) and a common time signature (C). The music is organized into measures, with various notes, rests, and dynamic markings. Dynamic markings include 'p' (piano) and 'cresc.' (crescendo). The score is presented in a clean, professional layout with a white background and black musical notation.

13. Create Music Book

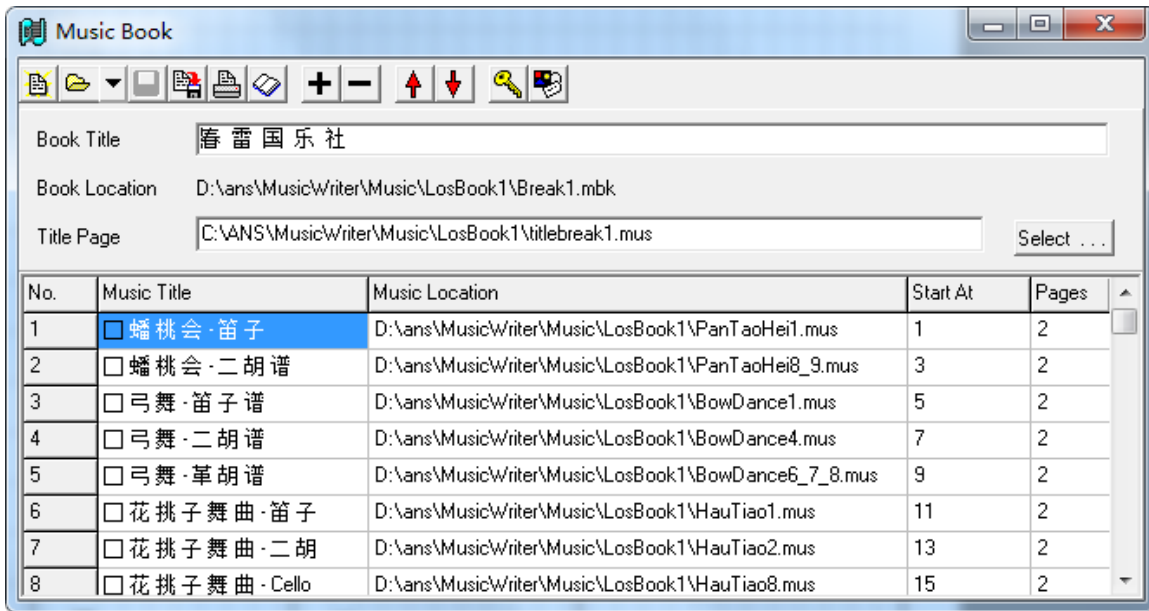
Music Book allows you to organize the music by books. Clicking on the icon  from toolbar or choosing Book from the Tool menu will pop up the Music Book dialog:



13.1 Add and Remove Music in the Book

To add music to the book, click on the  icon, a file selection window will pop up allowing you to select one or more music files (MUS files) to add. The music will always add at the bottom of the music list. You can change the order using the up and down arrow icons, see next section.






After music is added, the dialog will look like:




All the music contained in the book will be listed in the table. The table lists the title of the music, file location, start page of the music in the book and number of pages of the music.




13.2 Edit the Book



In Music Book dialog, there are several ways to edit the book contents.

1. Delete Music – You can delete any music by selecting that row and click on the  icon or simply press the DEL key.
2. Change the Order of the Music List – you can change the order of the music. Select the row then click on the  or  icons will allow you move that row up or down.
3. Change Music Title – We have discussed how to decide default music title for the music in section 7.3. You can change the default title to any other text by either double clicking on the music title or selecting the music and click on the  icon. A text edit dialog will pop up to allow you enter English or Chinese.
4. Change Music Location – The music location can also be changed. Simply double click on the music location or click on the  icon, a file selection dialog will pop up to allow you to specify the new location for this music.
5. Add Book Title – The book title can be used to identify this book. It also can be seen in the footnote of the print copies. Pressing the Edit button will allow you to enter the book title in either English or Chinese.

6. Add Title Page – Title page is no more than a single page music file. It can contain any object, such as music title, publication information or images. The title page, if included, will be the first page of the printed copy.
7. Open the Music – You can open the selected music by clicking on the  icon or double clicking on the “Start At” column.

13.3 Save, Open and Create New Book

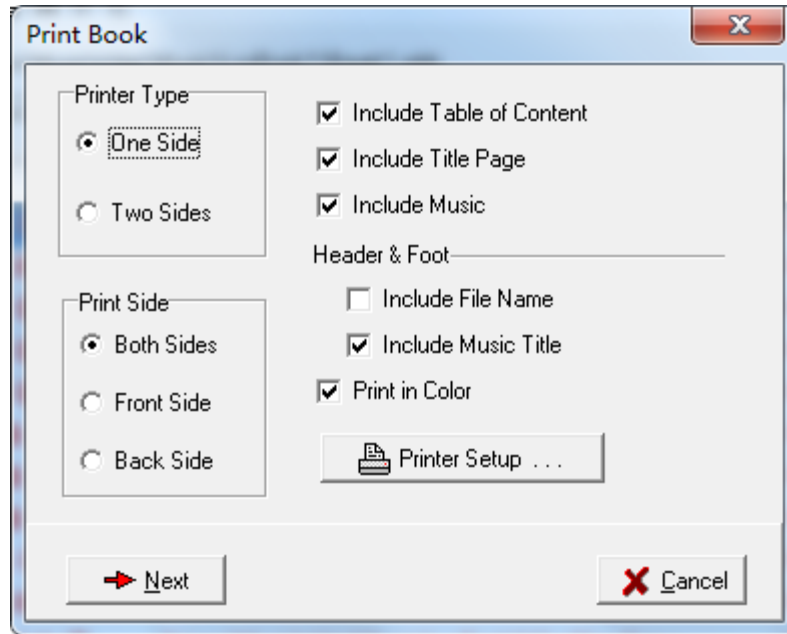
Click on the icon  on the Music Book dialog will create a new book. After a book has been created, you can save the book and load it back later. To save it, click on the  icon for Save or  for Save As. A saved file dialog will pop up allowing you to enter a file name. The music book file always has extension “mbk”.

To load a pre-saved book, click on the   icon, then select the book file to open. Clicking on the down arrow will allow you select up to 5 recent books from the pull down list.

The book file will only save the pointers to the location of each music file it contains, not the music file itself. So if the specified music file does not exist, it will display the text of that file location of the music in red. If you do not manually relocate the file, it will be ignored when you print the book.

13.4 Print Book

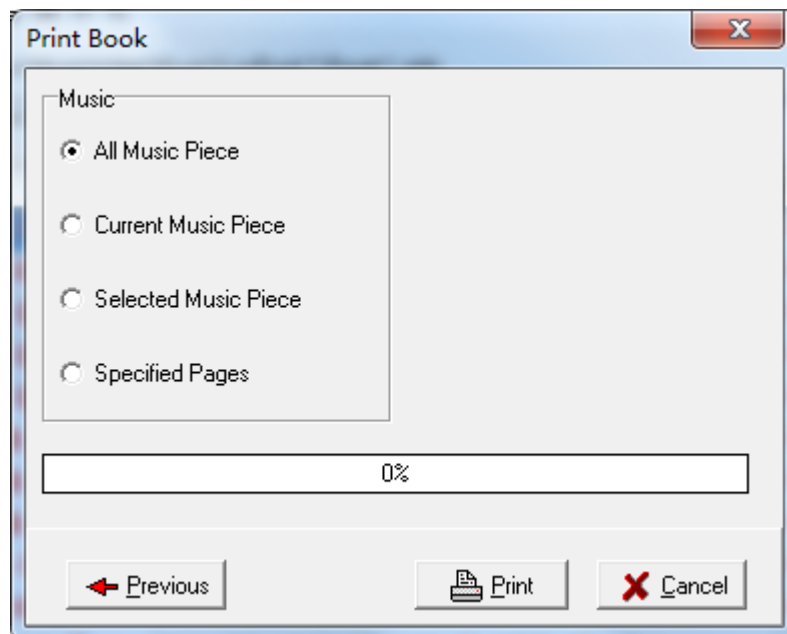
Clicking on the  icon will pop up the Print Book Wizard that allows you to print the book.



On the first page of the wizard, you can select various options, such as one side or two side print. If it is one side print, you can also choose to print front, back, or both side. This will allow you to emulate the two side print by print the front page first, then flip the papers in the printer and print the back pages on the pack of the paper.

If you choose to include a table of contents, the table of contents will be automatically generated and printed after the title page (if title page is included).

You can also choose to include the title on the footer of the page and file name on the top of the page.



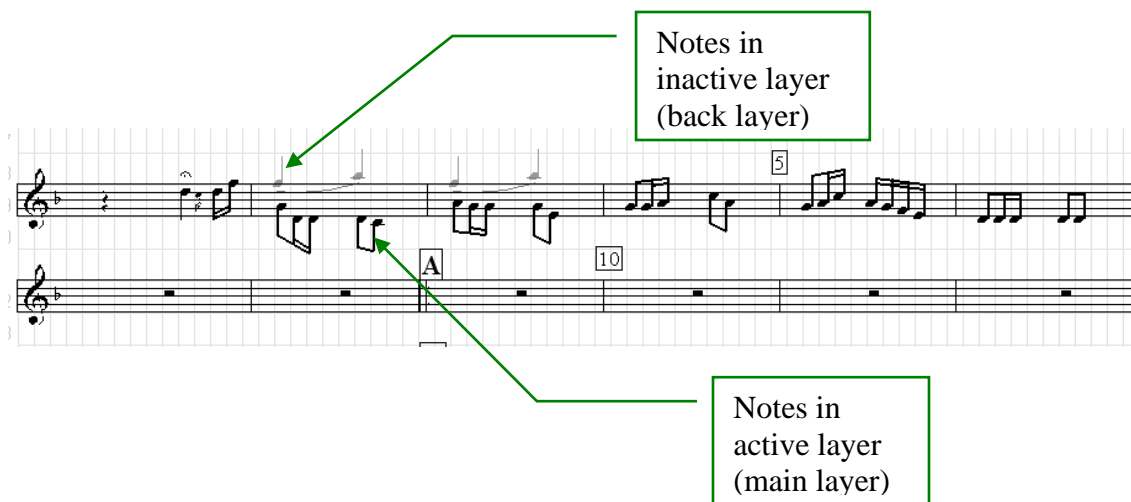
On the second page, you can specify which pages to be printed and then press Print to execute.

14. Main Layer and Back Layer

14.1 What is the Layer


The MusicWriter actually have two layers, the main layer and the back layer. The main layer is the default layer and in most of time, you can do all things you needed in main layer. But occasionally, you may not have enough spaces in main layer. Switch to back layer will give you great flexibility to do what you want.

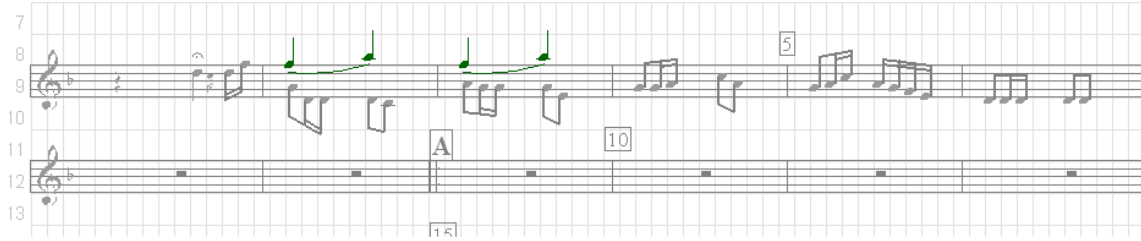
You can think that the back layer is another entire page that is transparently overlaying on top of current page. All the notes, symbols, and others on the back layer will be overlapped with the main layer and will be printed just like the ones that are on the main layer. However, you can only edit one layer, called active layer, at a time. The staff on the inactive layer will be displayed in gray, while the staff in active layer will be displayed in black (if the main layer is active) or dark green (if the back layer is active).



Even though the notes on different layer are displayed in different color, when the music is printed or copied to the clipboard, they all use the black color.

14.2 Use Back Layer

To switch between back layer and main layer, click on the icon  on tool bar, or choose menu item “Switch Layer” under View menu. The number 1 in the icon means you are on main layer and number 2 means you are on back layer. This is the same example above but viewing in back layer:



You edit the back layer just like you do on the main layer. However, you should only use the back layer as a supplementary data area. One very good example is to use back layer to create multiple parts of the music on western notation that shares the same staff, as the example we see above.

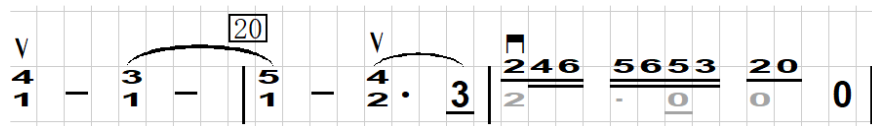
Note: Staff, time signature, Key signature, and tempo sign cannot add to back layer. They must be shown on main layer.

Under View menu there are two other items related to layer:

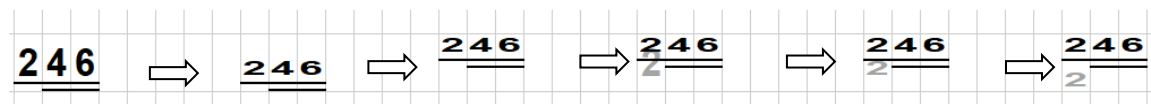
- Switch Layer Content: switch layer contents of the selected unit.
- Move to Next Layer: move current notes in selected unit to other layer.

14.3 Create Two Parts Music in One Line

At section [6.5](#), we talked about create two part music in one line that do not have the same lasting time. For example:



First we create the first part music in main layer, then change it to vertical note (even it has only one note, you still can change it to vertical). Move to up to a proper position, then go to back layer create second part music, again change it to vertical note and move it down to proper position. See below:



15. Play Music

15.1 Play Music Window

You can play the music using “Play Music” floating window. The window looks like:



Play Button – Click on this button will start play currently open music, starting from current selected cell.


List button – Play a selected list of music pieces.

Stop button – Stop play when clicked

Speed Adjust – It adjust the play speed. For example, 50% will slow down the play speed by half. The method to determine the play speed is explained in [section 14.2](#)

Ignore Tempo Signs – When this checkbox is checked, the tempo signs (see [14.2](#) for tempo signs used in the play) on the music will be ignored and the music will be played with a constant speed (100 beats per minute) .

Ignore Dynamic Signs – When this checkbox is checked, the dynamic signs (see [14.3](#) for dynamic signs used in the play) on the music will be ignored and the music will be played with a constant volume

Music can be played with different music instruments. You can click on icon  to put current music instrument on the different location of the music, by this way you can play

the music with different instruments on different parts. In example below, the music will be played with piano and violin at different parts:

MusicWriter Version 4.8 - D:\ans\MusicWriter\Music\Piano\二泉映月_五线谱.mus

File Edit Text Modify View Western Tool Image Windows Help

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

二泉映月

Lento ♩ = 40

mp

15.2 Tempo Signs Used in Playing

Tempo signs are used to mark the playing speed. The playing recognizes many of the tempo signs marked on the music. The tempo signs can be put at beginning of the piece and middle of the piece as well. If it is put at beginning of the piece, it can be at any places before the first note. If it is put at middle of the music to indicate the change of the tempo, it can be put at the above or below the note where the tempo starts to change. In the following example, you can see two tempo signs, “慢板” is at beginning of the piece and “rit.” is close the end of the piece and is located at below the note “7”.

病 中 吟

刘天华曲
1918年

1 = G $\frac{4}{4}$

[1] 慢 板 缓 起

mp.

3

dim.

rit.

The following table lists all tempo signs that will be recognized by the playing. If the music has no speed sign, it will be played at 100 beats per min.

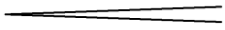
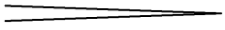
Tempo Sign	Remark
$\text{♩} = 80$	Play at give speed. Must use button $\text{♩} = \text{11}$ in tool bar to add Speed sign.
<i>Largo</i> 极慢板 极慢速	Play at 55/min
<i>Larghetto</i> , 慢板 慢速	Play at 65/min
<i>Adagio</i>	Play at 75/min
<i>Andante</i> 中 板 中速"	Play at 85/min
<i>Moderato</i> 小快板 中快速	Play at 100/min
<i>Allegro</i> 快 板,	Play at 120/min

快速	
<i>Presto</i> 急板	Play at 160/min
<i>Prestissim</i> 特快板	Play at 200/min
稍慢	Play slower (1/5 slower) than current tempo
稍快	Play faster (1/5 faster) than current tempo
<i>rit</i> , <i>rita</i> , 渐慢	These text symbols will slow down the tempo gradually. The slow down process will continue until to the next tempo sign, or to the end of piece.
<i>a tempo</i> , 原速	These text symbols will restore the tempo.

15.3 Dynamic Signs Used in Playing

The playing recognizes many of the dynamic signed marked on the music. MusicWriter gives maximum freedom to the uses to create the music. This freedom allows user to put these signs to any places he wanted that creates uncertainty to the format. Therefore for the playing to correctly interpolate the dynamic signs, we need restrict the dynamic symbols only to be located BELOW the targeted notes. The following list gives all dynamic signs that will be recognized by the playing and rules they need to follow.

Dynamic Symbol	Remark
<i>ppp</i> 最弱	play at 15% of the full volume
<i>pp</i> 弱	play at 25% of the full volume
<i>p</i> 中弱	play at 35% of the full volume
<i>mp</i> 稍弱	play at 45% of the full volume
<i>mf</i> 稍强	play at 55% of the full volume
<i>f</i> 中强	play at 70% of the full volume
<i>ff</i> 强	play at 85% of the full volume
<i>fff</i> 最强	play at 100% of the full volume
<i>sf</i> , <i>sz</i>	suddenly louder, double current play volume
<i>fp</i> , <i>sfp</i> 突强	suddenly louder, double current play volume, then back to normal volume.

 <i>cresc.</i> 渐强	crescendo, increase play volume gradually.
 <i>dim.</i> <i>dimin.</i> 渐弱	diminish, decrease play volume gradually.

The following is an example:

月 夜

刘天华曲

1 = D $\frac{4}{4}$

I 极慢板 $\text{♩} = 56$

\square $\overset{-}{\underset{\cdot}{6}}$ $\overset{二}{\underset{\cdot}{1}2}$ $\overset{二}{\underset{\cdot}{3}2}$ $\overset{二}{\underset{\cdot}{3}23}$ | \square $\overset{三}{\underset{\cdot}{5}6}$ $\overset{三}{\underset{\cdot}{5}3}$ $\overset{-}{\underset{\cdot}{2}1}$ $\overset{-}{\underset{\cdot}{6}1}$ | \square $\overset{二}{\underset{\cdot}{2}3}$ $\overset{二}{\underset{\cdot}{5}5}$ $\overset{三}{\underset{\cdot}{6}532}$ | \square $\overset{三}{\underset{\cdot}{1}}$ $\overset{三}{\underset{\cdot}{2}3}$ $\overset{三}{\underset{\cdot}{3}2}$ $\overset{三}{\underset{\cdot}{3}23}$ |
mp

$\boxed{5}$ $\overset{\vee}{\underset{\cdot}{5} \cdot \underset{\cdot}{1}65}$ $\overset{四}{\underset{\cdot}{3}521}$ $\overset{四}{\underset{\cdot}{3} \cdot \underset{\cdot}{5}}$ $\overset{二}{\underset{\cdot}{3}2}$ | $\overset{\vee}{\underset{\cdot}{2} \cdot \underset{\cdot}{3}}$ $\overset{二}{\underset{\cdot}{1}2}$ $\overset{二}{\underset{\cdot}{3}2}$ $\overset{二}{\underset{\cdot}{3}23}$ | $\overset{\vee}{\underset{\cdot}{5}3}$ $\overset{三}{\underset{\cdot}{2}1}$ $\overset{三}{\underset{\cdot}{6}1}$ $\overset{--}{\underset{\cdot}{2}3}$ | $\overset{\vee}{\underset{\cdot}{5} \cdot \underset{\cdot}{1}}$ $\overset{内}{\underset{\cdot}{3}2}$ $\overset{tr}{\underset{\cdot}{1}12}$ |
mf

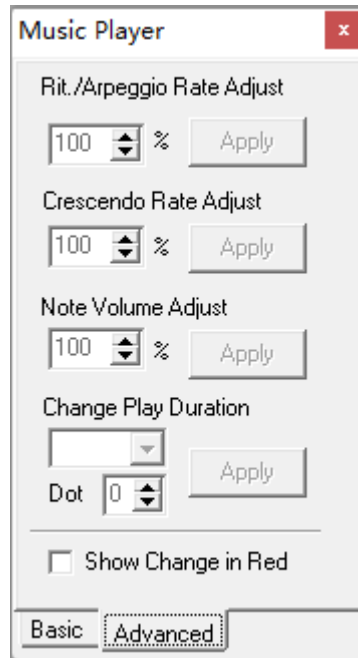
$\overset{三}{\underset{\cdot}{3}2}$ $\overset{三}{\underset{\cdot}{3}23}$ $\overset{\square}{\underset{\cdot}{1}1}$ $\overset{\square}{\underset{\cdot}{0}2}$ | $\boxed{10}$ $\overset{\square}{\underset{\cdot}{3}532}$ $\overset{\square}{\underset{\cdot}{1}232}$ $\overset{5}{\underset{\cdot}{3}}$ $\overset{2}{\underset{\cdot}{\cdot}} \overset{5}{\underset{\cdot}{2}3}$ | $\overset{\vee}{\underset{\cdot}{2} \cdot \cdot}$ $\overset{二}{\underset{\cdot}{3}}$ $\overset{二}{\underset{\cdot}{2}23}$ $\overset{-}{\underset{\cdot}{5}5}$ | $\overset{二}{\underset{\cdot}{6}1}$ $\overset{三}{\underset{\cdot}{6}5}$ $\overset{-}{\underset{\cdot}{3}5}$ $\overset{-}{\underset{\cdot}{1}6}$ |
 灵活 *p* 渐快 *f*

$\overset{\square}{\underset{\cdot}{5}1}$ $\overset{\square}{\underset{\cdot}{6}5}$ $\overset{tr}{\underset{\cdot}{3}2}$ $\overset{三}{\underset{\cdot}{1}2}$ | $\overset{\square}{\underset{\cdot}{3}}$ $\overset{\square}{\underset{\cdot}{0}02}$ $\overset{二}{\underset{\cdot}{1}}$ $\overset{二}{\underset{\cdot}{2}}$ $\overset{二}{\underset{\cdot}{5}7}$ | $\boxed{15}$ $\overset{tr}{\underset{\cdot}{6}}$ $\overset{\vee}{\underset{\cdot}{5}56}$ $\overset{\vee}{\underset{\cdot}{3}5}$ $\overset{\vee}{\underset{\cdot}{6}135}$ | $\overset{\vee}{\underset{\cdot}{6}1}$ $\overset{\vee}{\underset{\cdot}{6}5351}$ $\overset{四}{\underset{\cdot}{2} \cdot}$ $\overset{二}{\underset{\cdot}{2}}$ |
mf 甚柔美

$\overset{二}{\underset{\cdot}{3}532}$ $\overset{四}{\underset{\cdot}{1}235}$ $\overset{\vee}{\underset{\cdot}{2}}$ $\overset{\vee}{\underset{\cdot}{\cdot}}$ $\overset{\vee}{\underset{\cdot}{3}212}$ | $\overset{\square}{\underset{\cdot}{2}}$ $\overset{\square}{\underset{\cdot}{\cdot}}$ $\overset{\square}{\underset{\cdot}{3}}$ $\overset{\square}{\underset{\cdot}{2} \cdot \underset{\cdot}{5}}$ $\overset{\square}{\underset{\cdot}{3}2}$ | $\overset{\vee}{\underset{\cdot}{1}2}$ $\overset{\vee}{\underset{\cdot}{3}235}$ $\overset{\vee}{\underset{\cdot}{2} \cdot}$ $\overset{\vee}{\underset{\cdot}{3}}$ | $\boxed{20}$ $\overset{\square}{\underset{\cdot}{1}3}$ $\overset{\square}{\underset{\cdot}{2}321}$ $\overset{-}{\underset{\cdot}{6}156}$ $\overset{-}{\underset{\cdot}{1}217}$ |

15.4 Advanced Play Choice

Advanced play tab is shown below:



Even though the play functions can automatically recognize many dynamic marks and play accordingly. However you still can use these functions on this tab to modify the default play behavior. For example you can make the crescendo more aggressive or vise vase. You also can change the default play volume or speed of rallent or arpeggio.

Here the “Change Play Duration” is a function we need to explain in more detail. See the following piece:



The software will play each note in dash box as quart notes since it has no way to know how to play them otherwise. However, as a human player, one knows when one note is played 8th notes long the next note need start to play. To make the play correct, you can manually change the duration of these note to 8th note though it still last as quart note but the following note will be start in correct time.

15.4 Other Recognized Signs

Turn Sign: The turn signs can be put at beginning of the piece and middle of the piece as well. If it is put at beginning of the piece, it can be at any places before the first note. If it is put at middle of the music to indicate the change of the turn, it must be put above the note where the turn starts to change. In the following example, music start with turn F, then it changes to Turn G.

花 儿 与 少 年 - 笛 子

(四 季 调)

1 = F
















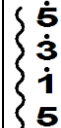

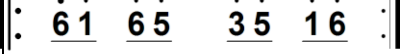
$\frac{2}{4}$

The musical score is written in numbered notation (1-7) with various symbols indicating musical structure and performance. It includes section markers A and B, and key signature changes from F to G. The score is organized into measures separated by vertical bar lines.


Shrink and Vertical Notes: Playing will honor the shrink and vertical notes. The vertical notes will be played as a chord. For example:

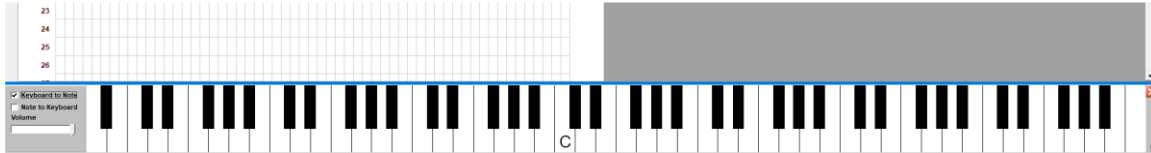
The diagram illustrates a vertical note structure. A slur is placed over the notes 6, 5, 3, 2. To the right, the notes 1, 5, 3, 1 are listed vertically, indicating a chord or a sequence of notes played together.

Other Symbols: Besides all symbols mentioned above, the playing also recognize some other signs. They are:

Signs	Remark	Example
	Add above targeted note	
Decorate notes	Add before and after the targeted notes.	
	Add above targeted note. Play loud for this note	
	Add above targeted note. Play shot for this note	
	Triplet or multi-let notes. It has to be add using the button  in dynamic float window in order for playing correct. Will work in 3.81	
	play twice longer.	
	Add at front of target note	
	Play as a serious notes separately	
	Repeat sign, notes between repeat sign will be played twice.	

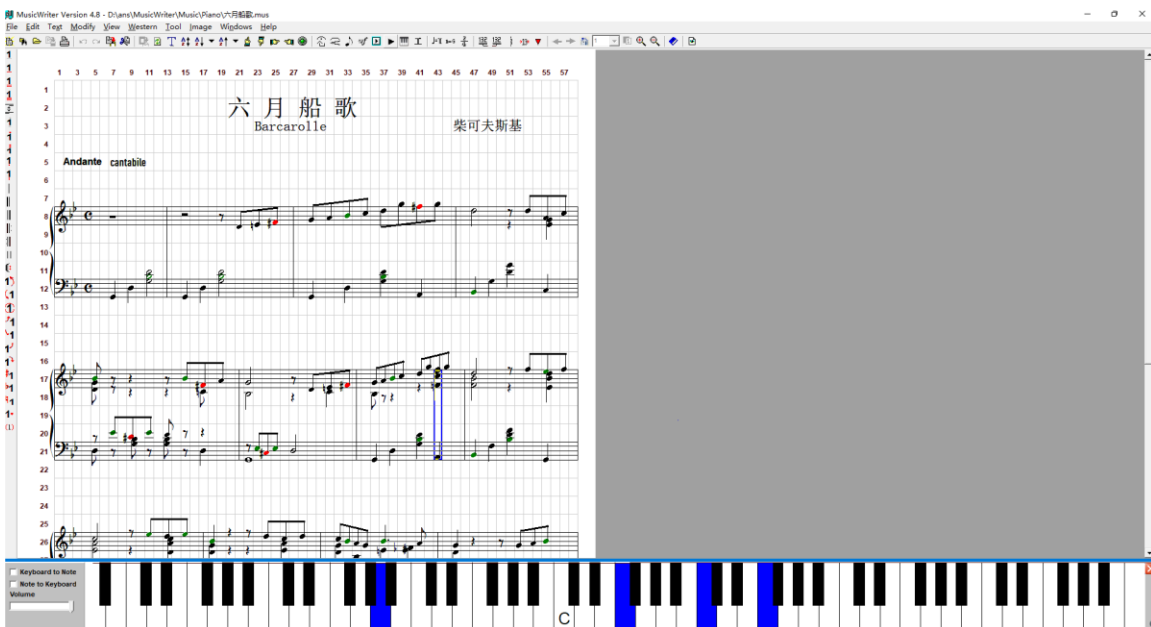
16. Virtual Keyboard

By click on icon  on toolbar or choose “Virtual Keyboard” under tool menu can bring a virtual keyboard at lower part of the window. See below:

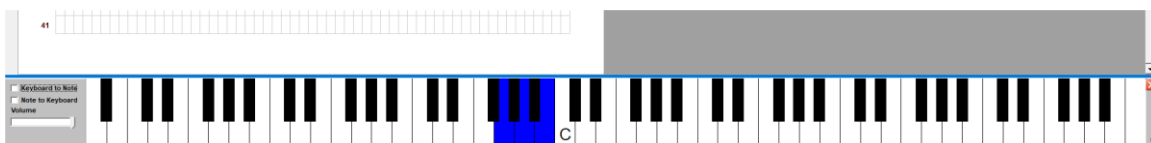


When virtual keyboard is shown, you can perform following functions:

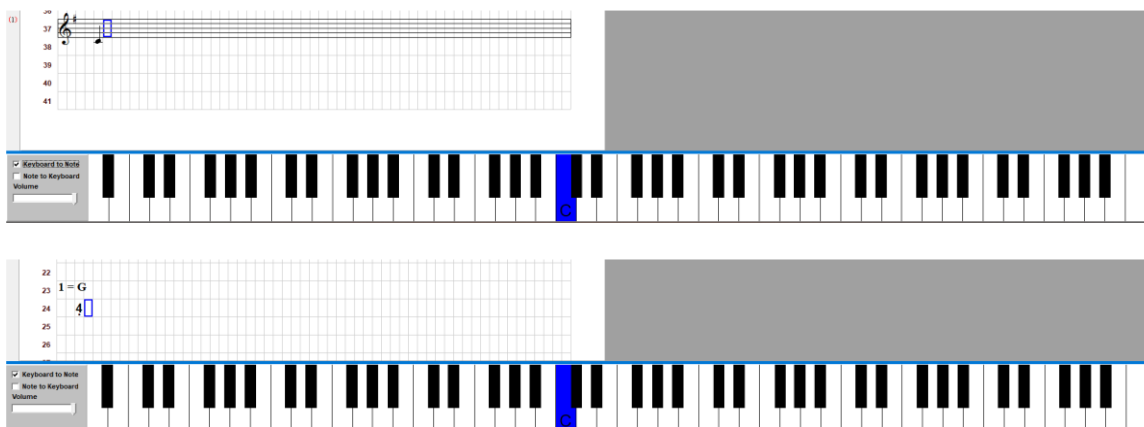
- When you play a music, the related keys on the keyboard will be pressed (shown in different color.) :



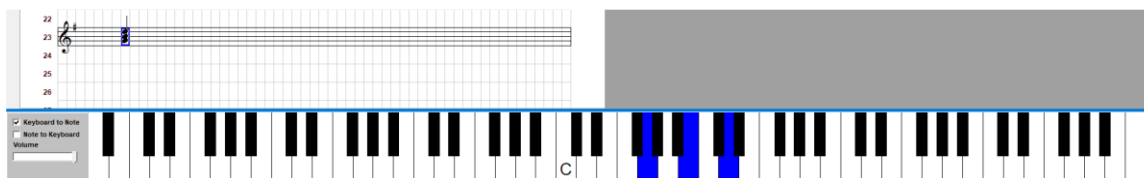
- If you use mouse to click on one of the key, the related sound will be played. The sound will stop when you release the mouse. If you want the sound continue (like the paddle is pressed), hold Alt key. If you like to play multiple keys at once, hold Ctrl key and click on keys on the keyboard, see below:



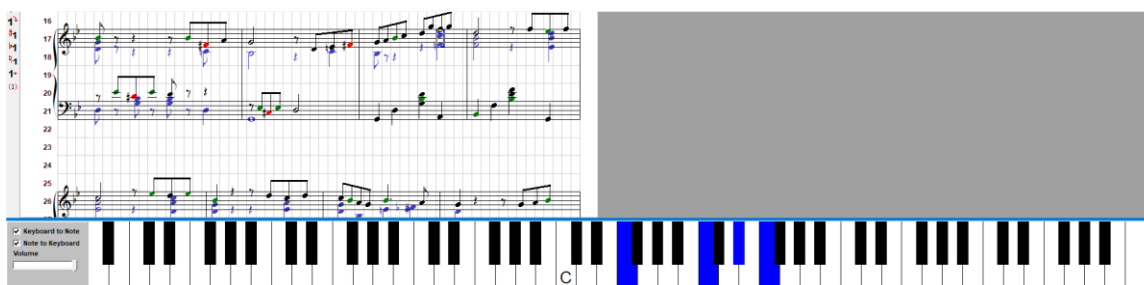
- If “Keyboard to Note” is checked, the related note will be write to the current location when you click on the keyboard (assume it is valid):



If you want to write a chord, hold Ctrl-Key:




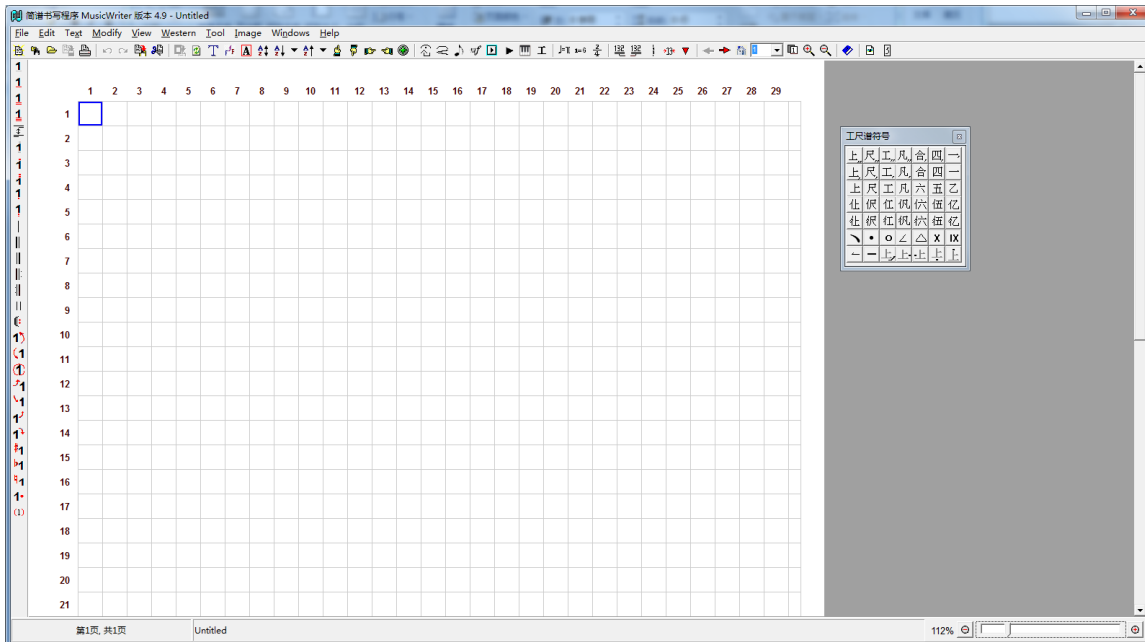
- If “Note to Keyboard” is checked, the related key(s) will be pressed when mouse is click on a note(s) on the music piece:



17. GongChi (工尺) Music

GongChi music is a tradition music noting system that has been used for more the 1000 years. Though today it has not as popular as other notation systems but it still used in some Chinese operas. And also this is a part of cultural for Chinese music and many old music pieces are still written in GongChi. The purpose to have ability to write GongChi in this program is to try to make contribution to preserve this age-old culture.

Simply click on menu item “GongChi” in “Window” menu at top tool menu or click on icon  on tool bar, the system will turn into so called “GongChi” mode. Since GongChi uses modified Chinese characters to record the notes, the cells will change to square. Each square can host one GongChi characters. All GongChi characters will show on a float window. See below:



In GongChi mode, you click on any button on the GongChi window will add corresponding characters to the selected cell. You can also use number key 1-7, they are corresponding to characters “上尺工凡六五乙”. Using “,” key you can add one or two dot on the right-bottom of the characters to lower them by 1 or 2 octaves. Same reason, you can use “”” key to raise them 1 or 2 octaves. The “,” and “”” keys can be applied before or after the number key pressed. This rule is just as the same as in the simplified notation. Other functions are same, such as move, copy, delete etc.

When you close the GongChi window, system is back to normal mode. All other functions are still works with GongChi notes. You can also mix GongChi notes with Simplified notes, even mix with western notes.